What are the power relations, exercised through educational discourses supporting the national curriculum, influencing the classroom practice of science teachers working in areas of high socio-economic disadvantage?

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Abstract

The current context of secondary education (age 11-16) in England, is a complex system of schools overseen by local authorities and schools run by multi-academy trusts. In addition, there are a range of key stakeholders, operating in the system, responsible for delivering continuing professional development and training for teachers at different stages in their career. The Education Endowment Foundation (EEF) is one example of a stakeholder providing teachers and school leaders with information about evidence-based practice through a range of regular publications, including guidance reports on specific areas of educational practice. The aim of this study is to determine the discourses that surround secondary school science teachers' practice and, from a Foucauldian perspective, the power relations that inform the actions of these teachers.

The assumption will be made that the educational context represents a version of neo-liberal capitalism, quasi markets, and managerialism with institutions conforming to the dictates from government, interpreting and translating these policies to staff. An adaptation of Codd's (1988) approach of deconstructing educational policy texts will be used during the document analysis phase. These will include *Educational Excellence Everywhere* 2016 white paper, produced by the Department for Education, to represent government policy and EEF's *Improving Secondary Science: Guidance report* (2018) to represent the influence of key stakeholders. Semi-structured interviews were carried out with experienced secondary school teachers using the online platform, Zoom. Themes from the interviews were produced using Braun and Clarke's (2021) Reflexive Thematic Analysis.

Findings from the document analysis and interviews were woven together and analysed using a Foucauldian theoretical framework to identify power relations enacted through governmentality, disciplinary power, technologies of the self, parrhesia and self-transformation. It is proposed that key discourses at work on teachers, identified from the documents, have contributed to the production of the 'technicist teacher' which results in experienced teachers' feelings of being de-professionalised.

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Author's declaration

"I declare that, except where explicit reference is made to the contribution of others, this dissertation is the result of my own work and has not been submitted for any other degree at the University of Glasgow or any other institution."

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List of abbreviations

CEO- Chief Executive Officer

CPD – Continuing Professional Development

DfE - Department for Education

ECT – Early Career Teacher

EEE - Educational Excellence Everywhere White Paper

EEF - Education Endowment Foundation

ERA – Education Reform Act 1988

GCSE - General Certificate in Secondary Education

ISS - Improving Secondary Science: Guidance Report

KS3 - Key Stage Three

KS4 - Key Stage Four

LA – Local Authority

MAT – Multi Academy Trust

NPM – New Public Management

OECD - Organization for Economic Co-operation and Development

Ofsted - Office for Standards in Education

PISA - Programme for International Student Assessment

P8 - Progress 8 measurement

RSN – Regional Schools Network

RTA - Reflexive Thematic Analysis

SATs - Statutory Assessment Tests, also known as National Curriculum Tests

SLT – Senior Leadership Team

Chapter 1: Introduction

> It is 4:00 PM on the first Wednesday of the new school year. At the back of my mind is the list of tasks to complete, ever mounting as I spend more time thinking about what needs to be done. Suddenly my name is called out to answer the question "what is progress?" I parrot back the answer that I know will be expected "students knowing more and remembering more", returning to my thoughts as the continuing professional development (CPD) deliverer praises the answer and moves on to cold calling the next person. "What are the two types of knowledge in curriculum planning?"

We are midway through our weekly whole school CPD session which is reviewing the way that we teach at my institution. Most of the information has been covered multiple times in CPD over the past three years in my time there. The exception was the introduction section devoted to lesson planning documentation. Responding to the online staff survey, which raised concerns about workload, the session leaders stated that staff needed to streamline the process, suggesting that one lesson plan should take the same time to write as the length of a pop song. The session leaders played one such song to illustrate the time that we should be taking while producing this documentation. During the song, I calculate that when teaching 22 lessons a week approximately 90 minutes would be required for the process (not including moving between different digital documents). I say nothing, no one does, as the complicit understanding is that CPD is not a forum for discussion but about disseminating expectations to staff. Silence reigns in the audience of teachers, shy of the occasional polite laugh at the presenter's jokes or punctuated during frequent bouts of cold calling.

The session continues with the non-negotiables for the new term: in this school we stand in the corridors between lessons, we stand up and circulate the room constantly during lessons... and so on. The session leaders highlight that the need for restating these non-negotiables as staff non-conformance was identified during learning walks. Then, the presenters remind us of the phases that should take place in our lessons. Each phase is reviewed in turn with PowerPoint slides either from the research school network (RSN) training programmes or from Tom Sherrington's Walk Thru (2019) series. Each phase of review includes either "the evidence states" or "there is a large body of evidence that shows...". I keep a resting smile on

my face, expressing my frustration by writing in my notes “DOES IT??” being careful not to roll or widen my eyes at these claims. I monitor my reactions following a stern talking to after a CPD session where I audibly sighed in response to a new initiative that was workload intensive. The member of senior leadership team (SLT) told me that this was disrespectful and a poor role model for the early career teachers (ECT) and mentors that I had responsibility for in the school.

The time moves on towards 4:20 PM, nearing the end of directed time for staff. The deputy head reminds us that the new performance management cycle is beginning with learning observations, exercise and planner checks starting soon. Details will all be sent out in an e-mail. At just after 4:20 PM the session ends, no questions have been asked as staff begin to leave the room to start on their list of tasks to complete before tomorrow.

My background as a teacher

This reflection represents a standard CPD session delivered in September 2022, in the school where I was working. In 2019, I was employed by the school to critically analyse research findings and consider the ways that these could be implemented in the classroom. By the time I had started at the school the role changed into delivering a predesigned course on the EEF’s *Improving Secondary Science guidance report* (ISS) and overseeing trainee and ECT training and development in school. Organisational restructuring of the research branch of the Multi Academy Trust (MAT), resulted in my role changing to a science teaching role, producing departmental lessons and resources following the prescribed scheme of work produced by the original convertor school in the MAT. The role of training ECTs changed as training moved to an online platform, following the introduction of the DfE’s *Early Carrer Framework* (2019a), where I delivered highly scripted training sessions to mentors across the region through online seminars.

When I joined the MAT, I had completed nearly 20 years working in inner city schools with high levels of socio-economic disadvantage. The school is situated in an ex-mining town in the north of England. The school serves the town and surrounding villages which have above-

average levels of socio-economic disadvantage. The area has a long history of mining and manufacture in the towns and cities, with a farming economy supporting the rural areas. The decline in these industries has affected the economy and investment. These communities have a very different dynamic to those in the metropolitan areas of the South. Many schools have higher than average numbers of students who are entitled to pupil premium funding because their families are in receipt of government benefits (Ilie et al., 2017).

Following the changes to the national curriculum (DfE, 2014) and changes to General Certification of Secondary Education (GCSE) specifications in 2015, I became interested in how the curriculum might be disadvantaging or marginalising students from backgrounds of high socioeconomic disadvantage. I used the theories of Bourdieu and Passeron (1990) to explain my day-to-day observations. I was intrigued by possible applications of critical pedagogy, particularly in the work of Henry Giroux (*On Critical Pedagogy,* 2020) and Paulo Freire (*Pedagogy of the Oppressed,* 2014). My previous LA school's [1] Office for Standards in Education (Ofsted) judgement had recently been upgraded from 'requires improvement' to 'good'. In that school, freedom and innovation in teaching were encouraged – all that was required was the ability to explain to the head of department what you were doing and why you were doing it. In the space of three years from starting to work for a MAT, my experiences of CPD moved from inspiring and empowering to a weekly experience of boredom and frustration at what I viewed as repetitive and restrictive information sessions.

Within a few months of working in a MAT and experiencing the increased level of prescription and monitoring, my focus changed from how the curriculum might marginalise students to an interest in how educational policy and the national curriculum were interpreted by different organisations and the impact that this had on classroom teachers. I decided that this would be the area I would research for my EdD dissertation. This change in focus was triggered by my initial experience of joining the MAT. Despite my long service as a teacher, I found those first few months to be quite brutal, with my practice and work strongly criticised by less experienced (in terms of time and expertise) line managers. The reasons for these interventions were no other than my approach to teaching being different to that mandated by

[1] This LA school has since become a sponsored Academy.

the MAT. It would take me several months to determine what the intangibles were through a process of trial, error and feedback based upon what I was said to be doing incorrectly.

Readings during previous modules of the EdD about Foucault and disciplinary power helped me to understand my personal situation during this time and take the steps to repair a strained relationship with my line manager. This prompted me to consider the power relations acting on staff within the MAT and wonder if this was the same in other MATs or in schools under LA control. As I learned to jump through the hoops imposed by the MAT, I began to consider the possibilities of agency in my practice, especially in those moments when I was circulating around a classroom while imposing silent working. At these times, I would reflect on how dull and predictable the lessons that I was delivering were compared to the pride I used to feel when teaching in the past.

Before joining the trust, I had been introduced to the work of the EEF via the *Teaching and Learning Toolkit* (2024) during a staff briefing. When ISS was published, I was alerted to it by a colleague in the English department. I used the recommendations of the report in my lesson planning and jumped at the chance to attend ISS training in my new position at the MAT. Previously, I uncritically accepted the work of the EEF due to its proclamations of rigorous evidence-based recommendations. During the training and subsequent delivery of the ISS programme I accessed the 'first steps for further reading' identified in the report to gain a greater insight into the recommendations and strategies that I was delivering. The resources were useful, and I was intrigued about the impact ISS was having on teachers' practice. As a science teacher with 20 years' experience, I became interested in investigating the perspectives of secondary school science teachers working in areas of high socioeconomic deprivation in the North of England. I wanted to uncover their perspectives on the educational discourses that prevail in their institutions and are encountered through dissemination from central government and key stakeholders.

My dissertation is grounded in experiences and interests developed from my own practice, but also relates to the wider context of policy and curriculum change. Over the past decade there has been significant changes in the daily working experience of teachers in the English

state school system (Ball, 2017a). Many changes have been systemic such as the introduction of a new national curriculum (DfE, 2014) for 5–16-year-olds in September 2014. For Secondary schools, September 2015 brought an overhaul of the GCSE system (exams taken at the end of compulsory education). This included the method of assessment, content, grading, and range of subjects that could be studied. A new accountability measure system for school performance based upon GCSEs called Progress 8 (P8) was launched for Summer 2016 results. This has influenced the curriculum provided by secondary schools (Gill, 2017) with a focus on academic rather than vocational subjects. In the context of science curriculum and provision, this has led to the removal of entry level qualifications (designed for lower ability students), BTEC applied science (a vocational qualification) and GCSE science qualifications that award a single grade (rather than dual or triple awards).

I carried out my research in an area with high levels of academisation. One local authority (LA) in the area has seen a reduction in non-academised schools from 70.1% in September 2012 to 6.3% in September 2018 (Newcastle City Council, 2018). In addition, the teaching profession is struggling to recruit and retain specialist teachers at Secondary school with the number of full-time teachers falling at a time when pupil populations are increasing (DfE, 2019b). In some councils in the North of the area I work in, schools that have been categorised as 'requires improvement' or 'inadequate' by Ofsted have increased challenges in recruitment (Allan et al., 2023) and are often situated in contexts of rural or inner-city socio-economic disadvantage.

Research purpose and influences

As a practising secondary school science teacher, the process of research functioned for me on several levels:

- As an opportunity to critically question the forces acting on my own and others' practices and consider other ways of being, without professional consequence.
- Understanding and processing my experiences of teaching to regain hope and a sense of agency in my work.

- Develop knowledge and understanding of the power relations and technologies used to support implementation of policies at a national and school level, to enable myself and others navigate these forces.

As I developed my thinking on these purposes, I read literature on teachers' perceptions to think more carefully about what was already known. The following authors were particularly helpful in helping me to consider my own study: Jenkins (2000a); Ryder and Banner (2013); Perryman, Ball, Maguire, and Braun (2011); Perryman, Ball, Braun and Maguire (2017); Perryman, Maguire, Braun and Ball (2018); Mutjaba and Reiss (2013); Hall and McGinity (2015). These authors helped me to consider how to conduct my own research, as well as considering how my research might add to understanding the issues they raise.

Research has been carried out on the implications for teachers and students, following changes to the science national curriculum. Jenkins (2000a) examined the difference that the introduction of a national curriculum made to science teachers' practices. The findings from Jenkins' questionnaire survey included teachers feeling that the lack of flexibility in the curriculum was affecting their ability to provide all students with access to an appropriate and enjoyable curriculum. Ryder and Banner (2013) used semi-structured interviews to analyse science teachers' experiences of the process of reform during the introduction of the 2007 national curriculum. The outcomes of the research included uncovering the effects of educational reform not only on the taught knowledge and pedagogies of classroom practice but also the challenges to teacher's identities.

Perryman et al. (2011) interviewed secondary school teachers for their responses to increased accountability from league tables and Ofsted. They found that the requirement for examination results was driving school interventions and teaching practices leading to norms of performativity being accepted. They also identified a discrepancy in the surveillance of schools, with schools successful in league tables and Ofsted inspections being granted 'earned autonomy' (p.190) while those that fail face increased scrutiny. Mutjaba and Reiss (2013) used narrative interviews to identify factors causing stress to secondary mathematics and science teachers, these included mistrust, low self-efficacy, social isolation, lack of reflection and lack of motivation. Hall and McGinity's (2015) research in English secondary

schools over the period of 2008-2013, also used teacher interviews to investigate the conception of teacher professional identity. They found that New Public Management (NPM) practices emerging in schools were linked to neoliberal practices, with an impact of restricted teacher agency and increased teacher compliance to school improvement policies. Perryman et al. (2017,2018) utilised Foucault's concepts of surveillance and governmentality to problematise the implementation of policy in English schools to ensure compliance by teachers (2017) and the influence of Ofsted on the surveillance technologies used in schools (2018).

My research extends the work of these authors by problematising the implementation of the current national curriculum by considering it through the lens of science teachers working in a context of government agendas of academisation, and positivist influences of evidence-based and cognitive science pedagogical approaches. My research aim was to illustrate the ways in which power is exercised on experienced teaching professionals (including those working in schools that have undergone forced academisation) serving areas of socio-economic disadvantage. I also wanted to explore how these teachers responded to this exercise of power in their professional practice.

Research question and approach

I created one overarching research question for my study: *What are the power relations, exercised through educational discourses supporting the national curriculum, influencing the classroom practice of science teachers working in areas of high socio-economic disadvantage?*

To explore this question, I chose an interpretivist paradigm to support my aim of producing rich contextualised understandings and constructed experiences in the social world (Willis, 2007) of science teachers. Following my master's studies in outdoor learning, I came to understand that there are different approaches to research rather than the positivist quantitative scientific approach that I had been trained in during my A levels and

undergraduate degree at university. To achieve an understanding of social factors and the effects upon individuals, a qualitative rather than quantitative approach would be required.

At the start of the research process, I wished to identify the discourses present in the government's education policy that might influence LA schools and academies in MATs. At the time I began my research, *Educational Excellence Everywhere* (EEE) (DfE,2016a) was the most recent set of educational policy proposals. I therefore included EEE in my discourse analysis of policy. My personal interest and use of ISS in my practice prompted me to include this in the discourse analysis alongside EEE as a document produced specifically for secondary school science teachers by the EEF as a key stakeholder. I also carried out interviews with teachers working in LA schools and MATs in areas of high socioeconomic disadvantage. Teachers with at least 10 years of teaching experience were chosen to trace their perceptions of how government policy influences their experience as a classroom practitioner. The interview format was designed to provide a space where teachers could share their thoughts, experiences, and perspectives without professional consequence. Early in the research phase Ofsted's (2021) *Research Review Series: Science* was published, I identified this as a potential source of discourses that affect teachers, however, as will be discussed later, there was not time to analyse this document in depth during the research period.

Before embarking on the document analysis and interviews I read the following texts in full: Ball (2017a) *The Education Debate* to provide background on the evolution of the current educational context in England; Foucault (1991) *Discipline and Punish* to inform and extend my understandings of Foucault's work from previous EdD modules; and Ball (2017b) *Foucault as educator* for contextualisation of Foucault's work into education and the current educational system in England. During the rest of the research, I used an iterative approach moving between the data set of the documents, the evidence they referenced, and literature searches to gain a greater understanding of the contents of the documents. Key reading included Apple's (2000) *Official Knowledge: Democratic education in a conservative age* and readings on neoliberal mechanisms operating in education through the Education Reform Act (ERA) 1988 and NPM. During the analysis of the interview transcripts, I returned to

theoretical perspectives by reading Foucault *Ethics: Essential Works 1954-1984 volume 1*(1997) and *Power: Essential Works 1954-1984 volume 3,* (1994)

I used an adaptation of Codd's (1988) approach to discourse analysis to deconstruct the policy texts and identify key discourses that circulate in the English education system focusing on EEE and ISS. I decided on this approach after I trialled critical discourse analysis on the Carter review of Initial Teacher Training. During this trial study, I found my lack of knowledge of linguistic and semantic structures was proving to be a barrier to analysis. Codd's approach was easier to access and produced a rich analysis and interpretation of the text. During the process of analysing EEE*,* I accessed supporting documentation, and evidence was accessed to check for congruence between the evidence from the research and the claims presented in the policy document. Analysis of ISS proved to be a substantial task requiring reading of reference reports and carrying out literature reviews to identify evidence for claims in recommendations. Due to the time commitment taken to analyse ISS, the Ofsted's *Research Review Series: Science* (2021) was dropped from the research as initial analysis identified 258 references that would need to be checked. Reflexive thematic analysis (RTA) was carried out on the interview transcripts to provide the space to explicitly recognise my position as an insider researcher. The findings from the discourse analysis and the RTA were then discussed using a Foucauldian approach to determine the power relations and implications on classroom practitioners. (The methods I used will be more fully discussed in chapters three and four).

The importance of situating deconstruction of a policy text in the historical, temporal, and political context in which the text was constructed and disseminated, is central to Codd's approach. Since the context influences the interpretation of both document analyses and RTA of the interviews, chapter two will provide an account of neoliberal influences in education, the ERA, the development of national curriculum and the foundations of MATs. Chapter three provides theoretical perspectives that are used during analysis of the data sets. I will emphasise the work of Michael Foucault to provide grounding for later analysis including theoretical underpinnings of Codd's policy analysis approach as well as Braun and Clarke's RTA for the interviews. Chapter four will cover methodology and methods used in the document analysis and interview analysis phases. Chapters five to seven will consist of the

analysis of EEE, ISS, and teacher interviews respectively, while chapter eight utilises Foucauldian perspectives to answer the research question.

Conclusion

This dissertation builds upon previous research by investigating the policy influences present in the current educational system in England. The forces at work in the context of English secondary schools over the last 15 years include: expansion of a decentralised system of MATs, from the Academies act (2010); implementation of a new but narrower traditional national curriculum; and influences of valued public private partnerships of stakeholders such as Education Endowment Foundation promoting evidence-based practice as part of an outcomes rather than process agenda (DfE, 2016a). By identifying discourses and illuminating power relations between teachers and stakeholders perpetuating these ideologies, updated contributions will be made to further the work of Ball (2017a,b) and Perryman et al. (2011; 2017; 2018) problematising the English education system from a Foucauldian perspective.

While Hall and McGinity (2015) concluded that teacher agency is significantly restricted and resistance is not seen due to high levels of compliance, I wish to illuminate the ways in which teachers can mobilise their agency in low trust, high accountability systems. Teacher accounts will be analysed to consider the extent to which teachers feel they have agency in influencing or affecting change in their situation, if desired. This dissertation will illuminate day-to-day situations of experienced practitioners hopefully bringing insight to the problems and issues faced by teachers in an education system where recruitment and retention, particularly in science, is an issue (Allen et al., 2023).

Chapter 2: Historical and political context of current English education system

Education in English[2] schools over the last 40 years has become more centrally regulated since the introduction of the ERA 1988, so that decisions of the Secretary of State for Education directly impact upon how schools operate. Discourses and policy technologies that surround the implementation of the national curriculum in schools can be traced to the White Papers produced by the incumbent Secretary of State. This chapter begins with a discussion of the influence of Margaret Thatcher's government and introduction of the ERA, which enabled successive governments and Secretaries of State to move from oversight to direction of the work of schools (Bowe et al., 1992).

This chapter provides historical and political contexts that surrounding production of the DfE's 2016 EEE. As a white paper, EEE, outlines proposals for education following the election of a Conservative majority government in 2015. Ideas of neoliberalism, national curricula, managerialism and academisation will be identified and evolution of these concepts traced to determine the impact upon discourses presented in EEE. The current context, produced from these ideologies will also inform interpretation of discourses presented ISS produced by the EEF in 2018 as a valued stakeholder, identified in EEE.

Codd's (1988) approach to deconstructing educational policy documents will be used to treat the documents in this dissertation as 'cultural and ideological artifact [s]' (p. 243) that shape classroom practices of teachers. As an ideological text, Codd suggests that the starting point for deconstruction and analysis of a policy document should be explicit recognition of the historical and political context. This will also provide contextual information for analysing teacher interview responses in chapter seven. This chapter follows Codd's structure by

[2] Over the last 40 years the following political parties have been in Government
1979-1997 Conservative Party majority
1997-2010 Labour Party majority
2010-2015 Conservative/ Liberal Democrat Coalition
2015- Present Conservative
Due to the complexities of the devolved governments of Scotland, Wales and Northern Ireland overseeing different approaches to education, from this point onwards any reference to national curricula and government policy relating to education will only be applicable to the situation relating to state schools in England.

outlining the context of the English education system, since the introduction of the first national curriculum in 1988 until the production date of EEE. Ahistorical timeline will be presented as three phases, representing changes in direction during the evolution of political ideology. Managerialism, as a belief system aligned with neoliberal values will then be discussed.

Phase 1: Introduction of a neoliberal approach to Education by the Thatcher government

The ERA is embedded with the neoliberal values that Margaret Thatcher adopted as Prime Minister from 1979-1990. The ERA's legacy can be seen in successive governments' political thought and educational policy (Craig and Cotterell, 2007). Initially, neoliberal approaches focused on a shift of economic responsibility away from government, emphasising instead the state's role in promoting conditions needed for economic success (Dale, 2005). This was accompanied by a focus on individualism, shifting away from a concept of society, and belief in a 'survival of the fittest' model for 'global knowledge wars' (Brown and Lauder, 1996). Margaret Thatcher's statement (Keay, 1987) illustrates an emphasis on individualism:

> There is no such thing as society. There is living tapestry of men and women and people, and the beauty of that tapestry and the quality of our lives will depend upon how much each of us is prepared to take responsibility for ourselves.

This statement demonstrates the prominence of individual responsibility within neoliberalism, which supports concepts such as individual accountability, freedom of choice and competition.

The state's role in promoting conditions required for economic success, produced education polices informed by principles drawn from capitalism and free markets. In this way the state might produce 'competitive entrepreneur[s]' (Olssen et al., 2004, p.133) through the managerialist techniques that which will be discussed later in the chapter. In the education sector, neoliberal conditions manifest as quasi-market mechanisms. Public services operate more like businesses within a type of endogenous privatisation described by Ball (2017a), where efficiency and effectiveness dominate (Thomson, 2020). Drivers of quasi market competition include: a focus on whole scale improvement of the system through performance

outputs, linked to efficiency; choice as a competitive force; and market failure. (Ball, 2017a). The technologies used by government are informed by economics which favour calculative (statistical) tools to support objective decision-making and new forms of governing are created in public-private networks (Thomson, 2020).

The ERA represents the influence of neoliberal principles on policies relating to social goods. Under the ERA, government promotes conditions for a successful education system while responsibility for an effective education system is dispersed through the system, simultaneously representing centralisation and devolution (Ball, 2017a). The academy system has its roots in the ERA and quasi-market mechanisms. To support parental choice as a market mechanism, the ERA promoted a diversification of the education system with the introduction of city technology colleges, examples of public-private partnerships (Fisher, 2008; Ball, 2017a), and grant-maintained schools (Denham, 1996).

Before the ERA, there was a non-interventionist approach to education from the state. Education was administered locally by Local Education Authorities (LEAs) (Fisher, 2008). External pressures on schools came through exam boards and LEAs, however headteachers and classroom teachers had autonomy in curriculum planning, assessment, and use of pedagogical methods (Hughes, 1997). James Callaghan's 1976 speech, raising concern about the poor performance of state schools (Hughes, 1997; Ball 2017a; Thomson, 2020) prompted a perception that governmental intervention in educational standards was required.

The ERA was founded on hostility and critique of teachers, in the belief that performance was being hidden from public accountability. In addition, there were assumptions that quasi-market mechanisms would lead to system improvement and respond to concerns about inefficiency in the system in comparison to other countries (Fisher, 2008). Ball (2017a) identifies the key elements of the ERA as: production of a national curriculum with an emphasis on traditional subjects and British cultural heritage; requirement for control and accountability, due to the suspicion of teachers; use of statistical tools such as benchmarks, league tables and inspections to inform evaluation and identification of failing schools; parental choice in deciding which school to send their children, with league tables and inspections provided to inform that choice; and devolution of budget control from LEAs to headteachers (p.89).

The ERA produced the conditions for government control of educational standards through state determination of national curriculum, assessment techniques, and teaching methods (Fisher, 2008). Use of public-private partnerships in the form of Ofsted, introduced by John Major in 1992 (Fisher, 2008; Ball, 2017a), and quasi-market mechanisms represent a concurrent decentralising of control. Initially embracing a populist approach of choice, parental power was mobilised as a method to produce competition between schools (Fisher, 2008) under the assumption that competition pressurises underperforming schools to improve. In free market economics there are winners and losers (Thomson, 2020), so market failure would lead to underperforming schools closing due to lack of pupils. Introduction of league tables, in 1992, to inform parents of school performance and per capita funding increased pressure on schools to perform (Ball, 2017a). The consequences of high states competition include narrowing of curricula as teachers teach to the test, to maximise exam performance (Fisher, 2008; Thomson, 2020). League tables function as a measure of school effectiveness and accountability (Agyemang, 2008) and the particular focus on pupil attainment GCSE[3] has been a feature of Westminster governments since 1992.

Accountability, in the form of exam board requirements, was present in the education system pre-ERA, but the introduction of a national curriculum prompted a decrease in teacher autonomy relating to curricular planning, teaching and schemes of assessment (Ball, 2017a). Kenneth Baker, the Secretary of State, proposed the creation of a highly prescribed curriculum to be implemented by all classroom teachers (Hughes, 1997; Ball 2017a). The high level of prescription was designed to reduce the perceived variability in educational experience across the country (Hughes, 1997) by reducing school autonomy in curriculum planning, assessment, and pedagogical choices of teachers. The national curriculum strengthened a focus on developing qualities needed in the workforce to create an internationally competitive economy (Hughes, 1997). Concerns about the national curriculum in 1993 led to the Dearing review and report (published in 1994) which recommended less prescription and a moratorium of five years for further changes (Hughes, 1997). Despite such concern, the presence of a centrally determined national curriculum was embedded in English

[3] Progress measures have changed over time in secondary schools: for example, value added (2002-2005), contextual value added (2006-2010), expected progress (2011-2015) and Progress 8 (2016-) (Leckie and Goldstein, 2017). The only breaks in the publishing of league tables took place during 2020-2021 to acknowledge the change in assessment procedures due to the impact of the COVID 19 pandemic and resulting school closures, however these measures have now resumed despite the 2022-2025 cohorts having part of the five years of education, measured by league tables, being impacted.

educational practice, to the point where teachers may question the content but not the concept of a national curriculum.

The ERA, therefore, represented an uneasy alliance between the factions of the Conservative party. Neoliberals were appeased by the quasi-market mechanisms of competition and parental choice, while the traditional emphasis of the national curriculum was to satisfy cultural restorationists (Goodwin, 2011).

Phase 2: Neoliberalism and the 'third way'

During the mid-1990s New Labour's 'Third Way' political movement gained momentum. Neoliberalism and the role of the market, managerialism, and competitiveness (Ball, 2017a) were still present, but there was greater emphasis on centralising management of public service reform via output-led approaches (Goodwin, 2011). A 'what works' approach (Blair, 2006 quoted in Ball, 2017a, p. 15) typified a managerialist emphasis on outcomes rather than processes (Grek and Ozga, 2010). This approach included increased use of policy instruments to ensure institutional accountability and conformity (Kilkauer, 2015), such as league tables and Ofsted. As Dale (2005) surmises, governance rather than government became the norm in British politics.

Intensification of educational control by government further reduced teacher professional input into curriculum, pedagogical strategies, and assessment (Fisher, 2008). Competition continued to be promoted through diversification of the market of school types (Papanastasiou, 2012). Endogenous privatisation of schools continued and exogenous contestably was introduced through the academies system (Ball, 2017a). Academies represented public-private partnerships between the state and philanthropic business leaders (Thomson, 2020), devised as fresh starts for 'failing' schools in areas of high socio-economic disadvantage (Goodwin, 2011) aiming to improve standards (Thomson, 2020). A zero-tolerance approach to underperformance informed levels of intervention by the state and state partners, so that intervention was inversely proportional to success (Ball, 2013) measured by examination results and benchmarks (Goodwin, 2011). During this time, league tables were the main accountability mechanism (Goodwin, 2011) functioning through the belief that

internal comparison would raise standards (Papanastasiou, 2012) this statistical information heavily determined Ofsted inspection judgements from 2005 onwards (Fisher, 2008).

Various national curricula were produced between 1999 and 2007 during New Labour administrations. Curriculum development projects and reviews from 2000 onwards (Ryder and Banner, 2011) informed production of national curriculum content focusing on skills development rather than accumulation of facts. Skills perceived to be required for an individual's success and employment in a rapidly changing 21st Century (Hughes, 1997) were emphasised. These skills included those valued by industry and employees and deemed a requirement in the production of actively engaged citizens (Greany and Waterhouse, 2016). This represented a shift from learning traditional subject disciplines to a focus on generic skills, such as communication and problem solving (Hughes, 1997). The 2007 national curriculum aimed to develop soft skills through personal, learning and thinking skills (PLTS), enterprise, creativity, and critical thinking (House of Commons Children, Schools and Families Committee, 2009).

In addition, a 'what works' approach to national strategies was implemented to support curriculum delivery and improve standards. Examples included national strategies for literacy, numeracy (Whetton, 2009) and teaching at Key Stage Three (KS3) (age 11-13). Implementation of these strategies and the national curriculum were supported by external agencies such as the Qualifications and Curriculum Development Agency, external advisors, and Ofsted (Greany and Waterhouse, 2016) representing further decentralisation.

Phase 3: Neoliberalism and cultural conservatism

The coalition government of 2010-2015 was formed between the Conservative and Liberal Democrat parties. This government's approach to education combined an extension of New Labour policies, particularly academisation, while returning to traditionalist approach which influenced development of the 2014 national curriculum. Unlike the previous government, pedagogical strategies were not developed by the state but endorsed, encouraged (Ball, 2017a) or derided. This leads to the duality of increasing and decreasing professional autonomy taking place at school or MAT level. Policy and rhetoric continued to embrace the neoliberal attention to outputs and performance rather than processes, using a guise of

evidence-based practice (Ball, 2017a) and international comparisons to legitimate policy (Papanastasiou, 2012).

The Academies Act of 2010, expanded of New Labour's academy model from an intervention for 'underperforming schools' to a universal school type (Goodwin, 2011). At the start of the Coalition government there were 270 academies (Male, 2022) which initially increased due to academisation of high performing school. These convertor academies remain state funded but run autonomously from local authorities (Eyles and Machin, 2019). The act enabled convertor academies to take over 'underperforming schools' to become 'sponsored academies' (Male,2022). As high performing academies acquired multiple 'sponsored academies' legislation was put in place for Multi-Academy Trusts (MATs) to be formed (Thomson, 2020). A MAT comprises of at least two schools, the majority contain up to 10 schools while a small number of MATs have over 40 schools (Male, 2022). As of April 2018, 72% of all secondary schools were classed as academies (Thomson, 2020). Academisation moves school accountability directly to the remit of the Secretary of State for education, supported by public-private partnerships of Ofsted and Department for Education (DfE) appointed regional schools commissioners (Thomson, 2022).

With the appointment of Michael Gove as Secretary of State for Education and Nick Gibb as Minister of State for School Standards, the introduction of a curriculum and assessment regime based on the 'acquisition of knowledge within rigorous subject disciplines' (Gibb, 2015, p. 13) was pursued aggressively. The confrontational language used by Gove and Gibb towards any critique produced a strained relationship between the DfE and teaching unions (Craske, 2021). Education policy was approached by problematising the national curriculum though international comparisons (DfE, 2011) encompassing global competitiveness, such as PISA [4]league tables (DfE, 2011), from a nationalistic and traditionalist perspective of British exceptionalism. Cross curricular strategies such as PLTS were disparaged (Gibb, 2015) and replaced by a focus on 'steady accumulation of knowledge and conceptual understanding' (Oates, 2011, p.121).

Despite use of derision as a technique of destabilisation to produce new policy spaces for reform (Whitfield, 2001, p.69), Gove acknowledged the previous Labour government's work

[4] PISA are carried out every four years.

(Gove, 2012), laying the blame with schools that were not good enough. The 2014 national curriculum provided space to continue neoliberal attention to outputs and performance, rather than processes. In 2012, the Schools Minister Nick Gibb introduced the new national curriculum as a move away from a 'top-down, prescriptive model of education'(n.p.). In this sense the national curriculum represents du Gay's (1996) concept of 'controlled decontrol' (p.61) through statements made by Gibb such as 'raising the professional status of teachers: trusting professionals and increasing autonomy', set within the constraints and regulation of performance with a highly controlled content of a national curriculum 'focused more tightly on the essential core of knowledge that every pupil should be taught' (Gibb, 2012).

The 2014 national curriculum's emphasis on knowledge has been credited by Gibb (2015) to the work of E.D. Hirsch. In *Why knowledge matters* (Hirsch, 2017) the argument is made that fixed knowledge is required for all young people in a particular society, called 'cultural literacy' (p.2), that enables success. Other authors, such as Michael Young (2013) have also linked social justice to knowledge-based curricula. Young argues that access to 'powerful knowledge' (p.108) increases opportunities and contributes to progress in society. He proposes that a national curriculum should be limited to key concepts of a subject, so that individual schools can 'recontextualise' the teaching of powerful knowledge to the local context of the pupils and community.

Young's term 'powerful knowledge' has been assimilated into arguments put forward by high profile English educators such as Alex Quigley, currently National Content and Engagement Manager at the EEF, for the importance of a knowledge-rich curriculum. Quigley's blog for the EEF (2019) demonstrates how the notion of 'powerful knowledge' has been reduced to a term used to indicate important curricular knowledge or concepts as seen in the statement 'invaluable knowledge they want their pupils to know […] echoes Michael Young's famous emphasis on powerful knowledge' (Quigley, 2019, n.p.). The blog does not include any references to Young's published work.

While Young (2013) appears to assert that social justice in education is politically neutral, Yandell (2017) argues that the Conservative party have co-opted the term social justice from

the language of their opponents. In addition, Yandell states there are questions relating to who has made the decision about what constitutes core knowledge, in the 2014 national curriculum, and who this knowledge represents. Ball (2017a) is more explicit, proposing that Conservative education policy encompasses restoration of traditionalism and conservatism.

The influence of managerialism

Neoliberal economics has influenced governmental policy so that educational reform is tightly linked to a country's economic survival (Fisher, 2008). The mechanism of neoliberal quasi markets has produced 'new organisational ecologies' where school leadership and management represent practices of business (Ball, 2017a, p. 90). Use of economic calculative tools and data in pragmatic decision making, removes professional judgement and is reinforced by managerialism (Grek and Ozga, 2010). Lynch (2014) describes a form of 'New managerialism' (NPM) that aligns and represents the 'organisational arm' (p.1) of neoliberalism, where social problems are reframed as management issues to be solved. Hall (2024) states that there are disputes about whether there is a causal link between neoliberalism and NPM yet authors such as Hood (1991, 1998) trace a relationship between neoliberalism and NPM in their work. Ball (2017a) describes management as a transformational force (p.56) identifying the fusion of management with neoliberalism as NPM. In addition, Wilkins et al. (2019) highlight the duality in education as marketisation and competition of neoliberalism secures the embedding of NPM, while evaluation and accountability of MPM promotes school competition.

Hood (1991) conceptualises NPM as a movement utilising a scientific approach where professional management expertise is valued over technical expertise. Clarke et al., (2000) conceptualise management techniques as political acts where managerialism has increased the level of control by managers, displacing the value of professional knowledge: solutions are achieved by knowing how to manage, rather than expertise in the subject. Although NPM does not have a definitive definition, Hood (1991) suggests that the phenomenon is best understood through overlapping themes of: top-down control of accountability; presence of quantitative explicit standards; emphasis on results rather than processes; disaggregation of units in the public sector; competition for lower costs; integration of private sector styles of

management; and discipline in resource use. The 'coherence of ideas and practices' (Hood and Peters, 2004, p.268) changes over time as policy implementations are refracted through national interests (Wilkins et al., 2019) producing myriad versions of NPM in different contexts (Hall, 2024). As such, claims relating to universality of NPM technologies and assumptions about success of policy borrowing and diffusion become problematic (Hood, 1991; Wilkins et al., 2019).

Another issue relating to uncritical implementation of NPM technologies is that they lead to what are called 'Mertonian unintended consequences' (after the sociologist Robert Merton who explored the unintended effects of social action) (Hood and Peters, 2004, p.269). These unanticipated 'derivative problems' are generated with every answer to a social problem and NPM is not an exception (ibid, p.269). Gregory's 'production paradox' (as cited in Hood and Peters, 2004, p.270) compares how a focus on specified indicators and benchmarks, conspicuously monitored by institutions, can produce reduced credibility as an unintended consequence due to overcommitment to the outcome rather than processes. Hood (1998) traces the passage of terms such as 'benchmarking' and 'best practice' from engineering into public services and by default into education. The appropriation of the language from engineering and business represents endogenous privatisation, as described by (Ball, 2017a) in the drive for increased effectiveness. The axiom of best practice rather than learning from experience sets up another Mertonian unintended consequence. Hood and Peters (2004) consider how modes of NPM that are predicated on evidence bases, can suffer from the selective attention towards evidence. Unquestioning belief in evidence based best practice can result in uncritical and universal adoption of poorly conceived models, producing institutional surprise when 'managed innovations' (Hood and Peters, 2004, p.278) do not produce intended outcomes.

The work of Gunter et al. (2016), Hall and Gunter, (2016), Wilkins et al. (2019) and Hall (2024) situate NPM into the current English educational landscape. Their work demonstrates how NPM is integrated into the working practices of institutions and illuminates Mertonian unintended consequences of NPM technologies. Gunter et al. (2016) describe the functioning of NPM, in England, within relations of government, governance and governmental practices. They theorise teachers are being reconstituted as managers, delivering results through target

setting and analysis, and emphasising management issues over education. Under the state as a regulator, the act of managing becomes a technology where judgements on teachers' performance in lesson observations and student examination attainment can result in the removal of underperforming teachers from the work force. Ball (2003) describes the impact upon teachers as 'terrors of performativity' (p.216) where performativity is viewed as a technology using judgments, rewards and punishments as a means of control. Judgements are made on performances where outputs are simplified to enable measurement and are used to represent the value of individuals. Line managers are pressured by accountability measures to demonstrate improved outcomes, producing a 'them' and 'us' distinction between senior leaders in schools and the staff that are managed, as described by Hood (1998). Thomson (2020) explicates how this distinction can produce strong pressures on teachers to perform, manifesting in coercive rather than empowering environments based upon requirements rather than discussions. This becomes political when, as Hood (1991) claims, NPM begins to promote the interests of an elite cadre of managers over the public good.

Hall and Gunter (2016) identify the aim of NPM as improving education systems while increasing efficiency and decreasing bureaucracy, through technologies of increased performance management and monitoring. Hall and Gunter use data from PISA to question the success of NPM reforms in English schools and highlight extensive bureaucratic demands placed upon teachers and schools in producing documented evidence of performance. Wilkins et al. (2019) highlight the role of NPM in determining effectiveness and quality of educational institutions, which requires compliance checking and performance management. They describe the directions in which accountability flows around managers: accountability is mobilised downwards to teachers, outwards to expected agencies and upwards to regulators by educational managers. Hall (2024) refers to the 'deliverology' approach of Lord Adonis, as an example of centralised performance management reform that contributed to a high stake 'what works' environment now prevalent in English schools. This approach means that the evaluation of educational activity is reduced to narrow quantitative measures that can be used to hold schools and teachers to account. Thus, NPM can still be a useful lens to understand the actions of teachers and educational managers in contemporary situation in the English education system.

Conclusion

This chapter has considered the historical evolution of political factors influencing the policy context in which the documents, to be analysed in this dissertation, were written. The legacy of the ERA, as a manifestation of neoliberal values applied to education, is seen in the centralised national curriculum and decentralised MATs. Development of quasi markets mechanisms have influenced use of league tables and Ofsted inspections, contributing to a high stakes accountability system for schools and teachers. NPM technologies are deployed through endogenous privatisation to emphasise performance and outcome delivery. Global competitiveness and traditional British values align to produce a rigorous knowledge based national curriculum designed to raise standards. These concepts will be used in chapters five, six and seven during the process of analysis to interpret meaning and determine discourses present in EEE and ISS documents and themes in teacher interviews.

It is worth noting that, in the years since EEE was written there have been eight Secretaries of State for education:

- Justine Greening (14/07/2016-08/01/2018),
- Damien Hinds (08/01/2018-24/07/2019),
- Gavin Williamson (24/07/2019-15/09/2021),
- Nadhim Zahawi (15/09/2021-05/07/2022),
- Michelle Donelan (05/07/2022-07/07/2022),
- James Cleverly (07/07/2022-06/09/2022),
- Kit Malthouse (06/09/2022-25/10/2022)
- Gillian Keegan (25/10/2022-time of writing)

(UK Government, 2024)

This represents the state of turmoil facing the Conservative party and could explain why recent changes to educational policy have only focused upon recovery from school closures due to COVID, while accountability measures, key valued stakeholders, academisation programmes, assessment procedures and the national curriculum have stayed constant. There has been a more recent educational white paper *Opportunity for all: Strong schools with great teachers for your child* published in March 2022 by Nadhim Zahawi. *Opportunity for all*

continued the pledge for MATs, improving standards and ‘excellent teachers’ with additional pledges for longer school days, supporting Oak National academy as a stakeholder for producing digital curriculum resources, and targeted support for children who fail to meet standards in English and Maths (DfE, 2022). Against such a chaotic backdrop, Morgan’s white paper contains policies that have had time and traction to become embedded within English educational system. At the time of writing, the political upheaval continues following three Prime Ministers in post in the last 18 months and an upcoming General Election in 2024.

Chapter 3: Theoretical perspectives and frameworks

Due to the iterative nature of the research, carried during the dissertation, a systematic literature review did not support the approach that I took. Instead, books and journal articles were read to support interpretation of documents and interviews at different stages in the process, representing the direction that the data was taking me in. In this chapter, the key theoretical frames that informed my interpretations, will be discussed.

The chapter begins with a summary of sociological theories that were read following my first immersion in the data during document analysis of EEE and ISS. Foucault's relevant work on power and technologies of the self will be discussed, to produce a framework that will be used to analyse mechanisms influencing science teachers' practice. The chapter will finish with a consideration of the theoretical underpinnings of Codd's (1988) method of deconstructing educational policy texts and Braun and Clarke's RTA (2021).

Sociological theory: neoliberalism as an ideology shaping curriculum and educational practices

To support interpretation of discourses in the documents and themes of teacher interviews, I used sociological theories of Apple (2000) and Ritzler (2001). Apple's (2000) book *Official knowledge: Democratic education in a conservative age* provides a useful lens to consider implementation of the 2014 national curriculum, from the perspective of whose knowledge is being represented in the curriculum. Ritzler's (2001) theory of McDonaldization helped my interpretation of the ISS's representation of the summary of findings in a structure akin to a fast-food menu. I further developed Apple's (2000) idea of de-professionalised teachers, with Ritzler's (2001) theory to consider the construction of a technicist teacher operating under similar boundaries of commercial fast-food organisations.

Apple's (2000) work is situated in the context of the revival of the political right in the United States. He references educational ideology in the UK, particularly at the time of Margaret Thatcher (as Prime Minister) and Kenneth Baker (as Secretary of State for Education), to theorise the role of the right wing on American educational polices. Neoliberalism, he

theorises, produces a climate where teachers are bound by reductive accountability systems, with an emphasis on improving standards. The presence of a highly controlled curriculum and administrative paperwork generates high workload for teachers. When teacher are time-poor there is not space to critically analyse and adapt practice. Instead, teachers accept and implement resources and strategies into their practice, without question.

Apple (2000) identifies the way in which the climate in teaching enables commodification of pedagogical practices and subsequent de-professionalisation of teachers, so illusion of choice appears despite limited options being put forward by experts. Apple (2000) describes the atmosphere as a 'pressure cooker' (p.109) formed from accountability drives based upon measurable outcomes. Apple's work will be used to support interpretations from the perspective of the English education system as a high accountability, low trust environment rooted in neoliberal values. Excessive working demands and administration which depletes time that teachers can dedicate to developing their practice will be considered as conditions that lead to de-professionalisation of teachers.

Ritzler's (2001) conception of McDonaldization illustrates how marketised models for mass consumption can be observed in public services. He identifies four dimensions: efficiency, where workers are trained and supervised within organisational rules and regulations; calculability, with an emphasis on quantitative rather than qualitative outcomes; predictability, so products and services are the same regardless of time and location; and control, where workers are trained to do a limited number of tasks in precisely the way that they are told to, reinforced by technologies and organisational structure. Dimensions of control and predictability limit possible choices available to the consumer, in this case the teacher, packaged via rules and structures to provide the same outcome each time. Ritzler's (2001) dimensions of calculability, efficiency, predictability, and control could be seen as manifestations of disciplinary power within a neoliberal society and could be applied to a marketised educational system. I will use this perspective to consider forces acting on teachers and mechanisms where teachers are de-professionalised to become technicians – the technicist teacher.

Creating a theoretical space to explore power relations and their implications: key concepts from Foucault's work

Foucault's body of work provides a useful lens to analyse how schools function. In addition to the work of Ball (2003) on performativity, Perryman et.al (2011) on panopticism, Perryman et al. (2017) on governmentality, I also refer to Ball's (2017b) *Foucault as Educator.* Foucault's *Discipline and Punish* (1991) presents a 'genealogy of the modern soul' (Gordon, 1994, p. xxxv), and uses the school as an institution to illustrate the workings of power. Foucault's legacy can be seen in Ball's (2017b) view of education as a nexus of Foucault's analytical frames of truth, power, and subjectivity. My dissertation applies Foucault's concepts to the workings of schools operating in neoliberal conditions of quasi-markets and NPM, in order, as Gordon (1994) suggests, to question assumptions and taken for granted actions.

The landscape of education and society has changed since Foucault wrote his key works, and this has led authors such as Page (2015, 2017, 2018) and Courtney (2016) to question the applicability of the panopticon metaphor to schools (particularly, in the last 10 years). Page (2018) discusses the ways in which surveillance has simultaneously become more and less visible in contemporary educational institutions. Courtney (2016) proposes that changes in the educational landscape have produced a post-panoptic context, while Page (2017) links a post-panoptic approach to the movement towards a society concerned with future risk. Rather than the panoptic gaze leading to constructing docile bodies, surveillance in the post-panoptic domain acts to reduce risk so that positive outcomes can be predicted accurately and achieved in highly performative environments (Page, 2017). Page (2018) acknowledges that post-panoptic perspectives of the normalised visibility of surveillance and development of self-surveillance, has the danger of overlooking the roles of teacher agency and resistance. These aspects of surveillance and post-panopticism will be discussed below. I will consider these contemporary developments of Foucault's work and potential applicability to this dissertation, in addition to Foucault's conceptions of power to consider the ways in which policy is interpreted in education and implemented by teachers in their practice.

Using Foucault to analyse discourses identified in government policy (EEE document), key stakeholders (EEF's ISS document), and experiences of classroom practitioners, I have tried to construct a space where, as Ball (2017b) states, individuals can 'think about ways we might be free and learn to struggle against being governed in that way' (p.36). This thinking occurs when we come to understand how power and knowledge may construct ourselves as subjects, and when we come to understand the limits and possibilities that exist in fields of relations between the subject, power, knowledge, and truth. To enable construction of such a space, this section of the chapter will begin with a discussion of the ways power relations act to produce the subject. This will be followed by an exploration of practices that enable resistance to the exercise of power by individuals or groups. This will create a theoretical space where discourses from documents and teachers can be analysed to 'uncover the nature and role of power' (Usher and Edwards, 1994, p. 83) at work in schools and science departments in areas of social economic disadvantage in North-East England.

Foucault and power

Foucault reconceptualised the way in which power is thought of when considering individuals and populations. Rather than a manifested substance, power is viewed as a relation between individuals, where individuals can determine one another's conduct (Foucault, 1994a). Of particular importance to the theoretical space in this dissertation, Foucault (1991, 1994b) clarifies power as both productive and repressive in nature. Part of the productive nature of power involves production of the subject and of knowledge of the individual. In addition, to informing identities (Gordon, 1994) power produces active subjects (Usher and Edwards, 1994) able to direct conduct and behaviours of individuals. Since power is omnipresent and generated in all social interactions (Allen, 2013) it can be manifested within social networks as power relations (Usher and Edwards, 1994).

Power functions through hierarchical structures of society, flowing from the top downwards but is highly dependent upon power relations that operate at lower local levels of the hierarchy (Gordon, 1994). As individuals, we are most able to recognise power and its oppressions (Ball, 2017b) in our immediate social relations. Local struggles become sites where individuals confront power (Foucault, 1994b) where the individual will criticise power

effects of the immediate enemy rather than the chief enemy (Foucault, 1994a) at the top of the hierarchy. It is through power relations between individuals and groups in the hierarchy that the productive nature of power can be exercised (Foucault, 1994a). However more recent work on surveillance by Page (2017) and datafication by Charteris (2022) suggest, in current contexts, that educational institutions function with decentralised horizontal or bottom-up relations. Relations of power are produced in all social communications, when an individual attempts to control the conduct of others (Foucault, 1997a). Even though the relationship between the dominant group and subordinated subject is asymmetrical (Foucault, 1991) power can only be exercised when the subordinate is a free subject (Foucault, 1994a). When considering power relations in educational contexts, teachers may appear to be free subjects since they are free to leave that institution. Nevertheless, the social and financial contexts of a teacher's personal life may mean that the teacher does not feel that they are a free subject. This results in teachers staying in toxic work environments, as described by Thomson (2020).

Exercise of power in a relationship generates a field of possibilities of actions, responses, and behaviours for the subject. Since the subject is free, power relations also produce sites where struggles can take place (Allen, 2013). Within these sites, tensions produce possibilities for resistance against dominating forces, the limits to these possibilities are imposed by discourses circulating through hierarchical power relations (Simons, 2013; Ball, 2017b). While critiques of Foucault highlight a perceived nihilistic perspective on modern existence (Koopman, 2013; Ball 2017b), hope in Foucault's work is discernible. Without the opportunity for resistance there cannot be power relations, even in states of domination 'practices of freedom [still] exist in constrained or limited ways' (Foucault, 1997a, p.283). Ball and Olmedo (2013) suggest that Foucault's work can applied to discussions of freedom and resistance within neoliberal performative school environments. They consider the ways in which the paradox between power and resistance is unresolvable, so that one cannot exist without the other.

A power-knowledge dyad is produced in all power relations (Ball, 2017b). In *Discipline and Punish*, Foucault states there is 'no power relation without a field of knowledge' (1991, p.27) conversely knowledge is not constituted without power relations. In this conceptualisation the dominant actor utilises power to produce knowledge of the subordinate subject, knowledge of

the subordinate subject increases power of the dominant actor. The locus of power-knowledge dyads is within often unquestioned discourses (Usher and Edwards, 1994) acting in a cyclic process where an increase in knowledge increases power and the multiplied effects of power produce new forms of knowledge (Foucault, 1991). Questioning discourses operating around power-knowledge dyads can shift the balance of power relations, opening sites of struggle and resistance.

During the 18th and 19th centuries, development of a knowledge of individuals was used to control and manage human behaviour (Gordon, 1994) through the disciplines of the 'human sciences' (p. xvi). The mechanisms of inquiry in the natural sciences use empirical knowledge from observation of cause and effect to describe and establish facts or truth of phenomena (Foucault, 1994c). The systems and mechanisms that sustain, induce, and extend the effects of power and knowledge enable discourses to become true (Foucault, 1994b; Simons, 2013). Disciplinary power informs truths of human sciences based upon knowledge of the individual derived from examination and judgement and is used to control and manage human behaviour (Foucault, 1991). Through interplay of power and knowledge the human sciences become truths, albeit different to the truths of the natural sciences. In the post panoptic domain of liquid modernity and risk aversion described by Page (2018), the analysis of data collected by surveillance is used to form data doubles that are highly reductive (Hope, 2016).

The truth can be viewed as a set of rules or procedures that produce, disseminate and regulate statements through separation into true and false. The reciprocal relationship with power produces 'games of truth' (Foucault, 1997a, p.297) circulated through communication and limited by constraints and coercive effects (Foucault, 1997a, p.298). It is through games of truth, or systems of discourse, that truth produces subjectivity, relations of power and formation of knowledge (Foucault, 1994c; Ball 2017b). In my dissertation, I will consider educational policy as 'games of truth' where pedagogy, political ideology and sociological mechanisms function as knowledges produced by disciplines of human sciences. During analysis of documents in this research, all claims of truth will be assessed critically, as proposed by Ball (2017b) by considering the social, economic, and cultural hegemonies within which the truth is operating (Foucault, 1994b).

Disciplinary Power

Foucault argued that disciplinary power developed as a strategy to control the individual in industrialised society (Foucault, 1994d). Discipline is a type of power comprising of specific techniques (Foucault, 1991) and mechanisms that produce and transform individuals and their behaviour (Ball 2017b). Discipline is embedded in the functioning of institutions where disciplinary knowledge is recognised as a truth (Usher and Edwards, 1994). For example, pedagogical truths of teaching practices, economic truths of neoliberal quasi-markets, and managerial truths of NPM. The individual is the site of disciplinary power and knowledge. Discourses, acting as an object of discipline, simultaneously constrain the actions and behaviours of individuals (Foucault, 1991) while constituting them as subjects who adhere to and re-disseminate the discourses to others (Anderson and Cohen, 2015). The subjects produced by disciplinary power are docile (Foucault, 1991) as they are willing to adhere the rules of the institution (Lukes,2005) able to govern themselves through 'truths' (Anderson and Cohen, 2015, p.7) constituted as institutional norms. Courtney (2016) argues that, over time, institutions (including schools) no longer use discipline to produce docile bodies and compliance. Instead, disciplinary power and associated technologies are used to construct and expose incompetence in individuals (Courtney, 2016, p.624). Thus, rather than producing teacher subjects that are compliant and can be retained, those deemed incompetent are removed. Removal of the incompetent did not feature in Foucault's work relating to prisons, military and school institutions of the past. However, Courtney (2016) and Page (2015) argue that this is a feature of modern schools operating in highly performative situations.

Disciplinary power operates as a form of training functioning through the regulation of the individual. The presence of a 'gaze that supervises' (Foucault, 1991, p.154) within an institution, differentiates a group into individuals that are treated as objects. This is achieved through the examination of the individual, which consists of hierarchical observation and normalising judgements that quantifies, classifies, and punishes (Foucault, 1991). As Anderson and Cohen (2015) summarise, these technologies ensure adherence of an individual to the norms of the institution due to the potential of being observed or judged at any time.

Disciplinary power controls the individual, not based upon their actions but at the level of the individual's potential actions, behaviours, and attitudes (Foucault, 1991). This method of social control is exercised at institutional, rather than state level, operating through a hierarchical network of surveillance and correction (Foucault, 1994c) where the mechanisms are hidden (Lukes, 2005). Hierarchical observation forms one of the mechanisms of disciplinary power, where surveillance is carried out by, and upon, individuals distributed in a field or network functioning from the top of a pyramidal structure downwards. The resulting power is simultaneously indiscreet, acting everywhere on all individuals, and discreet, as it is permanent and silent in nature (Foucault, 1991). Page (2017) argues that Bauman's concept of 'liquid modernity' (p.2) has moved into school contexts, which has led to the nature of surveillance and observation changing in institutions. Page (2017) suggests that in addition to vertical hierarchies, surveillance also operates horizontally through peer observations, and interpersonally through reflective practice.

While I accept that these modes of surveillance operate in the school environment, this dissertation will focus upon the role of hierarchical observation and the impact upon teachers. Hierarchical observation transforms individuals by coercion, as the gaze of surveillance means the observed individuals are visible, so that observation, recording and training can take place. This results in the individual becoming objectified based upon their behaviour and attributes (Foucault, 1991). Through processes of subjection, new knowledges of that individual are produced which are then used on the subject as discipline (Usher and Edwards, 1994) within the power-knowledge dyad.

The second mechanism of disciplinary power is normalising judgement. Normalising judgement is enacted within a power relation on the subordinate subject by the dominant other who exercises power. The dominant individual constructs a knowledge of the supervised subject based upon the norm (Foucault, 1994c). This form of power ensures the subject's adherence to the norm via a 'double system of gratification-punishment' (Foucault, 1991, p.180) rewarding diligence and correcting deviations from the norm. This produces a quantifiable field of good and bad behaviour. The constant pressure linked with surveillance ensures conformation of the subject so that all individuals in the institution become alike while remaining as an individual (Foucault, 1991) a type of homogenisation. However, as

Courtney (2016) argues, in the context of current school institutions, that the use of discipline to expose incompetence leads to punishment being enacted in the form of removal from the institutions. Thus, homogenisation occurs through removal, rather than correction to the norm.

The norm is a truth produced from the knowledge of human sciences and statistics to determine acceptable standard of behaviour (Simons, 2013). Norms of behaviour or action can be envisioned as a bell curve (Ball, 2017b), where the norm can represent either optimum or minimal threshold to be achieved (Foucault, 1991). The norm enables the individual to be quantifiable so differentiation, comparison, and measurement of the gap between the individual and the norm can take place during judgements. From a panoptic lens, disciplinary power functions effectively through norms that are fixed points of reference. Colman's (2020) study of headteachers and Perryman et al.'s (2018) case study of four schools consider the ways in which the expectations of external bodies are in constant flux. Courtney (2016) describes these as 'fuzzy norms' (p.623) which provide the grounding for an argument that a post panoptic perspective maybe more effective in explaining the actions taking place in contemporary educational institutions. Individuals failing to meet the norm are punished through corrective action, which aims to reduce the gap between observed behaviour and the norm. Thus, corrective action functions as a tool for homogenisation of individuals in the institution (Foucault, 1991). Surveillance, judgement, and corrective action are carried out by the subject's immediate supervisor rather than the anonymous power at the head of the hierarchy (Foucault, 1991). However, within the hierarchy, supervisors that discipline and correct the subject are themselves subject to the normalising judgement of their supervisors (Allen, 2013).

The examination maintains the power knowledge-dyad in disciplinary power (Ball, 2017b), and is ritualised within processes of hierarchical observation and normalising judgement to establish a truth of the individual. Individuals are simultaneously subjected and objectified under power relations that both extract and constitute a knowledge of the individual (Foucault, 1991). As Foucault (1991) summarises 'examination is the centre of the procedures that constitute the individual as effect and object of power, as effect and object of knowledge' (p. 192). In the examination the individual is documented as an object to be

described and a subject that is produced. The individual becomes a component, distributed in a comparative system of domination and control (Foucault, 1991, p.192). As modes and approaches to surveillance have changed since Foucault's work, so has the nature of the examination. Page (2017) reframes surveillance as a 'simulation' (p.2) in a context of risk aversion. Where Foucault's concept of examination is reactive, linking to the subjectivation of docile bodies, surveillance as a simulation is predictive using previous data to determine future outcomes so that risk can be eliminated (Page, 2017). This leads to the process of datafication, as described by Charteris (2022) in their analysis of the use of 'data walls' in Australia and by Hope (2016) in their review of surveillance in schools. Digital data gathered through the process of surveillance produces 'data doubles' (p.894), overly simplistic models that are used during the examination. Charteris (2022) explains the use in educational environments as a method that reduces complexities of the examination by producing clear either/or subjectivities, however this is only as accurate as the data collected. Datafication links to performative practice carried out in neoliberal contexts where the end result is valued rather than the process (Carlile, 2018). This can be seen in the examination which focuses upon data from assessment and league tables, rather than pedagogical strategies employed.

The final aspect of disciplinary power is panopticism, a concept influenced by Bentham's panopticon, where power is exercised through continuous supervision, control, and correction of the individual (Foucault, 1994c) in combination with the examination. Bentham's panopticon was an architectural design for constant observation of the individual, without the individual being aware when, or if, they are being observed. The architectural design enables a power of analysis that is omnipotent and omniscient, visible and unverifiable, meaning that the subject consciously conforms as if under a state of permanent visibility. Because the subject does not see the supervisor, power relations become independent of the person exercising the observation. In this form the panopticon coerces so the individual, due to the pressures of visibility, 'assumes the responsibility for the constraints of power' (Foucault, 1991, p. 202) by subjecting themselves. This ensures order and discipline in the institution.

Page (2015; 2017; 2018), Courtney (2016), Proudfoot (2021), and Charteris (2022) explore the ways in which surveillance is used in highly performative schools to propose alternative metaphors for a post panoptic context. Page (2015) identifies that a central notion of the

panopticon is that the individual is unaware of who the observer is so that individuals operate under the potential of being observed. However, in a post panoptic context, Page (2015) claims that visibility is normalised in performative schools through learning walks and observations so that a 'glass cage' (p.1045) metaphor is more appropriate. In this metaphor the glass represents high levels of visibility of both the observer and the individual, while the cage represents the norms that bound acceptable behaviours. Courtney (2016) questions the applicability of the panopticon in a contemporary context. Instead, the argument is put forward that schools are operating in a 'post panoptic regime' (Courtney, 2016, p.623). As mentioned above, in a post panoptic regime there is the understanding that normative stability has been replaced by fuzzy norms, where differentiation is the goal rather than normalisation. Visibility is normalised and the supervisory gaze is not total. Proudfoot's (2021) research comprising of a survey with 323 respondents and interviews with seven teachers identified themes of constant visibility which was both targeted and inconsistent depending upon the perception of teachers' ability by their managers. This leads to an alternative metaphor of a searchlight with areas of intensified gaze and spaces where the unseen can take place. These metaphors are helpful in understanding how surveillance is enacted in schools, especially through performance management systems. This dissertation will continue to utilise Foucault's original ideas to illuminate the mechanisms of power relations, while considering more contemporary developments where relevant.

Although disciplinary power was initially exercised at the level of institutions during the 19th century, development of capitalism enabled institutions such as factories to take control of an individual worker's time and life (Foucault. 1994c). Foucault (1994c) states 'the new economy' (p.20) of disciplinary power and its accompanying techniques began to disseminate through the social body producing a disciplinary society functioning through 'mechanisms of panopticism' (Foucault, 1991, p. 216). The disciplinary society consists of private individuals, the state and relations between both so that the state gains control of a network between separate institutions as well as their mechanisms of power. This results in discipline being exercised by the state over society, so that disciplinary power can operate in diverse institutions and normalising gaze becomes omnipresent (Foucault, 1991).

Governmentality

Foucault's later investigations into the mechanisms of power led to the conceptualisation of governmentality. The state as a site of government developed as a relationship between the state and institutions where responsibilities and means of governing were redistributed (Ball, 2017b). The focus of control moves from the individual to the population either directly or indirectly (Foucault, 1994e) utilising discipline and governmental techniques to manage the population. The state does not 'occupy the whole field of power relations' (Foucault, 1994b, p.123), instead the state holds a superstructural role operating on, and, in relation to a series of power-knowledge networks. The historical movement towards a power that is exercised over the population in combination with the disciplines of the capitalist market and discourses of neoliberalism, prompted Foucault to respond with work on the concept of governmentality (Gordon, 1994).

Governmentality simultaneously individualises and totalises the population (Gordon, 1994) through conducting the conduct of individuals and groups, resulting in individuals governing their own conduct (Simons, 2013). This occurs through technologies utilised by the state to determine and define the behaviours and actions used by individuals towards others (Foucault, 1997a). The work of governmentality utilises mechanisms such as statistics as a scientific objective truth (Anderson and Cohen, 2015) to quantify aspects of the population (Foucault, 1994e; Ball, 2017b). This objectifies and provides knowledge of the population as a consolidation of power (Simons, 2013) through the rationality of government (Foucault, 1994f).

Governmentality can be problematised to uncover relations of power (Gordon, 1994) and sites of government, which are 'points of contact between technologies of domination and technologies of the self' (Ball, 2017b, p.63). These sites provide space for a critical attitude to be applied by the individual to question effects of truth and power (Gordon, 1994) becoming sites of refusal (Ball, 2017b). Foucault theorises that governmentality, as a power that 'imposes a law of truth' (Foucault, 1994f, p. 331) on the individual, subjugates either due to control (passively through discourse) of another or through self-knowledge (actively through culture and society) (Foucault, 1997a). This constitutes the subject as a result of power

relations (Simons, 2013) which act on a subject that is free in their behaviours and actions. Foucault's concepts of biopower, where subjects regulate themselves through technologies that control the masses, have been used by contemporary authors such as Hope (2016), Carlile (2018) and Charteris (2022). Biopower is used by Hope (2016) to explore the role of technological surveillance and objectification of bodies, including construction of overly simplistic solutions through datafication. Charteris (2022) situates the use of statistics and datafication as aspects of biopower that can function in the post panoptic domain, emphasising compliance and performativity. Carlile (2019) extends the biopower metaphor to include the ways in which attitudes and behaviours of the subject can be constructed, producing new counter narratives. Self-governance and subjectivity play a role in the construction of the power/resistance paradox described by Ball and Olmedo (2013).

Subjectivity and possibilities of self-transformation

Subjectivity occurs through discourses that create active subjects (Usher and Edwards, 1994) established as an object of knowledge (Foucault, 1997a) through dividing practices, such as the examination, to produce a truth of the individual (Allen, 2013). These truths should be understood as culturally constructed (Anderson and Cohen, 2015). Subjectivity is, therefore, the point of contact between the self and power (Ball, 2017b) and a site where power can be accepted or resisted (Simons, 2013). Since subjectivity is a mode of becoming what we do rather than what we are, it is limited by a boundary of possible actions and behaviours which can include resistance (Ball and Olmedo, 2013).

Ball and Olmedo (2013) identify the mechanisms of marketisation and managerialism within a neoliberal environment which produce subjectivity and construct the performative teacher. The process of subjectivity opens up sites of struggle (p. 85). In a case study of head teachers implementing new policies, Colman (2020) builds upon Ball and Olmedo's (2013) sites of struggle and spaces of doubt. Within these spaces Colman (2020) proposes that actions of resistance and compliance take place, through technologies of the self. Self-governance is discussed by (Hall, 2024) when considering the mechanisms of fear and insecurity, which lead to individuals taking responsibility to change their own practice not through choice but imposition. Page (2018) considers the ways in which teacher subjects utilise self-surveillance,

producing a version of themselves that is marketable and visible. Page hypothesises this results in 'conspicuous practice' (2018, p.376) either through fear of sanction, inculcation of institutional norms or, as will be discussed later, everyday resistance.

To retain hope, in contexts of neo-liberal governance, Foucault's work will be used, in this dissertation, to consider ways in which freedom and resistance can be enacted in micro spaces described by Ball and Olmedo (2013) and Colman (2020). In 'spaces of doubt' (Ball and Olmedo, 2013, p.93) individuals question power relations and constructed truths. During this process an individual begins to know how they have come to be and create, for the self, practices for self-transformation (Koopman, 2013). Koopman (2013) identifies self-transformation as the main orientation of Foucault's ethics where orientations are viewed as a position of ethical reflexivity that situates possibilities for living. Following from this definition, self-transformation can be viewed as a 're-working and re-creation of the self' (Koopman, 2013, p. 530). Reflexivity is required for the subject to reframe themselves as an object upon which active work is applied. This provides a duality where the individual realises that the self is already constructed as an object of work due to external forces, whilst realising the capability to reworking the self.

During his later work Foucault studied techniques of the self, utilised by ancient Greeks, where care of the self and parrhesia are enacted to enable self-transformation. Techniques of the self are a range of procedures suggested to individuals that determine, maintain or transform the individual through relations of self-knowledge (Foucault, 1997b). These techniques include reflecting upon ways of living, life choices and self-regulation of behaviour (Foucault,1997b). This is in comparison to technologies of power that dominate and determine the conduct of an individual through objectivising the subject. During care of the self, technologies of the self are deployed so that the individual examines and reshapes their own conduct and thoughts aiming to transform or modify the self, rather than constituting the self as a subject determined by others (Allen, 2013).

Foucault (1997b) describes the care of one-self as an 'experience, and thus also as a technique elaborating and transforming that experience' (p.88). Koopman (2013) describes

care of the self as ‘an aesthetic relationship of care and creativity about oneself, in contrast to a relation of rule over and obedience to oneself’ (p.532). This provides space to consider other ways of being and doing, whilst acknowledging that if the individual does not carry out work on the self, work will be done by others with outcomes that may not be what we desire. Ball and Olmedo (2013) use these ideas to propose that questioning acts of power that work on the individual can become a mode of care of the self. This happens through the process of reconstitution. Ball and Olmedo (2013) describe how resistance to becoming a performative teacher subject, could be defined as ‘irresponsible’ (p.91). Thus, courage is required as neoliberal technologies are designed to target those teachers deemed as irresponsible by managers. However, recent work in the contexts of neoliberal schools provide hope that resistance is possible by uncovering the ‘complex and fluid’ (Fuller, 2019, p.32) responses observed in the actions of teachers and school leaders.

Contemporary authors have developed the concept of subjectivity and technologies of the self to explain the responses of teachers, particularly, school leaders, working in neoliberal highly performative environments. Page’s (2015) glass cage metaphor, as an adaptation of the panopticon, provides space for senior leaders to ‘curate’ (p.1045) fabricated performances from staff during inspection. However, in subsequent work Page (2017, 2018) makes a conceptual shift away from fabricated performances. He argues that intensification of performativity results in constant normalised visibility of surveillance in the contemporary school, so that fabrication of practices, which are distinct from everyday practice, are no longer produced. Instead, ‘simulations’ that are ‘hyper real’ (Page, 2017, p.3) become the norm for everyday practice. In the panoptic gaze fabricated performances undertaken during performance management can produce ‘ontological anxiety’ (p.9) in teachers as they are aware of the gaming they are participating in. Teaching as hyperreality simulation does not produce ontological anxiety (Page, 2017) during observations or learning walks. There is no longer any real or any fabrication:

> There is no real and no fabrication: there is only the hyperreality of perpetual surveillance as simulation. And if there is no distinction, no betrayal, there can be no ontological anxiety. Teachers become simulated (Page, 2017 p.11).

In the hyperreal simulation of teaching, Page (2017) proposes that long serving teachers who have experience the shift between panoptic and post panoptic world have the choice to leave the profession or accept the simulation.

Colman's (2020) study of head teachers exemplifies this further. Colman (2020) describes how the production of the malleable neoliberal teaching subject, identified by Ball and Olmedo (2013), in combination with shifting expectations of Ofsted, can lead to the 'hyper enactment' (Colman, 2020, p.280) of policies by staff members. Rather than producing fabricated practice during inspections and lesson observations, the constant surveillance and scrutiny results in a post-fabrication state of high alert and risk avoidance. Yet there are, as discussed within the research literature, opportunities for resistance. For example, Hall (2024) acknowledges that 'hyperinnovation' (p.99) in the pace of reform can reduce the time and space for resistance but refers to Foucault's work to suggest that there is still plurality in notions and forms of resistance. One approach to understanding these forms of resistance is through Proudfoot's (2021) metaphor of a searchlight, which can be used to consider the view that the gaze of surveillance cannot be omnipresent. There are times when the gaze can be intensified or lessened dependent upon management views of the competency of the teacher. Within this metaphor, teachers produce hyper real performances under the intensity of the searchlight, when the searchlight moves, space for resistance can open. These spaces mean that opportunities for different way of being are masked from the gaze which, as Hall (2024) highlights, is important in preventing unwanted attention through fear of consequence. Rather than overt opposition or refusal, via counter-conduct (Zembylas, 2021), Fuller (2019) identifies covert acts of critical reflection and questioning. Hall (2024) suggests accommodation is a type of resignation while quasi-accommodation can be viewed as selective compliance.

Fuller's (2019) analysis of the responses of head teachers to educational reform, incorporates the research of Bhabha (1984) in colonial India where exaggerated compliance and mimicry are used as methods of appropriating the exertion of power by the 'other' in this case agents of the British Empire. Thomas et al. (2024) also postulate that this approach can be used as a way of analysing resistance in neoliberal schools. Fuller uses Bhabha's 'third space' (as cited in Fuller, 2019, p. 36) as a site where critical negotiation and interpretation takes place.

Carlile (2018) postulates that new narratives are constructed in spaces of resistance. This enables the individual to subvert policy by utilising experience and knowledge of the system, within a social justice perspective. From this either a semblance of compliance as 'quasi accommodation' (Hall, 2024, p.106) occurs via Bhabha's (1984) mimicry or sly civility. Fuller (2019) describes this as actions of game playing and selectivity as taking place under a 'façade of compliance' (p.36). Page's (2018) concept of conspicuous practice represents another method of covert, everyday 'routine resistance' (p.368) in which cooperation masks resistance as a form of reappropriation. In this mode, the teacher appears to cooperate by using a dramaturgical (p.386) version of the self to conceal resistance in practice. Thus, during performance management technologies such as learning walks, a teacher can make a quick change from counter-conduct to normative practice when under the gaze of surveillance. In addition, teachers can self-advertise by sharing good practice and positive impact stories stand them in better stead during the practices and technologies of surveillance.

From Foucault's work on sexuality one practice of self-care, thus transformation, identified is the concept of pleasure. While Foucault cautions against ways in which ordinary (or middle range) pleasures can contribute to the individual continuing to exist in previously constructed ways of being, the combination of these little pleasures can open space for reflexivity and enable self- transformation from a disciplinary constructed subject (Koopman,2013). Central to care of the self is the capacity to determine boundaries and limits, imposed through subjugation, of one's own possibilities as well as rules of conduct so new spaces to think otherwise can be opened. At the same time, these processes provide access to the truth which can be used in new games of truth (Allen, 2013), when 'truth is spoken by free individuals' (Foucault, 1997a, p.297) in games of truth, space for parrhesia is constructed.

Koopman (2013) defines parrhesia as 'enacting freedom through the process of truth telling to illuminate unjust practices that could lead to changed social behaviours' (pp. 536-537), so that parrhesia becomes a practice of freedom. Ball (2017b) refers to four criteria that parrhesia should meet: the speaker is clear in their beliefs; there is a moral aspect as sincerity produces a danger in the truth telling; the act is viewed as a duty rather than forced; and the act is a form of critique. When authentic action of truth telling is spoken to a stronger power, parrhesia can become a resistance to power (Miller, 2006). It is important to understand that

the practice of parrhesia is not about illuminating truths and falsehoods in society. Instead, the act is a conversation (with others or the self) which leads to a transformation in attitudes or behaviours. As a reflexive practice, parrhesia takes the form of care of the self, providing the foundation for self-transformation through the reworking of the self in response to external and internal forces (Koopman, 2013). Koopman discusses Foucault's use of genealogy to demonstrate the development of parrhesia from an act of self-transformation to an act of critique by modern subjects. Critique involves the acknowledgement of the historical formation of the subject and realisation of possibilities for future self-transformation. This involves work done on ourselves, taking place at the limits and boundaries of possible actions and behaviours, so that the self can go beyond these in a practice of freedom. For this to occur the subject must understand and illuminate forces acting on the self in the specific context or condition of being. Through this understanding, better ways of being and behaving can be considered and worked upon to constitute a new self, providing space to both resist and legitimise government of the self and others (Miller, 2006).

Creating a theoretical space: Foucault, Codd and Reflexive Thematic Analysis

Foucault's work represents the first element I used to create a theoretical space for the exploration of my research question. Authors (Koopman, 2013; Ball, 2017b) writing about Foucault, identify the vagueness of his work not as a pitfall but an opportunity for readers to consider their own positioning and interpretations of the context analysed. This may result in differences to Foucault's interpretations arising from his genealogies of power, knowledge and sexuality. Koopman (2013) states that this is not problematic as Foucault's work is there to be elaborated upon. In this dissertation, discourses identified in policy texts of EEE (DfE, 2016a) and the EEF's (2018) ISS will be analysed in combination with the responses from three classroom practitioners from a Foucauldian perspective. My dissertation builds upon previous work identified in chapter one, to consider the context specifically relating to secondary science teachers using power relations, disciplinary power and governmentality. The research will also extend previous work by including pleasure in the analysis, which will be elaborated to consider the 'joy' of, or from, teaching as a type of pleasure within the orientation of self-transformation and care of the self.

The second and third elements I have chosen to create theoretical space are Codd's (1988) approach to deconstructing policy texts and Braun and Clarke's (2021) RTA. While RTA will be discussed in the methods chapter, I will provide an outline in this chapter to illustrate how RTA contributes to the theoretical space exploring power relations and their implications. The theoretical underpinnings of these two approaches will be discussed in relation to Foucauldian perspectives.

Deconstructing texts to analyse key discourses

Olssen (2008) describes Codd's 1988 journal article *The construction and deconstruction of educational policy documents* as his seminal work. He states that Codd developed his ideas from the founding works of Habermas, Bourdieu, and Foucault to produce a working understanding that educational policies 'manifested a discursive coherence of underlying ideologies' (p.467). Codd's approach to analysing educational policies requires understanding and appreciation of these ideologies and their significance for the identified policy.

In his text, Codd (1988) begins with a discussion of policy analysis, identifying the process as multi-disciplinary with the theoretical or methodological approach used being contingent upon the issue of enquiry. This is followed by the definition of policy as a 'course of action (or inaction) relating to the selection of goals, definition of values or allocation of resources' (p.235). In his approach, policies can be viewed as texts that are ideological artifacts constructed from the forces of the historical and political context in which they were produced. The context must be identified as a starting point of analysis as it determines the reading and decoding of the text.

Before setting out the foundations for his approach to policy analysis, Codd (1998) identifies what he sees as a traditional technical- empiricist approach to policy making. In this conceptualisation, the policy researcher provides 'objective' scientific knowledge, through evaluation of possible strategies, to the policy maker. The policy maker then produces statements, which represent the official discourses of the state, that relate educational intentions to the information provided by the policy researcher. These statements are interpreted by the policy recipient and the suggestion is made that if the reader of the policy

interprets a different meaning of the text to that of the policy maker, this is due to misunderstanding or misconception at the level of the policy recipient.

Codd (1998) then identifies two fallacies that weaken the technical-empiricist approach and call for an alternative approach to policy analysis. The first fallacy is related to the assumption that the interpreted meaning of the text is a direct representation of the author's intentions. Codd develops the argument that intentions should not be thought of as an individual's mental conceptions nor as a statement of intention, only the context and features of the text can be interpreted. Since policy documents often have multiple contributors, whose work is not identified, and readers produce their own meanings, a 'plurality of readings' occurs (Codd, 1998, p.239).

The second fallacy is grounded in the linguistic idealism of the technical empiricist approach. This supposition presents a relationship between language used and thoughts of an individual, so that intended meanings are clear or that language is 'a transparent vehicle for experience (Codd, 1998, p. 241). Use of these types of analytical approaches to policy do not consider the social space or conditions in which statements are made, nor that a statement can be conceptually true but empirically false[5]. Instead, Codd suggests that language, as a mechanism and object of power, should be considered through the notion of discourse where 'a discourse is a domain of language-use and therefore a domain of lived experience' (1998, p. 242). Thus, language and discourses of policy texts can construct new social practices and produce new subjects. Codd acknowledges that theories of discourse involve language and ideology, which includes the way in which power relations of domination can be produced and maintained. It is at this point, where Codd's development of a policy analysis approach intersects with Foucauldian conceptions of power.

Utilising Foucault's work on power relations, Codd (1998) highlights the role of discourse production and circulation in the formation of a power relation, as power is exercised through discourses of truth. Codd recognises the productive nature of power by stating the

[5] A conceptually true statement contains language that correctly represents the thoughts of the author and produces an accurate interpretation for the reader. An empirically false statement does not represent the reality of the situation being experienced.

relationship between exercised power through discourses and the construction of the conditions where individuals are constituted as subjects. Elaborating on Foucault's work, Codd considers the impact of discourses and their operation on power relations in modern education contexts. He identifies the different levels where discourses and power relations operate, such as: government policy, for example through academisation programme, Ofsted, national curriculum, assessment and league tables; pedagogical practices, as will be exemplified through the EEF's work; and theoretical discourses about educational phenomena, such as evidence-based practice and cognitive science which will be discussed in this dissertation. Deconstructing educational policy texts provides a structure to problematise text and uncover meanings within. Codd's approach considers the way in which discourses exercise power to provide conditions where individual teachers are constructed as subjects. By analysing EEE, discourses of the state can be identified and compared with those reproduced by key stakeholders, such as ISS and those reported by classroom teachers. Codd's paper (1989) refers to Foucault's work on knowledge, power relations and the role of discourse as an instrument and object of power. Analysing documents using Codd's method provides capacity to identify power relations and forms of power exercised that shape the conduct and behaviour of teachers. The main audience of EEE is unlikely to include classroom teachers, however messages in EEE inform policies that are mobilised by technologies of government that include key stakeholders such as the EEF, Ofsted and Chief Executive Officers (CEOs) of MATs. ISS will represent the manifestation, or not, of these discourses at the audience level of science teacher practitioners. Interviews with classroom teachers will represent the ways Ofsted and CEOs of MATs circulate or adapt the state's discourses and how new discourses are constructed during the enacting of power relations.

Reflexive Thematic analysis

Braun and Clarke (2019) explain the foundations of RTA as a desire to interpret the stories of participants and present generative findings from a position of thoughtfulness and reflection. Unlike other approaches to thematic analysis, RTA is flexible within the qualitative research paradigm and emphasises the role of researchers' reflexivity and active role in interpretation (Byrne, 2022). The position of the researcher as a member and commentator on a social situation is acknowledged, as is the way that this position will affect interpretation of data and patterns. To maintain flexibility together with transparency, researchers must make their

position and epistemological assumptions clear (Braun and Clarke, 2021). Braun and Clarke's RTA addresses concerns relating to previous research which states that themes appear or emerge independently from data. They counter this assertation, stating that research is never neutral and the 'giving of voice' is not a passive activity, since researchers actively select evidence to support arguments and conclusions (Braun and Clarke, 2006).

In addition to acknowledging epistemological assumptions, researchers must make the decision whether to carry out a theoretical deductive thematic analysis driven by the specific research question or to use an 'inductive' approach to produce a rich description. A theoretical deductive thematic analysis would produce detailed accounts of specific themes with the loss of breadth, whilst the inductive approach would provide a richness with the loss of complexity in analysis (Braun and Clarke, 2006). As a constructive method, RTA enables examination of how discourse in society affects experiences and meaning making by searching for repeated patterns in the data collected. RTA can be carried out at a semantic level, where explicit meanings are described, or at a latent level where underlying assumptions that shape the semantic level are analysed. As Byrne (2022), suggests, analyses can combine the use of sematic and latent interpretations.

RTA follows a six-phase procedure (Braun and Clarke, 2006):

- Phase 1: Familiarisation with the data.
- Phase 2: Generating a range of initial codes from the data.
- Phase 3: Using the generated codes to search for repeated themes in the data.
- Phase 4: Reviewing potential themes.
- Phase 5: Refining and naming themes.
- Phase 6: Producing the report.

The flexibility of RTA (Braun and Clark, 2021) enabled a Foucauldian theoretical framework to be applied to themes discussed by interviewees to determine power relations at work, as well as utilising sociological theories to investigate the neoliberal context of English schools. The focus of RTA on the reflexivity of the researcher provides space to interpret latent and semantic meanings of the participants actively and generatively, as an insider with similar experiences as the participants. The process enables a deductive orientation to data within a critical framework and interpretivist paradigm. Reflexivity, as a foundation of parrhesia,

provides a space for my self-transformation during the act of interpreting other teachers' experiences through the lenses of theoretical frameworks and my personal and professional experiences.

Conclusion

This chapter has provided an overview of the sociological and philosophical theories informing the framework used to interpret discourses and power relations influencing science teachers' classroom practice. Apple (2000) and Ritzler (2001) will be used to understand the mechanisms of neoliberalism on educational practice. Foucault's body of work will frame the exercise of power operating on individuals and modes of care of the self, enacted by the interviewed teachers. The chosen analysis approaches of Codd (1988) and RTA will be used in chapters five, six (Codd) and seven (RTA). A Foucauldian analysis will take place in chapter eight aiming to reveal discourses (as a technology of power) in the official documents, and consequences of implementation of these policies in the lived world of classroom teachers.

Chapter 4: Methodology

The previous chapter reviewed the theoretical frameworks which in form this dissertation. This chapter will consider the research question, research paradigm and researcher position that influence approaches to analysing documents and interviews. My application of Codd's (1988) *The construction and deconstruction of educational policy documents* during the document analysis phase will be described, with reflections on the process. The chapter will continue with a discussion of the interview and transcription phases, identifying how the protocols enabled production of authentic outcomes. The chapter will then discuss the use of Reflexive Thematic Analysis to analyse the interview data.

Research question, positionality and paradigm

What are the power relations, exercised through educational discourses supporting the national curriculum, influencing the classroom practice of science teachers working in areas of high socio-economic disadvantage?

The overall research question is explored in the following ways:

- An analysis of DfE's 2016 White Paper *Educational, Excellence, Everywhere*, (EEE) as a representation of the State's position on education in English schools, to identify key discourses.
- An analysis of EEF's 2018 *Improving Secondary Science: Guidance Report*, (ISS) as a representation of discourses produced by a key stakeholder in supporting the production of policy by DfE and influencing teaching and learning policies in schools.
- Interviews with secondary science teachers in schools that serve rural or ex-industrial town/ village communities in the North East of England, to identify main themes influencing their daily practice.
- A Foucauldian analysis of discourses produced from document analysis and seen in science teacher interviews.

This research is placed within a qualitative paradigm, as described by Braun and Clarke (2021) and Willis (2007). This generates a juxtaposition with my scientific educational background in microbiology founded upon positivist methodology and quantitative data collection and analysis. During my time in teaching, through both my PGCE and MA studies, I have come to realise that the scientific approach is not the only way to understand the world around us. In fact, I have begun to question the capacity of positivist approaches to answer pedagogical questions in education. This is particularly pertinent as during my experiences, as a teacher, positivist evidence has been used by SLT to justify whole school teaching and learning policies.

Qualitative research provides scope to tell the stories behind numerical figures and statistics that are presented to teachers. Within the qualitative paradigm, I adopt an interpretivist approach where the nature of reality is understood to be socially constructed (Willis, 2007). The underlying assumption is that while an external reality may exist, this cannot be independently known. Instead, research is subjective, influenced by the researcher's world views and exposure to pre-existing theories (Willis, 2007). Informed by this position, my aim was to produce rich, contextualised understandings (McChesney and Aldridge, 2019) of teachers' experiences in a specific political-temporal-geographical context. My intention is not to make universal claims, rather to interpret the experiences of classroom teachers in high accountability, low trust education systems. I will use this research as an act of parrhesia by interpreting data using my personal experiences in teaching, using these interpretations as technology of the self to process and understand my experiences in teaching. I will use a deductive approach where Foucauldian and sociological theories will be used as a lens to interpret data sets while taking a critical perspective to interrogate meanings of the discourses and themes constructed, as described by Braun and Clarke (2021).

Approach to document analysis

As mentioned in the last chapter, Codd's (1989) paper *The construction and deconstruction of educational policy documents* informed my approach to analysing policy content. Each document was treated as a 'cultural and ideological artifact' (p.243) aiming to determine key discourses in texts and strategies used to mask contradictions or incoherences in underlying ideology. My analysis focuses on two documents: *Education Excellence Everywhere*, a White Paper[6] produced by DfE in 2016, and the EEF's *Improving Secondary Science* (2018).

At the start of the research process for this dissertation, EEE was the most current white paper produced by the DfE. EEE was chosen because, as a white paper, the document sets out the key proposals for policy (UK Parliament, 2021) in the English educational landscape. As seen in chapter two, education in England is tightly controlled by central government through a prescriptive national Curriculum, assessment regimes, and centrally produced benchmarks and statistical analysis tools for assessment data reporting. From my experience in education, school leaders like to be 'ahead of the curve' and begin the implementation of white paper policy recommendations, where they can, before the processes of legislature. Thus, EEE represents a document that is directly interpreted and enacted by educational leaders. In addition, teachers' classroom practice is influenced by complex socio-cultural and political factors, so individual policy releases or legislation is simultaneously influenced by and influences other policies. Thus, EEE as a white paper provides a more comprehensive understanding of the educational landscape informing classroom practice. During the writing of this dissertation an additional white paper was published in March 2022. *Opportunity for all* continued the pledges of EEE while offering solutions to the issues caused in education during the COVID-19 pandemic (DfE, 2022). There was a great deal of political change and upheaval during 2022, so my research continued with Morgan's white paper as the polices proposed in EEE had time to be embedded within the English educational system.

Improving Secondary Science: Guidance report produced by the EEF illustrates one way in which discourses from EEE are mobilised and dispersed through the teaching profession in English Schools. The EEF is a key stakeholder referenced throughout EEE, and represents a

[6] A white paper is a policy document containing proposals that, after consultation and discussion, will form the basis of new legislation (UK Parliament, 2021). This means documents can be read from a perspective of informing and persuading stakeholders and readers.

public-private partnership, part of an ‘exogenous contestability’ (Ball, 2017a, p.135), with the DfE. When I first entered the teaching profession, science-specific documents (as part of National Strategy programmes) were regularly produced by the government and disseminated to teachers through training delivered by local authority education advisors (STEM, n.d.). As an Advanced Skills Teacher, my role included delivering training to teachers related to the strategies in those documents. As part of a decentralisation processes of the governments from 2010, the DfE stopped producing prescriptive pedagogical strategies. ISS represents the first science teaching specific report produced by the EEF and disseminated in a similar way to the National Strategy training of the previous government. Dissemination of ISS was through Research Schools Network of the EEF rather than through local authorities. Before embarking on this dissertation, I was involved in delivering training to support dissemination of ISS across the region, so I have a professional interest in the document. In addition, ISS is built upon claims that evidence-based recommendations of the report will improve the quality of science education, thorough strategies that can be easily implemented at classroom and departmental levels. The training and documentation supporting ISS includes audit tools and implementation frameworks to enable leaders to monitor effectiveness of any changes to teachers’ practice. Thus, I believe ISS represents a manifestation of evidence-based practice within a domain of managerialism linked to accountability through quantifiable outcomes.

During the process of deconstruction, both texts were read initially in their entirety. Following the first reading, the socio-political and historical contexts in which the documents were produced were researched and written up as the first stage of deconstruction. On the second reading of each document, interesting extracts were identified. These extracts were deemed to be of interest based upon my inferences of the text informed by the research question, context of the policy production, and my experience of teaching.

The way in which I annotated the text was determined by document size. EEE is a large digital document of 128 pages presented in pdf format. Due to the size, the next stages of analysis were carried out through OneNote. Text extracts were copied and pasted into separate pages, each representing one chapter of EEE, of the OneNote document. ISS was much smaller, and I already had a printed copy of the document used as part of my

professional practice as a science teacher. Thus, the analysis of ISS began with interesting extracts of the text highlighted by hand, as seen in figure 1.

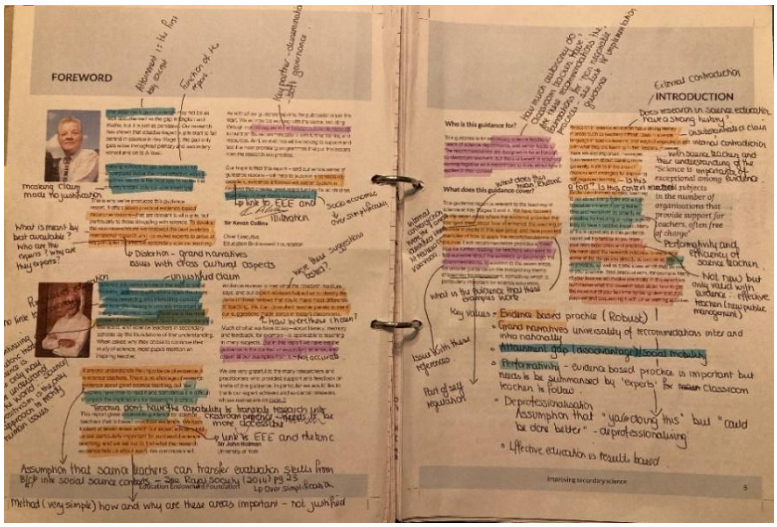

Figure 1: Handwritten annotation of ISS

During the next stage, extracts were returned to and annotated to include inferences and explanations of the text in relation to the wider context of the documents (see Figure 2).

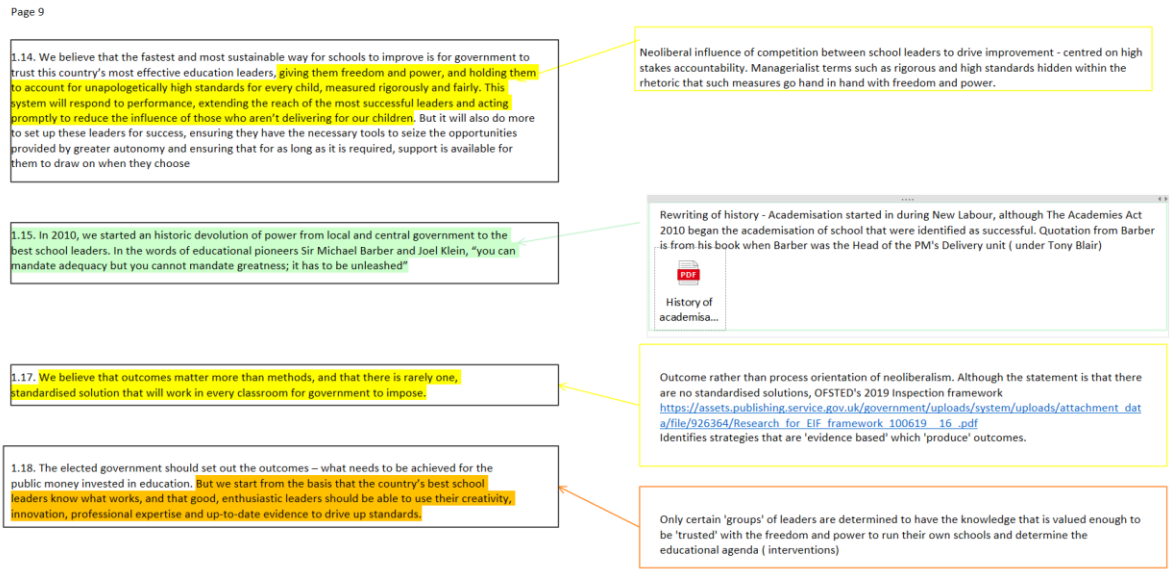

Figure 2: Digital annotation of EEE

I placed text boxes next to the extracts of EEE OneNote and handwritten annotation on ISS. The process of constructing text boxes, colour coding and identifying aspects of extracts using OneNote was more time consuming than the hand annotations on ISS. However, only using extracts from the text rich and lengthy EEE document, made movement through the

data more manageable. The large spaces in the formatting of ISS, not present in EEE, enabled more extensive annotations to remain clear and readable.

Extracts and original texts were interpreted through a lens of critical reflection to determine the key discourses present in the documents and the ways in which these discourses were presented. The presentation of EEE followed the structure of a named introduction, author and summary chapter, followed by a chapter for each policy priority. At first, it appeared that EEE would be straightforward to analyse. However, during this phase it became clear that the chapters had overlapping and repeated content, meaning that threads of discourse moved through multiple chapters, while individual chapters contained multiple threads of discourses. Presentation of information in ISS differed to EEE, even though the structuring of introduction and chapters were similar. During the analysis of the summary diagram of recommendations (p. 8-9) in ISS, links were identified with the EEF's menu of approaches for pupil premium (EEF, 2023a) that mirrors the same terminology in the DfE's *Using pupil premium: guidance for school leaders* (2023). From this perspective ISS's summary diagram could be viewed as a fast-food menu, this analogy reminded me of Ritzler's (2001) concept of McDonaldization used by Roberts (2012) in a discussion of the commodification of outdoor education[7]. Thus, McDonaldization provided a useful theoretical lens to aid interpretation of neoliberal influences on the discourses in ISS. Discourses in EEE and ISS were identified and classified by moving back and forth between possible discourses present in different portions of the text. Any additional extracts illustrating these discourses were identified and added to the One Note for EEE or highlighted on the text of ISS. This process evolved through combining discourses and identifying additional discourses, until a final set of key discourses were obtained.

Once the key discourses were identified, text extracts were analysed for examples of contradictions and incoherence. Examples of contradiction and incoherence in the ideologies of discourses were further analysed to identify strategies used to mask these issues. During this phase, masking strategies identified in EEE were mostly linguistic with some examples of 'cherry-picking' evidence from research reports, identified when checking for consistency

[7] Read as part of my Master studies in Transcultural European Outdoor Studies.

between EEE and referenced reports. Linguistic strategies were identified in the introduction to ISS, throughout the rest of the text contradictions and incoherences were being masked in the way that 'evidence' was referenced. Since evidence is integral to the EEF's work, the analysis focus shifted from linguistic strategies to strategies related to referencing and use of referenced material. This required all referenced material to be read and literature searches to be carried out to check unreferenced claims.

During the stage of investigating how contradictions and incoherences are masked in ISS, each reference identified in the report was read to ensure consistency between researched evidence and evidence presented in the report. When a reference was identified incorrectly, for example by date, the article with the same title as the reference was read. In situations where ISS presented evidence that was a secondary source in the material referenced, references were traced back through textbooks, summary reviews and meta-analyses to the original research paper. When referenced material either did not support evidence presented in ISS or when statements were made that referred to 'research shows' with no references, a literature search was carried out to identify any relevant research to that topic. Relevant research was read to ascertain corroboration between statements made in ISS and findings of research papers.

The final stages of analysis included collating the document's structure and key discourses into a narrative representing the ways in which the discourses flowed through the policy documents both separately and intertwining. When approaching the writing phase, the colour coded highlighting of OneNote for EEE, ameliorated streamlining the complexity and richness of the data. In comparison, the large quantity of background reading combined with subsequent inferences and analysis surrounding the deconstruction of ISS proved to be more challenging to organise into coherent individual discourses. After allocation of extracts, inferences, and analyses to each of the key discourses, a commonality was seen that was woven through all the discourses. This was identified as the overarching discourse of de-professionalisation through the neoliberal illusion of choice. During writing, the names of the key discourses were adapted and refined to retain heterogeneity between the discourses and ensuring concise descriptions of each individual discourse. Extracts and examples from the documents were used to illustrate contradictions and incoherences within discourses,

demonstrating the linguistic and referencing strategies that mask these issues of ideology (see Figure 3).

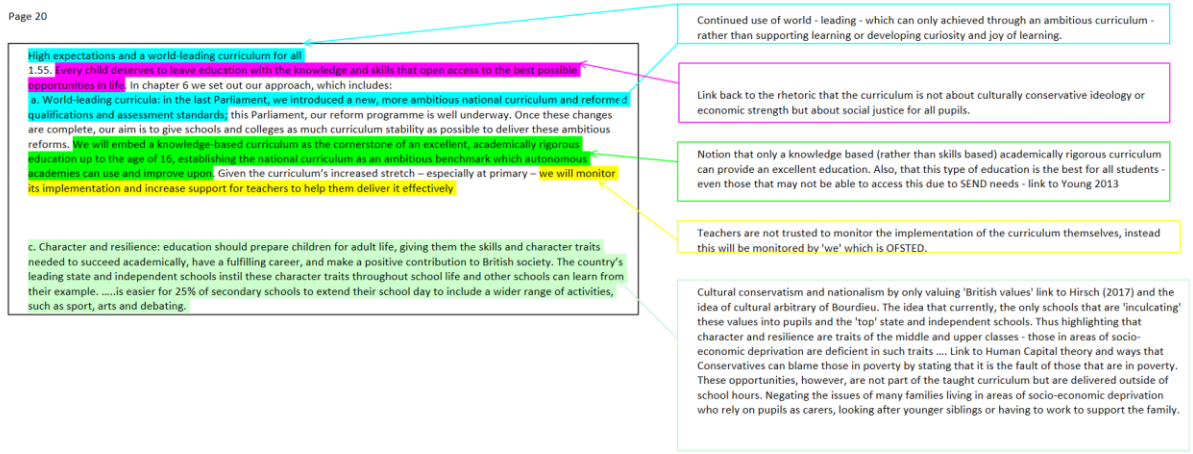

Figure 3: Use of OneNote to represent multiplicity of discourse in sections of EEE

The use of Codd's deconstruction of policy texts provided space to critically reflect upon 'truths' circulated within the English education system. As someone who personally experienced the shifts in the education system, following the changes from Labour to Coalition and Conservative governments, influenced the analysis of EEE. Critical reflection upon the influence of neoliberalism, NPM and cultural conservatism upon the discourses that teachers are subjected to has prompted questioning of these 'truths' at a personal and professional level. Most significantly, the document analysis of EEE has enabled my processing of recent negative experiences of performance management. This produced a realisation that technologies of NPM are not personal but dispassionate methods of control exerted under the belief that these strategies will lead to enhanced attainment outcomes for the institution.

The time required to trace the references for the evidence presented in ISS, was far greater than predicted. As a practitioner who had delivered training to a range of staff on ways to implement the strategies in the recommendations of ISS at school, trust and regional level, I assumed that the evidence referenced would be an accurate representation. While tracking the references and evidence bases for the claims in ISS, it appeared that there were several issues

relating to the presentation of strategies as evidence based ‘truths’ that would improve student attainment. As a guidance report, designed to support time-constrained teachers to engage in evidence-based practice, the claims of robustness of evidence presented do not hold up to scrutiny. Such a realisation provides space to critically question the ‘truth’ of any past, current or future discourses relating to evidence-based practice from the EEF, especially when claims are made of organisational reach of ‘almost two-thirds’ of senior leaders in English schools (DfE, 2016, p.38).

Interview phase

The timings of the interviews were delayed until the disruption of COVID-19 restrictions on schools had settled down. Due to the large geographical area in which potential participants were living and working, online interviews were chosen for several reasons. Online interviews increased flexibility for participants, so that large distances did not need to be travelled, and timings could fit into the routines of the participants. Interviews took place at a time that was convenient for participants and in a safe space of their choosing (Hanna, 2012).

Using Zoom as an interview platform significantly reduced issues relating to ensuring participants’ privacy, as there was no risk of being overheard as there would be if interviews had taken place in the workplace. Interviews on Zoom have the option of turning off the camera or the use of backgrounds to maintain privacy in the home, if required (Deakin and Wakefield, 2014). The lack of a video feed could have exacerbated issues relating to the potentially uncomfortable nature of interviewing that can be eased through the personal contact of face-to-face interviews (Adams-Hutcheson and Longhurst, 2017). However, following lockdown measures of COVID-19 in 2020 and 2021, teachers used online conferencing to hold meetings and deliver lessons, so that online dialogue and interactions have become common occurrences. Currently, educational institutions still use online conferencing solutions for meetings and providing CPD especially in MATs that are working in geographically dispersed areas. Participants were used to this format, however, key issues to be considered included ‘Zoom Fatigue’ (Wiederhold, 2020; Williams, 2021) which was partly mitigated through the interviews being one-to-one, rather than a large meeting, so that there is less opportunity for distraction. Also, the semi-structured nature of the interview,

discussed later in the chapter, meant the interview became more of a conversation. Topics planned for discussion in the interviews were not of a sensitive nature, although a plan was put in place in case of interviewee distress. The interview would be paused, and the participant asked if they would like to stop, continue or change the subject. There were no incidents of this nature during the interviews. Safeguarding procedures were considered in case of the divulgence of a concern, there were no safeguarding concerns raised during the interview.

Security of raw data before redaction and anonymisation was achieved by recording the interviews on the University of Glasgow Zoom client and the Zoom desktop application was used which required a University of Glasgow email and GUID login. The recordings were downloaded immediately and stored on the University of Glasgow Office 365 suite as audio files. This enabled effective control of playback for transcription without issues of storing data on personal laptops or hard drives. Transcriptions of the interview and raw data were worked on and stored online. All automated backups of audio files stored in the User Account were deleted following transcription. During transcription names of the teachers, colleagues, schools, MATs and locations were removed. Names of institutionally specific strategies or policies were removed to prevent identification. During the drafting process of the dissertation, teachers were identified by the letter T and a number representing the order of interview. In the final stages of writing, pseudonyms were used to anonymise participants whilst allowing flow of the narrative. Gender neutral pseudonyms and pronouns were used to protect participants and avoid narrowing the pool of identity of the participants.

To support the process of RTA, the anonymised and redacted transcripts were printed out for hand annotation. These scripts were stored in a secure location throughout the analysis and writing up period. Following completion of the dissertation, the hard copies of the transcripts will be destroyed, and the digital files moved to Enlighten: Research Data storage. The transcripts will be retained and disposed of in line with university protocols after 10 years.

Participant selection

Potential interviewees were identified from a contact list of individuals working in schools in the North East England, in catchment areas of above average socio-economic disadvantage. The current measure used by the DfE to determine socio-economic disadvantage is qualification for free school meals at any point in the last six years, this measure is called pupil premium (DfE,2023). Schools with a percentage of pupil premium students higher than the national average are considered as serving communities with high levels of socio-economic disadvantage. At the time of identifying interviewees, the national average of pupil premium students in schools was 17.3% (DfE, 2020).

During the initial stages of the dissertation, I was involved in delivering training across the region to support the EEF's ISS as part of a local Research School. Schools invited to participate in the programme had above average percentages of students identified as pupil premium, with GCSE attainment in science below governmental benchmarks. Emails were sent out to teachers who participated in the ISS programme relating to the research project and a request to pass the information on to relevant people within their department. From the initial contact, nine teachers expressed an interest in taking part in the research. Due to the time scales of the research three teachers no longer fitted the proposed interview cohort as they were promoted to SLT, so were no longer spending most of their time in the classroom. Three experienced secondary school science teachers were interviewed for the dissertation between December 2022 and February 2023. Each teacher took part in one interview carried out over Zoom during that time frame. The teachers were working in a range of schools covering a large geographical area, two teachers working in ex-industrial towns, one teacher working in a town serving a rural population. Two teachers worked in academies while one teacher worked in an LA school, the schools were Ofsted graded 'Inadequate', 'Requires Improvement' and 'Good'.

Interviews were carried out when schools were returning to face-to -face teaching following COVID-19 school closures. Following school closures, teacher workload increased significantly, initially because of changes in working practices due to COVID-19 restrictions and colleague absences. Workload continued to increase due to pressures to 'bridge gaps' in student knowledge and attempt to ameliorate the impact of school closure on behaviour,

mental health, and motivation so that attainment trends in examinations would continue to improve. This impacted upon the availability of three further teachers, due my knowledge of the demands upon teachers only one follow up request for availability was sent to those teachers. This resulted in three teachers taking part in the interviews.

Due to the time that I have been in teaching, the roles that I have worked in, and the relatively small numbers of science teachers in a geographically large region, the three participants were known to me. So, as Garton and Copland (2010) suggest, this will be considered reflexively during the RTA of the data generated. None of these relationships were, or had been, dependent nor were the participants in current working relationships with me. I did, however, have experience of working in the same MAT as two of the interview participants. This aided the interpretation of interviewee references to specific working practices.

Interviews were carried out with teachers, who were provided with gender neutral pseudonyms to reduce the risk of identification. The background and current working situations of the teachers are summarised are as follows: Alex is a teacher of 20 years working in a large, sponsored academy, in an ex-industrial town, that was taken over by a MAT following an 'Inadequate' Ofsted grading. Alex completed their degree in Biology, followed by a PGCE, then into teaching. Currently Alex teaches science from KS3 to GCSE, although they have experience as a Head of Department in a previous LA school. Sam is a teacher of 25 years, with experience of working in a range of educational institutions, including further education colleges and LA schools. Sam has a degree in Physics and completed their PGCE after their degree. Sam teaches science to KS3 classes and Physics at GCSE and A-Level. Sam has experience in several roles including Head of Physics and Second in science. Sam is working in an ex-industrial town in sponsored academy, founded by the MAT, with a 'Good' Ofsted grading. Jamie is a teacher of 12 years working in a LA [8]secondary school that serves a mostly rural community, the school is working under a 'Requires Improvement' Ofsted grading. This is the only school that Jamie has worked in, starting as a newly qualified teacher and working up to becoming a Head of Science. Jamie studied Chemistry at university and qualified as a teacher through the University delivered

[8] In the final months of writing, this school also became a sponsored academy.

PGCE route, Jamie is interested in completing a science based Master qualification in the future. Currently Jamie teaches science to KS3, Chemistry at GCSE and A Level.

The participants and I have similar professional backgrounds. We have related experiences taking place during the changes in curriculum, assessments, accountability measures and educational policy over time. These shared knowledges and understandings enabled the flow of conversation during the interviews, so that time was spent discussing perspectives and feelings, rather than explaining ideas such as book scrutinies, learning walks, retrieval practice etc. Shared experiences enabled a connection between the participants and myself, so that I was able to respond with both empathy and understanding. Participants were also aware that, just like them, I was part of the 'us' in the 'them and us' distinction with the 'elite cadre' of SLT managers (Hood, 1998). This could explain why participants were particularly open with critical reflections on the occurrences in their daily experiences in their institution.

There are disadvantages of this similarity as in insider researcher. During analysis, I had to consider the possibility of projecting my feelings about the outcomes of situations in my professional experience, this required reflexivity during data interpretation. Even so, there may be instances of unconscious cognitive bias in my interpretations, so my positionality as a researcher needs to be considered when interpreting my findings. The data from these interviews represent an insider's interpretation of the professional experiences shared by peers at a particular juncture in policy implementation.

Interviews took place between December 2022 and February 2023 at a time that was convenient for the teacher, over Zoom. All participants kept their camera on during the interview, which helped build rapport and provided the opportunity to observe non-verbal cues so care could be taken if the interviewee became uncomfortable at any point. Participant information and consent forms were shared digitally before the interview and verbally reviewed at the start of the recorded interview.

Interviews were planned to take place between 30 and 40 minutes, with actual interviews taking between 38 and 43 minutes. Semi-structured interviews were chosen to provide a balance between detail in data collected and the time frame of the interview. The aim was to produce deep understanding to explore the participant's contextual lived experiences, in line with the work of Tierney and Dilley (2001). Hollway and Jefferson (1997) propose a method where open ended questions and follow up questions can elicit rich stories. In response to this, initial questions based upon the research question were developed. Planned follow up questions were written as a prompt to build upon responses that lacked detail. This approach afforded time and space for participants to elaborate their answers and allowed for flexibility to follow up interesting points that were made. Semi structured interviews offer the opportunity to raise new possibilities of meaning (Gill *et al*., 2008), which are important within an interpretivist research paradigm, whilst providing a scaffold to guide participants towards the topics covered in the research question.

Transcription

Zoom recordings of interviews were converted to MP4 audio format that allowed movement through the recording by rewinding and replaying. Times were easily identified to aid returning to the transcription process between different days. Although Zoom has the functionality to produce transcripts of recorded sessions, the software inaccurately recorded the regional accents of the participants and failed to capture sections of interviews where there was distortion on the line. The act of transcription also contributed to the first phase of RTA, where the researcher familiarises themselves with the data. The act of transcription is an immersive process, where each word and grammatical construction of a sentence is reflected upon and considered as part of the sense making process, which supports reflexive interpretation of the data (Lapadat, 2020).

Before transcribing, I listened to in each interview in its entirety, to consider the text as a whole rather than a sum of its parts. Each section was listened to in short clips, typing up three to four words at a time. At the end of each sentence or natural break, the segment was listened to again to check accuracy of the transcription, correcting when needed. After full

transcription, the interviews were listened to a final time while tracking against the transcription, adjusting where needed.

During transcription, hesitations, pauses, fillers and vocalisations were transcribed to provide greater context when interpreting latent meanings. In this section of transcription, changes in the tone and vocalisations such as sighing and laughing provides an insight into the feelings of the teacher that might not be identified when interpreting text alone:

> Although, the theme approach was [starts to chuckle] entertaining [laughing]. So, in that way, I've had those experiences of [pause] you know, just teaching that little bit differently before. Erm [large sigh and change in tone] so I don't have as much free reign there anymore.

Identifying the chuckle and laugh provides clarification that use of 'entertaining' had positive associations rather than the way in which teachers can use words such as 'entertaining' to downplay difficult and challenging situations. By representing the sigh and change of tone in the last sentence, an interpretation of melancholy in the loss of freedom and reflecting on 'better' times can be made rather than a semantic statement of fact that has no emotional impact upon the teacher.

Tilley (2003) explains that there are challenges and decisions that need to be made when 'representing speech as text' (p.758). During the process, words and phrases related to regional dialect were directly transcribed to provide a contextualised voice to the participant, to provide verbatim quotations for the final write up, which Corden and Sainsbury (2006) suggest is important to research participants. This section of transcription shows how the teacher, who over the course of the interview begins to build up a description of themself as a 'charismatic luddite', uses non-academic language, analogies and stories as part of a role of truth teller [9] :

[9] This will be discussed later as an act of parrhesia.

> And yeah, I think me early style, was a style based on the best bits of other teachers. And to go off tangent as I probably will a lot: back in me youth when I used to play guitar, I used to, if you play guitar you sort of nick bits off guitarists from bands you like… and I think teaching style is similar to like learning to play an instrument.

The use of regional terminology and slang was kept, such as 'yeah' instead of 'yes', 'me' instead of 'my', 'nick' instead of 'taken', as these non-standard words do not detract from the insight of these teachers on their profession. Insertion of punctuation proved challenging as participants tended to run sentences together when speaking. Speech patterns of the participants provided cues, such as slight pauses and changes in volume or intonation. Minimal editing took place, to show how participants thought patterns changed while they were speaking. Although this appears to disrupt the flow of the narrative, changing direction mid-sentence demonstrates ways in which thoughts were suddenly appearing to the participants that were important to share.

The open-ended nature of questions provided space for the teachers to recount stories that illustrated their experience. These stories often included recounting conversations with colleagues, as seen below:

> We've had to do these age-related expectations documents of like two or three pages of like comprehensive information of about what you're teaching and what order you're doing it in. Like the children are not going to read them, they are not for the children. "Oh, but they will have an impact because staff'll know what order they're teaching in so they'll know". No, staff look at my long-term planning document and then they'll look on the shared drive to see what's going on. So, the staff aren't going to read them either. "Oh, well the parents will look" and I was like the parents don't understand the national curriculum either.

When listening to the audio, changes in tone, emphasis or voice indicated that the speaker was recounting another's dialogue or imagined dialogue. This was represented in the transcriptions and subsequent quotations as speech marks. The riposte of the teacher was not presented in speech marks as these appear to be reflections following the discussion, rather than actual words said in the discussion. In this extract the filler 'like', which has common usage in the geographical area for the research, was transcribed as the term provided several

functions. In the first sentence ‘like’ is used as a filler, to provide extra thinking time for the teacher to accurately explain a complicated situation that was important to them. The second sentence begins with ‘like’ which has a dual function, first to identify a new sentence and secondly to draw attention to an important point. In the final sentence, the ‘like’ functions to tell the speaker’s audience that the flow of the narrative is switching to the speaker’s internal thoughts that were not spoken during the conversation.

Braun and Clarke’s (2006) phases for thematic analysis, now referred to as RTA, was used to analyse the transcriptions of the interviews to identify key themes. These themes were used to discover the flow of discourses and power relations experienced by teachers and commonalties or differences to the discourses identified in the document analyses of EEE and ISS. RFA is discussed in chapter three, including identification of the phases. This section will follow the work of Byrne (2021) where each stage of the RFA process is described in the way it was used in this research. The headings represent each phase of the RFA process.

Reflexive thematic analysis

Familiarising yourself with your data

Following transcription, transcribed interviews were printed with double spacing between lines to support hand annotation (see Figure 4).

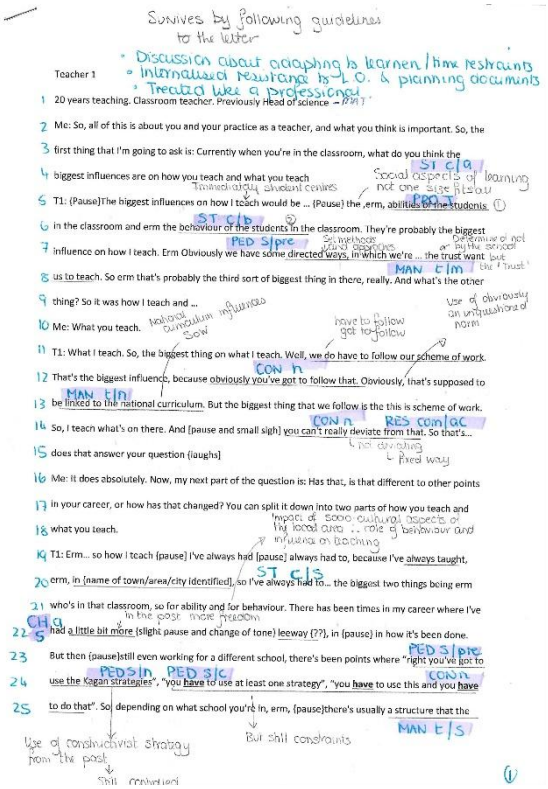

Figure 4: Initial annotation of transcript

The transcription process provided the opportunity for full immersion in the data in audio and digital form. The next stage of familiarisation took place by reading each transcript in its entirety and underlining interesting extracts. Reflexivity took place in this stage through the interpretation of these extracts at semantic level (for example, names of pedagogical strategies in use, performance management techniques, etc.) and latent level (through my knowledge and experiences in secondary science education).

Initial interpretations were written adjacent to the text (see Figure 4 above). At the end of each transcript notes, were made on the final page representing reflections on the text (see Figure 5 below). Following the summary of the first two interviews, further research was carried out on: NPM, resistance, and use of Foucault in an educational context to support theoretical interpretation. The initial two interviews were returned to, for identification of further interesting extracts using an expanded theoretical lens. Transcription of the final interview was completed.

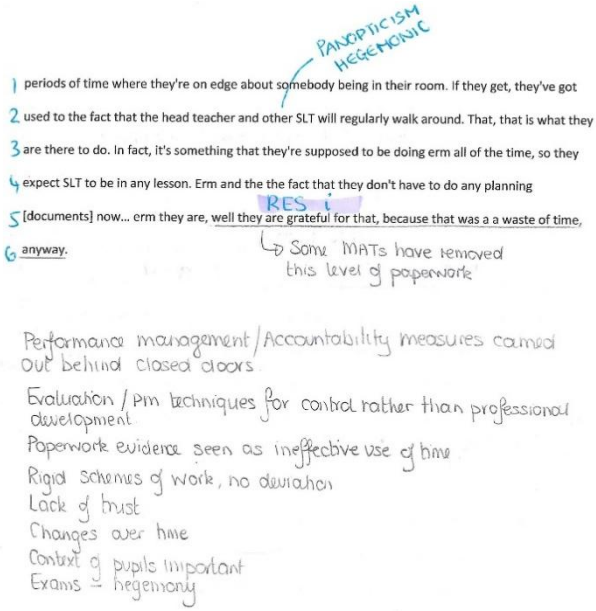

Figure 5: Reflexive summary of interview content

Generating codes

Following the initial identification of extracts in the transcripts, all comments were summarised and collated. Following the collation, each transcript was returned identifying any further extracts and comments. These comments were then grouped and refined into a set of codes (see Figure 6 below). Highlighting was used on the collated comments to ensure that all comments were represented in the initial coding set.

Figure 6: Initial codes used in RTA

The initial set of codes included a main idea and subcodes, to represent detail. Coding included the use of semantic and latent codes. The capital letters represented a main idea, with lower case letters and forward slashes providing the sub ideas. These codes were produced reflexively through initial interpretations of the data through the lenses of personal experience and theoretical knowledge. The codes were then applied to the data set (Figure 7):

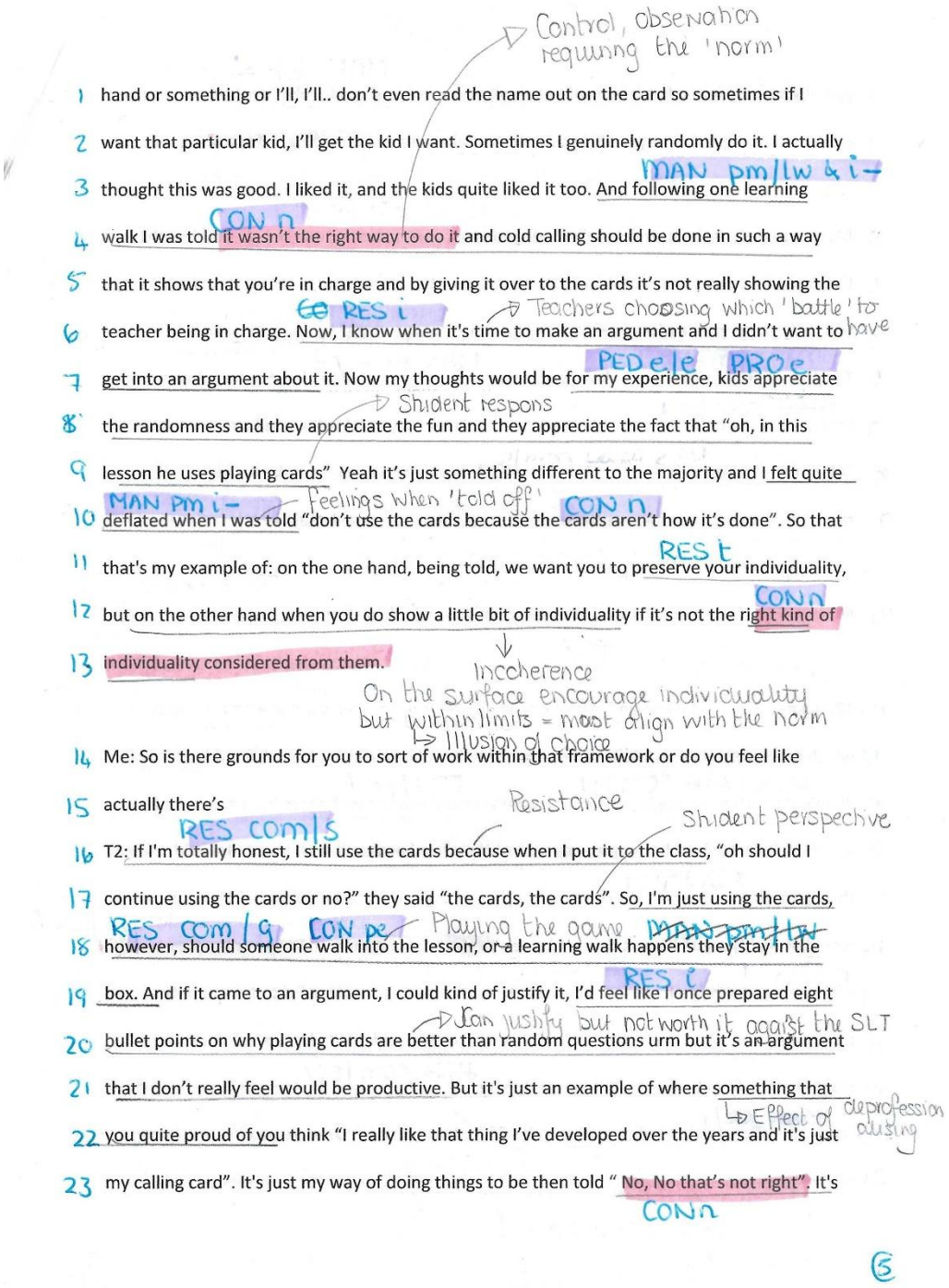

Figure 7: Application of codes to transcriptions

For example: "Following one learning walk" was coded with MAN pm/lw which has latent meaning as a reference to management (MAN) and performance management technologies (pm) and the semantic meaning of an identified practice of learning walk (lw). During the stage of applying codes to the text, some extracts were allocated two different codes.

At this stage initial themes and subthemes were identified and represented in a tabular form as an affinity map:

Purpose of education	**Discourses circulating the norm**	**Changes over time**	**Students**	**Performance management**	**Curriculum**	**Resistance agency**
Employment	CPD	Freedom	Ability	Strategies	Knowledge	Workload
Joy of learning	Briefings	Strategies	Socio-economic status	Control	Appropriate	Internalised
Examinations	EEF/Ofsted	Enthusiasm	Behaviour	Performance	Instructional methods	Control acknowledged
		PM strategies	Engage-ment	Impact	Commodified	Hegemonic /masked
				Supportive		Freedom
				De-professionalism		Agency
						Compliance types

Table 1: Affinity map of initial themes

Searching for themes

The initial thematic map (see Figure 8 below) was constructed by beginning with the initial key themes and organising them in a graphic organiser format. Before allocation of sub themes took place, the texts were returned to and checked for the appropriateness of these themes against the data. This produced extra subthemes and layers of subthemes, which were clustered around each main theme with adaptations taking place as linkages were made. In the affinity map, knowledge was identified as a primary subtheme for curriculum. Following a return to the interview data, before constructing the initial thematic map, knowledge was dropped down a layer to a subtheme of curriculum content. Links on the initial thematic map demonstrated a high level of external homogeneity between themes, as did examples of subthemes appearing at different levels in different themes.

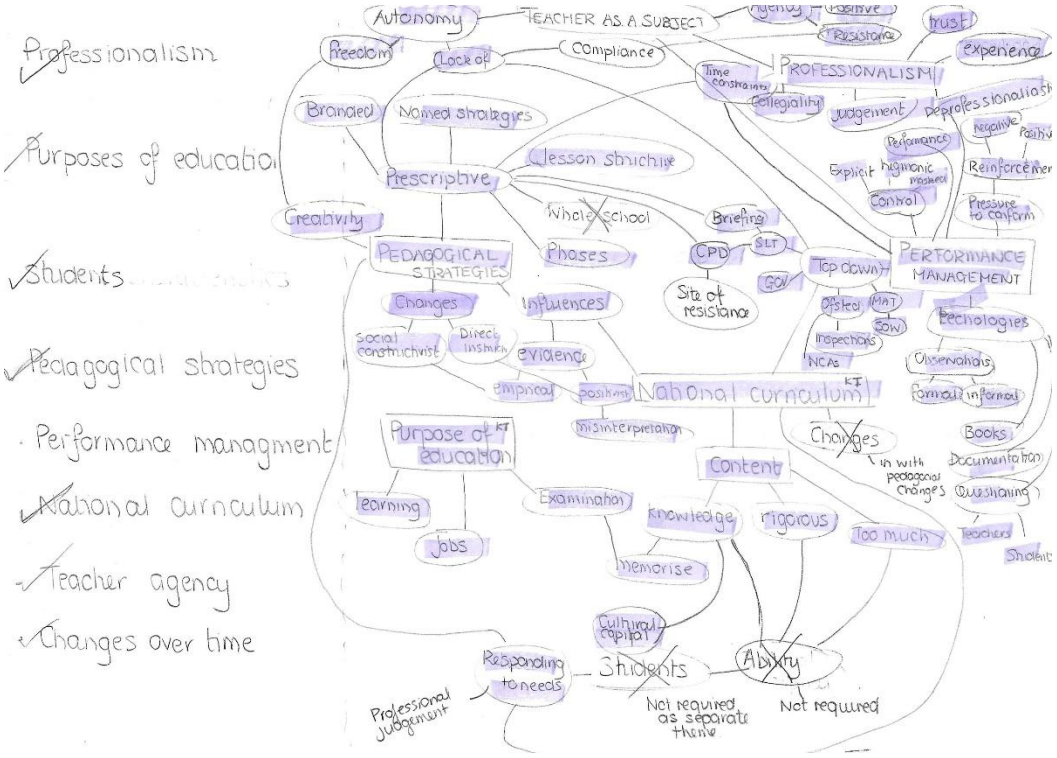

Figure 8: Initial thematic map as a working document

The initial thematic map acted as a working document, tracking changes made while searching for themes. When moving between interview data, codes and the thematic map, inadequate themes were removed such as ‘students’ and the subtheme of ‘changes in curriculum’ was incorporated into ‘changes in pedagogical strategies’. Highlighted categories demonstrated congruence with the interview data and codes.

Reviewing themes

After checking congruence between the initial thematic map, codes and interview data, a review was conducted to ensure that all themes and sub themes were captured by the codes used and that the codes accurately represented the interview data. The sub theme of creativity was identified and allocated a code after reviewing interview two, aspects of which were consequently identified in the data set for interviews one and three. Review of codes and themes took place to reduce the number of stand-alone subthemes by questioning the internal homogeneity. By considering the internal homogeneity of themes and determining if there was enough data to support sub/themes and relevance to the research question, the

number of themes were reduced. For example, 'national curriculum' and 'purposes of education' moved from stand-alone themes to subthemes of 'professional teachers'. This process began to produce improved external heterogeneity between the themes, although some overlap remained.

After production of the second version of the thematic map (Figure 9 below) the data set was returned to, checking the workability of refined themes in producing a meaningful interpretation of individual interviews and interviews as an entire data set. Changes made can be seen in Figure 9 with the allocation of 'creativity' to 'strategies' rather than linked to the theme of 'professional teacher'. In turn 'professional teacher' replaced 'professionalism' theme and combined 'teacher as a subject' subtheme. Use of the work of Ritzler (2001) and Apple (2000) as a theoretical lens during the reflexive process led to the combination of the subthemes 'prescriptive' and 'predictable' to be interpreted as 'technicist teacher'.

Figure 9: Refined thematic map as a working document.

Defining and naming the themes

After second thematic map was too interlinked to support the production of clear, externally heterogeneous themes that had enough internal homogeneity to stand alone. Theoretical knowledge was used to collate latent meanings that had been interpreted based upon reflexivity using a lens of personal experience. This led to condensing and renaming of themes. Each theme was named as a description of the latent meanings: expectations of the technicist teacher; production of the technicist teacher; progressive nature of change; sites of agency. Sub themes and codes were reviewed and allocated to the new themes. During production of the thematic map (Figure 10 below), sub themes were added and removed as the first stages of writing began.

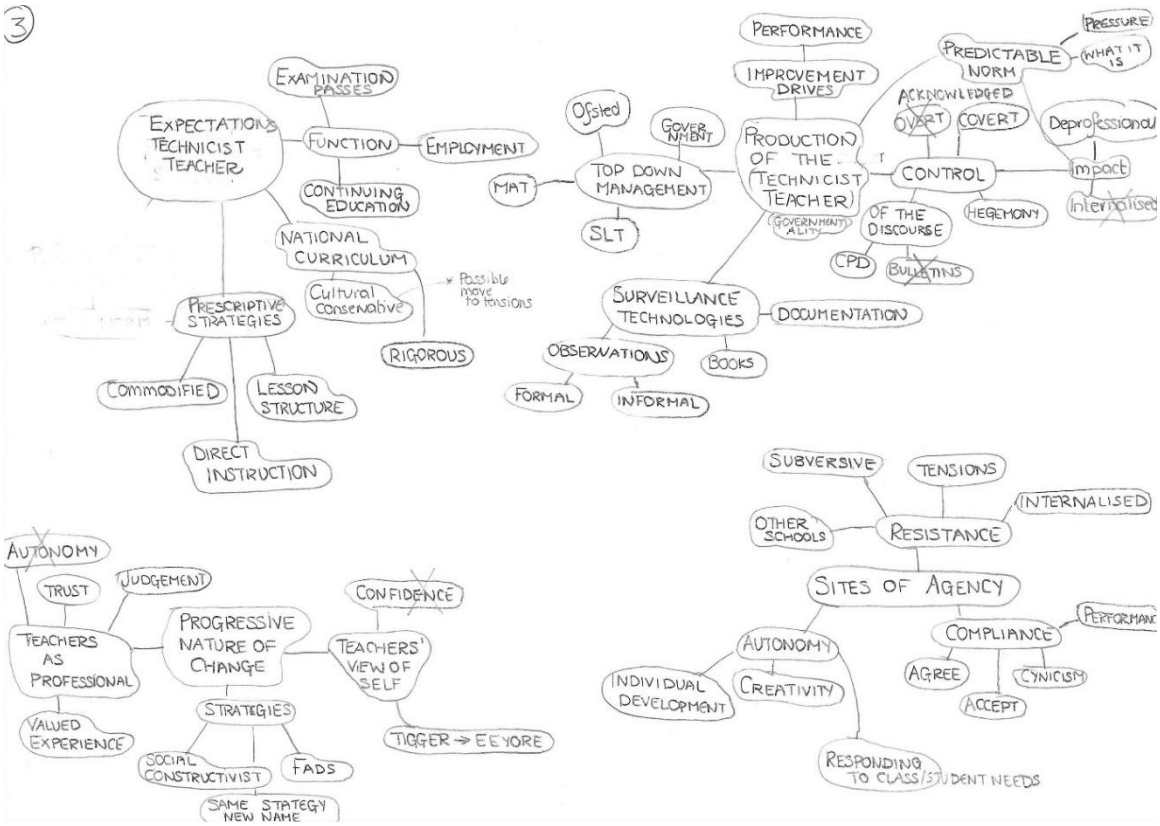

Figure 10: Thematic map used to structure final write up

At this point four separate themes of external heterogeneity had been produced, while still enabling a narrative flow to take place. These themes represent interpretation of data sets

from: neoliberal perspectives in the expectations of the technicist teacher; use of NPM and Foucauldian power relations in production of the technicist teacher; political requirements for constant progress and the changes that occur at the juncture between government changes to produce the theme of progressive nature of change; and Foucauldian concepts of technologies of the self, in the theme of sites of agency. Figure 10 (above) represents the thematic map used to structure the written report. I returned to the annotated transcripts to allocate extracts that would illustrate each theme or subtheme.

Writing the report

During production of the final thematic map, sub themes were added and removed as the first stages of writing began. Each extract was interpreted at either the semantic or latent level. Reflexivity took place as extracts were interpreted using lenses of personal experience, theoretical frameworks, and links to EEE and ISS documents. During re-immersion in the data and acknowledgement of the content of the interpretations being made, the themes were moved and renamed, with a group of sub themes in 'production of the of the technicist teacher' to a theme of 'controlling discourses at the institutional level'. The final stage of the research was to analyse the themes from a Foucauldian perspective in combination with the discourses from the policy analysis. After finding that large sections the extracts were being repeated during the Foucauldian analysis, I returned to the thematic analysis chapter to include light touches of Foucauldian perspectives. During this process I found that some of the extracts were not contributing to the overall analysis of the themes. These extracts were removed and, consequently, subtheme titles were refined. This resulted in a final streamlined thematic map used at the start of the RTA chapter to provide context.

Conclusion

This chapter has provided a detailed account of approaches used to identify discourses in the two documents and themes in teacher interviews. Reflections on the process have been included to show how the strategy described by Codd in his 1988 article, was used and adapted to suit the focus of this research and the presentation of EEE and ISS policy documents. The detail in the section on RTA, demonstrated that themes did not appear from

the text. Instead, reflexivity in interpretation was utilised to construct meaning from the participants contributions, my experiences and theoretical frameworks of sociology and philosophy. The use of an interpretivist orientation enabled rich meaning making that can be seen in the next three chapters.

Chapter 5: Educational Excellence Everywhere

Chapter two outlined the historical and political context of the English education system from introduction of the first national curriculum in 1988. This chapter of my dissertation will critically analyse EEE as a 'cultural and ideological artifact' (Codd, 1988, p. 243) informed by the context in which it was produced. The analysis will consist of a deconstruction of the text, informed by the topics discussed in chapter two. A Foucauldian perspective of power will be used to analyse the findings of this chapter, in chapter eight.

During this chapter, I will first identify and analyse the discourses presented in the foreword of EEE that are expanded through the rest of the policy document. These are: importance of the autonomy-accountability dyad in driving up system standards; decentralised control and illusion of choice in a school led system; valued educational providers and stake holders, leading system wide improvement; evidence-based practice, informing professional teachers bounded by outcomes and simplified pedagogical models; knowledge based national curriculum to improve international standings and ameliorate social mobility. I will then analyse these discourses using evidence from the text, during which the use of linguistic strategies, omissions, distortions, and contradictions between internal and external sources will be examined. The analysis will show hidden agendas and complexities behind simple statements presented as axioms, while demonstrating the policy proposals of the text are interlinked through a philosophy of cultural conservatism situated in a political context of neoliberalism that has been implemented by successive governments over the last 40 years.

Structure of the document and claims to evidence.

As a document designed to inform, there is a clear and logical structure throughout. Following the introduction written by the Secretary of State for education at the time, Nicky Morgan, the chapters are set out as numbered paragraphs, each related to a specific proposal, vision or justification.

The first chapter provides an overview of the central arguments and evidence for the proposals, summarising the contents of the proceeding chapters. Each chapter focuses on a particular aspect of the vision of the DfE's approach towards education and, although not explicitly acknowledged, key values of the Conservative government's ideology towards

‘Britishness', the purpose of education, global competitiveness and neoliberalism. These values thread through each chapter producing an underpinning narrative. The chapters deal with improving the quality of teaching; recruitment and retention of staff; improving leadership of schools; expansion of the academisation programme; using decentralised governance to improve system performance; importance of a world leading, knowledge-based curriculum; development of more rigorous accountability systems; and the final chapter which considers effective allocation of funding. Chapter summaries are presented in boxed text at the start of each chapter, so readers can be directed to their area of interest rather than, or as well as, reading the document in entirety. Case studies of successful practices informing the proposals are used, identifying valued stakeholders in the system. These case studies are highlighted by boxed text within each chapter to draw the reader’s attention.

The document uses a range of evidence to support proposals and persuade readers of the validity of arguments. Statistical data from national and international examinations and reporting from English schools are used to criticise the previous Labour government’s performance in education and highlight the progress made by the current government since 2010. Infographic maps presenting data on school quality, leadership and capacity for change distributions are used to represent issues in the system and ‘prove’ that improvement is possible. During the presentation of arguments for change, the work of named authors is referred to frequently and supported with internal referencing of academic reports and research. However, data and findings from research are mis-summarised to support the recommendations and arguments put forward. For example, ‘We know that when teachers have extensive ITT in schools they perform better’ (p.29) this is attributed to research studies that state ‘There is no magical ‘policy mix’ that can be applied in each and every situation’ (Musset, 2009, p. 3).

Key terminology is presented as alliterated phrases thread through the document to elaborate the proposed policies: ‘autonomy is not apathy’ (p.11), ‘autonomy and accountability align’ (p.54) and ‘school-led systems’ (p.21). In addition, repeated undefined terminology is used, such as ‘ambitious’ (p.4), ‘chronic underperformance’ (p.8), ‘unapologetic high standards’ (p.9), ‘outcomes matter more than methods’ (p.9), robust, rigorous, ‘world-leading’ (p.20),’evidence-based practice’ (p.25), ‘advanced subject knowledge’ (p.28), ‘high quality’

(p.37) and the ubiquitous ‘knowledge-based curriculum’ (p. 20). The content of proposed policies is not critically analysed or evaluated, instead they are presented as unquestioned truths or common sense. This produces a document that presents ideas in a simplified manner both in formatting and content.

As a white paper, the document’s purpose is to inform readers about proposed policy choices due to be implemented over a term of government. Therefore, the policy document must persuade readers of the validity and integrity of the ideological foundations informing the recommendations. To do this the paper uses references to ‘experts’ in the field, findings from research projects and reports, as well as a range of linguistic strategies such as using the pronoun ‘we’ are extensively used. Using ‘we’ promotes the notion that the DfE is working together with ‘successful’ teachers and the whole profession in pursuit of ‘Educational excellence, everywhere’.

The authors of the report are not named, unlike valued stakeholders and the Secretary of State Nicky Morgan. The identification of named stakeholders whose voices are valued plays a two-fold role. On the one hand, these named ‘experts’ appear to give validity and authority to the messages and proposals of EEE. Simultaneously, the status of these stakeholders is increased whilst ‘othering’ those with alternative perspectives. There is no discussion of why these stakeholders are held in such high esteem and further investigation raises some issues. The EEF is a branch of the social mobility charity The Sutton Trust funded by grants from the Department of Education (EEF, 2022) representing a public–private partnership as described by Ball (2017a). Ben Goldacre, a medical doctor with no experience in the education sector who was commissioned by the DfE to write a report on evidence-based practice and Tom Bennet, a consultant and blogger, who taught for 13 years and was appointed as the DofE’s behaviour Tsar, are referenced.

On page 33 ‘giving greater decision-making power to those who know best’ masks the reality that power through decentralisation means that ‘those who know best’ are those valued by the DfE. Linguistic devices are used to mask the imposition of decentralisation as a method of control, instead presenting governance through Teaching Hubs, EEF and MATs as a supportive measure. For example, ‘schools find it difficult’ and ‘teachers struggle to find good local CPD’ (p.35).

In a context of questioning the effectiveness of teachers, overemphasis provides the illusion that teachers are valued, and teaching is a valuable profession through statements such as '[teaching] offers rewards and challenges like no other profession' (p.25) and 'Pupils in schools across England already benefit from the hundreds of thousands of dedicated teachers who work hard every day to give their pupils the best possible start in life' (p.25). Hyperbole is also deployed in support of teachers, for example: 'Thanks to the hard work of thousands of teachers, headteachers and governors, huge progress was made, and schools today are better than ever before' (p.3). This is claim enables Morgan to develop and hone, rather than radically change, the approach to educational reform that was started by Gove.

Initial presentation of key discourses in the document

The central discourses of the text can be identified in Nicky Morgan's foreword. In my dissertation, discourses will be identified as technologies that circulate, producing power relations and truths, that inform actions and behaviours (Codd, 1988) of individuals and populations. The identified discourses are an interpretation of the ideological values informing the production of the policy.

Morgan replaced Michael Gove as Secretary of State for education in 2014 (UK Parliament, 2024). At the time, Morgan expressed her support and praise for Gove's previous ideas and achievements as stated below:

> Over the course of the last Parliament, we put in place bold reforms to drive up standards in schools. We tackled grade inflation and restored the integrity of our qualifications, introduced a new, more ambitious national curriculum. (p.3)

Unlike Gove, Morgan expressed a wish to work with teachers, rather than against them (Watt, 2014). During Morgan's tenure the national curriculum content remained unchanged,

although following the 'Trojan horse' scandal in Birmingham [10] a renewed emphasis on explicit teaching of 'Fundamental British Values' (Ofsted, 2014) and character education as a supplement to the national curriculum was proposed (Policy exchange, 2017).

Explicitly divisive language in Morgan's foreword is avoided, instead emotive language is deployed. Procatalepsis can be seen by the pre-empting of alternative arguments, often by phrasing statements so that it appears unethical or immoral to disagree with the assertations, particularly when co-opting social justice arguments. In this quotation, Morgan positions herself as a concerned parent rather than a politician to support her arguments and provide credibility through her experiences of the education system:

> Children only get one chance at education and every child deserves the opportunity to reach their full potential. As a parent, I know only too well that childhood is short, and when it comes to a child's education, there's no time to waste. Access to a great education is not a luxury but a right for everyone. (p.4)

Morgan states that 'huge progress was made [since 2010], and schools today are better than ever before.' (p.3) while urging the need to continue reform as 'there still remain too many pockets of educational underperformance' (p. 3). She attributes the blame for poor educational outcomes in certain areas of the country to inadequate teaching and leadership. At this juncture, neoliberal values and managerialist principles are mobilised using the repeated term 'supported autonomy' (p.4) defined as '[…] control, responsibility and accountability in one place […]' where 'autonomy will be both earned and lost with our most successful leaders extending their influence, and weaker ones doing the opposite' (p.4). The discourse of the autonomy-accountability dyad is set up in this statement, where autonomy and accountability are inextricably linked. The use of earning and losing, constructs a climate of rewarding success and punishing failure 'drive up standards' (p.3) reminiscent of aspects of NPM (Hall and Gunter, 2016).

[10] For further information see Shackle, S. (2107) Trojan horse: the real story behind the fake 'Islamic plot' to take over schools, *The Guardian* [Online] 1st September, Available at: https://www.theguardian.com/world/2017/sep/01/trojan-horse-the-real-story-behind-the-fake-islamic-plot-to-take-over-schools (Last accessed 29/12/21)

Continuing the need for system wide improvement and methods to achieve this, Morgan extends her argument: 'In particular, we will place a sharp new focus on areas of the country where standards are unacceptably low and where chronic underperformance is compounded by a lack of capacity' (p.5). Her proposed solution is to 'move to a system where every school is an academy' (p.5). This sets up the discourse relating to the use of valued, and previously successful, education providers to lead system improvement, furthering the academisation agenda first implemented under Labour and rapidly expanded by Michael Gove (Male, 2022).

Social justice is used to justify policy proposals, as a plea from Morgan, seen in the foreword's first paragraph:

> Education has the power to transform lives and, for me, is a matter of social justice – extending opportunity to every child, wherever they live and whatever their background. Good schools and a well-educated population make our country stronger, fairer, wealthier and more secure, and higher standards in the classroom mean better life chances for everyone. Investing in our education system is an investment in the future of our nation (p.4)

Yandell's (2017) accusation that Conservatives have superficially appropriated the language of social justice used by Labour in the past can be seen in the quotation. Social justice as the need to tackle a lack of fairness, is seen when Morgan responds to the perception that there are geographical areas where underachievement persists as 'deeply unfair' (p.3), and that all young people must succeed regardless of background. The first sentence of the quotation represents a neoliberal value that education, rather than socio-economic and political factors, affect life chances. This unqualified statement negates the body of work from research such as Blandon and MacMillan (2016) who identified that there has not been an improvement in social mobility, despite a reduction in educational inequality. Reay (2006) identifies the 'hegemonic fallacy that school improvement and effectiveness leads to a reduction in the attainment gap' (p.291). Mogan's statement enables government to place the blame for educational underachievement with individual schools and teachers, rather than due to structural inequality in society, as discussed by Bourdieu and Passeron (1990). This

demonstrates the interplay between 'evidence' and ideology, so that evidence is mobilised when supporting ideology but is omitted when it does not match.

The argument in the foreword aligns Morgan's proposals to notions of national competitiveness in global markets, which can be understood through the lens of human capital theory (Coffield, 1999) as the outcome of effective education. Morgan builds upon New Labour's commitment to investment in 'human capital' as part of a social justice approach, through high standards and equality of opportunity to produce a high wage, high skilled and efficient economy (Brown and Lauder, 1996). By identifying education as an investment, the idea follows that returns are expected, such as qualified and productive workers. This foregrounds EEE's value of accountability measures, examination league tables and Ofsted inspections and contributes to discourses of autonomy-accountability dyad and performative professionals bounded by outcomes.

Ideas of global competitiveness are explicit in 'our education standards have remained static, at best, whilst other countries have moved ahead' (p.3). The 'well -educated population' will be taught a 'more ambitious national curriculum' (p.3) with 'high expectations for every child' (p.3). Thus, implicitly referring to traditional pedagogical approaches and a knowledge-based curriculum. This presents a discourse of knowledge-based curriculum for social mobility and world class education.

The foreword continues by setting up the achievements of the Conservatives by comparison to the preceding Labour government:

> In 2010, we inherited an education system where 1 in 3 young people left primary school unable to read, write and add up properly; where the number of young people studying core academic subjects had halved in 13 years. Far too many schools were failing, and far too many children were left out or left behind (p.3).

Morgan misrepresents the data to suit her purpose, particularly ‘1 in 3 young people leaving primary school’. Morgan repeated this statistic in the House of Commons and was criticised by the UK Statistics Authority who identified that 91% of young people were leaving primary school able to read and write. A suggestion was made that Morgan should correct the parliamentary record to reflect this misleading statistic (BBC, 2014).

Blame for educational underperformance is placed upon schools serving the poorest communities. This sets up the argument for the rest of the paper about the role of autonomy and accountability, as well as the importance of valued education providers in system wide improvement. Only the best schools will have autonomy, while accountability will be used to remove and replace teachers and leaders who have chosen to work in areas that are described as ‘challenging’ (p.12). As part of the 'supported autonomy’ (p.4) belief, Morgan illustrates rewards as ‘where great schools, great leaders and great teachers exist, we will let them do what they do best – helping every child to achieve their full potential’ (p.3). The illusion of choice for pedagogical decisions taken by schools and teachers is set up with apparent autonomy, which is lost by perceived failure ‘where they [schools and teachers] do not [provide educational excellence], we will step in’ (p.3). In addition, the latent meaning in ‘integrity of our qualifications, introduced a new, more ambitious national curriculum’ (p.3) produces limitations to teacher and school decisions on content taught in lessons, as examined content and the national curriculum must be adhered to. This produces a discourse of the illusion of decentralised control and choice in school led systems.

Rhetoric of perceived educational failure is used to propose approaches that appear to show that change can be affected. Seemingly innocuous statements such as ‘No school and no education system can be better than its teachers’ (p.25) are double edged suggesting implicitly that ineffective teachers produce ineffective education systems. This statement relieves the DfE of responsibility for quality of education by suggesting that this lies in the hands of teachers, while ‘educational failure’ is due to the quality of teaching rather than contextual issues of the wider community. This distancing is also present in statements suggesting education is the driver of social mobility which distances the government from complex socio-economic issues.

The final discourse is fleetingly referred to in the foreword but is expanded later. The key indicator for the discourse of a performative education system of technicist teachers is the phrase ‘we will focus on outcomes’ (p.3). These are the outcomes that determine the value of a teacher or school, categorised as ‘great’ (p.3), ‘successful’ (p.4) or ‘weaker’ (p.4) and influence the capacity of that individual or institution to have autonomy.

Discussion of the key discourses as they appear in the document

The following key discourses that can be traced through the rest of the document are:

- The autonomy-accountability dyad discourse, that integrates managerialism and driving up standards in education.
- The discourse of returning control to teachers and illusion of professional choice.
- A discourse of valued educational providers and stake holders, leading system wide improvement, which includes the expansion of the networks of MATs.
- A discourse of evidence-based practice, informing professional teachers bounded by outcomes and simplified pedagogical models.
- Knowledge based curriculum discourse, to improve international standings and ameliorate social mobility.

The next section will focus on an analysis of the key discourses, using evidence from chapters one to eight of EEE and referenced external sources. These discourses cannot be considered independently, as threads of social justice, validity of grand narratives and neoliberalism run through each of the discourses, which in turn overlap and intertwine throughout the policy document. Aspects of each discourse can be identified through the chapters of the policy using repeated terminology and phrases, which illuminate values hiding in plain sight within the policy text.

Key discourse 1: The autonomy-accountability dyad

> ‘We believe in supported autonomy: aligning funding, control, responsibility and accountability in one place’ (p.4)

From the start, Morgan explicitly states how she, and the DfE, have conceptualised neoliberal principles and managerialism within the educational system. Unlike other phrases such as 'rigorous' and 'excellent,' supported autonomy is clearly defined in the document. This represents the shift in autonomy as described by Perryman et al. (2011) from relative autonomy in the 1960s-1980s to controlled autonomy of low trust regimes following introduction of ERA in 1988. Through the rest of the text the adjective 'supported' is dropped but whenever autonomy is mentioned, accountability is close by. This sets up a perceived duality between autonomy and accountability, one cannot exist without the other. EEE extols the virtues of autonomy, which can be removed as easily as it has been given through high-stakes accountability measures of external examinations with 'unapologetically high standards for every child, measured rigorously and fairly' (p.9). The use of 'unapologetically' and 'fairly' within the statements negates potential arguments about the impact of high-stakes accountability on teachers, reframing such arguments as teachers having low expectations or not willing to take responsibility for their professional practice.

Supported autonomy is contingent on stretching accountability measures representing NPM's emphasis upon outputs and performance (Clarke, Gewirtz, and McLaughlin, 2000) and contributing to a central idea of neoliberalism, competition. Ball (2017a) describes how 'endogenous privatisation' increases competition (p.133-134) between schools by publishing league tables is believed to lead to improved standards in education. Implicit in the statement 'allowing the best schools and leaders to extend their influence, taking over from weaker ones' (p.10) is an undertone of destabilisation (Ball, 2017a, p.69) which is present throughout EEE. Whitfield (2001) describes the use of destabilising rhetoric to drive political change through generalising failures, disregarding previous successes and overlooking the social and economic causes of issues.

Under the guise of supported autonomy other 'freedoms' (p.7) appear to be given but heavily caveated. For example, 'the teaching profession is no longer forced to conform to an orthodoxy on teaching methods through national strategies' or an 'Ofsted preferred teaching style' (p. 25) yet there is an expectation for teachers to use 'evidence-based practice' (p.28) or

the ‘new generation of teaching materials, textbooks and resources[11]’ (p.90). Rather than the clear top-down imposition of pedagogy, seen in New Labour’s national strategies, EEE provides the illusion of autonomy and choice, by placing evidence-based practice within continuing professional development to empower teachers. The argument for use of standardised teaching materials is that of reducing workload, rather than the hidden consequence of de-professionalising and deskilling teachers.

Rhetoric is used to bolster the claim that the government has significantly improved standards whilst in power, although ‘areas remain[ing] where schools are underperforming ‘(p.73). This is identified as an issue of social justice which can be improved by spreading ‘the excellence in many parts of the country to all’ (p.73). Implicit within this statement is the link between ‘underachieving’ schools and areas of the country that have high unemployment rates and associated socio-economic disadvantage. Social justice is appropriated so that equality of opportunity is prioritised rather than equity. The attainment gap between disadvantaged and non- disadvantaged pupils is omitted in any discussion relating to schools deemed to be successful by the Conservative government. Instead ‘struggling’ (p.80), ‘underachieving’ (p.99) or ‘challenging’ (p.108) schools identified by Ofsted judgements and low examination attainment data are implied to be due to low quality teachers and leaders. The impact of parental attitudes to education and the juxtaposition of values of the school against the value system of the local community are omitted. Young cautions over emphasis upon education policy as a panacea for societal inequalities ‘Social inequality reduction is a political task of establishing a more equal society, not an educational task’ (2013, p.114) arguing that distribution of public resources has the greater impact on educational opportunities. However, such propositions are neglected in EEE, instead focus is upon ‘improving standards’ as the method of achieving social justice.

‘Rigorous measured outcomes’ (p.9) are related to use of external examination attainment date. Since 2016, P8, which is determined from GCSE examinations taken at the end of formal education age 16, has been the main accountability measure for schools. P8 measures are a zero-sum measurement (Gorad, 2010), where a score of 0 represents the progress of the

[11] Materials produced by valued stakeholders such as the EEF and high performing MATs

average student (Leckie and Goldstein, 2017). Failure is built into the system, which is not acknowledged in EEE, nor is the disproportionate number of failing schools with negative P8 scores that are in areas of high socio-economic disadvantage. This oversimplification, which is also apparent in Branch et al. (2013), means that despite the well-publicised attainment gap between disadvantaged and non-disadvantaged pupils (EPI, 2023), the government continues to rely upon the relationship between quality of education and quality of leadership whilst negating any socio-economic factors beyond the influence of the school (Herbert and Thomas, 1998; Power and Frandji, 2010). Therefore, in the zero-sum game of P8, schools serving areas of socio-economic disadvantage will be penalised demonstrating the Conservative drive for equality rather than equity.

For areas of education that cannot be quantitively measured through examinations, Ofsted inspections are advocated as the arbitrator of standards. The recommendations propose the inspection framework be developed to improve 'reliability and consistency of inspections' (p.107) and judgement: which elicits an alignment with positivist values. Reliability and consistency become problematic from a positivist perspective when judgements are made by different individuals, as bias and subjectivity cannot be completely removed or accounted for. The use of a 'majority' (p.107) of serving senior leaders from 'effective' (p.107) schools, shifts the balance in school inspections towards the opinions and viewpoints of those that are valued. This stratifies the difference in preparation of schools for Ofsted inspections: schools that are sponsored academies in MATs have access to serving inspectors who can support and advise through knowledge of the rules of the game through CPD and mock inspections providing an unfair advantage in a system where there is an emphasis on levelling the playing field.

More detail of what accountability in the school system looks like is given in chapter seven, where neoliberal quasi market mechanisms are utilised to empower parents in the process of school choice. However, this excludes those parents without resources to access and understand data that is shared through the 'parent portal' (p.17). Well-resourced parents can place their children into the best schools with positive Ofsted judgements and examination results. Thus, exacerbating social inequality as children whose parents are not able to make informed decisions are placed in 'failing schools' that are at the risk of external interventions

and forced academisation. The aim of such measures is to ameliorate perceived 'chronic failure' (p.105) in some geographical areas and 'incentivise activity that drives up standards' (p.105) combining emotive language and neoliberal ideology to negate arguments against such approaches.

Relentless pursuit of 'high standards' (p.9) and the language of competition in neoliberal improvement has similarities with the red queen hypothesis of evolution as proposed by Van Valin (1973). As no matter how much improvement is seen to be taking place there is no actual change in the system because accountability measures such as P8, mean that there will always be schools that are above average and below average. Rhetoric is used to ensure that there is no room for schools that are 'failing' (p.16) by not meeting arbitrary expectations, known as floor standards, or are 'coasting' (p.16) whereby they are meeting but not exceeding expectations. The drive for improvement has led to renaming Ofsted's grading category of satisfactory to requires improvement (p. 107) where the change in terminology reflects a change in expectations. Conservative rhetoric is that expectations should be high and those that do not reach the required standards will be subject to the removal of autonomy and '[targeted] support on the areas with the most serious problems' (p.86). Gove (2012) previously stated the majority of schools below floor standards are in areas of disadvantage. This implicitly demonstrates an omission from rhetoric about autonomy: autonomy is preserved for those valued or strong sponsors. Failure to meet accountability measures means removal of freedom in practice, this is more likely to take place in schools serving communities with high levels of socio-economic disadvantage.

In chapter eight the statement 'Investing every penny where it can do the 'most good' (p.114) on the surface appears to have a social justice grounding - that good can be done by funding those in society that are most disadvantaged. Pupil premium uplifts in funding are applied to every disadvantaged student in the system which reflects a social equity approach. However, this is qualified from the accountability perspective as 'schools should be able to demonstrate its [pupil premium] impact in a clear and robust way' (p. 114). The 'every penny' phrase demonstrates an implication that accountability systems will be rigorous so that there are no perceived wastes in the system. This can be seen as symptomatic of cost cutting and efficiency in NPM, as described by Clarke et al. (2000). Pupil premium funding is designed

to produce a ‘level playing field to drive up standards for all children’ (p. 115). The funding is perceived to remove barriers to education for disadvantaged young people. There is disparity in the claims made in EEE that the attainment gap is narrowing since the introduction of pupil premium, as the EPI states ‘If the rate of change over the past decade were to continue then it would take over 50 years to get to a point at which the gap did not grow during a child’s time in school’ (2017, p.10). More recent data shows that since the introduction of the ' academically rigorous '(DfE, 2016a, p.20) national curriculum and 9 to 1 GCSEs, the attainment gap has been increasing since 2017 (EPI, 2023).

Key discourse 2: Returning control to teachers and illusion of professional choice

Chapter seven sets out proposals to ensure all schools have ‘freedom to raise standards’ (p.104), where supported autonomy is made explicit ‘a more autonomous school-led system depends even more on an effective accountability system’ (p.104). In keeping with evidence-based outcomes, ‘high quality international evidence’ (p.105) from the Organisation for Economic Co-operation and Development (OECD) is used to support the argument. The OECD (2011) report identifies a correlation between accountability, autonomy, and student achievement rather than a causality. The report shows countries that are higher than UK in PISA assessment data such as Chinese territories, Singapore, Finland, and Estonia do not have higher autonomy or accountability. Accountability is defined, in the OECD report, as the publishment of achievement data in the public domain, 1% of schools in China (Shanghai) publish attainment data compared to 80% of schools in the UK[12] while autonomy of schools in China (Shanghai) is far less. If accountability is pivotal in raising standards, then the UK should be looking to the practices of USA (89%), Azerbaijan (86%) and Kazakhstan (83%), yet none of these countries are identified in EEE.

Workload is a key issue for the teaching profession, this is underplayed by EEE but used to support implementation of standardised resources under the guise of reducing time needed for teachers to plan lessons and achieve ‘efficiency’ (p. 36). This hides the agenda of de-professionalisation, whereby teaching becomes performative and the teacher a technician delivering rather than planning and resourcing lessons. This lies contrary to the proposed

[12] As the OECD refers to the UK as a whole, it is not possible to segregate the data for England only from this particular measure.

elevation of teaching in English schools to a ‘high status, world leading teaching profession’ (p.37). Where ‘world leading’ fits into an agenda of nationalistic exceptionalism and legacies of competitive rather than collaborative globalisation (Tröhler, 2022).

The rhetoric of supported autonomy continues in the statement ‘We believe that it is best for teachers and leaders to decide which methods they should use to teach’ (p.38). However, relating to the neoliberal illusion of choice, the next sentence clarifies that decisions are to be informed by ‘the best evidence from the UK and abroad about what really works’ (p.38). These statements raise issues with underlying assumptions on which they are based. Schools operate using teaching and learning policies that in some cases, include ‘non-negotiables’ which must be present in lessons. These can take the form of standardised lesson plans, specified lesson formats, required verbal cues or activities and templates for presentations that are used in lesson. The claim is made from an outcome rather than process approach that ‘Ofsted [are] no longer judging the quality of individual lessons and confirming they do not have a preferred teaching style’ (p.109). This produces external contradictions because to achieve success in a knowledge-based curriculum that is assessed by rigorous academic examinations, traditional pedagogical approaches are required - as evidenced by the EEF's movement towards 'cognitive' science (see Howard-Jones, 2014). Ofsted’s (2019a) research summary, contradicts statements about not having a preferred teaching style, suggests that effective teaching is composed of:

- Lesson structures that include overviews and reviews of objectives, outlining of content that is to be covered, signalling of transitions, and reviewing main ideas.
- Clarity and active presentation of content, with teacher talk focused on academic content, questioning and repetition to achieve mastery, including the testing effect.
- Questioning that acknowledges correct and incorrect answers, with prescribe methods on how to achieve this.
- Structures and routines that are embedded if attempting paired and group work.
- Adaptive rather than differentiated teaching.
- Use of spaced or distributed practice through retrieval practice, interleaving and elaboration, rather than massed practice.
- Use of dual coding and cognitive load theory approaches during exposition phases of the lesson.

This leads to the next key discourse which considers the stakeholders valued by the DfE and how these stakeholders will be mobilised to effect change.

Key discourse 3: Valued educational providers and stake holders, leading system wide improvement

EEE purports that excellence in education is achieved through 'effective leaders' (p.78) within the system. The terminology is ambiguous enough to give the impression that these leaders would be headteachers but is clarified later that these leaders are the CEOs of MATs. This echoes Dunleavy and Hood's (1994) description of 'deconcentrating provider's roles to the minimum feasible sized agency' (p.9) in NPM. The supported autonomy is contingent on stretching accountability measures representing NPM's emphasis upon outputs and performance (Clarke et al., 2000).

The title of the chapter four is rich in underlying ideology. 'A school led system' (p.53) illustrates the use of decentralised governance, not through LAs but a quasi-market system of competing academies organised into MATs. The language of competition is present throughout, as successful MATs demonstrating features valued by the DfE are rewarded with autonomy and opportunity to spread their influence by 'taking over and turning around weak academies' (p.60). The implication is only MATs have the capability of achieving these improvements. Despite assurances that head teachers and leaders will gain autonomy through academisation, the paper clearly states that it is the CEO or leader of the MAT that is the locus of decision-making and is the 'single point of accountability '(p.59). The document states:

> MATs are the only structures which formally bring together leadership, autonomy, funding, and accountability across a group of academies in an enduring way and are the best long term formal arrangement for stronger schools to support the improvement of weaker schools. (p. 60)

The proposition is that effective leadership correlates with the quality of education provided to the pupils. Data to support this claim is derived from a study (Branch et al., 2013) carried out in Texas, USA with principals in elementary and middle schools from 1995 to 2001. In this study effectiveness was measured by achievement in mathematics assessments, the retention of effective teachers, and the moving out of less effective teachers. Teacher turnover was used in the study as a proxy for evaluating teacher effectiveness and development of positive working environments. The research did not have specific data on teacher impact on individual students, so inferences were required. The strength of correlation between high staff turnover and lower average value added in a given grade, seemed to increase with principal quality. Therefore, less effective teachers are more likely to leave schools run by highly effective principals, so management of teacher quality effects school quality. The same study identified principal turnover in challenging schools with low achievement and high poverty levels was high. The report implicitly acknowledges the challenges of high poverty schools, separating of the impact of socio-economic circumstances and the measures used to determine the quality of principles on the achievement of students.

Data used to support the claim that academies support improvement is identified on p.54. GCSE results from 2015 show that secondary converter academies are performing 7.2 percentage points above the national average, with 64.3% of pupils achieve five or more good GCSEs, including English and Maths[13]. This statement only focuses on convertor academies, rather than sponsored academies. a certain category within the academy system. Therefore, it would be expected that these schools are performing above the national average. Hutchings and Francis (2018) used the 2017 GCSE results to conclude that 38 of the 58 MAT chains had attainment figures for disadvantaged students lower than that of the national average. Some of the worse performing MATs show no signs of improvement. This demonstrates the use of partial sets of data and removing inconvenient data, to support an argument being put forward. At the time of writing there is no evidence to prove that MATs were providing the stated benefits. While there are examples of successful MATs, there are also examples of MATs where there have been systematic failures leading to the closure of schools at great

[13] This data appears to contradict the study of Hutchings and Francis (2018) who identify ‘significant variation in outcomes for disadvantaged students’ (p.3) across the MAT network.

expense to local councils and disruption to the education provided to a community (Thomson, 2020).

EEE proposes MATs will ‘create a strong and sustainable pipeline of talented, motivated leaders working in challenging areas’ (p.41). This exposes the underlying assumption that schools working in challenging areas are failing due to quality of teachers and leaders. In addition, there is the assumption of a two-tier system in education of strong teachers and leaders and those that are not. There is no consideration that there are ‘strong' teachers and leaders working in areas of socio-economic disadvantage or the role of external factors affecting educational attainment of young people. It is proposed that MATs will provide opportunities to ensure effective leadership in all schools, through autonomy and accountability. For example, ‘middle leaders will take on more responsibility -a head of subject in a MAT could, for example, lead that subject across 30 schools’ (p. 42). Having one person responsible for curriculum and assessment in 30 different schools would diminish the autonomy of the teachers and departments in each of those individual schools.

From a managerialist perspective, the chief executive officers of MATs have greater control over schools than LAs, including curriculum, resources and teaching practices, as well as the bureaucratic control of staffing and finances. CEOs have authority to undertake ‘succession planning and talent management’ (p. 41). Effective teachers that reflect the qualities required by the MAT are promoted rapidly, as illustrated in the Chek-Yan case study (p. 42), as they are valued within the institution. Unlike LAs, where senior leadership positions are advertised externally, MATs can produce environments that are echo chambers where the values of the MAT are perpetuated in hegemonic fashion. These values become normalised across the institution in a system where MATs have monopolised the provision of education in an area.

MATs use an economy of scale model, where at least 10 to 15 schools are needed for systems to be effective, thus ethos, policies and pedagogical practices become standardised across many schools. This sets up an incoherence in message as EEE argues against ‘geographic monopolies’ (p.68) of LAs. Use of the divisive language of ‘monopolies’ highlights the benefits of MATs, even though expansion of MATs reduces diversity of schools in local areas.

This can disempower and remove choice from local teachers, leaders, and communities. In addition, it can lead to MATs that are sponsored by CEOs lacking knowledge or experience of the local community.

The role that MATs play in contributing to bureaucratic interference and central prescription is omitted throughout the text. Instead, the role of MATs in sharing good practice that results in reduced workload for individual teachers is celebrated (p.90).

Key discourse 4: Evidence-based practice, informing professional teachers

Branch et al., (2013) report, mentioned above, is an example of valued positivist approaches to educational research and neoliberal preference for outcomes rather than processes. The context of the report reduces qualities of an effective principal and effective teachers to a mechanistic view of delivering outcomes and, in the case of the principals, using managerialist techniques of removing ineffective staff. This reductive view of teachers, which omits non-measurable skills such as empathy and supportiveness, is also seen throughout EEE. The relevance of data collected between 15 and 20 years ago in another country can be questioned as well as the inferences and proxy measurements used to produce the conclusions in this study. However, in EEE, this data is used to propose the 'best leaders' should be put 'at the heart of the education system' (p. 53) that are 'held to account for rigorous fairly measured outcomes' (p.9).

Evidence based practice is proposed as the basis for teacher CPD, to ensure a 'high status, world leading teaching profession' (p.37). Dr Goldacre's [14]2013 Report is used in to support the idea that evidence will improve outcomes and increase professional independence. The rhetoric surrounding evidence-based practice utilises numerous devices to persuade readers of its value. The argument begins with an unsubstantiated claim that a 'hallmark of a mature profession is a body of evidence which sets out what works and what doesn't' (p.38). The term evidence is not effectively defined at any point in the text, apart from being rigorous

[14] A medical doctor who came to pre-eminence through his column published in the Guardian newspaper called 'Bad Science'

which also remains undefined. The argument continues with an exemplification (not a definition) of a valuable body of evidence. The example is attributed to the EEF, confirming its role as a valued stakeholder. The approach identified is that of 'mastery teaching' methods. The headline figure used in EEE states the method leads to an additional five months' progress over a school year, a statement that oversimplifies complexities surrounding evidence bases used the study. The EEF's (2021) summary identifies mastery learning as a very low-cost method with a moderate impact based upon moderate evidence. The EEF acknowledge the dated research (the five meta-analyses were conducted before 2005) with inconsistent findings. The data showed a range of effect sizes from little to no effect in a six-month period. The six-month result came from a research study on mathematics for 13–14-year-olds in USA. Research carried out in English schools, by the EEF, achieved an effect size of one additional month progress. Aside from the published difficulties surrounding the reproducibility of effect sizes from meta-analyses (Agarwal et al., 2021) there is incongruency produced when using months progress as a measure of effect.

Effect sizes are determined in EEF trials (Coe et al., 2013) as quantitative measures of size and consistency, calculated by the difference between the mean of the control group and the treatment group divided by the variance of the control group. To simplify the meaning of effect sizes for audiences without backgrounds in statistical analysis, the effect size can be translated into number of months progress in an academic year. This is benchmarked against average pupils' progress over a year. In addition to the simplification (and reduction in accuracy) when each statistical translation takes place, questions can be raised about where the averages for progress come from. There are national measures of progress and value added available, but this covers progress made in the examination results of pupils at age 11 and GCSEs at age 16. To extrapolate one year's progress from this data set would require the assumption that progress is linear. An assumption that is questioned in the EEF's evaluation toolkit (2013) by the statement that 'a typical month's progress at primary [education] is greater than at the end of secondary [education]' (p.17).

Assumptions continue with the term 'best evidence' (p.38) implicitly aligning with positivist approaches to educational research. Despite stating that there should be a move away from orthodoxies in education, the white paper could be accused of setting the ground for a new,

unquestioned orthodoxy of evidence-based practice. Retrieval practice, supported by both the EEF and Ofsted as an evidence-based practice, does not have a rigorous evidence base. Despite the lead author being a proponent of retrieval practice and the article name stating, *Retrieval practice consistently benefits student learning* (Agarwal et al., 2021) the report highlights issues with the evidence base as 'reviews and meta-analyses in this area of applied research should be considered with caution' (n.p.) due to the wide range of effect sizes and variety of confidence levels. Only 50 out of 2,000 research articles were based on classroom, rather than lab based, studies focusing on retention of curriculum-based knowledge. Of these, only 15 studies were identified in the secondary school age range: 12 taking place in one school district Missouri, USA. The report finds that retrieval practice is effective in the recall of knowledge from verbatim or repeated questions, but effect sizes reduce dramatically for rephrased questions leading to the conclusion that transference of knowledge following retrieval practice remains a challenge. Retrieval practice can improve performance in recall of specific knowledge in relation to specific questions, but this is a narrow definition of learning. This evidence does not 'prove' that retrieval practice improves learning and performance in complex activities such as essay writing, analysis and evaluations – skills that are needed across the range of subjects in the national curriculum.

The EEE constitutes the role of the teacher as an individual with high levels of subject knowledge, able to utilise evidence to inform teaching practice and is efficient when planning lessons using published resources and textbooks. Musset (2009) identifies, a curvilinear relationship between teacher subject knowledge and learner outcomes, arguing that subject knowledge is important to a point after which the pedagogical content knowledge (how to teach the knowledge) has a greater affect upon outcomes. There is no mention within the text of other aspects of being a teacher, such as empathy, understanding and tolerance.

Key discourse 5: Knowledge-based curriculum

Chapter six's title 'High expectations and a world-leading curriculum for all' (p.88), represents concerns reported in the media and sections of the community that, over time, the curriculum and education is being 'dumbed down' (Curtis, 2009). The evidence used to support these claims is apparent 'grade inflation' (p. 91) in external examinations where year

on year pass rates improve. The EEE accuses the previous Labour government of ‘grade inflation’ in claims that increases in student attainment have not been observed in international benchmarked assessments, although this data set is not explicitly identified. Data from the 2018 PISA assessments, demonstrates stability in the attainment of 15-year-olds in mathematics, reading and science since 2006 (OECD, 2019). This data covers four years of Labour educational policy and eight years of Conservative policy and includes a slight reduction in performance in science from a score of 515 in 2006 to 505 in 2018. So, data used to question Labour’s educational policies can also provide questions about the efficacy of Conservative policy.

Central to EEE is continued support and promotion of a knowledge based ‘more ambitious’ (p.89) national curriculum ‘for every child, no matter what their background, prior attainment or need’ (p.88). Arguments are mobilised to support continued improvement and ambition within the system. Therefore, arguments against these proposals can be countered with rhetoric of low expectations to negate any criticisms linked to social justice. In discussions relating to the valued arbitrary of the cultural conservative knowledge-based curriculum the low expectations argument is mobilised not to support the teaching of powerful knowledge as discussed by Young (2013) but to support the teaching of official knowledge described by Apple (2000). The debate becomes polarised into a constructed dichotomy of either believing in the content of the rigorous knowledge-based curriculum or not believing teaching knowledge is important. Discourses based on only ‘one way’ to teach, lose the nuance of opinions that appreciate the role of knowledge but questioning the knowledge that is being identified as the truth. This can be seen in statements such as ‘equipping children with core knowledge about the best that has been thought and written – balancing three Shakespeare plays and the study of a broad sweep of British history’ (p. 89).

High expectations are set through challenging examination questions and provision of teaching which ‘stretches the brightest pupils’ (p.98). This acts as explicit justification for the requirements of a challenging, academic and rigorous curriculum that is outcome (examination success) orientated. This identifies the students that are valued in schools 'the top end' (p.98) and the 'brightest' (p.98), omitting students with SEND or those who are bright but not academic. The Villiers Park Educational Trust programme is an example of how high

expectations leads to the achievement of the 'most able' (p.99) socio-economically disadvantaged students. The data used to illustrate gains from the programme compares attainment of participants against the whole 2015 cohort, rather than comparing progress of the participants against similar students (background and previous attainment) who did not complete the programme. In the chapter six only the brightest and more able students that are classed as disadvantaged are discussed. The complexity of the differing groups of pupils that are classified as pupil premium (economically disadvantaged) is omitted. Instead, the group is treated as homogeneous so that statements in supporting documentation such as the EEF's (2019a) *Guide to the pupil premium* can be used to erase the issue of the attainment gap, as 'great teaching' (p.3) is stated as having the highest impact on the outcomes of pupils that are disadvantaged.

Highly academic curricula and 'unapologetic ambition' (p.88) are deemed to provide social justice and opportunities for social mobility. By providing access to a highly academic and ambitious curriculum, the government divests themselves of responsibly of ensuring equity through effective social policies that support communities that have not recovered from the loss of traditional heavy industries. An education system reliant on high expectations and rigorous, ambitious academic curricula for social justice, simplify the complex factors influencing educational attainment gaps and social mobility, as discussed in previous sections of this chapter.

EEE justifies the structure and content of the national curriculum, through comparisons to other countries to identify a 'long tail of low achievement' (p.98) while more able students are 'outstripped' (p.98) by Far East countries. In the preparation phase of the new national curriculum, previous curriculum and attainment in PISA assessments were compared with the curriculum and attainment of Chinese territories and Singapore (DfE, 2011). This simplified mechanistic approach to education excludes cultural differences and relies on assumptions that educational models can be transplanted from one culture to another achieving the same outcomes. Data from the 2018 PISA assessments (OECD, 2019), shows that in the Beijing, Shanghai, Jiangsu and Zhejiang provinces of China only 8% of students identified that their teacher had to wait a long time for quiet compared to 25 % of students in the United Kingdom as a whole. In the two weeks before the PISA assessments 1% of the Chinese

students ‘skipped’ a day of school, compared to 19% of students in the UK. This demonstrates myriad cultural factors, particularly discipline and perceived valued of education, that influence attainment rather than the curriculum content that is studied.

The assumption that curricula that compete in terms of rigour and knowledge content with Chinese territories will increase social mobility ignores the curricula of countries such as Finland who score highly in PISA. The Finish curriculum (Finish National Agency for Education, 2016) is more progressive yet still clear in the belief that every child should have access to a high-quality curriculum. The description, below, of the curriculum contrasts with the neoliberal language of EEE:

> Pupils are heard, valued and encouraged. They feel that their learning and well-being matter. Pupils are guided towards a sustainable way of life and understanding the importance of sustainable development. The knowledge and skills as well as values, attitudes and will that promote these throughout the whole curriculum (p.2).

The omission of evidence of ‘what works’ in Finland is omitted as this does not align with the culturally conservative ideology informing the English national curriculum which is based upon ‘equipping of children with a core knowledge about the best that has been thought and written’ (p. 89). An incoherence is produced with the idea that education should prepare students for life in ‘21st century Britain’ which is part of a ‘[…] rapidly changing world […]’ (p.88) and exemplification of recalling quotations from Shakespeare’s plays and key dates from British history. Identifying this myopic view of Britishness as the ‘best’ removes grounds for arguments contesting which knowledge should be taught in the curriculum, as such arguments would represent low expectations.

In previous chapters of the document, emphasis is placed on the statement: ‘We believe that it is best for teachers and leaders to decide which methods they should use to teach’ (p.38). The contents of chapter six seem to dispute this statement, especially in justification for use of cognitive science in teaching and as evidence for the importance of a knowledge- rich curriculum. The use of cognitive science as an evidence base demonstrates preference of

positivist approaches to research rather than philosophical and sociological approaches. Even though cognitive science is based upon the use of theories and models to explain complex phenomena, the term theory is omitted and findings from cognitive science about education are presented as non-refutable facts. One such example is the quotation from Daniel Willingham on page 89 used to support the premise that knowledge must be taught before skill acquisition as this is 'how our brains work'.

Cognitive science is used to justify curriculum content and order in which the concepts should be taught as the 'core body of knowledge [is presented] in a format designed to maximise pupil understanding and minimise confusion, giving teachers professional autonomy over how to teach' (p.89). Utilising cognitive science and neoliberal 'what works' ideology, the assumption is that there is only one approach to education – that of 'equipping children with core knowledge' (p.89) rather than pedagogical approaches based upon enquiry and questioning. The dichotomy of the knowledge – skills approach ignores a more nuanced view that education should develop both knowledge and skills. However, Personal Learning and Thinking Skills[15] have been derided and ridiculed by ministers in the DfE, such as Nick Gibb (2013), in support of the knowledge-based curriculum. Teachers are limited in their autonomy of planning the curriculum, any diversion from the prescribed format would be viewed as disadvantaging the understanding of pupils and could be dereliction of the teacher's duty.

There is, however, an appreciation of the need for resilience and the development of character within the curriculum, which is put forward with less supporting evidence. There is an implicit acknowledgement of the gap in provisions between schools in different socio-economic areas during proposals to ensure funding so schools ensure activities that support character building and resilience available 'not just to those that are lucky enough to go to a school that prioritises it […] or parents have the means to access it outside of school' (p.96). This quotation reveals the hidden knowledge that parental resources and support have a significant effect on educational attainment and outcomes. The term 'lucky' masks issues of social justice, as it is not just through luck that students attend high status independent and

[15] Presented as a thread in the 2007 national curriculum.

state schools but through parental decision making and the socio-economic advantage of the community served by the school. The funding is ear marked not for developing the inclusion of the valued activities and experiences into the daily curriculum but for complementing the knowledge rich curriculum through after school activities and classes. This disregards issues that face schools in areas of socio-economic disadvantage. Many students are not able to 'extend their school day' (p.95) due to transport issues relating to school buses and frequency of public transport, collecting younger siblings from school in areas where childcare cannot be afforded, and for students that are carers. These activities are valued but not enough to be included within the taught curriculum.

Conclusion

This chapter has identified the key discourses in EEE and considered presentation of the ideas from a critical perspective. These discourses are an autonomy-accountability dyad discourse; returning control to teachers and illusion of professional choice; valued educational providers and stake holders leading system wide improvement; evidence-based practice, informing professional teachers; and the importance of a knowledge-based curriculum. As a policy text designed to persuade and foreground implementation, linguistic strategies are deployed to give the impression that the English education system needs to be improved, and the identified proposals are the only way to achieve this. There is an uneasy alliance of social justice and neoliberal values within the document, where social justice is used to validate discourses that are grounded in neoliberal and traditional values. The next chapter analyses a document produced by one of the valued stakeholders in EEE, to consider the ways in which government policy discourses are circulated in the education system.

Chapter 6: Improving Secondary Science: Guidance report

This chapter presents the analysis of ISS produced by the EEF in 2018. The EEF is a valued stakeholder in education, as seen in chapter five, with the responsibility to 'undertake additional communications to highlight the broad applicability of its work to all pupils and schools' (DfE, 2016, p.39). ISS will be treated as a technology that disseminates and re-circulates government discourses to the teaching profession. As in chapter five, ISS will be analysed using an adaptation of Codd's (1988) deconstruction of educational policy texts. The effect on the audience will be included in the RTA of teacher interviews, chapter seven, and the Foucauldian analysis in chapter eight.

The Education Endowment Foundation

EEE identifies the EEF as a provider of excellent CPD, tasked with acting as the first port of call for educators in their mission to become evidence-informed professionals. EEE identifies the EEF's 'Teaching toolkit' (DfE, 2016a, p.38) as an example of good practice and a resource that should be used by educators in the proposal to 'foster[ing] a world-leading, evidence-informed teaching profession' (p.37). As a valued stakeholder, the EEF is also a key partner in the production of the DfE's statutory guidance for initial teacher training (DfE, 2019a) and ECT development (DfE, 2019b). Guidance reports are another branch of work carried out by the EEF, in conjunction with DfE. Although the EEF presents as an independent charitable organisation, it was established in 2011 by a partnership between the Sutton Trust and Impetus [16]with an initial funding grant of £125 million from the DfE (EEF,2012) with the initial aim to 'develop evidence-based initiatives to raise the attainment of disadvantaged pupils in the most challenging schools' (p.2). Thus, the EEF represents a neoliberal public-private partnership with government.

The EEF's mission as referenced on its website (EEF, 2023b) is to support educational institutions to improve teaching and learning through 'better use of evidence' (n.p.). This is built on the assumption that evidence of what works can be used to inform 'great teaching' (n.p.). The EEF states that access to evidence is 'one of the most powerful levers we have for

[16] Impetus is a charitable organisation funded through the private equity community (Impetus, 2023)

change' (n.p.) to reduce the attainment gap between those students that are socio-economically disadvantaged and those that are not. They acknowledge 'educational inequality in England is entrenched' (n.p.) which aligns with one of the key messages in EEE.

At the time of writing, the EEF website continues to highlight 'socio-economically disadvantaged young people are significantly more likely to leave formal education without good grades in English and Maths'. Attainment gaps at GCSE have been increasing since 2017, notwithstanding the impact of COVID which appears to have exacerbated the situation (EPI, 2023). Even though the EEF have produced research summaries, delivered system wide training (through RSN) and claimed widespread engagement across the school system with their 'Teaching and Learning' toolkit.

The scope of their work covers:

- Summarising evidence which is presented in an accessible way to the education profession through evidence reviews, guidance reports and 'Teaching and Learning toolkit'. The latter of which is in the style of Hattie's (2008) summary of data from a wide range of meta-analysis covering key aspects of education, with effect sizes and 'robustness' of interventions identified and presented as easy to read icons and infographics.
- Funding evaluation of programmes and approaches specifically designed to raise attainment, especially of students from lower socio-economic backgrounds.
- Supporting practitioners and policy makers to use evidence that improves teaching and learning through RSN and partnerships with the DfE.

Central to the dissemination of the EEF's agenda of improving attainment and reducing the attainment gap through evidence-based practice, is the RSN. This involves 28 designated research schools and 10 associated research schools (Research Schools Network, 2023a), that apply for membership and receive funding to deliver CPD based upon recommendations from EEF guidance reports. The CPD programmes are designed by the EEF and delivered by partners from the research schools, prioritising areas that have high socio-economic disadvantage and lower than average attainment in national examinations. Although the

number of research schools fluctuates over time, with new schools designated and others leaving the network (Research Schools Network, 2023b), there are a significant proportion of research schools situated in ‘opportunity areas’ (Unity Schools Partnership, 2023, n.p.) which correspond to ‘achieving excellence areas’ in EEE (DfE, 2016a, p.85). This suggests that the EEF’s work might have a strong emphasis on improving equality through evidence-based practice, focusing on specific strategies aimed at supporting young people from socio-economically disadvantaged backgrounds.

The EEF’s ISS released in 2018, continued a series of reports covering a range of pedagogical issues deemed to be pertinent to the educational community in England. The EEF herald guidance reports as ‘summaris[ing] the best available research evidence on a particular aspect of teaching and learning and present actionable recommendations for practice’ (2023c, n.p.). These reports contribute towards the evidence-based practice movement that is gaining traction in English schools, founded upon the need for implementable strategies with demonstrable effect in the continuous drive for school improvement. Guidance reports are released at regular intervals, covering subject and phase specific domains (e.g. mathematics and science); cross curricular elements (literacy, digital technology); pedagogical approaches (teacher feedback, metacognition and self-regulation); and leadership and management (professional development and putting evidence to work).

Structure of the ISS document

Inside the front cover of the booklet and second page of the online format, acknowledgements are given to the named individuals of the advisory panel, evidence review group, peer reviewers and the report authors. Unlike EEE, the role of these groups in the construction of ISS is identified on the last page of the report, which also provides an overview to the three stages of the report’s construction.

Following a colour-coded contents page, one colour per recommendation representing the seven colours of the rainbow, there is a foreword consisting of contributions from the EEF's chief executive (at the time) Sir Kevan Collins, and Sir John Holman of the University of

York, which function to provide credibility to the recommendations of the report. The introduction follows, providing information about how teachers should use the report and foregrounds the importance of the overarching theme of 'Teaching for engagement'. Teaching for engagement is afforded a page before the recommendations are introduced and is the most comprehensively referenced page in the report with 17 references. A double paged spread summarises each of the seven recommendations that are allocated a specific number, colour, icon and subtitle with the page numbers in the main body of the document. Teaching for engagement is represented as a thin grey ribbon underneath the rainbow-coloured boxes which represent each recommendation. This means it is easy to overlook the supposed importance of teaching for engagement in the rest of the report. Each recommendation is broken down into smaller subsections identified with a letter. The introduction identifies these as the 'areas in which evidence provides the strongest steer' (p.5), yet there is no information to provide justification for either what a steer is, why these are the seven strongest steers and any reason behind the numerical sequence of the recommendations.

The remainder of the document is dedicated to each recommendation and composite subsections covering between two and three double paged spreads, each set out in the same way. On each double page spread there is a large title banner and footer reducing the space for information to 3/4 of the page. The text is chunked into short paragraphs that are double spaced with an emphasis on bullet points. The title banner contains the recommendation number, title, subtitle, and a specific icon. The text key terms are highlighted in bold, and boxes highlighted in a lighter shade of the recommendation's assigned colour provide extra information, examples, and teaching strategies. Key points from the text are developed as quotations in larger text in the colour of the recommendation. On the first page of each recommendation a colour coded box with a magnifying glass icon draws the reader's attention to 'Where's the evidence?' which summarises the evidence base for that recommendation. References are identified throughout the text using numbers, with some direct referencing to authors or websites. Following a general introduction, the recommendation is split into information relating to each subsection. At the end of each recommendation are signposts to 'First stops for further reading' which contains a range of books, websites, and additional relevant reports by the EEF and other organisations. This formatting ensures that the recommendations are easy to read and digest. Examples are colourful with simplified images to catch the eye. Summaries from research articles are presented in information boxes, bullet

pointed lists, graphic organisers, and tables. Adaptations from original texts are limited to the presentation of rather than the content of the information itself.

The final section of the report provides an overview of the stages of the report's construction. Stages are simplified into three separate aspects of which each involves several processes. Unlike the robust evidence sources and research reports that the guidance claims to place at the heart of its endeavour, there are no details relating to:

- numbers of teachers, academics and experts involved in the initial consultation nor references to their selection or how a representative sample has been achieved.
- selection of the advisory panel and evidence review team or how, why, and what were the research questions selected.
- how the search was carried out for the best available evidence, what was the sample and what was the inclusion criteria.
- the process of writing: Why were these academic and teaching experts chosen to draft the recommendations? What are their areas of expertise? Which recommendations were they involved with?

This provides insight into the nature of ISS as a document. On the surface the report appears to demonstrate a robust approach to evidence based practice, in line with arguments from EEE, by utilising the best evidence from expert teachers presented in an easy to digest format for busy teachers to implement in their classrooms. However, as will be seen later in this chapter, the report often fails to meet academic standards for robust evidence through failing to provide clear and transparent methods, details or logical steps that are referenced to support assertations.

Initial presentation of the key discourses in the document

The forewords and introduction provide most of the context for the document, enabling identification of key discourses. These sections will be analysed in detail while the content of the recommendations will provide evidence to support claims for the discourses, omissions, and contradiction with internal and external claims.

There are two forewords, one from Sir Kevan Collins and one from Sir John Holman. Collins's foreword immediately addresses the attainment gap:

> The attainment gap in science may not be as well documented as the gap in English and maths but is just as pervasive. Our research has shown that disadvantaged pupils start to fall behind in science in key stage 1; the gap only gets wider throughout primary and secondary school and onto A level. (p.4)

This provides the first indication of oversimplification, which continues throughout the document. Collins describes the attainment gap as affecting disadvantaged pupils, using a general catch all term which omits the diverse disadvantages faced by pupils within the school system, such as: socio-economic, cultural, English as an additional language or special educational needs and disabilities. This is not clarified directly in Collins's statement although he refers later to those 'struggling with science' (p.4). The description of struggling with science as a disadvantage is a contradiction with external indicators of the attainment gap, being the gap in attainment at GCSE between those pupils receiving pupil premium funding and those that do not (EPI,2023). This produces an incoherence with Holman's claim that 'science education is one of the keys to social mobility' (p.4) implying the attainment gap is related to socio-economic disadvantage.

Collins claims an understanding of evidence promotes effective practice, that improves results, and improved results will reduce the attainment gap. The idea is reiterated in his final sentence 'will help to support a consistently excellent, evidence-informed education system in England that creates great opportunities for all children, regardless of their family background' (p.4). This unsubstantiated claim functions as a quick fix for the attainment gap, however this raises more issues of oversimplification and ignoring equitable practices. Collins builds upon rhetoric from EEE (DfE, 2016a) stating that evidence should come from 'best available international research' (p.4) and will inform training by the RSN to translate into classroom practice. Thus, ISS is only one aspect of how to improve secondary science education. To be truly effective, extra training is required with a cost implication. This builds a captive market for the RSN to provide CPD, which resonates with Apple's (2000) descriptions of how marketisation drives public education policy and direction.

Holman also begins with a discussion of social mobility which is then overlooked for the rest of his foreword. Instead, he emphasises the importance of science within the curriculum as a route to rewarding and interesting careers. This links to the STEM agenda and movement towards a knowledge-based economy, central to government agendas since Tony Blair, as discussed by Ball (2017a). Hollins also identifies a non-measurable outcome of science education of 'becoming an informed citizen' (p.4) which is more reminiscent of the 2007 national curriculum that has been strongly criticised by long serving DfE minister Nick Gibb (2012), than the knowledge-based outcomes of the current national curriculum (DfE, 2014).

Holman continues by supporting the role of evidence in teaching practices while integrating, implicitly, a positivist approach to determine the value of evidence bases. His assertation '[i]f anyone understands the importance of evidence, it is science teachers' (p.4) follows the statement '[s]cience is the most powerful method humans have for understanding the world' (p.4). These statements provide framing for what is valued as evidence in the report, since Holman is a named author. This contributes to the rhetoric that positivist approaches are the best means to respond to complex issues affecting society. Holman's continued use of 'robust', when referring to evidence, echoes terminology used in EEE. He justifies the need for the report not because science teachers are unable to evaluate educational evidence themselves, but because teachers don't have time to unpick the implications for classroom practice. Instead, this role is allocated to expert advisors on the advisory panel. Holman appears to believe that science teachers can transfer skills of data analysis and evaluation from the natural sciences into pedagogical research. This omits differences in approaches required to effectively analyse qualitative data, quantitative data or a mix of the two.

A discourse of efficiency can be identified in the introduction with a definition of evidence informed teaching being linked to outcomes rather than specified processes: 'it is not about fitting more into a tight timetable; it is about using limited time and resources as smartly as possible by focusing on what is most likely to have made an impact' (p.5). This statement represents the influence of NPM's focus on outputs and performance rather than processes (Clarke, Gewirtz, and McLaughlin, p.6), leading to a culture of performativity rather than professionalism. This provides an external contradiction with EEE's formulation of evidence-

based practice as a central component of a profession, one which the DfE (2016, p.25) claims is missing from teaching.

The drive towards efficiency within the text continues with statements that de-professionalise experienced teachers: ‘many of the suggestions in this guidance report will be familiar to you from your own experience and practice’ but the report will ‘show how some of the things you already do can be as effective as possible’ (p.5). This expands the audience of the document to all science teachers not just those new to the profession. This acts to dispel the critiques of experienced teachers who are familiar with, or have been trained in, approaches identified in ISS such as science capital (p.7), concept cartoons (p.17) and Cognitive Acceleration through Science Education (CASE) (p.12) that have been used over the past 20 years. By stating that evidence will enable teachers to be ‘as effective as possible’ (p.5), the accountability agenda suggests that classroom teachers’ practice can always be improved under a constant drive for improvement. This implicitly highlights an agenda of de-professionalisation by removing choice, autonomy, and agency from teachers under the guise of not having time, as discussed by Apple (2000). The wording hides the expert authors’ inference that teachers do not have the capability to translate research into their individual classroom practice.

Alternative models of teaching where paperwork, administration and face to face teaching time is reduced, so teachers can dedicate time to develop their practice, are not suggested. ISS instead, presents a marketised neoliberal solution of producing a standardised national approach that teachers can pick up, ‘off the shelf’ and use. This resonates with the idea of a captive market within a paradox of an illusion of choice, seen in the work of Ritzler (2001) and Apple (2000), which will be discussed in more detail later in the chapter.

Discussion of the key discourses in the ISS document

The first section of the report through the forewords, introduction and teaching for engagement sets up the following discourses, that will be analysed using evidence from the recommendation sections during the next part of this chapter. These key discourses are:

- Recommendations and strategies are informed by robust evidence from research, representing a pseudo-positivist discourse of evidence-based practice.

- Recommendations and practices can be implemented universally as the evidence is specific to secondary science representing the grand narratives present in education.
- Recommendations are simple and easy to put into practice, representing an efficiency of practice discourse.

Each discourse will be discussed separately, with examples of strategies used to mask contradictions and incoherences. These discourses weave and overlap, forming an overall discourse of de-professionalisation which will also be analysed.

Key discourse 1: Pseudo-positivist discourse of evidence-based practice

Organisations such as the EEF are identified in EEE as key stakeholders in the use of evidence to inform classroom practice and policy. Positivist approaches to educational research includes the use of randomised controlled trials (RCTs) (Goldacre, 2013; Dawson, Yeomans, and Brown 2018); systematic reviews that have moved from medical research to education to maximise effectiveness (Bennett et. al., 2010) or meta-analysis to produce effect sizes as exemplified by Hattie's Visible Learning (2008/2023). None of the evidence resources referenced in the guidance report utilised RCTs, although some of those sources use meta-analyses or systematic reviews. As an evidence review, the guidance report fails to provide enough methodological information to enable peer review. There is no discussion of how the systematic review of evidence took place, nor is there information related to inclusion criteria. This leads to a range of sources from websites, organisational reports, teaching textbooks and journal articles being referenced as evidence bases. As such a discourse of pseudo-positivism can be determined where quantitative data is cherry-picked or incorrectly utilised, while claims for robust positivist evidence-based approach are made. This represents the selective attention of NPM reformers to evidence, described by Hood and Peters (2004), which can lead to the adoption of poorly grounded models.

Continuing the lack of fit between robust evidence and research practices, and the way evidence and research is presented in the report, are the issues with referencing and signposting of evidence bases. Each recommendation begins with a 'Where's the evidence box?' providing background relating to evidence bases and provides a bullet pointed summary of what the evidence suggests. However, none of these claims are referenced,

which leads to issues with determining validity of claims. The preconceptions and self-regulation recommendations illustrate this incoherence. For example, in the preconceptions recommendation 'where's the evidence?' box, the claim is made that there is strong evidence that learning is more effective when pupils' prior knowledge is accounted for (p.10). There is no definition of what strong evidence means nor is there any description of the type of evidence leading to the claim[17].

Omissions and contradictions are also present in the self-regulation recommendation 'where's the evidence?' box. Here, it is stated that 'several large correlation studies show strong links between self-regulation and attainment in science' (p.14). This statement cannot be found in any of the references identified in the recommendation, but there is a secondary reference in Muijs and Reynolds (2018) [18]for Dignath and Büttner's (2008) meta-analysis of self-regulation. In this study an effect size of 0.54 for secondary academic performance is found, which is determined as a moderate effect. However, this reduces to 0.05 for subjects other than mathematics or reading. An additional claim is made that low prior attainers benefit more than higher prior attainers. Muijs and Reynolds (2018) reference Zohar and Peled's (2008) study carried out at the primary age level of nine- and ten-year-olds. While gains in understanding and reasoning were achieved, the results were inconclusive for the lower prior attainment pupils since benefit was more likely due to the task's ceiling effect which limited the high prior attainment pupils.

Another example of omission relating to the ways in which a pseudo-positivist approach can be determined is the identification of the planning, monitoring, and evaluation (PME) approach in the self-regulation recommendation. Despite being presented on a full page spread with an infographic on page 15, PME is not referenced in-text to any author nor is there information about the evidence base. Schraw, Crippen and Hartley (2006) refer to a PME approach while discussing the regulation of cognition. They state that PME might not be conscious or explicit, it is automatic in adults and can develop without conscious

[17] There is a theoretical basis for the claim from the work of Piaget and the concept of assimilation (Strike and Posner, 1982) which is referenced later in the text. Vygotsky's work on meaning-making in the Zone of Proximal Development, is described by Novak (2002) would also be relevant here but is omitted.
[18] Muijs and Reynolds reference in the guidance report refers to the 3rd edition of the text from 2010.

reflection. Thus, producing an external contradiction in the use of teaching PME as a strategy to improve attainment.

In the recommendation relating to the use of models, strategies are presented as evidence-based, despite the citations in the text not providing a link between the use of a strategy and gains in student attainment. For example, Grosslight et al.'s (1991) study is used to determine three levels of understanding for models. The evidence comes from interviews with American 7th and 11th grade pupils as well as adult experts, which identified three levels of understanding when using conceptual and concrete models of abstract phenomena. The guidance report repackages the levels of understanding, which were numbered in the original study, as beginner intermediate and expert (where the expert level equates to level 3 in the original study). There is no evidence in Grosslight et. al.'s (1991) study to confirm methods of explicit teaching and critique of models, as recommended by the report, contributed to greater understanding or attainment outcomes. Instead, the study suggests ways in which exposure to models in the curriculum can be increased, not all of which are identified in the guidance report.

The use of cognitive science as a positivist approach to pedagogical improvement is clearest in the memory recommendation of ISS. The evidence summary of Pashler et al. (2007) is referenced, which identifies the evidence base, outcomes and limitations of several instructional methods including spaced review. Pashler et al. (2007) evaluate the claim that space practiced increases retention levels as having a moderate evidence base, comprising of experiments in three classroom studies on academic performance in mathematics and spelling. This contradicts the claim in Holman's foreword (p.4) that the evidence bases for ISS are from secondary science contexts. ISS omits limitations put forward by Pashler et al. (2007), that evidence is limited to studies recalling key facts and definitions rather than skills and complex bodies of information, in addition information recall is 'only one goal of education' (p.6). The way in which ISS provides a simple and unquestioned aim for education will be discussed in more detail in the oversimplification discourse. Dunlosky, Rawson, Marsh, Nathan, and Willingham's work (2013) is provided as a second reference for the evidence base for distributed practice and spaced review. This summary review claims the evidence is robust based on 254 studies with over 14,000 participants (p. 36) which provides

a large effect size. This reference provides illumination to the meaning of robust evidence, although authors acknowledged the limited evaluation of distributed practice, as well as other techniques such as retrieval practice, in representative educational contexts. This strand will be investigated further in the universality discourse discussed later in this chapter.

In recommendation five, Millar and Abrahams's (2009) study is used as an evidence base to identify the effectiveness of practical activities in science lessons. This provides another example of contradiction between the findings of an original study and the information presented in the guidance report. The guidance report argues that 'it is unreasonable to expect long lasting learning of a scientific concept from a single relatively brief practical activity' (p.26) suggesting that 'minds on' practical activities improve understanding and presents a rubric that is used to assess practical work as 'hands on' or minds on'. The guidance report suggests that the study supports the assertion that 'minds on' lessons improve understanding and is the base for the 'where's the evidence?' summary that practical work improves pupil attainment. Millar and Abrahams's (2009) research focused on the observation of 25 lessons in eight secondary schools, covering KS3 to KS4, including pre and post lesson interviews with teaching staff. The authors identify a limitation in their method: effectiveness relating to learning was not measured. Instead, effectiveness in the domain of 'do pupils do what is intended' was measured. Millar and Abrahams [19](2009) state that more research is required to make practical work more effective, for example using techniques such as scaffolding. No evidence of effectiveness for long-term learning is provided, only identification of the type of lesson taught in the study.

Finally, to further illustrate omissions and contradictions, Hand et al.'s (2014)[20] Science Writing Heuristic (SWH), presented as an infographic on page 37 of the guidance report within the language of science recommendation, appears to be the evidence base for the suggestion that 'science writing can develop pupils' understanding and writing frames can produce helpful scaffolds' (p.34). Hand et al.'s (2014) three-year research study investigated the effectiveness of SWH in American elementary schools, using a mixed method approach

[19] Based upon the PhD study of Abrahams, this is not mentioned.
[20] In the guidance report, this is identified as Hand et al. (2016) in both the in-text citation and the full references.

of analysing standardised test data, teacher observations and interviews. Quantitative findings included increased student grade equivalency growth[21] due to the SWH intervention, however this was determined by the level at which the intervention was administered by teachers. Effect sizes were measured using Cohen's d index where an effect size of 0.107 (classified as small) occurred between high and low teacher intervention levels. The effect sizes of socio-economic status were affected by the level of teacher implementation. At low levels of implementation socio economic status had an effect size of 0.4 (medium effect) while at high levels of implementation, socio economic status had an effect size of 0.2 (low effect). Thus, the attainment gap diminishes at high implementation levels. This data raises an issue with how ISS presents the SWH template as a method of improving science attainment. Firstly, these outcomes followed 13 days of training input rather than following an infographic, as presented in ISS. In addition, the SWH has two parts: a template for teacher designed activities, to promote laboratory understanding and a template for students, however ISS only presents the latter structure. Since templates supporting the design of instructional activities is omitted from ISS, this will affect the level of implementation and fidelity compared to the original programme. Finally, as identified in Hand et al. (2014), most teachers were working at a medium or low level of implementation, 28 out of 32 teachers, after three years. The study identifies that the attainment gap only diminishes at high levels of teacher intervention. The authors suggested that lower levels of implementation are due to the shift required in pedagogical practice to effectively use the SWH method.

The positivist, evidence-based practice approach is presented in the guidance report as context specific with universal applications across the English education system. This leads to the next key discourse of universality.

Key discourse 2: Universality and the presentation of grand narratives in education

A function of ISS is to support system-wide improvement of science education, through the provision of seven recommendations and evidence-based strategies for teachers to use. There is no acknowledgement of the different contexts in which schools operate i.e. state or public; MAT or LA; inner city, suburbs or rural; or if a school is in one of the areas of 'chronic

[21] Student grades exceeded what they would be projected to attain in comparison to students of an equivalent starting point not taking part in the intervention.

underperformance' (DfE, 2016, p.59). These strategies are determined to be universal in their application and success in obtaining positive outcomes. The following grand narratives are identified: equality of opportunity, rather than equity, for pupil premium and SEND students; the strong evidence base of the report; all teachers will be engaged in the strategies they are delivering; and the strategies will support national curriculum outcomes.

Despite the proclamations of 'closing the attainment gap' (p.14) by acknowledging the issues and barriers faced by young people identified as qualifying for pupil premium funding, the work of the EEF is not focused upon equity but a simplistic notion of equality. The notion of recommendations being 'relevant to all pupils' (p.4) or that high quality teaching is the 'most important lever schools have to improve pupil attainment, including for disadvantaged pupils' (EEF,2022, n.p.) can be seen as a grand narrative that supports the EEE's assumption that pedagogical interventions are universal in nature and outcome and can be effectively implemented across the school system.

ISS was developed 'to support a consistently excellent, evidence-informed education system in England that creates great opportunities for all children, regardless of their family background.' (p.4). The repeated rhetorical device of excellence in education mirrors the EEE's name and assumption that pedagogical interventions are a stronger driver of educational outcomes then the socio-economic and cultural background of students. Such statements are contrary to the work of Young (2013) who acknowledges that some young people will fail to achieve the standards of knowledge-based curricula but that it is an issue for wider society rather than educational systems alone. Jernin and Vignoles (2013) draw attention to the strong influence of family socio-economic status on attainment, while Flouri (2006) discusses the positive impact of parental engagement. These complex social factors, are omitted from the guidance report, produce a situation where educational policy will have limited impact upon social mobility due to a pervasive and high-income inequality (Blanden and MacMillan, 2016).

Both EEE and ISS identify the role of best international evidence that can be implemented in the classroom. Hence, the universality discourse appears to overlook cross cultural

differences at both intra and international levels. This has been disputed, especially when considering the role of research in science education. For example, Jenkins (2000) argues that there is no one grand theoretical underpinning for all teachers' practice: what is individual to a practitioner cannot simply be transferred to other classrooms. Instead, good practice should be shared and adapted for use in different contexts. Jenkins's argument continues that teaching itself cannot simply be reduced to a technology that functions outside of the initial context. Davidson et al. (2017) summarise the debates surrounding comparative educational research including the role of societal factors on producing variation between educational systems, and the need for qualitative and quantitative approaches during analysis. In ISS, the recommendations and specific pedagogical techniques have been identified following review from the best available international research. However, cross cultural barriers have been overlooked and the guidance report situates the recommendation in the context of English secondary science. This gives the impression that the guidance and strategies are informed by research conducted in secondary (age 11 to 18) science (discipline) classrooms (location). Yet the discourse of universality is embedded from the foreword's statement (pg. 4) that 'literacy, memory and feedback [… are…] applicable to teaching in many subjects': this statement removes boundaries between separate disciplines and constructs epistemological bridges that are apparently transversed with ease.

ISS is aimed at improving science teaching at the secondary school level in England. Holman's foreword identifies the cross curricular nature of some of the recommendations but states that all examples presented will specifically relate to science teaching. During analysis and investigation of the research and reports referenced in ISS, I found that very few of the studies were either carried out in the context of English schools, in science education or at secondary school level. The studies related to:

- science teaching between the ages of 11-16 include those from the USA (Grosslight et al., 1999; Hand et al., 2014) where there are no high stakes external examinations at age 16.
- local and international research at all school levels with no focus on science teaching (Dunlosky, Rawson, Marsh, Nathan, and Willingham, 2013; Hattie, 2008; Nunes, Bryant, and Barros, 2012, Pashler et al. 2007).

- non-classroom-based research, including adults learning foreign language definitions (Bahrick et al., 1993).
- lab experiments with psychology undergraduates (Meyer and Land, 2005[22]; Karpicke and Roediger, 2008).

Many of the research studies (including meta-analyses) suggest caution when interpreting results and conclusions, which is not mentioned in ISS. Pashler et al. (2007) conclude that application of the recommendations in their report may not be obvious in the classroom context. Dunlosky, Rawson, Marsh, Nathan, and Willingham (2013) identify the limitation that 'few techniques [related to cognitive science approaches] have been evaluated in representative educational contexts' (p.45). This questions the viability of a universality approach to the grand narrative of evidence- based practice when transferring findings from lab experiments to the wider educational domain, thus the context of the evidence collected is important. Carlisle's (2010) review of morphological literacy strategies, which is referenced in Nunes, Bryant, and Barros's (2012) research, yields positive results but state that 'research is not yet developed enough to provide evidence of research-based practices' (p.480) that can be used by teachers. This will be discussed further in the section on oversimplification.

One research study that was carried out in the secondary school science context was Adey's (1999) study of CASE which integrated the work of Piaget and Vygotsky. This was common in English schools in the 2000s but appeared to lose favour with the introduction of the knowledge-rich curriculum in 2015. Adey's research paper describes a longitudinal study of pupils in KS3 taking part in CASE lessons, and the impact on attainment at KS3 SATs[23] and GCSE. Effect sizes for some groups ranged from 0.60 (moderate) to 0.96 (large) but not all groups of students showed gains that were statistically significant. Regression analysis between CASE and non-CASE schools at KS3 SATs and GCSE revealed more positive outcomes. However, the findings from Adey's research involving KS3 and KS4 students across England (from 1984 to 1996) are not clearly represented in ISS. For example, the 1990 science GCSE results for female students that took part in the programme in Year 7 showed a mean gain of 0.67 of a grade, whereas the cohort of males had a mean gain of -0.23 grade (p.18) representing lower attainment than students who did not receive the intervention. Adey

[22] There is an in-text reference for Mayer and Land in the guidance report, with no date, without a full reference.
[23] SATs were external exams taken by pupils at age 13 that were removed from the English assessment system in 2007.

acknowledges these differences in the analysis of data, but this is not acknowledged in ISS. Adey's work demonstrates that not all strategies work for all classes, for all teachers, and for all groups of students.

Treagust, Harrison, and Venville's (1998) research into the use of the Focus-Action-Reflection (FAR) approach also demonstrates a contradiction with the report's universality discourse, that research can be applied in any classroom context. The FAR approach is a strategy to support teachers structure lessons when introducing scientific models, aiming to develop understanding of the underlying scientific ideas rather than understanding of the model. The findings show that 'competent and interested teachers' (p.91) participating in the research modified their teaching style to fully integrate the approach into their practice, while others neglected key phases of lesson planning and post lesson reflections leading to poorer outcomes.

Hand et al.'s (2014) [24] study into argumentation and language development, which produced SWH in recommendation six, discussed extent of teacher implementation of their strategies. They determined the main driver of implementation was teachers' orientation towards teaching and learning. From lesson observations and post lesson reflections carried out with teachers during the study, they found that those exhibiting low implementation levels of the SWH strategy viewed themselves as 'the locus of control of knowledge' (p. 861) and struggled to accept that science is a constructed activity. Discovered during my extra reading around metacognition, Hogan's (1999) research into the use of 'Thinking aloud together' linked high teacher control to student engagement. In the study, students failing to fully participate during peer collaboration often believed that learning only occurred when directed from the teacher. Therefore, alignment between a teacher's philosophical approach to teaching and learning and philosophical approach behind teaching strategies and curriculum being implemented in the classroom will affect teacher engagement and fidelity of the strategy being utilised. Strategies that teachers are required to implement through policy technologies may not provide the outcomes originally achieved in the initial small scale trial

[24] Date of article cited incorrectly in the text and reference list as 2014 rather than 2016.

stages of research. This demonstrates the caution required when utilising strategies that are reliant upon correlations rather than causation and understanding why strategies work.

ISS was written in 2018 to support teaching, learning and achievement when following the 2014 national curriculum. This curriculum was heralded as a radical change towards a rigorous knowledge-based content in comparison to the previous skill-based curriculum (Gibb, 2012). The research evidence identified in ISS and is contextualised in English secondary science, has been carried out: pre-2014 during previous incarnations of the national curriculum under the Labour government of 1997-2010 (Bennet et al., 2000; Millar and Abrahams, 2009; Osborne et al, 2004); during the preceding Conservative government 1988-1997 (Adey, 1999; Pickersgill and Lock, 1991); or before a national curriculum was introduced in England (Adey, 1999; Johnstone, 1991[25]). Neither the historical/chronological attributes of the research, nor the different political philosophies underpinning the production of the national curricula (past and present), are identified in ISS. This omits the relationship between teaching methods and curriculum outcomes.

Hattie (2023), referenced in ISS to support the use of direct instruction, identifies a range of curriculum outcomes including: knowing that; knowing how; and knowing with. 'Knowing that' outcomes align with a knowledge rich curriculum while a skills-based curriculum would focus on 'knowing how' outcomes. Hattie states the importance of matching teaching method used with curriculum intent. This is supported by Novak's (2002) findings that rote memorisation techniques, such as retrieval practice strategies, do not develop deeper learning that can be transferred between contexts. This brings into question the role of knowledge within the curriculum: should knowledge consist of culturally important facts that all students should know (Hirsch, 2017) that are only exposed to at schools or in academic contexts (Young, 2013), which is seen in the current curriculum. Or, as many of the references identified ISS acknowledge, knowledge is constructed through social interactions guided by the teacher. The epistemological foundations of the curriculum and beliefs of the teacher will influence teaching style and student engagement depending on whether the individual has a realist perspective or a relativist perspective (Schraw et al., 2006). This causes incoherence

[25] Unable to source the original 1982 paper referenced in the guidance report.

between a rigorous knowledge-based science curriculum which has realist foundations and the social constructivist teaching strategies identified in the metacognition, modelling, misconceptions, and literary recommendations of ISS that have a relativist foundation. The omission of pedagogical theory from the grand narratives of the guidance report will be addressed in the next section when discussing oversimplification as part of an efficiency discourse.

Key discourse 3: Efficiency of practice

Omission of pedagogical theory from ISS allows outcomes such as improving examination attainment to be the focus: pedagogical processes leading to the outcomes become secondary. The managerialist approach of outcomes over process (Clarke et al., 2000) enables a pick and mix style of practice where theoretical underpinnings become redundant. This approach provides space where direct instruction techniques described by Hattie (2023) from a realist epistemology can be utilised with SWH of Hand et al. (2014) from a relativist epistemology, without question. This brings us to the final key discourse of the report which presents simple easy to use strategies that can be implemented into classroom practice with efficient use of time and resources.

Each subsection of the recommendations provides advice and strategies on how to embed recommendations into classroom practice. Research from a variety of reports and journal articles is summarised in a few sentences, tables or infographics. Condensing complex and nuanced information into a simplified format that can be easily accessible by 'busy teachers' has, however, led to 'cherry picking' partial aspects of the material that is referenced. This approach to research in science education was critiqued by Tooley and Darby (1998) in their report for Ofsted into the use of educational research within the profession. They raise awareness that some researchers utilise summaries of preceding research 'without apparently any need to consult the primary sources to discover what the authors had really said or meant' (p.74). While such a claim about the writing of ISS cannot be fully substantiated, a critique can be made that, at the very least, original sources of information are not acknowledged, headline information is favoured over detailed explanations and cautions about limitations to findings expressed by authors are not reported. Whether this is an oversight or deliberate,

remains unknown but the outcome is simplification of highly complex concepts and ideas into easily consumable bitesize pieces of information.

ISS omits pedagogical theory behind recommended strategies, meaning recommended strategies become fixed in how they should be implemented in classrooms. Dignath and Büttner's (2008) meta-analysis, identified through secondary referencing, concludes that teacher knowledge relating to self-regulated learning impacts upon the effect size of an intervention and that extensive training is required. Osborne et al.'s (2004) study of developing argumentation to increase quality or level of student arguments, was supported by nine and a half days of skills development meetings with the research team. Treagust, Harrison, and Venville's (1998) research involved teachers being trained by researchers. Larson's (2014) work on use of knowledge organisers when introducing vocabulary, overlooks the joint work between teachers and researchers. Hand et al.'s (2014) SWH approach involved a ten-day teaching workshop with three additional days of professional development for teaching participants, throughout the school year. This shows that presentation of summarised and simplified strategies in a report, without professional development and support from the researchers developing the strategies, is not enough for teachers to effectively implement and achieve positive outcomes.

Johnstone's triangle, which is introduced on page 19 of the report, provides an example of how underpinning research and theory have been omitted which leads to incoherence. In this situation, oversimplification has led to the presentation of a strategy for classroom use in a format that was not designed by the original researcher. In ISS, Johnstone' s triangle is used to support the recommendation 'use models to help pupils develop a deeper understanding of scientific concepts' (p.19). The triangle is introduced as a method of using 'models to link observations to explanations and representations' (p.19). Although the report acknowledges the triangle was used to 'initially […] explain the three levels of chemical knowledge' (p.19), the impression is given that use of 'initially' refers to extension of the model to explain knowledge levels in physics and biology, rather than using the triangle to model scientific understanding. The report uses Johnstone's observations that novices operate at the macroscopic level in chemistry (Johnstone, 1999) to make a move towards suggesting that models can be used to support students build richer knowledge and understanding of

scientific concepts by linking the microscopic, macroscopic, and symbolic dimensions of scientific knowledge.

Articles written for teachers by teachers (Hofgartner, 2019; Kaiser, 2020) on the Royal Society of Chemistry website *Education in Chemistry* demonstrates that some teachers have interpreted the triangle as a model to introduce students to scientific ideas at all three levels of conception. Hofgartner (2019) explains the use of a scaffolded worksheet, to present the model, while introducing chemical concepts to GCSE students at all three levels of chemical knowledge. An online feature links to ISS recommendations identified as 'seven simple rules to boost science teaching'. This illuminates how teachers may use the recommendations from the report as quick and easy solutions to the difficulties of improving engagement and attainment in science teaching. One of the members of the advisory panel of ISS, builds upon Hofgartner's worksheet to give examples of when this could be used in lessons (Kaiser,2020). However, Johnstone's triangle was not developed as a teaching tool, instead it was part of a body of work where Johnstone was theorising on the reasons why science as a subject is difficult to learn and the role of the limited capacity of the working memory. He states that the three levels of conceptualisation of chemical knowledge should be introduced one at a time to novices as simultaneous representation, utilised by experts, can overload students' working memory (1991).

Reid's (2021) summary recognises that individuals reading Johnstone's work have 'constructed their own understandings' (p.62) of what the triangle stands for. He highlights the claim that the triangle's implications should not be separated from the concept of the limited capacity of the working memory. In ISS the implied message is that for improved attainment, students need to conceptualise chemical phenomena at each level of knowledge. Johnstone (1991) questions the necessity for some students to require anything other than the macroscopic level of knowledge of a particular chemistry topic and that no form of understanding is superior to another. Taber (2013) acknowledges that distortions can occur overtime where modifications to the theory have taken place. This can be seen in the teacher contributions of Hofgartner (2019) and Kaiser (2020), as Reid (2021) points out that nowhere in Johnstone's body of work are there arguments for the use of models or strategies to link the three levels of knowledge, nor is there a requirement to create bridges between them. This

produces an incoherence when ISS cautions about how the use of models can cause misconceptions for students, while simultaneously the contents of the report have developed misconceptions about the use of Johnstone's triangle as a teaching strategy in teachers.

ISS simplifies messages contained in referenced research articles to provide efficient use of time for busy teachers. The document sets out recommendations in a simple and easy to use format which, when combined with the *Guide to implementation* (EEF, 2019b), provides a step-by-step process to embed proffered strategies into teachers' practice. This model of teaching, of quick and easy wins, sets up contradictions with the referenced studies and report summaries where the complexity of teaching is discussed in detail. Holman (2017), one of the report's authors, warns against the use of formulaic safe teaching strategies, that he identifies as an unwanted outcome of high stakes examination. Strike and Posner (1982) discuss the complexity of learning science which is not just acquisition of facts but knowledge construction of the individual, a process that takes time and cannot be reduced into quick fixes that are dropped into lessons. Adey (1999) proposes the need for teachers to understand pedagogy to adapt their own teaching rather than follow methods because they are told the method works. Meyer and Land (2005) warn against the assumption that simplistic technique approaches will automatically lead to the intended transformations in learning outcomes.

The discourse of efficiency along with the positivist approach to evidence and universality of grand narratives mask a mode of de- professionalising teachers, so that they become efficient technicians.

Overarching theme: De-professionalisation through the neoliberal illusion of choice

Whilst analysing each of the discourses of pseudo-positivism, universality, and efficiency it appears that just as the seven recommendations function with an overarching theme of engagement, these discourses can intertwine to form a hidden discourse of the de-professionalisation of teachers. The key discourses weave together to form a discourse of de-professionalisation hidden within the neoliberal agendas of accountability and illusion of choice as discussed in chapter five of this dissertation.

The discourse of de-professionalisation continues a rhetoric that can be traced through the EEE, via the public statements of Michael Gove in the early years of the coalition and Conservative government[26], back to the introduction of neoliberal principles during Margaret Thatcher's government from 1979 and onwards (Ball, 2017a). This discourse will be picked up again during the analysis of teacher interviews in chapter seven.

Despite the statements in EEE about the value of the teaching profession and need for evidence-based practice as a signpost of that profession, EEE makes significant moves towards increasing managerialist technologies in the profession through the autonomy and accountability agenda identified in chapter five. Technologies of accountability such as league tables and Ofsted inspections have expanded beyond the institutional level. Instead, accountability through managerialist practices can be exercised lesson by lesson through the implementation of whole school or departmental teaching and learning policies that are monitored and evaluated by middle and senior managers. ISS operates effectively within this context by providing a 'menu' of options that claim to improve outcomes through a simplified format and structuring of recommendations and strategies akin to tick box approaches. At this point it is useful to note that a recent EEF summary briefing to School Leaders entitled the *Pupil Premium Menu*, (2023a) highlights the way in which highly complex issues are simplified to produced packaged strategies that can be chosen from a menu that will produce the desired outcomes. The overall structure of ISS follows this approach but less explicitly, with the colour coded summary of recommendations (pp.8-9) taking on the appearance of a fast-food menu, where options can be chosen and combined based upon personal preference. This seems to represent the influence of market ideology within education spheres as an aspect of neoliberalism, where improving education becomes a product that can be sold to schools (Apple, 2000). Although Apple is discussing the situation in American schools in the 20th Century, there are analogies with the situation in English schools as described by Perryman et al. (2011). CPD programmes supporting the recommendations of ISS are delivered, for a fee, through RSN, demonstrating commodification of the report and the recommended strategies.

[26] See chapter two of this dissertation.

High levels of prescription are not new in the English education system. For example, the New Labour education strategy of centralised control (Goodwin, 2011) enabled movement towards higher levels of monitoring and prescription of classroom teaching practices. These practices appear to have been concentrated in high accountability systems driven forward by MATs aiming to ensure consistency of student lesson experience. These processes can be seen as analogous to Ritzler's (2001) theory of McDonaldization. The dimensions of control and predictability limit the possible choices available to the consumer, in this case the teacher, packaged via rules and structures to provide the same outcome each time. Accountability, as determined by educational achievement in external examinations represents the calculability dimension as seen in the discussion of educational success in EEE and the forewords of ISS. ISS recommendations, when read in conjunction with the implementation guide, produces organisational rules of the efficiency dimension and step-by-step infographics of the report contribute to the control dimension. The supervision of the efficiency dimension and technologies of the control dimension occur when the recommendations move from individual teachers changing their practice to departmental and cross trust implementation where the success of a strategy is analysed and measured by middle and senior managers. Finally, the predictability dimension is represented by the identification of specific strategies in the recommendations that should be adhered to, ISS uses infographics, tables and summary charts to ensure consistency. This means that the same strategy can be used across a department, school, mat or the English education system regardless of context, this will be highlighted in chapter seven, particularly relating to retrieval practice at the start of a lesson.

The discourse of pseudo-positivism supports the dimension of calculability, the discourse of efficiency is mirrored in the dimensions of control and efficiency, while the discourse of universality aligns with the dimension of predictability. While de-professionalisation has occurred progressively over time with technologies often beginning as the thin end of a wedge, Ritzler states that McDonaldization 'takes place within a post-modern society that is motivated by material interest, superficiality, and the waning of emotion or affect' (2001, p.185). The act of de-professionalisation of a teacher, so that they become a technician bound by accountability outcomes in a high-states environment (Perryman et al., 2011) moves the affective dimensions of a teacher's role into the background. At no point in EEE or ISS are the importance of building constructive supportive relationships with students, or a focus on

supporting a student's personal and academic development, mentioned. Instead, the dimensions of McDonaldization and features of post-modern society identified by Ritzler (2001) act to produce a de-professionalised, technicist teacher. The inference in the report is that de-professionalised busy teachers working in high accountability systems, under the control of senior managers, will accept superficial measures or strategies as they are not given the time to analyse research behind those strategies and incorporate these into their own practice, as described by Apple (2000). Instead, the strategies are determined for staff to use, suggesting either an implicit belief that teachers are not competent enough to effectively engage with evidence, removing agency and affect or that high levels of control producing technicist teachers will improve outcomes for student attainment. The autonomy-accountability dyad, identified as a discourse in chapter five, can lead to material interest from teachers, following what they have been told, rather than innovating their own practice either to ensure they keep their job, or to fast track through promotions to highly paid positions within MATs, as presented in the EEE's imagined case study of Chek-Yan (DfE, 2016a, p.44). This demonstrates Hood (1991)'s critique that NPM can be used to promote the interest of an elite cadre of managers over the public good.

Conclusion

This chapter used an adaptation of Codd's (1988) approach to deconstructing policy texts. While reflexively interpreting the key discourses, clear links to EEE were identified. This represents the effect of government policy on discourses produced by key stakeholders such as the EEF and how discourses are recirculated and intensified by key stakeholders. Key discourses of pseudo-positivism, where what works is prioritised over theory; universality of 'if it works here, it will work everywhere'; and oversimplification of complex processes into easy-to-follow steps for efficiency were identified in ISS. At times, it was difficult to separate the key discourses and treat them as individual entities, so de-professionalisation as an overarching theme was developed. Through investigation of these discourses, issues of omissions, contradictions and incorrect referencing were used to mask incoherences in the document. These incoherences included findings of positivist and social constructivist research approaches presented as evidence, disregarding the impact of socio-economic status of students as a disadvantage in accessing science education and use of research that was not specific to the current secondary science context of English schools. The next chapter will use

RTA to analyse teacher interview data, this chapter will contribute to reflexive interpretations of teacher responses relating to pedagogical techniques used in their practice.

Chapter 7: Reflexive Thematic Analysis of Teacher Interviews

Braun and Clarke's (2021) RTA was used to interpret interview responses from three long serving secondary school science teachers. Key themes and sub themes are represented in the thematic map below (Figure 11) reported with representative extracts from the interviews and interpreted using the sociological and theoretical frameworks explicated in chapter three.

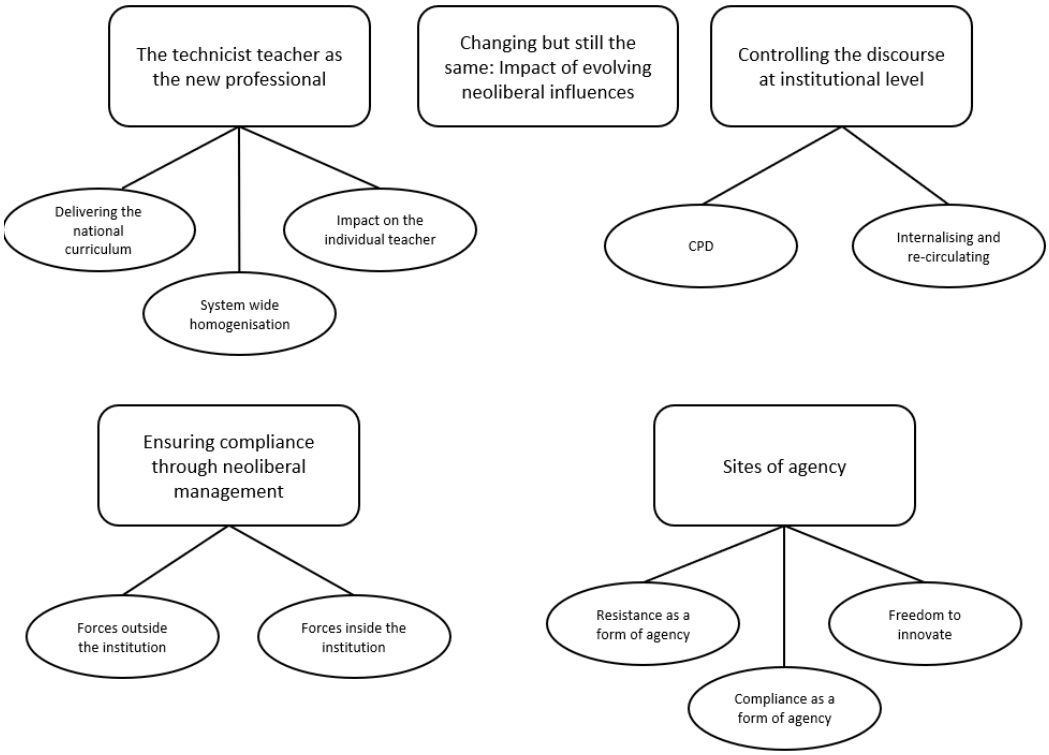

Figure 11: Final thematic map

The ordering of the themes in this chapter, produces a sequence to aid understanding and analysis of the factors that are affecting these teachers. The order of themes is listed below, each adding extra insight into the experiences of science classroom teachers:

- Changing but still the same: Impact of evolving neoliberal influences.
- Technicist teacher as the new professional.
- Ensuring compliance through neoliberal management.
- Controlling discourses at the institutional level.
- Sites of agency.

Key theme 1: Changing but still the same: the impact of evolving neoliberal influences

All participating teachers have experienced changes in the educational landscape, during their career, as influences of neoliberalism have evolved and intensified since the introduction of the ERA in 1988, as described in chapter three. Despite entering a profession already operating under neoliberal and NPM principles, each teacher referred to a time when they felt empowered to use their judgement and make decisions for the classes they were teaching. Two quotes are interesting here:

> I've come to the conclusion that after teaching for thirty… since the mid-90s that if you have a way of making kids understand something, then it isn't wrong, and if for you a 'do now task', teacher instruction, silent practice, and a regulated dismissal gets it into their head, then I'm not cross with people doing it. If, on the other hand, you can come in and play a card game, and it gets them talking to each other, gets the knowledge in the head equally as well. Then, in my teaching nirvana I would be very happy if you do that too. And if you, if every lesson you teach, is the same, I'm okay. And if you might have a veritable smorgasbord of techniques and sometimes you go "right class, it's silent comprehension today" well maybe there's a place for mixing it up.[…] And I think if you are working in teaching nirvana you are trusted, they trust you to have the integrity to do the right thing without watching so you'd go in and you wouldn't think "yeah, I'll wing it today" cos I feel a bit rubbish, you'd think "no I'm going to do a great lesson." (Sam).

> To be able to look at your class and go, right "I know that they need to know this, that and that. Okay, I can do that with them in one lesson, because this class are great or, right, that class will take three lessons right? I'm going to cut my losses here, and I'm maybe not going to cover all that part with this class because they can't… they might not be able to reach that" and be able to plan that out for your class ideally. (Alex)

These quotations acknowledge the importance of experience and teacher judgement in professional practice. Alex's experience covers the early Labour years to present; Sam since the mid-1990s. In the first quotation, after teaching through a range of curricula and exposure to social constructivist and explicit instruction teaching approaches, Sam returns to a core principle: student understanding. It is not the strategies and the techniques they have an issue with but the removal of teacher autonomy in their practice and replacement with the prescriptive techniques of the technicist teacher. Implicit in the section about having integrity in practice, Sam touches on the unquestioned technologies of surveillance, in the form of lesson observation and learning walks, which represent examples of the examination in Foucault's (1991) disciplinary power, in low trust high accountability environments

(Thomson, 2020). Prescriptive teaching practices are easy to judge against institutional norms, during the examination, and are viewed as universal in their application. Corrective action, if required, provides an efficient approach to improving teaching and learning in ways that have analogies with Ritzler's (2001) theory of McDonaldization.

Sam's categorisation of SLT as 'they' in the extract above, represents the impact of NPM in schools, where elite SLT members carrying out surveillance are distinct to the rest of the staff in the school and there is bottom-up accountability of teachers to SLT (Gunter et al., 2016). In the second quotation, Alex explains how they used to be able to use professional judgement to adapt the curriculum to the needs of classes, making decisions about the depth of content to cover. This represents a time when teachers were able to experience autonomy in their practice, albeit bounded by accountability to cover the curriculum. At the time, described by Alex, boundaries to the field of possible actions as a professional subject would have been present in the national strategies of Labour, described by Hall and Gunter (2016, p. 28) but compared to their current experience the field of possibilities were greater. Professional experience and judgement can be utilised when there is freedom in the choice of pedagogical strategies used in lessons. Sam illustrates how valued practices have changed over time:

> [I am] a fan of Spencer Kagan yes, and I used to love his stuff. He was creative and these games that I've discussed before, were just ways of getting kids to describe things to each other, and I like that, I thought it was good. Erm and we've seemed now to come back to a phase of "oh teaching is you stand at the front and tell them things" and then they silently work through it.

Kagen structures (Kagen and Kagen, 2009) represent a social constructivist approach to pedagogy. Sam describes the use of Kagan structures that enable student discussion and elaboration of their learning. Sam values the use of these techniques in the classroom and later in their interview, expresses disillusionment when comparing to how they are currently expected to teach.

Sam's disillusionment reflects the time spent in the profession, starting during John Major's Conservative government, moving through New Labour's approaches of skill-based curricula (House of Commons Children, Schools and Families Committee, 2009) and returning to the

traditional approach re-introduced by Gove from 2010 (Gibb, 2015). Despite Sam's positive orientation towards Kagen structures, these are an example of commodified resources and strategies produced by experts, as described by Apple (2000). Studies utilising discussion and argumentation are referenced in the self-regulation recommendation of *ISS*. There is no acknowledgement in ISS that social construction of scientific knowledge and understanding is in contradiction with the prescribed knowledge-based science 2014 national curriculum that is taught currently. Sam believes that traditional methods of teaching encouraged by their current school do not allow for social constructivist techniques to be used. The approach of explicit instructional teaching, individual questioning and repeated individual practice is underpinned by silent working while social constructivist methods utilising peer support and discussion leads to noisy and lively classrooms.

While political ideology underpinning the national curriculum has changed over the course of the participants' careers, the respondents identified aspects of the system that remained consistent. In the constant drive for progress and improvement, the name of the strategy changes while the structure remains the same, giving the appearance of a new technique. Alex said:

> It's not something new, not something new at all. Erm we've done that before. What else? Erm (pause)(sigh)I can't even think… they they say cold calling[27]. Well, it just wasn't called that before it just was called "don't put your hands up" erm (laughs) choose… choose randomly, or whatever it was. […] So yeah, I think honestly, I can't tell you the last time I went to a core CPD and it was something new. I do remember, when I first started teaching, erm staff saying things like that when I was in, like in, CPD and I was like "really okay, okay" but it was all new to me then. But then about five, 10 years in you're like "we've done this! we've done this!", and you just find it's the same again.

Although the respondents are within the first 25 years of their teaching career, constant change and recycling of ideas and strategies in search of an educational panacea begins to wear down the individuals' enthusiasm. Alex describes the feelings experienced during regular whole school CPD sessions. The institutional judgement is that staff do not know about the strategies being presented during CPD, while individual staff have seen it all before and become disgruntled and disenfranchised as their time is wasted. This resonates with the

[27] The name of this questioning strategy was coined by Doug Lemov and is referenced in Sherrington (2017) p. 28.

foreword of *ISS,* suggesting that strategies presented in the report will be familiar to teachers but will provide a better way of enacting the strategies. This perspective is not shared by the teachers, who determine that they are being asked to implement strategies and techniques that they have used for many years. The only difference being superficial changes to a 'branded name' either belonging to a MAT or a teaching 'guru'. This produces frustration in long serving classroom teachers, who interpret CPD sessions where these strategies are introduced as brand-new ideas as slightly patronising especially when delivered by the 'elite' SLT cadre who, with less time served in the profession, have not seen the recycling of ideas over time. Sam states:

> And when I first came into teaching, which was in the nineties, we were like always warned about the old guard of teachers would like to be sitting on their favourite chair in the staff room and going "oh we didn't do this way in my day". And as a youngster, you'd be like looking around and going "you should get with the programme, old man" you know. I'm thinking "am I now one of them, am I a luddite teacher who thinks they did it better in the old days their way?". Um the answer is "Yes, I am!"

Sam reflects on his transition from the enthusiastic new teacher entering the profession to wearied veteran, cynical of new (or recycled) fads presented as the next big initiative to be implemented in the school. This represents the way in which many teachers enter the profession with hope and a wish to make a difference.

As expressed by all the interviewees, CPD and new strategies are embraced and integrated into their practice in the early days of their career. New teachers have not experienced any difference from a profession bounded by a national curriculum, national strategies or performance management, so accept these forces upon their practice. Only with time are the intensifications of NPM techniques and changes in national curriculum experienced, and teachers realise that there are other ways of being and notice the level of control being exerted on them. These are the spaces that act as sites of struggle. Sam acknowledges his transformation and embraces the new version of himself, reclaiming the term 'luddite'. When Sam entered the profession, the 'old guard' will have been teaching before the introduction of the ERA and a national curriculum. Fisher (2008) describes this time as teachers having greater autonomy in their practice without the high level of accountability from Ofsted and league tables (introduced in 1992). The destabilisation in education was perpetuated by

Baker's hostility of the teaching profession in the 1980s and informed the introduction of the ERA (Fisher, 2008) which would have disenfranchised Sam's 'old guard'. New entrants to the profession at this time, such as Sam would not have experience the impact of the paradigm shift of ERA and would not understand the reluctance of the 'old guard' to embrace the new ideas and strategies, hence "you should get with the programme, old man". Discourses of derision, including from government, continue to be used against teachers (Craske, 2021) who do not support the changes to their practice that are determined by the ideology of the government at the time. These teachers are cast as 'the blob' or a 'luddite' refusing to improve or increase the standard of the education system. These 'luddites' have worked on themselves and constructed the self as their conceptualisation of a teacher, rather than being formed by forces exerted on them by government or SLT. Hence why Sam appears to be happy to claim the label of 'luddite'.

Key theme 2: Technicist teacher as the new professional

System wide homogenisation through commodified prescriptive strategies

The following extracts represent the ways in which the teachers structure their lessons based upon non-negotiable expectations of the SLT. The teachers describe the strategies they deploy in lessons as the way that lessons are structured in their schools, as determined, and enforced by their SLT. However, as can be seen in Jamie and Sam's responses below, there are remarkable similarities: from the general expectations of classes working in 'silence' and teachers 'meet[ing]'their classes at the door, to the specific named strategies of 'do now task' and 'cold calling'. Jamie and Sam said:

> But in terms of [name of entry and dismissal structures redacted]for example, [name of entry structure redacted]is literally stand on your door and meet and great which we call threshold and give the students instructions such as completing their 'do now' task, as they come in, do the 'do now' task in silence, take the register, do a review of the 'do now' task. (Jamie)

> So, for example, everyone in the school meets their class at the door. Everyone in the school has a 'do now' task projected on the board, which the class has to do in silence, takes five minutes. And then everyone in the school, will then cold call members of the class to get the answers to the 'do now' task before moving onto the first stage which will be teacher instruction, which will then follow with a period of erm extended silent work for the class. (Sam)

This represents how enforcing a norm leads to homogenisation of the individuals in the institution (Foucault, 1991), as a mode of de-professionalisation (Apple, 2000). Predictability and control (Ritzler, 2001) of the teaching output becomes of maximal importance. Despite the variety in the type of schools in a large geographic area, all three teachers reported similarities in how schools determined that lessons should be structured.

In some respects, this homogeneity can be traced back to the implementation of the KS3 national strategy described by Alex: "So, since 2002, or whatever it was when I first started teaching, it's always been the three-part lesson". The national strategies of New Labour (Whetton, 2009) represent centralisation and top-down management of education. The expansion of MATs, since the Academies Act 2010, appears to have decentralised pedagogical control from the government to MATs. This can be seen in EEE's (DfE,2016a) claims that MATs lead to system improvement by sharing good practice surrounding 'what works' (p.73). The influence of governance at the MAT level would be expected, especially in a school that has been taken over by a MAT due to a history of poor Ofsted inspections, however a high level of prescription was shared by all three teachers.

The influence of the work of the EEF (2018) and Sherrington's (2019) *Rosenshine's Principles in Action* in the use of 'cognitive science' through memory and retrieval can be seen in the teachers' responses. These publications contribute to the formation of a language where simple terms can encapsulate prescriptive strategies, with shared meaning across schools in MATs and the English educational system. Hattie (2023) suggests that learning outcomes should determine strategies utilised in classrooms. Within the educational context of England in the early 2020s, a picture can be built up from EEE *(*DfE, 2016a), the 2014 national curriculum (DfE, 2013) and, to an extent, the EEF's ISS (2018) about the outcomes of education in this time and place. The emphasis is upon a knowledge-based curriculum, assessed through recall of large bodies of information. EEE identifies the importance of teachers having strong subject knowledge, which combined with an epistemological underpinning of a tightly defined fixed knowledge base, makes the teacher the locus of control. These factors support pedagogical strategies based upon regular retrieval of knowledge, teacher explanations rather than social construction of knowledge, and repeated

practice of knowledge application. EEE proposes the use of specific strategies under the guise of 'what works' (DfE, 2016a, p.39), delivered by the EEF, and the idea that if a strategy has positive outcomes in one institution, the strategy will generate positive outcomes in all institutions.

Apple (2000) describes how technologies such as high accountability and prescriptive curriculum can generate excessive workloads, so that teachers do not have time to critically engage with strategies that they are presented with. These technologies have a dual function of commodifying pedagogical practices and de-professionalising teachers. This can lead to the situation described by Jamie:

> But we don't all have the time to do that [produce new resources] because we're constantly re-inventing the wheel and changing our slides to [name of whole school directive redacted] or putting logos on your slides and that sort of thing.

Branding and renaming strategies support compliance, as SLT can quickly recognise teachers' use of standardised resources that have the school's logo integrated. By diverting teachers' time away from using their expertise and experience to produce resources, to performing superficial tasks such as placing logos and branded names onto existing resources represents a mode of de-professionalisation. The technicist teacher's practice is highly controlled and reduced to the performance of simple tasks, as seen in Ritzler' (2001) discussion of control and predictability, and valuing of educational outcomes rather than processes.

Delivering the national curriculum

The presence of a national curriculum in English schools is an axiom despite only being a phenomenon since the introduction of the ERA in 1988 (Hughes, 1997). As can be seen in Alex who states: "We had to teach what was in, what was on the national curriculum, absolutely, definitely… Well, we do have to follow our scheme of work. That's the biggest influence, because *obviously* you've got to follow that". The technicist teacher is to unquestionably follow the national curriculum, that is developed at MAT or school level into schemes of work to ensure all aspects of the national curriculum are covered. This is enforced

through the governmentality mechanisms of Ofsted inspections as described by Perryman et al. (2018) and league tables of results as failure to conform is monitored through the supported autonomy agenda of the government (DfE, 2016).

While the requirement to follow a national curriculum is not questioned, the content is. For example, Jamie said:

> Er I do think that sometimes they put some nad [colloquial term for rubbish] in chemistry. Like do you need to know like all of vanadium variable oxidation states? Probably not, you know. If you, you know, do you need to learn the transition metal colours? Well, no because you'd look them up, and if you were doing research on them you'd know what you were you were looking for. So, I think that's just there's some knowledge in that they're expected to remember that I don't think is worth them remembering. Do I need to remember the names of the scientists that contributed to the development of the periodic table? Probably not. You know that it's the, they're all white men who obviously had a lot of money and we're not necessarily celebrating the diversity of science and encouraging that anyone can be a scientist.

The teachers' experiences of several inceptions of the national curriculum demonstrate curriculum content is not fixed, especially due to changes that occurred following shifts between Conservative and Labour governments. The current curriculum represents a greater emphasis on rigor and knowledge that is deemed essential 'for adult life in 21st century Britain' (DfE, 2016, p. 88). Jamie's experiences of other curricula and modes of teaching, provides space to question requirements of memorising knowledge that can be easily accessed through technology.

The concept of a traditional knowledge-based curriculum provides a site of struggle for Jamie to question new possibilities for teaching. The rhetoric of a knowledge-based curriculum to support social justice, which underpins the DfE's (2016a) EEE is challenged for the lack of diversity when representing science as a discipline. The notion of a knowledge-based curriculum is derived from the work of E D Hirsch (Gibb, 2015). Hirsch proposed 'No matter what the home culture might be, every child deserves to become proficient in the taken-for-granted knowledge of the shared language' (Hirsch, 2017, p. 9). Moving from theory to the daily experience of teachers, provides an alternative perspective with the feeling that the knowledge rich 2014 national curriculum is not relevant to the lives of young people. While Ofsted (2023) state that a school's curriculum should 'develop cultural capital' (n.p.), some young people do not have the cultural capital required to access the knowledge in the

curriculum. Jamie's critique is representative of Apple's (2000) concept of official knowledge and discussion of who and what is valued in the curriculum.

A rigorous and robust curriculum, as proposed in DfE's (2016a) EEE, has resulted in an increased emphasis on knowledge acquisition and recall. This has produced a rigorous and stretching curriculum throughout secondary school, beginning from the age of 11. Alex discussed the difficulty students of accessing the curriculum:

> And … they… what we're teaching now in Key Stage 3. There is erm (exasperated sigh), there is … (pause) there is getting more and more content in there that was never taught till GCSE and some of that is quite difficult for the students to understand (dry laugh).

The teachers express the opinion that this makes the subject more difficult which could impact upon the aim of the EEF's ISS to improve engagement and interest in science. This is exacerbated by the high stakes examination systems which influences teachers' practice, so that the main function of secondary school education is preparation for GCSEs to ensure maximum student performance. As described by Alex:

> Erm but when you were teaching to an exam, which let's face it, that's what we're doing, especially at GCSE, then there are certain criteria you have to therefore cover erm. So, and … preparing them for that at Key Stage 3 is the best way of getting that out of them it's long answer questions, so it gets them, gives them that practice at writing those long answer questions.

The performative pressure, as described by authors such as Ball (2003) and Thomson (2020) can be seen in this response. The act of teaching is not about engagement or a joy in the subject but preparation for exams, whether this be teaching specified content or training students how to answer exam questions. High stakes accountability measures can be seen to influence teachers' daily practice with all classes, rather than in the final run up to GCSE exams at age 16.

Alex's response demonstrates that exam training and practice are important components of the curriculum enacted in classrooms. This highlights the emphasis of a curriculum on examination performance, rather than long term learning. Alex uses the rhetoric of neoliberal market competition, to justify exams and the need for teachers to prepare students for exams: 'The real, in the real world… you …you are competing against everybody in the world for

jobs now. So there has to be sort of measurable thing.' Here, Alex illustrates the way in which economic competition and quantitative measurements of the value of a person have entered the domain of education, from the realm of economics. In this case education is represented as a political act, the purpose of which, in this case, is competition in the job market. The axioms of neoliberal approaches to education can be seen through Alex's responses of accountability of outcomes, rather than processes, and the production of human capital for the economy. The role of education in neoliberal contexts, centres on economic prosperity and competition in the global market. The concept of a knowledge economy was central to Tony Blair's 'Education, Education, Education' policies implemented through New Labour (Ball, 2017a) and continues through the focus upon improving Britain's economic success in DfE's (2016a) EEE.

Impact on the individual teacher

The previous extracts represent the teachers discussing these issues in a matter-of-fact way, appearing to accept the situation as 'it is what it is'. However, as Sam describes below, the intensification of prescription in recent time does have an impact the thoughts and feelings of teachers:

> [A coach was assigned that….] I got on terribly well with and we met and after the first few rather awkward not awkward …. But it just felt this is nonsense, I've been doing this an awful long time and I feel like I know what I am doing, and I felt a little patronised to be given like tips on how to do a job that I felt I was quite good at... It does, like I felt the level above was changing from a genuinely supportive role to let's let's push your performance. To be honest I think it [the coach] was a good job you know gave me tips and pointers and rather tweaks. But I felt the role she'd been assigned was not necessarily to tweak performance but to make it more in line with the rest of the school.

In this extract, Sam is questioning the intentions of the MAT, stripping away superficial niceties of the MAT appearing to invest time in Sam's professional development to reveal the use of coaching as a blunt object to ensure adherence to the MATs expectations for teaching. Often staff delivering CPD or coaching sessions are more senior in the hierarchy of the school but less experienced in education than the colleagues that they are exerting control upon. Sam explains the feelings of an experienced teacher being placed on an 'improvement plan' to ensure teaching performance is in line with the MAT's expectations. Sam's response

infers an internal tension between their professional knowledge and experience which has been developed over 25 years, and being forced to teach in a certain way, expressed as frustration and annoyance at the situation.

Key theme 3: Ensuring compliance through neoliberal management

Forces from outside the institution

The management of education in England works on the paradox of high government influence and distributed governance at the local level (Fisher, 2008) since the implementation of the 1988 ERA. Teachers' responses show the myriad levels of influence upon their practice, all of which emanate from above the teacher and work to ensure compliance with the role of the technicist teacher. Jamie said:

> But you know, you're left between a rock and a hard place because obviously that suggests that the report suggests that you need more practice, and you need to give more time for modelling, but you can't not teach anything because then you don't have a directed curriculum. So, you know you could justify "Oh well I'm not going to teach this because then I can get more practice of this, and I know it's more likely to come up. And I know that underpins more other stuff". But then you don't teach something, then you haven't fulfilled the national curriculum, you know so you can't.

Multiple forces operating on teachers can cause incoherence and produce dilemmas for teachers during decision making. Jamie has more control over their practice than Alex and Sam, who follow prescribed schemes of work produced at MAT level. Alex and Sam have become de-professionalised through control, as described by Ritzler (2001), as their limited responsibility is delivering predetermined lessons that cover the national curriculum, using the prescribed strategies of the MAT. Jamie is provided with the illusion of choice in techniques that they can use to deliver the curriculum.

The forces Jamie describes represents the influence of cognitive science on valued teaching strategies and adherence to the curriculum content, which still bound their practice. The EEF's (2018) recommendation for memory provides strategies to support the recall of key knowledge when considered in combination with explicit instructional techniques promoted by Sherrington's (2019) *Rosenshine's Principles in Action*. However, as Jamie discusses,

another site of struggle develops as Ofsted (2023) require evidence of full coverage of the rigorous, knowledge-based curriculum. There is no question that the content of the national curriculum must be covered, as mentioned before. The cause of this internalised pressure is not explicit but can be linked to the need to cover content in preparations for student examinations, under the pressure of performativity, discussed by Ball (2003).

In addition, the use of terms such as 'fulfilled' and 'you don't have a directed curriculum' demonstrates the influence of Ofsted as a panoptical presence in the day-to-day practice of teachers. This is particularly pertinent to Jamie who works in a school graded as 'requires improvement', putting the school at risk of forced academisation as part of the government's approach to supported autonomy (DfE, 2016), As part of the Ofsted inspection framework (2023) a decision is made upon the school's adherence to the national curriculum. Failure to adhere to the national curriculum can result in a poor Ofsted grading. Ofsted also impacts the daily functioning of educational institutions:

> I think that the issue is, is academies and schools, academies especially, are so desperate to get those high Ofsted grades that that they impose erm admin, mostly admin, and worki…. mostly admin and working practices on the staff that they think will find favour with Ofsted without actually worrying if they will. (Sam)

As a critique of workload and pressures, Sam considers the impact of Ofsted upon classroom practitioners, through the mechanisms of leadership teams in schools, so that achievement of specific Ofsted grades becomes a function of the school. Implicit in this statement is knowledge that Ofsted judgments can be make or break for schools, especially when functioning in competition with other schools or MATs in quasi-market conditions, described by Ball (2017a). These working practices produce bureaucratic demands on staff to complete documentary evidence of performance in a form of NPM (Gunter et al., 2016).

As disciplinary examinations (Foucault,1991), Ofsted inspections require evidence to make judgements, which contributes to a culture of constant surveillance in schools imposed by management (Perryman et al., 2018). Ofsted represents the private-public partnerships of neoliberal approaches to the education system and a constant within the English educational environment from its inception in 1992 as part of John Major's Education (Schools) Act 1992 (Fisher, 2008). Combined with EEE's proposals of academisation, Ofsted gradings and

examination results become the focus of institutions, especially those in ‘inadequate’ or ‘requiring improvement’ categories. At the time of writing, there has been a renewed critique of Ofsted particularly in relation to how Ofsted inspections and grading are carried out, following the publication of the coroner’s report on the death of Ruth Perry after receiving a downgrading from ‘outstanding’ to ‘inadequate’ (Courts and Tribunals Judiciary, 2023). This provides context for the high stakes environment in which teachers operate, the gradings allocated by Ofsted have significant implications for the careers of senior leaders in schools. As a result, pressure acts downwards towards classroom teachers to ensure inspections are successful:

> And my thoughts which maybe totally, totally off course are that Ofsted are looking for certain things. Academy chains jump to conclusions of what they think Ofsted are looking for and insist on their staff doing it […] They’re so eager to please this body that they, they don't jump through Ofsted’s hoops, they jump through their own self-made hoops that they think will get them a better grade.
>
> I can always imagine academy chains getting into Ofsted don’t like formulaic lessons – what will they do then? They come in and say like “Oh… I see you did a starter this lesson, also last lesson. Now we would like you to go choose from this chocolate box of different lessons, and don't repeat until you’ve done all six of them.” (Sam)

The fear of Ofsted can lead to implementation of school or trust level policies to support favourable inspection outcomes. Sam questions the way in which MATs are interpreting Ofsted’s guidance (2023) to produce unnecessarily stringent policies for staff to adhere to. Thus, constructing the technicist teacher that is predictable and controlled, as described by Ritzler (2001).

Sam does not believe that SLT in their school fully comprehend the norms that Ofsted expect schools to conform to, this view is confirmed by the research of Perryman et al. (2018). In their research, Perryman et al. (2018) discuss the impact of recent Ofsted frameworks on appearing to move goal posts increasing uncertainty in the act of examination during inspections. In these muddied waters, MATs and SLT can use the threat of Ofsted to ensure adherence to unpopular policies, as discussed by Hall and McGinity (2015). However, as Sam discusses, outcomes of ‘self-made hoops’ return to imposition of prescriptive strategies for teachers, which even when suggested in jest, represents the neoliberal illusion of choice for the technicist teacher in the limited number (six) of options available in the ‘chocolate

box'. The role of Ofsted is often hidden in plain sight in the everyday workings of the institution, as described below:

> I think we have lots of conversations about Ofsted, not having an impact and we're doing this for the kids, and I do think that's a lot that we do that is, for the kids. But if we hadn't had a bad Ofsted, we probably wouldn't have done it. So do you know what, because I think a lot of places like cos it's like "if it's not broken don't fix it" but it is broken, so we got a bad Ofsted, so we have had to fix it. (Jamie)

Jamie works in a school that has been graded as 'requires improvement', their response demonstrates a movement from internal school policies that are presented as 'what Ofsted like' to 'Ofsted have identified these problems that must be addressed' so there is an urgency to make changes and ensure improvement. Ofsted becomes a spectre that informs all decision making and teacher judgments in the classroom.

The power mobilised by Ofsted produces a teacher subject that is willing to adhere to the norms of the institution, without argument or discussion (Lukes, 2005) because continued 'bad' Ofsted judgements move from the institution being labelled as 'requires improvement' to staff being categorised as 'requires improvement'. Jamie explains the extra pressure and intensity of surveillance placed upon staff in a 'requires improvement' school:

> we do have a school improvement partner visiting us as well. And so, they will involve learning walks and student voice and meeting with individual stakeholders. All to determine what's going on, what the views are and you know if you ask the head of department about something, is the head of faculty saying the same thing, is the teacher saying the same thing and are the students saying the same thing then you get a conclusion forming and then we get a report from them. We get told the bits that are relevant to us so that they expect us to do something about.

The discourse of autonomy-accountability identified in EEE *(*DfE, 2016a) can be seen in action in this extract. Following the 'requires improvement' grading, the school management team are no longer afforded the autonomy to determine school level policies independently. Instead, an extra layer of governance and accountability is added through external support that is imposed rather than requested. The level of managerialism increases with performance technologies being deployed through the asymmetrical power relation with the school improvement partner. The partner does not work in partnership with the school, instead they

represent corrective practice following an examination, in a hierarchical system of surveillance, as described by Foucault (1994c).

Foucault (1991) explains how a panopticon functions so that 'temporary observers' (p.202) such as the school improvement partner, 'produce[s] the homogeneous effects of power' (p.202). School improvement partner visits ensure movement towards a more predictable system, as described by Ritzler (2001) where variety is removed and all 'stakeholders' are singing from the same hymn sheet. The norm, that the school improvement partner is judging the staff, leaders and students upon becomes an act of homogenisation. Simultaneously, the surveillance technologies and discourses of Ofsted and the school improvement partner, are recirculated by SLT in their managerial practices carried out even when the external observers are not present. SLT under the guise of NPM are accountable for performance outputs (Hall and Gunter, 2016) which in the English education system are student attainment in GCSE exams and performance during Ofsted inspections. To ensure positive outcomes, SLT must ensure high performance from classroom teachers.

Forces within the institution

One approach to ensuring high performance of staff, is through control and insisting on predictability in the institution:

> Because I'm working in an academy chain, the influences are doing it in the style of the academy chain where I'm working at. So, for example, they have a…. a way the teachers deliver to, so the lesson commences in a certain way, it needs to have a section of instruction, it needs to have a section of student participation, students are addressed in a certain way, certain techniques you use. So, erm, to answer your question. I am currently teaching in a way that my employers would like to see me teach. (Sam)

Sam has accepted that working in a MAT means reduced autonomy in their teaching practice. The subject as a teacher has been reformed in this MAT as a technicist teacher where there are clear organisational rules to adhere to. High levels of control are enacted so that teacher choice and judgement are reduced and lessons in the school are predictable. These practices may, as Ritzler (2001) suggests, be effective in large multinational fast-food chains producing

simple products, but does this work when the required output is examination grades? This represents the de-professionalisation of Sam into a performative teacher. The final statement provides more insight into Sam's ways of being. Although on the surface Sam is conforming to the norms, there is an internal resistance acknowledging that there are other ways of being as a teacher. Sam is superficially playing the performative game to survive in that institution, representing themselves as a free subject making informed decisions.

Surveillance technologies, used to control and produce the teacher subject, do not impact upon behaviour in isolation. Once management have observed the actions or outcomes of teaching, judgements are made and shared with the individual teachers. However, these judgements are often passed on through intermediaries. Alex recounts a situation where they had been caught deviating from a non-negotiable for a short period of time, in this case sitting down to complete a class register. Alex said:

> I'm not so nervous when Ofsted come in. Whereas erm, very much, very nervous when SLT come in … the SLT member will say something to the head of department, who then calls you into a meeting and says "this SLT member has seen this… right?" and obviously they've got no context because they've not bothered having a professional conversation to ask why you are sat down at that point.

Alex demonstrates that it is SLT who ensure that the desires of the MAT are enacted in classrooms. As SLTs normally consist of a head teacher, deputy heads and assistant heads, SLT are most local to teachers' everyday experience of disciplinary power. Experiences with SLT are where teachers will have the greatest exposure to discourses operating in the school. As mentioned previously, SLT are considered by the respondents as the other, and from a NPM perspective their role is to reinforce standards of attainment (Hall and Gunter, 2016,). The power flows through the hierarchical system in the English education system, so that the asymmetry in the power relation (Lukes,2005) between the teacher and SLT member, causes fear in the teacher, so the closest enemy becomes the most important enemy (Foucault, 1994a). This means that despite pressures of Ofsted inspections, the immediacy of feedback from SLT can cause teachers more stress during internal observations than Ofsted inspections. This could be due to the consequences of judgement from SLT at a personal level, whereas Ofsted judgements are at the institutional level.

Neoliberal values inform the technologies deployed through the education system as a method of improving standards. To avoid situations of 'coasting schools' (DfE, 2016, p.19) there is a drive for constant improvement, so that all feedback given to staff will include 'tips' on how to be more effective. Alex recalls an incident following a lesson observation:

> My lesson was reproduction. And it … this was at a time when they would tell you what you could do better… Well, you know… tell you… give you feedback and everything. "There should have been more practical" (laughing). So, I'm just gonna leave that with you. As a little… (giggles) honestly!

Alex relays the feedback given following a lesson on sexual reproduction, highlighting the tick list approach to lesson observations, even when those aspects are not relevant. This description of lesson observation feedback demonstrates institutional inflexibility within the driving up standards agenda. Regardless of the standard delivered by a teacher during their performance, there is always something that can be done better. Even if, as shown in this example, the improvement is irrelevant or superficial so that the act of feedback becomes arbitrary when there are no obvious improvements to be made. This demonstrates a type of Mertonian unintended consequence, as described by Hood and Peters (2004), where overcommitment to performance management strategies applied uncritically can reduce the credibility of the practice.

The idea of consistent improvement in standards is a key component of NPM (Clarke, et al., 2000) and EEE's (DfE, 2016a) proposals which include tackling perceived areas of underachievement across the country, the North-East being one of those areas. The EEF's guidance report is even more explicit with the title *Improving Secondary Science* and statements that suggest science education in English schools can and should be improved. These messages pass down to teachers who feel the pressure of improvement as a constant force, pushing performance and outcomes of staff and students. Improvement drives are monitored through performance management techniques which are a method of surveillance used by managers upon their staff in low trust, high accountability systems, such as those described by Apple (2000). Alex said: 'Oh no we're not trusted. So, book scrutinies, erm random like walk throughs, as well as erm observations: formal observations, erm… er informal observations'.

Lesson observations and learning walks are a form of surveillance technology carried out in schools by SLT. As part of top-down management, the role of managerialist practices can be observed in the work of SLT. As Hall and Gunter (2016) discuss, a divide is produced between teachers leading to classroom teachers taking the role of technicians while senior (in terms of hierarchy rather than experience) teachers become professional managers. To obtain highest levels of performance from technicist teachers, managers deploy a range of surveillance technologies to ensure compliance with desired methods of implementing policies.

These surveillance technologies are overt and understood by the technicist teacher but lead to an erosion of trust within the institution. Alex said that staff had got used to the fact that the head teacher and other SLT 'regularly walk around'. They continued: 'That, that is what they are there to do. In fact, it's something that they're supposed to be doing erm all of the time, so they expect SLT to be in any lesson. Jamie said of learning walks:

> And I think learning walks are very much like they're trying to get across like that they're not like really scary and they're not like meant to be intrusive. It's just meant to be like a normal way of like checking what is going on in the school and making sure the kids are like following routines.

The lack of trust is internalised by teachers but, as Alex and Jamie describe, there is no escape from the panoptical surveillance technology (Foucault, 1991) of the learning walk. Teachers accept the presence of learning walks and become normalised to the practice as free subjects. The institutional norm of learning walks operates at a level where constituted subjects adhere and perform during the examinations of the learning walk. These teachers also recirculate discourses surrounding learning walks, reforming these acts as practices that should be carried out within the institution.

Lesson observations have been a constant present throughout the careers of all the teachers interviewed. The use of student exercise books as a method of surveillance has entered the tool kit of technologies that can be deployed by SLT more recently. This method of surveillance is so prevalent and integrated into the normal working practices of schools that staff can forget that there was a time when schools functioned without book or work scrutiny

as seen in Alex's response: 'There's always been book scrutinies… Well, actually not, maybe in the first few years. Erm … but then it's just become a general thing… "book scrutinies"'. When talking about a strategy that they were implementing in their practice, Jamie implicitly identified the role of exercise books as method of surveillance in quality assurance: 'But then it's also if anybody else looks to see your books they can see that's what's happened'.

As a surveillance technology, book scrutinies originated from Ofsted (2019b) using developed indicators to assess quality of education and have been adapted by schools as a quality control measure. This method holds the teacher accountable not only for their actions while teaching but also for the outcome of learning, which is deemed to be adequately represented by the content and presentation of students' work in their books. Book scrutinies operate as an evidence source in Ofsted inspections and have filtered down into the performance management technologies of SLT. In the low trust, high accountability atmosphere of English schools, nothing is left to chance. Non – representative performances can be produced in lesson observations or turned on during a learning walk, books and lesson planning documentation can provide evidence to supervisors about what is really happening in lessons. This is not the teaching nirvana where teachers are trusted and believed to have integrity, that Sam describes at the beginning of this chapter. Alex commented:

> we currently have to erm plan our lessons, although all we have to do, is write a (sigh) learning objective (sigh), and then to like bullet points of stuff we're going to do. That's no use nor ornament to anybody, erm it's just a waste of time. I have a planner that I have all my lessons in, if they want me to write my learning objective in there instead of the lesson title, then see it, so they can see my "sequence".

Alex describes the final triangulation point for evidence used by SLT to judge performance of teachers. The 'busy teacher' is described by Apple (2000) as overworked through high levels of documentation. The sighs and tone change when Alex discussed anything to do with lesson planning documentation, demonstrated their exasperation with the process, as does the dismissive language of 'no use nor ornament'.

Alex understands the role of these documents: they have to be shared online with supervisors so that the content (knowledge and activities) of lessons can be viewed at any time and

checked against the 'directed' scheme of work that they need to follow. This method of surveillance is successful for leadership as a hidden panoptic technology. The teacher, instead, views this as an added inconvenience and site of struggle about superficiality of non-teaching tasks they are asked to carry out. With annoyance, Alex suggests that if SLT want to monitor them, they are more than happy to show their personal documents as they have nothing to hide. Jamie also spoke about documentation:

> We've had to do these age-related expectations documents of like two or three pages of like comprehensive information of about what you're teaching and what order you're doing it in. Like the children are not going read them, they are not for the children. "Oh, but they will have an impact because staff'll know what order they're teaching in so they'll know" No, staff look at my long term planning document and then they'll look on the shared drive to see what's going on. So, the staff aren't going to read them either. "Oh well the parents will look" and I was like the parent's don't understand the national curriculum either.

Jamie presents a similar attitude to planning documents that are required in their school, equally acknowledging the production of such documents as superfluous and unnecessary. Jamie recounts the response given when asking why the documents should be produced and her internal reaction to the response. For Jamie, the document requirements are not at the granular individual lesson level, yet evidence of content and the sequencing of the taught curriculum are expected to be produced. Jamie appears to innocently question the purpose of the documents by asking who the audience is. These questions are rhetorical as the teacher is acutely aware that SLT require the documentation as evidence for Ofsted or for SLT's monitoring processes. In this extract Jamie provides empirical evidence for the 'self-made hoops' of Sam's critique mentioned earlier in this chapter.

Top-down management acts to control the way in which staff operate, in this case as technicist teachers. Surveillance technologies as performance management act as a method of control by observing, judging and rectifying behaviour. However, surveillance technologies are just one way in which SLT controls the behaviour and teaching practices of staff.

Key theme 4: Controlling discourses at the institutional level

CPD: Continuing professional development or contesting professional discourses.

> [Sigh] I'm old enough to remember the VAK debacle [28]right. Now I remember being like erm in some sort of CPD training thing like power marching and my fellow physics teacher who was a little older than me, who I would class as a charismatic luddite, as this VAK thing is going saying "oh this is crap, it is ridiculous", and some of the younger ones presenting said " no, no there's evidence to back it up." So I'm thinking "oh... OK" and then when it was totally revealed to be absolute gobble de gook years later it left me with this like overriding feeling of like when every academy chain, I have been in in the last 4 years it's been totally Rosenshine crazy. And I look at it and think "well is this VAK all over again?" Because when VAK was coming out, we were being given these presentations by people saying, "what you thought is right is wrong but this is the way that it should be done" [and now]an English teacher who doesn't understand statistics have been going in front of us showing a pie chart to tell us what we thought was right is actually wrong and following Rosenshine to the letter was the only way to do it. (Sam)

Sam refers to the early 2000s when CPD was used to disseminate teaching strategies and pedagogies to staff. During this time strategies such as VAK were disseminated through Local Education Authority training or external consultants. These techniques were less prescriptive than explicit instruction, although there was still pressure on teachers to utilise these at an institutional level. Sam refers to the way in which 'fads' in education take hold in similar ways using the rhetoric of evidence, whilst tracing the way in which the response of his older colleague at the time, has become his response now. Sam discusses how CPD becomes style over substance, where rhetoric is used to diminish the knowledge and experience of teachers in the audience. They compare this to presentations 20 years later, this time presented by SLT, the same rhetoric and underlying message of de-professionalised teachers is used to promote an entirely different approach to teaching.

CPD was identified in EEE as a central component of the teaching profession, however CPD is not about encouraging autonomy or engaging staff in discussions relating to their practice as a teacher. Instead, regardless of experience within the profession, CPD is used as a vehicle

[28] VAK learning styles. The identification of a student's preferred learning style (visual, auditory ad kinaesthetic) to support the planning of teaching activities, so that lessons met the learning styles and needs of the students in the classroom.

to ensure consistency and predictability through prescribed and institutionally approved teaching methods. Sam said:

> My current experience I feel like what you're told in like a whole staff CPD "we deliver things this way but of course this is allowing for individual personality, and it needs to be done this way" […] "Ok your judgement is this, however our judgement is better and consequently if you don't do it our way, you're not doing it right"

The way in which CPD is delivered makes it clear to staff that those delivering are the experts, while the teachers in the audience are the novices. Sam highlights the way in which CPD is delivered producing an incoherence in message. On the surface it appears that SLT want individuality and creativity in the delivery of lessons, but the scope is limited, as Hall and McGinity (2015) describe as 'agency is significantly restricted to locally legitimised action taking place in centrally regulated structures' (p.11). While Hall and McGinity were considering this at a system wide level, Sam's situation demonstrates that this takes place at the level of individual schools in MATs. Decisions on the level of individuality that is deemed appropriate is controlled by SLT, disregarding the experiences of the class teacher, so that the institutional norm becomes an unquestioned 'truth'. This represents homogenisation of teaching staff, while ensuring key messages and institutional norms are circulated to all staff. Alex also spoke about CPD:

> But yeah, they've, they've built the CPD around what they [Ofsted] expect. Yes. Erm what they do the judgment on… erm (pause) because we had all that CPD on what we should know about safeguarding, about what we should know about… ohhhh … all of the different strategies that were in place for literacy and numeracy and all of that sort of stuff.

While the previous statements refer to the development of the technicist teacher's pedagogical strategies, CPD also holds another role in training the technicist teacher to perform during Ofsted inspections. Jamie discussed the triangulation of data from discussions with various stakeholders in a school, to determine if the messages are consistent, when describing the practices of school improvement partners. Since CEOs and SLT in MATs are often Ofsted inspectors (DfE, 2016), Alex recounts ways in which game playing is taking place at the institutional level. Thomson (2020) defines gaming as 'using rules and procedures designed to ensure due process and protection of a system in order to manipulate it to a particular end' (p.157). In this situation, gaming uses MAT leaders' inside knowledge

of Ofsted inspections to train staff to produce performances during inspections to ensure positive grading.

The combination of top down managerialist technologies of control and surveillance is disseminated through discourses that are imposed upon and take place between teachers. These discourses influence the thoughts and behaviours of teachers, so that specific practices become unquestioned and even praised despite creating the technicist teacher.

Internalising and re-circulating discourses

> Integrating the use of whiteboards, I was quite happy about. But again, I feel like if everyone was doing it and had rules and routines for using whiteboards, then that would make it easier. So, you're trying to establish your own rules and routines, why don't we just have a whole school policy for that to make it easier for everyone to get on board. (Jamie).

Jamie appears to internalise the 'superiority' of whole school approaches to pedagogical practices that ensure consistency. In the recounting of an initiative to use whiteboards as part of formative assessment strategies, Jamie appears to want greater prescription from SLT's implementation of the strategy. At first glance this seems to be an act of self de-professionalising, by Jamie actively wanting to shift the locus of control for classroom routines to SLT, for an easier life. However, this opinion represents an internalisation in the belief that consistency and managerial control lead to predictable outputs in practice, as seen in Ritzler (2001).

Discourses surrounding top-down control of consistency, can be seen in the EEF's *A school's guide to implementation* (2019a) where highly prescriptive check lists for predictability are suggested as good practice. As Jamie engages in 'Edutwitter' [29] it is highly likely that they are familiar with *Teaching Walkthrus* (Sherrington and Caviglioli, 2020) which describe the use of 'Show-me boards' as 'students write on the boards in response to a question and then,

[29] The colloquial name given to groups of teachers posting about education on the social media platform X (formally known as twitter) but is now used to refer to social media posting about education on a range of platforms.

simultaneously, show the teacher their responses, giving a big hit of feedback to the teacher' (p.94). The authors elaborate the process, breaking it down into a five-step sequence with stylised visuals, that are designed to act as a checklist. This represents the internalisation of the technicist teacher as the 'good' teacher that follows the rules to the letter. Alex builds on this from a different perspective:

> Because, if I'm going to do it. I will do. I won't just do it for an observation, and I know there's some people that will. But erm they they no, I I would do it anyway, because … I'm the sort of person that if I've been asked to do something I have to do it and or I don't feel very comfortable so no, it's done, anyway. They wouldn't make a difference if I didn't have a book scrutiny. It would still be done. It would be nice to be trusted that it was done er... and observations and all the rest of it. Erm... actually, I think the best way to do. It would be just for them just to wander around like they should be able to any time erm rather than formal observations. And if they wanted to check then they could, you know just I think the SLT should be erm visible. Erm they're supposed to be in charge of the school and everything else they should be visible, so they should be able to just walk in and look at the kids book at any point rather than "Right, you have a formal observation next week", "you have a formal book scrutiny next week".

Alex represents how they have become the 'technicist' performative teacher. The discourses surrounding what it means to be a professional in their institution have been internalised and are constituting Alex as a subject 'willing' to adhere to the institutional norms, as described by Lukes (2005). While this teacher subject is likely to have been created by the disciplinary technologies of surveillance, as a subject that conforms to the norms and expectations Alex believes that disciplinary technologies are not required to be carried out on them. However, Alex does not believe the integrity that they show towards their work is shared by all staff in the school. The suggestion of Alex relates to intensifying the examinations of performance management so there is full panopticism and the feeling of constant visibility, so that individuals who only perform in observations are forced to be fully performative and constantly adhere to the norm. Alex does not see this intensification as a disadvantage to themselves, as they already adhere to the norm. This represents the hegemony of NPM, ingrained in long serving teachers.

Failure to conform to the discourses surrounding what it is to be a teacher in a particular institution, carries a consequence, as described by Sam below:

> I think we can probably think of the members of staff from my former employer who suddenly weren't there, and I think, without the exception, these are teachers I would probably describe as charismatic luddites who were probably quite popular in the classroom and probably got reasonably good exam results but most certainly didn't follow things to the letter of the law erm. And I feel in not terribly different circumstances I could possibly be considered a charismatic luddite and in certain academy chains I think that could have meant that my days were numbered.

Sam speculates about the alternative paths that they could have taken, if they had not chosen to buy into the 'informal' teaching plan they were placed upon in their current school. This illustrates the fear under which teachers operate, fear that they will disappear via incompetency programmes should they question the norm of the technicist teacher in their institution. The 'charismatic luddite' described by Sam is viewed by the institution as unprofessional as these individuals are not following the prescriptive norms. Instead, the 'charismatic luddite' demonstrates more tacit qualities of a teacher such as popularity in the classroom, which cannot be scripted. Although the 'charismatic luddites' achieve desired outcomes, in this context, process does matter as they are unwilling to conform to the norms required by management.

The previous examples have demonstrated how MATs and SLT of schools have asserted control over staff by focusing on what is being done incorrectly or appearing to neutrally monitor what teachers are producing. The next extract represents the covert ways in which Jamies's SLT ensure conformation through appearances of being 'nice' to the staff:

> We'll get a bulletin for the following week, and it will have reminders in there about like we're doing a learning walk next week, and this is what we're expecting to see. Erm, in the bulletin we have something called the [name redacted]so we've got like eight members of SLT, and they all contribute something every week that they've seen around school and that gets talked about in the [name redacted] which is really nice… I think everybody likes being in the bulletin and I think there's been a few members of staff across the school, not with in my department who have won like a star of the week as well.

In this example of monitoring, external motivation factors and praise are used to encourage conformation to the required norm. In this extract, SLT are appearing to support staff in producing performances to the norm. Notice is given to staff raise awareness of an upcoming

examination taking place in the form of learning walks. By identifying the focus and giving the enough time to prepare, the expectation is that staff will produce a performance that demonstrates the best version of themselves. SLT mask the negative connotations of mandated surveillance and control by using praise rather that threats to coerce staff. In a school that has received a 'requires improvement' grading from Ofsted, public praise in a bulletin and being awarded 'star of the week' produces a sense of being valued in the teaching staff. This demonstrates how valuing staff through praising examples of normative practice, staff are constituted as subjects that will adhere to institutional norms.

Key theme 5: Sites of agency

While carrying out RTA on the interview data, the notion of teacher agency seemed to be a relevant approach to understanding participant responses. My analysis highlights several areas where agency can be practiced, such as: freedom to innovate; various forms of resistance; and compliance. To understand why these sub-themes are important, I will explore literature sources relevant to concepts of agency and teacher agency. A working definition of teacher agency for analysis in this dissertation will be determined, followed by an overview of contemporary research that will inform interpretations. This will provide grounding for a detailed analysis of each sub-theme.

Priestley, Biesta, and Robinson (2015) identify three distinct conceptualisations of agency: as a variable to support understanding of social action; as a capacity possessed to a greater or lesser extent by individual actors; or as a phenomena which is achieved by the interplay between personal capacities and the context of the environment. The latter has been used as the basis for an 'ecological approach to teacher agency' (Biesta et al., 2015; Priestley, Biesta and Robinson, 2015), drawing inspiration from the work of Emirbayer and Mische (1998) who develop a definition of agency which includes 'temporally structured engagement' (p.970). Emirbayer and Mische (1998) propose a 'Chordal Triad' (p.970) to demonstrate how temporal orientations construct the engagement and enactment of individuals. The triad is composed of influences of the past (iteration), decision making and action in the present (practical-evaluative) and imagined future outcome (projectivity).

When considering teacher agency, the professional context and practices of teaching need to be considered. Priestley, Biesta, and Robinson (2015) highlight the co-opting of teacher agency as a mode of school reform in the modern context, however the educational landscape in which this dissertation is situated aligns with the observations of Biesta et al. (2015) that some educational systems prioritise evidence-based, and data orientated approaches over teacher agency. In relation to my interviewees, it is pertinent to acknowledge the high accountability and prescriptive curricular domains that can have an impact upon teachers (Priestley et al., 2012). As Biesta and Tedder (2007) describe, these domains mean there is a gap between teachers' self assertation and the ability to control their social situation.

Using a temporally aligned ecological approach, agency can be acknowledged as fluctuating over time, dependent upon myriad layers of economic, social, and cultural resources that constrain or support the achievement of agency (Biesta and Tedder, 2007; Rushton and Bird, 2024). Achievement of agency can develop over time as the individual accumulates experience, or in environments where there are cultures of trust and sharing (Priestley et al., 2012; Priestley, Biesta, Philippou and Robinson, 2015). So that even in situations where teachers are constructed as technicians, individuals are still able to act reflexively through a prosses of 'iterative refraction' (Priestley et al., 2012, p.193) where policy mutation occurs. Thus, producing an implementation gap between policy intentions and unintended consequences (Priestley, Biesta, Philippou and Robinson, 2015). Therefore, even in performative environments, agency can be achieved either through compliance or resistance, if these actions are intentional and formulates possibilities and choice (Priestley, Biesta and Robinson, 2015). Care needs to be taken when classifying actions as achieving agency or not. For agency to be achieved principled reflexivity is required, rather than following the easiest path or trajectory (Priestley, Biesta, Philippou and Robinson, 2015). This provides opportunities for individuals to achieve agency by opposing or subverting policy (Priestley, Biesta, and Robinson, 2015); strategically complying due to ambiguity in policy (Priestley, Biesta, Philippou and Robinson, 2015); or through effort required to stabilise practices in the fluid context of the high/ late modern society (Biesta and Tedder, 2007). Conversely, it does not follow that all teachers who feel that they are implementing change are achieving agency. If teachers are working in situations with unproblematic expectations, without the need for reflexivity, then agency will not be occurring (Priestley, Biesta and Robinson, 2015).

Ecological models of teacher agency have been used in research that is pertinent to the focus of this dissertation. For example, Priestley et al.'s (2012) case study considering how teachers make sense of policy. The research involved two Scottish secondary science teachers early in their career. The authors found that iteration orientations influenced agency during the choice of pedagogical approaches used in the classroom, despite the participant working in the same school where there were strong discourse valuing attainment and quality assurance systems to monitor teacher performance. Biesta et al. (2015) also used an ecological model to explore the perspectives of experienced primary and secondary school teachers to understand teacher about the implementation of Scotland's Curriculum for Excellence. This curriculum represented a shift from a knowledge to a skills based curriculum, framed by teacher education that is geared towards instrumental rather than intellectual approaches. Analysis of responses showed that participants responses were articulated through the language of policy. The authors conclude that a lack of variety in professional discourses and opportunities for sense making reduces agency due to lack of language to critically engage with policy, while policy understandings are vague and superficial.

Recent research taking place in English schools with ECTs uses an ecological model to represent how agency can be achieved in a similar policy environment to that which the participants in this dissertation are working. Rushton and Bird (2024) develop a spatial attribute to the ecological model they use, and also consider temporal approaches to teacher agency. Space is described as 'spheres of multiple possibilities formed through complex, relational interactions with places and people over time' (p.257) where agency is achieved. Shaped by people and continuously reconstructed, spaces are 'palimpsests' (p.265) where the phenomena of agency can be reused and altered while retaining certain characteristics over time. Interviews with three ECTs identified the main barrier to achievement of agency as rigid curricula, while enablers included professional trust, access to professional spaces, anticipation of temporal nature of agency and opportunities to develop subject and pedagogical knowledge.

From this literature and my personal and professional experiences, the approach taken in this dissertation is that agency is achieved when teachers make informed decisions about their practice. These decisions are informed by the teacher's previous experience, their outlook for

the future, and the context they are working in. This enables a view of agency that fluctuates over time and aligns with agency being a technology of the self, rather than policy rhetoric. In this dissertation, sites of agency represent a place or space in time where the interviewee achieves agency. In line with the theoretical models presented above, the sites are spaces constructed by individuals that also fluctuate over time. Within these spaces iteration, projectivity and practical-evaluative orientations influence the ways in which agency is enacted and achieved. The following sub themes illustrate the different ways in which the interviewees in my study achieved agency.

Freedom to innovate

In autonomous spaces, where the cultural, relational and structural resources of the practical-evaluative dimension (Priestley, Biesta and Robinson, 2015) enable the achievement of agency, teachers expressed how they had shown creativity in their lessons to engage students and bring their personality into the lesson. Sam said:

> my personal example is involving playing cards and so I write kids names on playing cards, and when we do cold calling [emphasised], I'll grab a card from the pack, and I'll choose random students that way. And sometimes I actually have…. so, if I really want to choose a kid, I would use sleight of hand or something or I'll, I'll... don't even read the name out on the card so sometimes if I want that particular kid, I'll get the kid I want. Sometimes I genuinely randomly do it.

Sam became animated when talking about an approach to cold calling, that they had tweaked and personalised when integrating into their practice. The quick sentence changes represented the enthusiasm that Sam was expressing during this aspect of the interview. Sam appeared to relish in the creativity of their practice, demonstrating a sense of pride and representing joy in their 'craft' as a teacher, even when delivering prescribed strategies. By building their practice on their personality, Sam's achievement of agency can be understood from an iteration orientation and contributes to the findings of Priestly et al. (2012) that agency can be seen when individual teachers choose their own strategies even in prescriptive curricular contexts.

Empowering staff by providing them freedom in their practice and appreciating the value of professional knowledge and experience, encourages staff to invest more in their own professional development. This is of particular importance to staff that no longer feel whole school CPD meets their needs. Jamie commented:

> One thing that I've picked up from Twitter, which I think was from something called “I teach boys”, possibly, are side by side examples. So having something like a structure strip and having an example already written, an example that you go through, and then like a you do it with a class example and then they help you and then they have a few examples themselves. So, I did that for, I done it for relative formula mass, and I’ve done it for erm like doing covalent bonding in small simple molecules diagrams. And it’s worked really well and I’m really happy that it’s something that I came across that I hadn’t…. It’s simple, do you know what I mean, it’s easy to do erm and it’s seemed to have had a much bigger, like, influence. And I think like before I hadn’t like drilled, like when I made it and I started to think about like, particularly the small simple covalent molecules, I hadn’t really thought about the order that I did them in. I just like willy-nilly did any molecule in any order. And now I’m like, you know, “I’m going to start with hydrogen and then I’ll do fluorine and then I’ll do chlorine ‘cos it’s also from group 7 and then I might think about hydrogen fluoride and making those two together”. And scaffolding it a little more in terms of thinking about really really small molecules that are just elements and then building that up to compounds. And it just the format of the erm resource also helped scaffold my thinking in terms of how I should be delivering that. And I think that because of that the students are much better at it. And what I really like is that I showed my department, and the department were like “that’s amazing” so now we all do it like that, which is really nice.

The freedom afforded to Jamie, compared to Alex and Sam, through working in a LA school has allowed them to use social media resources, shared by peers, and adapt them to their practice. Unlike Sam’s examples of specified prescriptive methods used when delivering explicit instruction lessons, Jamie is afforded opportunities to research new ideas and trial them in their practice. Because these resources are not produced and imposed by the hierarchy, Jamie is able to critically evaluate the resources and is empowered to critique their previous practice. This relates to Biesta et al.’s (2015) suggestions that achievement of agency could be improved for experienced teachers by providing access to a range of professional discourses (in this case from online communities) and opportunities for ‘systematic sensemaking’ (p.636) to move on from superficial understandings.

As with Sam, animation in Jamie's answer above (p.164) was shown by their quick movement between sentences as ideas appeared to pop into their head, that they wanted to share with me. Even during the recounting of this experience in the interview, Jamie was thinking deeply about their practice as a professional pedagogue. Pride in their achievements of adapting their practice to produce positive outcomes for student learning and recognition by departmental colleagues is clear in the positive language of 'happy', 'nice' and 'amazing'. The joy and empowerment from this experience is likely to encourage further critical evaluation and development of their practice.

Resistance as a form of agency

Priestley, Biesta and Robinson (2015) move away from using teacher agency as a term synonymous with supporting school reform. They identify that agency can be achieved when teachers choose to subvert policy or institutional discourses, so that resistance can be viewed as a variation of agency. In their responses the teachers in my study reacted to the subjugation of their professional judgement, knowledge and experience as their employers require adherence to the institutional norms. Sam explained:

> Erm and this school that I have just discussed [name of LA school redacted] which is consistently is oversubscribed, gets terribly good results and gets very good Ofsted reports doesn't do the things that academy chains think they have to do.

Sam is using a comparison to a LA school, to question the surveillance technologies and prescriptive techniques that they are obliged to adhere to in their MAT. This questioning represents the way in which Carlile (2018) describes new narratives as being constructed in spaces of resistance. It also illustrates Thomson et al. (2024) idea of individualised resistance where normalised expectations are rejected through quiet resistance. Sam's response questions the applicability of Paige's (2017) dichotomy for long serving teachers working in the hyperreality of surveillance as a simulation. Rather than accept or leave, Sam has taken another position which is to critique. Together with other statements made, Sam is taking an alternative position as that of a parrhesiate (which will be discussed in chapter eight).

In addition, high staff turnover and low population densities in rural areas mean that the teaching community in this area is tightly knit. Teachers have social circles that were forged in their first teaching schools and have been maintained, as individuals have moved onto different schools. As a result, teachers are not isolated in a bubble of their MAT or school and are aware of what happens elsewhere, providing them with alternative ways of being that appear to be working in other parts of the education system. This access to extended personal and professional discourses from the iteration orientation of the ecological model of teacher agency (Priestley, Biesta and Robinson, 2015) supports the achievement of agency where teachers can become bolder in the ways that they resist. Sam said:

> Well after a couple of not glowing learning walks, I was put on a plan. So that's happened. Erm… now I wasn't like shy about this, you know I was like, so I'd to say to like me colleagues "oh I'm on the be less shit at teaching programme". But as I was chatting to a colleague and making light of the situation, most people on a plan are probably terribly embarrassed and don't like to say, "oh I'm on a plan". So, I was like chatting to this guy saying, "yeah I am learning to be less shit" and he said, "oh god yeah, me too, it's demeaning, isn't it?"

Now at a late stage in their career, Sam was placed in a situation where they did not feel they could directly make a stand to SLT against what they perceived to be a demoralising and patronising support plan that they had been placed upon. Instead, Sam decided to turn the system on its head and turn the shame of being placed onto a 'plan' into the development of a network of resistance and derision against the institution. This represents the construction of a new narrative (Carlile, 2018). Derision is seen in the use of the word 'shit' which is out of place for this interviewee, who did not use any other offensive language in the interview. The use of the term is jarring and brings the listener's attention to what is being said. As a subversive tactic, Sam reclaims their categorisation as 'requiring a plan'. Learning to 'be less shit' also provides the impression that no matter what training is provided to them, in the eyes of the MAT, Sam will always be considered as a less than good teacher. By sharing that they are on a plan, Sam aims to reduce the stigma attached to this technology and uncovers new knowledge that the technology of improvement plans is a common tool used by that MAT. As well as beginning the path towards parrhesia, Sam is demonstrating aspects of Bhabha's (1984) mimicry where actions are '*almost the same, but not quite […]'* and 'that the discourse of mimicry is constructed around an *ambivalence' (*p.126 emphasis in original).

Compliance as a form of agency

Although the examples above show that acts of resistance can be taken against the control exerted by the institution, the consequences of non-compliance can impact upon careers and financial situations of the individual. Consideration of the consequences of potential future trajectories, implies a projectivity orientation (Priestley, Biesta and Robinson, 2015) Therefore, compliance and adherence to the institutional 'non-negotiables' and doxa become an act of agency, especially when considering the nature and extent to which the teacher chooses to comply. Jamie gave an example which represents Priestley, Biesta and Robinson (2015) description of strategic compliance:

> And seeing that I always had a task that was erm to start the lesson and sometimes it was like about engagement and sometimes it was about retrieval but now I always just make them about retrieval cos that's the school thing.

The ubiquitous nature of retrieval practice required a slight shift in the practice of Jamie by reducing the number and types of strategies deployed at the start of a lesson to fit in with the normative practices of the school. From an agency perspective, care should be taken here as Jamie's actions could be a result of 'habitual reproduction' (Priestley, Biesta and Robinson, 2015, p.195) or taking the easiest trajectory. However, Jamie's decision to comply involves agentic orientations to their past, the confines of the present ecology and consideration of future trajectories and represents the temporal nature of agency. In the past Jamie chose to use retrieval, now they are impelled to do so. Whether this produces the 'ontological anxiety' described by Paige (2017, p 10) is not clear, but Jamie has made the decision to accept rather than leave as one of the dichotomous choices suggested by Paige (2017) for experienced teachers working in environments of hyperreal surveillance.

High levels of compliance represent the lassitude of staff working long hours, in high stakes environments with the understanding that there is little purpose in arguing against the institutional hegemony, which relates to the findings of Biesta et al (2015). Alex reconciles that "I have to make peace with it" when considering the impact that prescriptive teaching strategies and schemes of work have on their practice. Sam commented:

> Erm and we've seemed now to come back to a phase of "oh teaching is you stand at the front and tell them things" and then they silently work through it. Well, it doesn't feel like a step back to the 90s, it feels like a step back to the 70s or something and what is considered fashionable teaching now, to me is terribly boring teaching.

The highly prescribed strategies and explicit teaching methods are adhered to by the teachers, but this causes a site of struggle when compared with experiences of teaching in their past. Sam reflects upon how progress in educational methods appears to be a return to a past, one which they feel should not be rejoiced. However, Sam feels that they have no option but to conform as failure to do so would lead to intervention from SLT. From an external perspective Sam's actions could appear to lack agency, yet there is reflexivity in their actions when considering these comments in the context of Sam's responses. Sam is combining the iteration orientation of their personal (own time at school in the 1970s), and professional (start of teaching in the 1990s) biographies, with consideration of possible future trajectories (disappearing from the school) and the practical-evaluative decisions of the constraining structures of the present. This links to the ecological approach of Priestley, Biesta, Philippou and Robinson (2015), Priestley, Biesta and Robinson (2015) and Biesta et al. (2015). While Sam's actions may not appear as if agency has been achieved, achieving stability through considerable effort adhering to policies that Sam does not agree with, represents an example of achieving agency as described by Biesta and Tedder (2007).

Despite the respondents choosing to conform to their institutional norms, rather than leave the school or the profession, they still display acts of resistance through cynicism. In this way, they conform but do not fully accept or approve with the acts they are to carry out. Alex said:

> I know from speaking to other teachers that erm they, like people, put a lot more effort into them, so I don't feel like there's…. or they'll suddenly mark loads of stuff because they've got a book scrutiny which to me isn't a real picture.

As part of the apparent embracement of the performance Alex's school shares 'windows' with staff as to when certain monitoring techniques are used. Part of this relates to the ways in which members of SLT are monitored at a trust level. Alex recounts conversations with colleagues who mark books because they must, rather than as a part of the teaching and

learning process. As such, the teachers recognise the highly structured and monitored situation within which they are working but are still able to achieve agency by understanding the structural boundaries that can constrain their actions. These actions represent a type of tactical compliance, as described by Priestley, Biesta, Philippou and Robinson (2015) so teachers adjust their pedagogy and practice to represent what the inspectors want to see (Carlile, 2018), where fabrications of practice are produced in high stakes performative environments (Ball, 2003). Playing the game is a type of dramaturgical performance and demonstrates how teachers can work within the bounds of SLT surveillance. This is a type of façade of compliance (Fuller, 2019) where game playing is hidden and selectivity takes place, in this case instead of marking books regularly, a rush of exaggerated compliance as a dramaturgical performance to conceal resistance (Page, 2018).

Conclusion

Interpretation of teacher interviews from a position of reflexivity, using personal and theoretical lenses has enabled the construction of the following themes:

- Changing but still the same: Impact of evolving neoliberal influences.
- Technicist teacher as the new professional.
- Ensuring compliance through neoliberal management.
- Controlling discourses at the institutional level.
- Sites of agency.

Although none of the teachers directly referred to EEE, and only one referred to ISS, aspects of discourses from these documents were present in their responses. This demonstrates the circulation of discourses from EEE and ISS in English secondary schools and the indirect influence on these teachers' classroom practices, or in the case of ISS directly on Jamie's practice. Neoliberal influence of competition and NPM are implicit in these teachers' responses, while they explicitly acknowledge feelings of de-professionalisation, as described by Apple (2000). Apple's (2000) work also provides reasons why these teachers have accepted and implemented prescriptive teaching strategies in their practice. Ritzler's (2001) dimensions of McDonaldization has enabled the mechanisms of de-professionalisation taking place on these teachers to be revealed.

The findings from this chapter and those from chapters five and six will be analysed from a Foucauldian perspective, in chapter eight, to consider the power relations at work.

Chapter 8: Foucauldian analysis

In chapter three, the following concepts from Foucault's work were explicated: power-knowledge dyad, disciplinary knowledge, governmentality, subjectivity, care of the self, parrhesia and self-transformation. While some of these concepts are grounded in Foucault's genealogies of the carceral system and sexuality, authors such as Koopman (2013) and Bell (2017b) embrace the way in which Foucault's ideas can be elaborated and applied to problematise new contexts. Some arguments have been made against the use of Foucault's work relating to a perceived nature of nihilism or failing to offer solutions to real world problems (Koopman, 2013; Ball 2017b). However, just as Foucault's description of power as a repressive and productive force (Foucault 1991;1994b), I believe that problematising the relationships between DfE, Ofsted, external stakeholders such as the EEF, MATs, SLT and teachers can produce new insights and provide new ways of being for classroom teachers.

In the neoliberal context of education where control, efficiency and effectiveness are essential for competition, the population need to be productive and compliant. The result of managerialism and oversimplified pedagogical practices produces the 'technicist teacher' as a norm and a subject. Foucauldian analysis requires a critical attitude and at the site of subjectivity there is space in the power relations to question the truth of the technicist teacher providing the opportunity to re-frame this norm as a process of de-professionalisation. EEE and ISS documents together with teacher interviews provide an opportunity to interpret power relations at work in the formation of the technicist teacher and spaces of struggle and resistance.

Power relations in the hierarchical structure of the education system

EEE is a policy document which utilises systems of linguistic strategies and evidence to set up discourses which, as discussed by Foucault (1994b) become constructed truths. The presentation of discourses of the autonomy-accountability dyad; returning control to teachers; valued educational providers and stake holders; evidence-based practice; and knowledge-based curriculum in EEE extend the effect of the State's power and knowledge through a system that is simultaneously centralised and decentralised (Ball, 2017a).

As Foucault recognised, the ‘state's omnipotent apparatus is not able to occupy the whole field of power relations’ (1994b, p.123) instead the state functions upon power relations within the network. These include the MATs and external stakeholders such as the EEF, who through assigned value, utilise power and knowledge to disseminate these truths further. ISS perpetuates discourses of valued stakeholders leading to system improvement and teacher control of practice, although this will be contested later. Discourses in ISS recirculate truths of evidence-based practice and efficiency of practice, using mechanisms of inquiry borrowed from natural sciences to produce truths of (Foucault, 1994c) pedagogy. ISS’s discourse of universality in application echoes aspects of EEE’s system wide improvement by ‘valued stakeholders’ discourse. Running latently through both documents are truths of neoliberalism and NPM, which act as technologies, through governmentality by managing the population’s behaviour (Foucault, 1994e) and through disciplinary power at institutional level by managing individual’s behaviour (Foucault, 1991). These ‘games of truth’ (Foucault, 1997a, p.297) are circulated through levels of the education system’s hierarchies eventually reaching classroom teachers.

Central to the concept of disciplinary and governmentality power relations, is the exercise of power on a free subject (Foucault, 1994a). All the teachers interviewed are free subjects with options available to them to either leave their job to work in a different school or, in a more limited sense, change profession. A range of power relations are illustrated in the teachers’ responses demonstrating ways in which discourse is mobilised as truths. Governmentality as the control of a population’s conduct, resulting in individuals governing their own conduct (Simons, 2013), and production of its truths can be seen in the hegemonic assumptions shared by the teachers. The presence of, and adherence to, a national curriculum is not questioned as seen in Alex’s statement: ‘We had to teach what was in, what was on the national curriculum, absolutely, definitely’. This illustrates the effectiveness of governmentality technologies in spreading discourses of national curriculum. Resistance against the current national curriculum is discussed by Jamie when considering the relevance of the knowledge content. Governmentality is still functioning as, regardless of their critique, Jamie still adheres to teaching specified curriculum content.

Ofsted and performance management techniques, as the site of examination, are accepted as truths to ensure control of the teaching profession. Alex and Jamie's explanations of the importance of learning walks represent technologies that function to circulate EEE's discourse of autonomy-accountability dyad. Adherence has been internalised by teachers through the panopticism of Ofsted inspections where lesson observations, book scrutinies and planning documentation are examined to judge if the school is following the national curriculum. Failure to address the national curriculum is categorised as 'requires improvement' or 'inadequate' which leads to corrective measures such as external support or integration of the school into a MAT.

In EEE's teacher control and illusion of choice discourse, an incoherence was formed between 'the teaching profession is no longer forced to conform to an orthodoxy on teaching methods through national strategies' or an 'Ofsted preferred teaching style' (DfE, 2016a, p. 25) and strong emphasis on 'evidence-based practice' (DfE, 2016a, p.28). In combination with the State's use of MATs to ensure system wide improvements, through spread of good practice, and EEF's dissemination of evidence-based practice through guidance reports such as ISS discourses become intensified and distorted when circulated through levels of the hierarchy, resulting in greater prescription for teachers. Despite the teachers working in different schools, different towns, and MATs/LA, structuring of lessons dictated by the institutions are remarkably similar, particularly in procedures relating to the start of lessons, including the use of shared language and expectations for 'do now' tasks. This represents circulation of evidence-based practice discourses, as well as the conflation of pedagogy as a science to produce universal truths (Foucault, 1994c) of 'what works' in teaching. Although it appears that these discourses originate from the EEF and Sherrington's (2019) interpretations of Rosenshine's principles, the messages are mandated by the state via EEE so that governmentality of the State is controlling the practices of individual classroom teachers. This occurs due to EEE's autonomy- accountability dyad, where accountability becomes the site of examination. Examination as an aspect of disciplinary power will be discussed later.

Juncture of governmentality and disciplinary power at the institutional level

As part of EEE's valued educational providers discourse, MATs are identified as a mechanism of system wide improvement. The appearance is of decentralisation but MATs that supervise schools, are supervised by the state, under the remit of the Secretary of State (Thomson, 2020). In the NPM context of centralised, top-down control (Hood, 1991) of the current English education system, power functions through hierarchical structures of society (Gordons, 1994). This means that disciplinary methods can be used on individuals to produce subjects adhering to the norms of 'best leaders'. These 'best leaders' operate utilising NPM techniques as disciplinary power to produce teacher-technician subjects in their schools with high levels of subject knowledge that will enact strategies provided to them for effective and efficient practice. Through decentralisation of MATs, the state can control both the population and the individual through a web of power-knowledge relations. The state's normalising gaze becomes omnipresent (Foucault, 1991) using accountability technologies of Ofsted inspections and league tables to represent teaching quality, The power becomes anonymised while flowing through networks of social relations (Usher and Edwards, 1994) in the education system via MATs, individual schools, and Ofsted. At these sites, educational professionals, MAT CEOs, headteachers and Ofsted inspectors become state actors internalising and exercising relations of power- knowledge and the truth through the gaze of surveillance and examination (Foucault, 1991).

At institutional levels, disciplinary power functions to produce docile subjects (Foucault, 1991) governed by truths (Anderson and Cohen, 2015) constituted as institutional norms. Although work by Page (2017) and Perryman et al. (2018) argue that rather than being controlled or disciplined, teachers reconstitute themselves to fit into institutional norms. While Courtney (2016) theorises that rather than producing docile subjects, discipline is used to expose incompetence. The discourses in EEE and ISS are re-circulated, intensified and distorted at the level of MATs or SLT to produce norms that are inculcated in the teaching population, so positive Ofsted gradings are achieved. Ofsted inspections are a form of panopticism, so that anything can be seen and examined using the normalising gaze (Foucault, 1991), however there is space where games of truth are played. The power-knowledge dyad (Usher and Edwards, 1994) functions in MATs that have senior leaders working as Ofsted inspectors. These staff access knowledge from Ofsted training and

delivery of inspections, which is used to prepare schools in their MAT for inspection. One method of inculcation is CPD, so professional development becomes about how to behave during Ofsted inspections. Alex's recounting of one such CPD session, represents reconstitution of teachers as technicists, developed as managers of data and information. Ofsted inspections and schools' preparation provides a site of struggle in power relations between institutions and the state as 'games of truth' (Foucault, 1997a, p.297).

In the work of Courtney (2016), Page (2017), Perryman et al. (2018) and Colman (2020), the notion of fuzzy norms and moving goalposts produce a post-panoptic context, in which Ofsted functions with no-notice inspections and shifting expectations. Page (2017) concludes that surveillance in schools leads to hyperreal simulations where fabrications are no longer required. Colman (2022) reached a similar conclusion relating to fabrications when describing schools in a state of permanent Ofsted readiness. In the context of this dissertation, schools and MATs function within a timeframe for inspection and CPD is focused upon how teachers should perform during inspections. Therefore, leadership expect teachers to produce fabrications or conspicuous practice in dramaturgical performances (Page, 2018) during inspections. This has a greater commonality with metaphors that extend Foucault's panopticon such as Page's (2015) glass cage metaphor which is curated by senior leaders or Proudfoot's (2021) searchlight, where Ofsted inspections represent the most intense manifestation of the 'gaze'.

Failure to either inculcate staff and students to the expected norms has significant consequences. As part of EEE's autonomy-accountability dyad discourse, corrective actions of the state following an unsuccessful Ofsted examination depend upon deviation from the norm. An 'inadequate' grading removes all autonomy through re-distribution to a MAT, who will use power-knowledge relations accrued during Ofsted training to 'turn the school around'. Courtney (2016) provides context to demonstrate that rather than a normalising judgment, disciplinary power is used to expose those that are deemed to be incompetent. Jamie describes the outcome of a 'requires improvement' grading which is less of a deviation from the norm. In this situation an external school improvement partner is assigned, acting as a supervisor for correction. Thus, Ofsted style examination techniques are deployed more

regularly on the school population, with continued judgement, categorisation and documentation of the institution.

Governmentality, through the operation of Ofsted, league tables and MATs, attempt to control the population of teachers and requires schools to control the actions of individual teachers, simultaneously individualising and totalising the education system (Gordon, 1994). Teachers' responses demonstrated how disciplinary power and power relations of the institution operate to achieve an individualised but homogenised group, as described by (Foucault, 1991). From a biopower perspective, the process of datafication, where data is collected from surveillance technologies mentioned above, is used to construct data doubles as well as emphasise compliance and performativity (Hope 2016; Carlile, 2018; Charteris, 2020).

Normalising judgements

EEE's and ISS's discourses of evidence-based practice as truths construct institutional norms of professional teachers utilising prescriptive evidence-based practices. Combined with technologies of NPM and disciplinary power, these discourses produce spaces where individual teachers are examined for compliance with institutional norms. For normalising judgements to take place, institutional norms must be established and shared. This occurs through whole school CPD delivered to all teachers, regardless of their experience within the profession. CPD for these teachers is not about developing attributes of a professional pedagogue by providing opportunities to utilise knowledge and experience. Instead, it becomes a vehicle to inculcate the expected norms of how a lesson should be structured and the valued strategies that can be used in the institution. These strategies are simplified for schools through documents, such as ISS, aiding delivery to and implementation by staff. In addition these resources produce easy to measure success criteria, enabling judgements to be made on staff compliance levels. Consistency can be accepted by staff as a good thing, as seen in Jamie's wish for a whole school approach to using whiteboards. Consistency is an important outcome of disciplinary power through homogenisation (Foucault, 1991). Jamie's whiteboard discussion also reflects ways that disciplinary power can contribute to commodification of education, so teachers become technicians, as described by Ritzler (2001) where productivity and predictability are valued over creativity and individuality.

The messages provided to Sam through CPD experiences, produce a disconnect between institutional consistency and professional individuality. Power-knowledge relations are used to validate institutionally determined norms as truths but with some flexibility over the range of behaviours considered to be the norm, as Sam says "allow [ing] for individual personality". This appears to provide more space in the field of possible accepted behaviours with boundaries becoming flexible and open to personal interpretation. However, the type of individual personality is subject to judgement and will be corrected and constrained if there is too much deviation from the norm. Sam reveals the role of power-knowledge relations in production of the norm, truths and role of the supervisor in forming judgements. In English schools, promotion to leadership positions relies upon the completion of NPQs (national professional qualifications)[30] rather than experience and pedagogical knowledge, which produces supervisors with managerialist rather than pedagogic knowledge. The power-knowledge dyad functions as the balance of power favours the supervisor, which provides knowledge of an individual teacher's relation to the norm. Supervisors then make judgements on adherence to the norm (Foucault, 1991) producing a binary of right (adhering) or wrong (not adhering), there is no in-between. Complexities of teaching and learning in classrooms become simplified for the judgment, which assigns value to an individual (Ball, 2017b) due to the combination of the supervisor's knowledge of the individual, institutional norms and the supervisor's position in the institution. Sites of struggle become limited as the individual has freedom to disagree with the judgment but due to their position in the power-knowledge relation, regardless of their experience, the decision of the supervisor is final.

'There is very much an expectation of if we've told you about this, this is what is expected of you to do'. Jaime's description represents the institution promoting a notion that teachers should be governing their own practice based upon inculcated norms. This invalidates any questioning by teachers, based on their previous knowledge and experience, of institutionally validated practices. The inculcated norms of practice and hierarchical imposition provide boundaries and limits within which behaviours and attitudes of the technicist teacher can occur. Use of terms such as 'expected' highlight operation of power relations. There is

[30] As described in DfE (2016a, p.43). These qualifications are based upon the development of people management skills, implementation of policy and evaluation of data. Thus, contributing to the production of a professional manager rather than a professional pedagogue.

implicit recognition that teachers are free subjects who choose to adhere to validated practices of the institution and behave in institutionally determined ways. However, within a disciplinary power paradigm, reliance upon expectations of teacher self-governance is not enough for the institution to ensure adherence to norms.

Surveillance technologies

Technologies of governmentality, that represent lack of trust in the teaching profession by the state, emanate from neoliberal values of EEE's autonomy-accountability dyad. Strategies and techniques of Ofsted inspections used on institutions are reconstituted by management, so staff are under constant surveillance in their institution. While SLT are identified by staff as the nearest enemy due to locality of the power relation, surveillance of staff occurs due to flow of power through hierarchies since SLT, who are carrying out surveillance, are themselves under supervisory gazes of their supervisors. Staff also utilised opportunities for self-surveillance to produce a commodified version of themselves, as a type of conspicuous practice through inculturation (as described by Page, 2018). Jamie discussed examples where good practice was shared with their department, and the implicit knowledge of staff that if good practice was seen by SLT during learning walks, this would be reported in the staff bulletin.

Sam plays with the idea of trust and integrity to reimagine a 'teaching nirvana' where observations are not required. An inference can be made that, in Sam's situation, teachers are not trusted to adhere to institutional norms without being observed. Methods of hierarchical observation by SLT are combined with a judgement against the norm so that the individual is categorised, and corrective action is applied with documented outcomes. These sites are lesson observations or learning walks, book scrutinies and document checks. Learning walks and book scrutinies represent a movement towards a notion of normalised visibility which Page (2017) describes as a surveillance technology, where future outcomes can be predicted through data collected. This produces data doubles through the process of datafication (Hope, 2016; Carlile, 2018; Charteris, 2020) that can be judged and evaluated to make decisions about interventions.

Book scrutinies are a relatively new performance management technique that has become normalised within the context of surveillance. Book scrutinies are used by Ofsted to inform judgments of quality of education during an inspection. Ofsted's (2019b) 'book scrutiny indicators' (p.5) provide criteria used by inspectors which flow down to the institutional level, forming the normalised judgement for examination of exercise books by SLT. Panopticism functions at the level of pupils' exercise books as documented evidence of what has taken place in the lesson, how teachers are providing feedback and if students are responding effectively to feedback. While books are limited in the capacity to capture all aspects of a lesson, as part of a triangulation of evidence, books can be used to determine the performance of a teacher over time. Thus, triangulated evidence represents an erosion of trust and an extension of panopticism and disciplinary power. In addition, triangulated evidence collected from surveillance, illustrates an implicit understanding that fabricated performances are poor indicators of future outcomes, instead data is collected to construct predictable data doubles (Page, 2017). While certain performance management practices of examination have become embedded and accepted, this still becomes a site of struggle and resistance for teachers. Despite this, teachers conform to the norms of these policies relating to exercise books and production of documents due to the effectiveness of the supervisory gaze, the certainty of corrective action following the examination either through resigned compliance (Hall, 2024) or conspicuous practice enacted through fear of consequence (Page, 2018).

Alex's discussion of producing lesson documentation represents panopticism of the supervisory gaze. Online documents can be checked or viewed at any time to produce a two-fold judgement upon teacher's implementation of valued pedagogical strategies and adherence to an institution's planning processes. The metaphor of the panopticon holds in this situation as Alex is never sure when they will have their planning checked, or by whom, but the potential for this observation is constant. This technology of surveillance increases Alex's workload as they use a physical planner to support their daily practice, which is not in view of the panoptic normalising gaze. To comply with the institution's normalising practices, Alex produces additional documentation to allow the panoptic view and judgement of their practice. This produces a site of tension as Alex has freedom to understand that the practices are not useful, while recognising that the practices are linked to performance management which must be visible to their supervisors. Boundaries of possible behaviours have been communicated by the institution so that while teachers may choose to think and plan their

lessons in their own way, produced documentation must be completed in a certain way. This level of control can only operate on the free teacher if the consequences of not achieving the norm during the examination have a significant impact on the individual. Institutions' insistence on production of documentation to evidence internal processes of teachers' planning, provides space for teachers to question validity of institutional practices, especially when there are concerns about teacher workload. Thus, normalising processes of the institution act upon behaviours of teachers in lessons through the pedagogical practices used, as well as on methods used by teachers during lesson preparation.

The examination

Modes of examination used on staff have roots in technologies informed by neoliberal values of competition, improving standards, and NPM encapsulated in EEE's autonomy-accountability dyad discourse. Governmentality technologies operate by individualising institutions, categorising based upon adherence to the pedagogical norms of evidence-based practice and implementation of knowledge- based national curriculum through Ofsted. Ofsted inspections as an examination, representing a site where forces from EEE's discourses act, compounded by the recirculation of evidence-based practice discourse by EEF's ISS. League tables represent the use of statistical techniques to categorise and control behaviour of individuals and institutions (Anderson and Cohen, 2015). P8 measures produce a ranked system of schools for comparison. Due to the zero-sum methodology (Gorad, 2010), a bell curve forms to identify the statistical norm (Ball, 2017b), producing negative and positive quantitative scores enabling: comparison between schools; measurement of the gap to the norm; and identification of success and failure. However, Courtney (2016) has reconceptualised these technologies as ways of constructing and exposing the incompetence of school leaders, rather than categorising and controlling behaviour. This can be seen in the academisation of schools that are seen to be failing, as happened to Alex's school following an 'inadequate' Ofsted inspection, and to Jamie's school (after interviews took place) following several 'requires improvement' judgements.

Constructed truths of evidence-based practice discourses of ISS and EEE 'prove' to institutions that processes will deliver improved attainment outcomes, to meet statistical norms of league tables. Discourses of universality in application and prescriptive strategies for efficiency of practice from ISS, provide a space for examination where judgements and

corrective action, if required, can be carried out easily against specific success criteria produced by outsiders to ensure accountability under a NPM framework (Hood, 1991). Lesson observations are more formalised examinations than learning walks, with embedded procedures of an identified time, observation protocols and documentation and feedback practices, forming a ritual (Foucault, 1991). Feedback makes categorisation against the norm visible to the individual, often turning into a box ticking activity where the norm becomes the minimum threshold to be achieved within the truths of improving standards.

Formalised examination by lesson observations, based around box ticking exercises, constructs a situation where teachers may produce fabrications of practice (Page, 2015; Charteris, 2022) as they adjust pedagogical practices to reflect the expectations of inspectors (Carlile, 2018). Alex refers to feedback, where the corrective advice becomes arbitrary. Improvements must be made towards a particular norm regardless of appropriateness and practicality of advice. In Alex's case, advice was given that practical work would improve the quality of a lesson on sexual reproduction. This promotes derision from Alex and represents the perceived ridiculous nature of this process which reduces the credibility and opens spaces for critical reflection and counter discourses with colleagues (Fuller, 2019). Supervisors appear reluctant to deviate from determined procedures of the examination ritual because they, as supervisors, are examined by their supervisors in a multi layered hierarchy[31] . This leads supervisors to complete all procedures and documentation during feedback providing ineffective suggestions rather than leave a blank space.

The mode of the lesson observation can produce a space for game playing and resistance, so a performance is produced to avoid imposition of corrective practices described by Page (2018) as conspicuous practices. This space is delineated by the learning walk, so examination functions on a different set of procedures. Page (2015) identifies learning walks as a way in which visibility in schools becomes normalised. Learning walks can take place at any time but there is no guarantee that a teacher will be seen during the learning walk. This reduces opportunities for planned performance that don't represent a teacher's daily practice. Page (2017) describes how perpetual visibility and surveillance renders fabrications redundant,

[31] Examples from my experiences of improvements to be made during feedback following lesson observations include improving an practical activity by having more sinks in the classroom; improving the use of formative assessment by using mini whiteboards or coloured cards during the COVID-19 pandemic, where class resources were not to be used due to the risk of viral transmission.

instead hyperreal simulations occur, which remove the ontological anxiety of teachers. In my study, participants did not unquestionably accept the expectations of their school. Space remained for teachers to resist some of the institutional norms and switch their mode of operation to desired practices while the supervisor is present. This supports one of Page's (2018) modes of conspicuous practices as routine resistance through 'dromology' (p.386) and dramaturgical performance.

The panoptic quality of permanent visibility results in turning teaching into a constant performance of behaviours especially, if as Jamie explains, the timing and focus of learning walks are shared with staff in advance. From a disciplinary power and performance perspective, informing staff of norms that need to be observed at a specific time, does not initially appear to make sense. Page (2015) describes examples of SLT both curating and evaluating the spectacle of a glass cage as part of a 'regime of performativity' (p.1045) By considering that all examinations are documented to record knowledge of the individual producing predictable but highly simplified data doubles (Hope, 2016). In turn documents are used as evidence in quality assurance for Ofsted and MAT inspections, it becomes clearer that SLT are playing a game or producing a performance for those supervising them. In addition, panopticism and examinations have contributed to teachers internalising supervision as a normal institutional practice and the way things are within teaching. The vocabulary used of 'not intrusive' in Jamie's description of learning walks, belies the highly intrusive action of disciplinary power which not only forms the technicist teacher subject but also judges, categorises and disciplines the individual.

Gratification-punishment

The outcome of accountability as a site of examination, represents Foucault's 'double system of gratification-punishment' (1991, p.180) within EEE's supported autonomy. Successful schools in the examinations of Ofsted and league tables become converter academies or lead schools in MATs. The reward is being tasked with disseminating their methods and structures through the school system. Schools that are not adhering to the norm are pathologised as underachieving, struggling, or challenging and punished through corrective action. Schools are closed or incorporated into MATs run by those schools that have become valued through success in their accountability examination. This appears to support Courtney's (2016) claims

that discipline is used to expose and construct the incompetence of a subject, in these cases members of SLT. In post-panopticism, failure is structurally facilitated (Courtney, 2016) by the norms determined by Ofsted or MATs. Teacher responses regarding learning walks demonstrates the use of gratification- punishment following the examination and how this consolidates disciplinary power in the institution.

Alex explained how SLT used an intermediary to deliver corrective action following an incident where Alex was observed sitting down while teaching. This experience shows how the school's hierarchy operates through SLT and heads of department, SLT do not directly interact with the individual observed. Instead, power-knowledge relations flow to a lower level for the corrective action to take place by immediate supervisors (Foucault, 1991). These actions prevent the SLT member from having to participate in a struggle of power relations, whilst anonymising the power for the individual being observed. Alex's situation represents how ISS's latent discourse of de-professionalism, and position of NPM in EEE's autonomy-accountability discourse, have produced conditions where norms surrounding prescriptive teaching approaches become distorted from original evidence-based practices.

Deviations from pedagogical norms are easily addressed through corrective action, as evidence-based practice presented by ISS takes the form of simple, step by step models and techniques that improve efficiency. Sam recounts an experience receiving feedback from some 'not glowing learning walks'. The punishment is corrective action, following a judgement by supervisors that the individual is not demonstrating behaviour in line with the norm. Corrective action is disguised as opportunity for professional development through coaching that Sam is expected to engage with. The programme entailed hierarchical observation of the coach upon Sam as a coachee. In this situation, the hierarchy initially appears to be a power-knowledge relation of pedagogy but is actually a power-knowledge relation of institutional norms. Sam alludes to ways in which power relations shifted during the process. Initially, the impact of the corrective action, is seen as a punishment with Sam resistant to the mode in which the corrective action was operating. During this site of struggle, the individual is aware of the messages within the discourse that is limiting and forcing them to change their practice. Sam's field of possibilities is becoming more limited but is eventually accepted, as corrective action is being administered not by the hierarchy but

by a supervisor that Sam has a positive relationship with. The ultimate arbiter of the power in this relation comes from the member of SLT who oversees the content of the coaching. As the coach administering the corrective action falls within the hierarchy of disciplinary power, the coach becomes subject to normalising practices of surveillance and judgement, representing hierarchical observation where the supervisors are supervised. This means the coach's practice is examined and must provide positive outcomes so the coachee's practice moves closer to the norm. It becomes apparent to Sam that the process they perceive as patronising and demeaning is not about improving teaching but conforming to the institutional norm, resulting in individual teacher's behaviours becoming homogenised within the institution.

The double system of gratification-punishment includes use of praise as an extrinsic motivator, a method often used by teachers with their classes as part of behaviour management. In Jamie's school, SLT act as supervisors performing processes of surveillance and judgement. Unlike punishment, positive adherence does not take the form of immediate individual intervention. By identifying 'star' of the week or individuals demonstrating good practice, in the public domain of a bulletin, the norm is recirculated through institutional discourses as a reminder of 'expectations'. Public praise functions as a normalising practice to demonstrate valued behaviours being carried out in the institution, as an example to others. While the identified individual receives praise, the bulletin produces a quantifiable field of what good behaviour looks like, supporting homogenisation of individuals' behaviour (Foucault, 1991). From a surveillance perspective, as described by Page (2018), public praise can support practices of self-surveillance. The subject willingly engages in the process of surveillance to increase their marketability in the institution (for promotion) in version of conspicuous practice, where through enculturation the subject reproduces the norms of the institution through commodified practices (Page, 2018).

Consequences of resistance

Following the examination and action of gratification- punishment system, the field of possibilities for teachers' behaviours and actions change. Stakes for non-conformation increase, to a place where an individual's future is in question. Sam's recounting of the disappearance of 'charismatic luddites' from a recently sponsored academy provides a useful

illustration. Within disciplinary power relations of an institution, the teacher is a free subject, including freedom to test and challenge boundaries of the field of possibilities that are determined as good teaching. When a school is taken over by a MAT, as an example of EEE's valued educational providers, disciplinary power is used to inculcate new norms of teacher behaviour in the classroom. Sites of struggle occur as the field of possibilities shrink for staff from the original school. Sam identifies a group of 'charismatic luddites' that functioned within the norms of a previous institution and achieved outcomes valued in a neoliberal education system. The charismatic luddites use their freedom to push against imposed boundaries and resist corrective actions applied when they fail to meet the new institution's norms during the examinations. As the individual teacher is free, they are not compelled to stay within the institution. Presented with a choice of stay and conform with the new limitations to practice or leave: the charismatic luddites appear to have chosen the latter. Page (2017) describes two potential responses for long serving teachers to his proposed movement from panoptic fabrications to post-panoptic hyper real simulations: exit or accept the situation. Loss of staff who contribute to examination outcomes is not represented as failure of the institution. Instead, disappearance of staff becomes part of the discourses of disciplinary power, confirming Courtney's (2016) argument that disciplinary technologies in contemporary English educational contexts are about constructing and exposing incompetence.

Disappearance becomes a cautionary tale where a member of staff failing to stay within the institution's boundary of possibilities faces the consequences of having their days 'numbered'. Negative consequences of corrective action following judgement from the examination, circulate through the teaching population, so that normalised subjects are produced who willingly adhere to the institutional norms (Lukes, 2005). However, for long-serving teachers participating in this research there was more than a dichotomy of choice to leave or accept the situation of the institution where they work. Conspicuous practices can still be enacted, either through fear of sanction or as routine resistance (Page, 2018).

Production of the subject

ISS represents a site where power and knowledge interact extending discourses that originated in EEE. Evidence based positivist approaches are used to validate the work of the EEF. Guidance reports purporting recommendations as scientific truths as outcome of inquiry, in a process discussed by Foucault (1994c), supports development of institutional norms. Norms are internalised by individuals through disciplinary power to produce a 'technicist teacher' as a subject. Power-knowledge relations limit the field of possibilities for teachers' behaviours and actions (Ball 2017b). For the technicist teacher limitations are strategies valued through evidence-based practice and those implemented by successful MATs. This flow of power-knowledge of evidence-based practice is represented by ISS as truths of 'educational excellence' and 'good teaching'. These discourses flow through power relations from EEE, to ISS, through MATs and schools to form the teacher as a subject.

Over time, the boundaries of the field of possible teaching practices and what it means to be a good teacher change. Boundaries are affected by discourses surrounding prevailing pedagogical techniques, relating to strategies that should be used and level of prescription for teachers. The mechanisms of disciplinary power form the teacher as a subject, in this case as a technicist, using the examination to concurrently individualise and homogenise teachers and their practices. Jamie's example of 'do now' tasks demonstrates that conformation to institutional norms holds greater value than creativity in the field of possibilities for a 'good teacher'. Jamie chooses to reconstitute themselves by behaving within the imposed boundaries, so the range of strategies they use are reduced to just retrieval practice. This represents homogenisation under the guise of consistency.

Jamie also demonstrates how they have been formed as a 'technicist teacher', where consistency and predictability are viewed as the foundations of a good education, when discussing use of show-me boards. The integration of power-knowledge mechanisms from NPM and circulation of ISS's discourses of efficiency and universality, shape individuals' attitudes to value consistency. Operation of power has produced a subject willing to adhere to institutional norms and actively seeks greater institutional control of teachers' practice. In this situation, mechanisms of power are masked under a guise of predictability in lessons

improving student behaviour and engagement, simultaneously making strategies more accessible and easier to enact for the staff.

Another example of power's success in producing inculcated subjects relates to acceptance of performance management technologies as institutional norms. Alex argues that performance management technologies are required in schools to ensure teacher conformity, even though Alex would adhere to the norms regardless of the presence of those technologies. As a free subject, operating under asymmetric power relations with SLT, Alex has been constituted through subjection to actively choose behaviours that adhere to the institutional norms. This produces a site of governmentality where the authority (leadership of the school) controls the population through surveillance technologies and the examination (Ball, 2017b). Alex shapes themself as an individual that demonstrates values of integrity. The teacher accepts existence of a power dynamic, operating through the hierarchy, and normalised visibility through surveillance (Page, 2017). Alex, who operates within the boundaries of the institutionally determined field of possible behaviours, begins to question the need for surveillance requirements as their constituted self would adhere to the institutional norms.

Alex could be viewed as enacting biopower where surveillance normalises discipline of the self towards the institutional norm (Hope, 2016). Carlile (2018) clarifies that biopower is not just about the body but includes 'intent, attitude, [and] behaviour' (p.24) of the individual. Alex's critique fades as they consider how some staff deviate from those same norms. Alex recognises game playing, pushing against boundaries, or conspicuous practices (Page, 2018) carried out by these members of staff, which are probably survival mechanisms against high workloads[32], and suggests greater surveillance and examination is required. In the quest of fairness, based upon the notion that if I'm (the individual teacher) adhering to the norms then everyone should, Alex wishes for others' conduct to be more intensely controlled. Thus, producing an institution of technicist teachers superficially marking books for survival within the institution, rather than marking books to provide effective feedback for student learning. In a context of quantitative efficiency rather than qualitative effectiveness, power-knowledge

[32] As an example of self-technologies operating as care of the self.

relations function to produce the technicist teacher who follows set processes to mark books, plan and deliver lessons.

Sites of struggle and resistance

Inculcated technicist teachers diligently adhering to the institutional norms have capacity to question the operation of power within power relations, as they are free subjects. This provides sites of struggle and resistance, where subjects question limits and boundaries produced by disciplinary power and the constitution of the self. Jamie alludes to the incoherence produced when reports make recommendations but there is not curriculum time to follow these. This leads to Jamie's feeling of being trapped 'between a rock and a hard place'. Jamie begins to question games of truth produced by different forces acting on them. There is knowledge derived from cognitive science (psychology) that independent practice develops understanding, in addition ideological discourses from EEE state that the knowledge-based curriculum content must be robust and rigorous. From a Foucauldian perspective, society is formed from multiple fields of forces (Lukes, 2005). In this case the research and inspection arms of Ofsted are producing competing fields of forces that act on the individual, meaning that acting within the boundaries of one of the fields of possibilities means acting outside the boundaries of the other. This conflict raises the possibility of teaching to the test as an ethical act, where dispensing curriculum content increases opportunities for student learning and examination success. Jamie does not feel that they can traverse the boundaries imposed by national curriculum content, as such actions would be identified through documentary evidence by Ofsted during inspections. The result is conformation to the norms of the power relation which generates the greatest force: in this case curriculum content takes precedent over practice.

Sam explicitly identifies the MAT as the perceived site of control, in their description of the influences on their teaching practice. This demonstrates the concept that most struggles against power relations happen at the local level (Foucault, 1994b) as that is where individuals are most able to recognise the oppressive products of power (Ball, 2017b). Therefore, the MAT and SLT become the closest enemy within the asymmetrical power relation, rather than the distant enemies of: DfE, who produce and oversee implementation of

policies; Ofsted who ensure adherence to policies; and the EEF who disseminate pedagogical strategies to support policy implementation at institutional level. In power-knowledge relationships at local levels, Sam understands the clear boundaries and limitations to their practice, which is not as easy to conceptualise in power-knowledge relations with Ofsted, DfE, or EEF. Knowledge of these boundaries and how this has constituted the teacher as an individual who behaves in a way that their "employers would like to see me teach", can serve as a technology of the self and enable resistance at local level.

Technologies of the self

Through social relationships with other teachers, as well as their previous experiences, knowledge of other ways of being within the current education system is developed. These ways of being are within the boundaries and limits of possibilities of Ofsted judgements but not of their institution. The critique of institutional games of truth, provides space for the care of the self (Koopman, 2013) where Alex and Sam build greater knowledge of the examination occurring during Ofsted inspections, leveraging the asymmetry in the power-knowledge relations with SLT in their institution. They have established that it is examination results that produce DfE and Ofsted's conception of a 'good school' rather than adherence to set pedagogical techniques. This knowledge can maintain a teacher's conception of themself as a good teacher, despite action of external forces through the disciplinary power of the institution. Alex and Sam's description of performance management technologies, demonstrate attempts to constitute these individuals as a teacher 'in need of support to improve' or reducing their capacity as a professional.

All three teachers are choosing to adhere to their school's institutional norms. Although willing, the actions of following institutional norms has negative impacts upon the individuals' conception of themselves. Conflict between institutionally validated conception of good professional teacher as a 'technicist' occurs against previously inculcated conceptions of a professional teacher that makes judgements about their own teaching practice. The teachers appear to be able to tolerate the performance management techniques and imposition of mandated teaching strategies by returning to the aspects of their work that bring them joy, or from a Foucauldian perspective described by Koopman (2013), pleasure.

During the interview Sam produces a version of the self as a 'charismatic luddite', whereby the luddite is someone who harks back to past times that were better. For Sam, there is a contradiction as moving forward in pedagogical practice represents a re-visioning of culturally conservative teaching strategies from the past. As a self-constructed luddite, Sam prefers the normalised teaching practices of the recent past, rather than the practices experienced when they were at school. By labelling current 'fashionable teaching' as 'boring' Sam reveals an insight into the lack of joy or pleasure that they are experiencing in their job. While Koopman (2013) describes how Foucault expressed caution of middling or simple pleasures due to the potential to stunt self-transformation, to enact care of the self the individual must be able to identify aspects within the material conditions of their job that provide pleasure. Finding ways to challenge limits of the field of possible behaviours so that actions in their teaching practice can bring joy or pleasure, work on the self and self-transformation can occur (Koopman, 2013). Rather than acting as a purely technicist teacher, agency can be achieved by the individual by working within institutional boundaries while still acting in a way where teaching brings pleasure.

Sam discusses how they have tried to act against 'boring teaching'. Following instruction during CPD, that questions should be asked in lessons by 'cold calling', Sam worked on the boundaries of the field of acceptable questioning strategies, which had suddenly narrowed. Sam decided to bring some fun into the classroom by using their passion for practicing magic. This can be viewed as an activity of care of the self, bringing pleasure to the individual and providing an opportunity for self -transformation from the constituted subject of technicist teacher. Experience of these moments of pleasure during teaching in the past, provides Sam with knowledge to critique the 'new' institutional norms of 'silent' classrooms that are 'boring' to the teachers. However, after a learning walk, Sam received corrective feedback as SLT judged this approach as not being in line with institutional norms of performing 'cold calling' [33]

[33] A method of asking questions derived from Doug Lemov's' Teaching like a champion' and popularised through Tom Sherrington's 'Walk Thrus' series. The method involves a 'no hands up' rule when questioning the class, instead the teacher chooses a student to respond. The rationale is to ensure all students are listening,

Self-transformation and parrhesia as care of the self

In Jamie's LA school, teachers appear to have a greater field of possibilities to work with, providing more autonomy than Alex and Sam in MAT schools. The boundaries of the field for these teachers are represented through multiplicity of forces (Lukes, 2005) acting on the subject. In addition to the limitations imposed by institutions, there are limitations imposed by the national curriculum and approved pedagogical techniques. Rather than becoming a 'technicist teacher' subject that just uses commodified online resources, Jamie uses the resources to question their previous practices. Jamie works on themself to reform their conduct and practices when teaching covalent bonding, moving beyond the original function of the resource (to model the method of representing covalent bonding). As Jamie changed their practice, moving from simple examples to more complex examples rather than a previous random approach, students responded providing Jamie with joy in their craft. The response from Jamie's colleagues after sharing, provides gratification from a non-disciplinary power relation. This joy or pleasure in the act of being a teaching subject that reflects on their own practice with positive outcomes, by choosing to work on themself, demonstrates a small act of self-transformation and provides opportunities for further transformation.

From Foucault's genealogies, the concept of parrhesia as an act of care of the self and a foundation of self-transformation, was identified in the practices of the ancient Greeks (Koopman, 2013). During interviews, each teacher spoke truth to their situations and, often implicitly, questioned aspects of their material conditions. Sam, however, spoke clearly and explicitly about issues faced in their day-to-day practice. Sam appeared unabashed about potentially being perceived negatively as either a teacher being placed on an improvement plan or by appearing to be a 'luddite' in a profession that is often subject to constant change and reinvention. During the interview, it could be perceived that Sam was taking the role of a parrhesiate telling their truths about the domination of SLT in their school, so that I took the role of the audience. In the first example, Sam is experienced corrective actions following negative judgements from several performance management examinations that took place just after Sam had joined the school.

engaged and thinking of the answer in the lesson as no-one knows who will be chosen. A type of panopticism carried out to ensure compliance by students.

Acts of parrhesia are involve a risk to the truth teller (Ball, 2017b). As well as the risks mentioned above, there are risks to Sam inherent in the story being told. Normally, the actions of putting teachers on plans is hidden in schools, it is seen to be a private event between the supervisor and the subject. The corrective action stays hidden as often teachers believe that failing to adhere to the institutional norm is a negative judgement on their teaching capabilities, something most would not wish to advertise. Initially Sam was demoralised SLT's judgement, yet through the act of parrhesia, Sam works on themself at the boundaries of acceptable behaviour and decides to be transparent about the situation, representing self-transformation as described by Allen (2013). Sam speaks truth to their situation, freely telling others in a frank way how this makes them feel, i.e. as a teacher subject that is 'shit at teaching'. The choice of vocabulary is satirical, as Sam illuminates the superficiality of the programme: The programme will not produce a great or good teacher, just someone who is 'less shit' than they were before. By enacting parrhesia Sam experiences an unexpected outcome: there are many others in the school in the same situation and they also feel demoralised by the process. The act of parrhesia reveals the unjust way that Sam's institution is utilising disciplinary power to normalise the staff as teaching subjects. By Sam speaking out, they have enabled a transformation in their colleagues to be more open about the ways in which disciplinary power is being exercised and the impact that has on them as individuals.

Sam uses their experience accrued during their time in education as well as their knowledge, from a bachelor's degree in science, to question evidence-based practice discourses recirculated by SLT during CPD. Experience of evolving educational practices provide Sam with knowledge that can disrupt the asymmetry of the power relations with SLT. Sam has also experienced, in the past, rhetoric used within educational institutions that excise power on teachers ensure adherence to norms of pedagogical practice In the example of VAK, the CPD presenter responded to resistance from experienced staff by stating there was research evidence to support the use of VAK. Sam, at the time, accepts the rhetoric and uses the strategies. Over time, VAK became discredited in English secondary schools which leads Sam to consider the role of evidence in education. This represents the conflict that Foucault (1994c) describes between the 'truths' produced by the natural sciences (that the three

teachers in the study have been trained in) and those of the social sciences (which include pedagogy). Evidence-based practice discourse of EEE and ISS presupposes positivist approaches to research and evidence, which will be taken at face value by busy teachers [34]trained in the natural sciences. However, due to Sam's previous experience with the evidence-based practice of VAK they have a more critical view and begin to question the credibility of the evidence-base of 'Rosenshine' and the credibility of the SLT member using statistical measures support their claims. Sam's greater knowledge of qualitative data disrupts the power dynamic with their hierarchical supervisor, as Sam questions the validity of the norms or truths that they are expected to adhere to and will be judged upon during the examination. This provides space for teachers to work on themselves as self-transformation, so that refusing to conform with institutional norms is not constituting an 'irresponsible' (Ball and Olmedo, 2013, p.88) teacher. Instead, the teacher forms themself as an ethical subject who is true to their view of good teaching, which in the case of Sam is the charismatic luddite where lessons involve moments of fun and joy, utilising social constructivist techniques and teacher self-expression.

Conclusion

This analysis has combined key discourses from EEE and ISS and teacher responses to be reflexively interpreted through a lens of Foucauldian theory. Truths of EEE are present in governmentality of the teaching population and disciplinary power of individual teachers at institutional levels. As valued stake holders MATs and EEF, as seen in ISS, recirculate, intensify, and distort these truths to become institutional norms and form the technicist teacher. Power effect of the autonomy-accountability dyad seems to have the greatest effect on classroom teachers. Technologies of managerialism and driving up standards, mobilised by autonomy-accountability dyad provide a site for forces from evidence-based practice discourses (ISS and EEE), and prescriptive teaching techniques from discourses of efficiency (ISS) enacted through valued partners of MATs and EFF to produce the de-professionalised technicist teacher. Responses from teachers represented asymmetry in power relations which provided sites of struggle, where teacher agency was shown through technologies of the self and, for Sam, the act of parrhesia.

[34] See Apple (2000) and chapter three for the discussion of how time-poor teachers no longer critically evaluate strategies presented to them by 'experts'.

Chapter 9: Discussion of findings and implications

The purpose of this dissertation was to explore the following research question:

What are the power relations, exercised through educational discourses supporting the national curriculum, influencing the classroom practice of science teachers working in areas of high socio-economic disadvantage?

Science teachers, in this research, appeared to perceive power relations with their schools' SLT as having the greatest impact upon their practice. Teachers are acting as free subjects in these power relations, but the balance of power is skewed towards SLT. This research suggests that asymmetry in power relations with SLT is greater in MAT schools than those overseen by LAs. Teachers' responses demonstrated mechanisms of disciplinary power were functioning in all school types producing low trust- high accountability working environments.

From teachers' responses, institutional norms relating to performance in lessons, using prescriptive, evidence-based practices, and teacher accountability (through documentation completion and working to the rules of performance management) were identified. Institutional norms are disseminated to staff by CPD and enforced through performance management techniques of learning walks, lesson observations, exercise book scrutinies and planning documentation checks. Modes of institutional performance management techniques represent similarities to surveillance technologies utilised during Ofsted inspections, producing a constant state of panopticism or, as Page (2017) suggests, a state of normalised visibility. Performance management techniques function as sites of examination, where SLT act as supervisors making judgements on individual teacher's performance against institutional norms. Deviations from institutional norms resulted in corrective action ranging from verbal feedback to participation in imposed improvement plans.

Production of a docile technicist teacher, through subjection, could be the outcome of these mechanisms. However, due to these teachers' experience in the profession and social relations with teachers in other schools, they have knowledge of other ways of being which produces tensions and sites of struggle between teachers and institutions. Tensions related to national

curriculum content, excessive workloads due to documentation production and frustration with prescriptive teaching strategies. Examples of technology of the self were identified, as teachers achieved agency while selectively conforming, playing the game via conspicuous practices or carrying out acts of parrhesia. SLT functions as the 'nearest' enemy in these power relations, masking a complex hierarchical web where the chief enemy is anonymised. SLT as supervisors are supervised and judged against the truths of the education system at sites of examination by Ofsted and league tables. Truths are represented in discourses of the state (EEE) and recirculated by valued key stakeholders such as MATs and the EEF (ISS). Thus, enacting a range of forces on schools relating to accountability, evidence-based practice, curriculum content and universality of efficient practices. A dual system of disciplinary power and governmentality is set up resulting in the de-professionalisation of teachers to technicians and re-professionalisation of SLT as managers.

Implications of findings

Findings of this dissertation show the significant influence of discourses generated in government policy texts on classroom practices of teachers, shaping conceptualisations of what it means to be a teacher. All participants entered teaching after introduction of ERA 1988, so have only ever experienced neoliberal influences on education. These influences include quasi-markets through competition and league tables; managerialist focuses on outcomes and performativity, through NPM; and government's mistrust of teachers through Ofsted, prescriptive national curricula and specified pedagogical approaches. Teachers identified that over time these forces have intensified, especially for those working in MATs who don't feel trusted and no longer feel that they are valued as professionals able to use their experience to make decisions about their teaching. Teachers recounted changes in what was considered good teaching in the past to what is considered good teaching now, something one of the respondents describes as boring. The ubiquity of specific practices such as cold calling, retrieval practice to start lessons, teacher expositions followed by extended student practice, across a relatively large geographic area represents the influence of cognitive science and evidence-based practices in the English system. Insistence in EEE that embracing evidence-based practice represents the functions of a mature profession, informed by 'outcomes rather than' processes approach, supports the EEF's work. This has resulted in the recommendations of ISS forming an incoherent pick and mix selection of strategies ranging

from positivist evidence from ‘cognitive science’ research carried out in laboratory studies to social constructivist informed strategies carried out in small scale classroom-based research. As a valued stakeholder, teachers and schools embrace the strategies of EEF due to the ease of implementation and efficiency for time-poor teachers. Evidence based-practice strategies are commodified and sold by stakeholders such as Sherrington (2019,2020) to inform delivery of whole school CPD. These simplified models of teaching provide efficiency in implementation, particularly when de-contextualised, allowing for universal use in classrooms and enabling effective judgments to be made by supervisors when comparing observed practices against a clearly defined norm. Thus, managers focus upon the techniques of managing rather than detangling complex and intangible concepts of student understanding and knowledge.

MATs have been proposed by EEE as a solution in the drive to raise standards, by sharing good practice. For two teachers interviewed in this research working in MATs, this good practice appears to consist of high levels of teacher surveillance, prescriptive pedagogical practices, and performance management judgements based upon compliance and imposed non- negotiable expectations. It appears that in these MATs, the balance in power relations shifts towards the SLT members as disciplinary power technologies are exerted on classroom teachers, to produce the predictable performative ‘technicist teacher’. One potential Mertonian unintended consequence of the ideologies of EEE or leaders of MATs, is the act of producing the ‘technicist teacher’ becomes a process of de- professionalising, which has demoralised these teachers. These teachers’ agency is exhibited in their appearance to accept this new subjectivity by conforming, subversively performing to a version of the norm whilst retaining scepticism or choosing not to conform and face the consequences of their actions.

At the same time, NPM practices such as those described by Hall and Gunter (2015) have re-professionalised senior staff as managers producing a hierarchical distinction between classroom teachers and SLT. The interviewed teachers refer to SLT as an amorphous group, who appear to critique more than praise and do not trust their staff. This lack of trust seems to be reciprocated by the classroom teachers, representing a degradation in collegiality. Thomson (2020) describes the way that highly performative school environments provide fertile grounds for ‘toxic schools’ (p.170) where divide and rule practices occur.

The teacher working in a LA school, described similar technologies at work in their context with prescribed practices, expectations and performance management but at a lower intensity. They were able to use professional judgement in aspects of their practice, choosing to implement strategies identified in ISS and develop Rosenshine's Principles (Sherrington, 2019), rather than these being imposed. This teacher appeared less demoralised in their work and achieved agency through engagement in educational discourses outside of the school institution through social media, key stakeholder publications and educational books. LA schools with Ofsted judgements of 'requires improvement' are at risk of the negative aspects of the autonomy-accountability dyad. This teacher discussed involvement of a school improvement partner assigned after the Ofsted judgement, which represents a supervisory gaze and panoptic judgement. In the time between the interviews and submission of my dissertation, this teacher's school has been taken over by a MAT. Time will tell, if this MAT will have a similar approach to improving standards as the two other MATs described in this research.

While Courtney (2016), Page (2017, 2018) and Perryman et al. (2018) argue that education has moved into a post panoptic phase, the findings of this research have shown that in some contexts there has been a return to panoptic disciplinary power technologies, operated under a system of NPM. It appears that while MATs operate under a decentralised autonomy-accountability dyad, teachers within the MATs are only subjected to the accountability aspect.

Personal and professional implications and learning

The most unexpected finding from this research, with the greatest impact on my practice moving forward, was the masking strategies used to hide contradictions and incoherence in ISS. As a busy teacher, for whom the guidance document is aimed, I previously took the findings at face value when applying the recommendations to my teaching or presenting recommendations to other staff in my department. At the time, I used the further readings identified at the end of each recommendation for extra knowledge but did not consider the need to critically evaluate referenced material and claims made in ISS. My research, for this dissertation, provided space to evaluate the content of the referenced material for consistency

with the claims and recommendations made in the guidance report. While my findings show that often information in ISS is distorted or inconsistent with outcomes of referenced research, the process of extra reading enabled me to access new strategies that align with my preference for social constructivist strategies. In future, I will critically question, through a Foucauldian lens, problematising any 'truths' presented to me as evidence- based or from the EEF.

The process of immersion in ISS and EEE, using Codd's (1988) approach, and RTA of teacher interviews, provided me with the opportunity to work reflexively upon myself as a teacher. I came to understand the forces acting on the teachers in the interview as well as the forces acting upon and producing me as a teaching subject. The work of Foucault has given me scope to problematise working practices that have been imposed upon me in the past and work on myself at the boundaries of possibilities as an act of self-transformation. I now view the education system differently, understanding that my values do not align with the discourses of constructed truths prevalent in the system. After completing this dissertation, I will be returning to teach in a MAT where I already have knowledge of their institutional norms and mechanisms of disciplinary power. I will work at the boundaries of these constraints to integrate social constructivist pedagogies into my practice while remaining under the radar of disciplinary power technologies.

I have used knowledge and insight gained through this research when talking to teachers in my social sphere, extended due to my voluntary work in a nation-wide community youth group, ranging from trainee teachers to deputy heads. When discussing my research, several individuals have shared experiences and carried out acts of parrhesia. I wish to continue providing these spaces where understanding and possible self-transformation can take place. Providing peers with the space to carry out acts of parrhesia could lead to mutual self-transformation.

My dissertation began with a personal reflection on an experience of CPD, using the knowledge and insight gained through my research, I will return to that reflection to interpret latent meanings and aid my processing of that experience. CPD at the beginning of my career

meant an opportunity to engage in discussions about pedagogical techniques and consider how these could be developed and implemented into practice. Many of the techniques covered were based upon social constructivist theories and provided space for creativity when adjusting for classes. Since the introduction of 2014 national curriculum and move to prescriptive evidence-based strategies, discussion no longer holds a place in CPD as the audience are no longer seen to be 'experts' in their profession, since that role has been moved to organisations such as EEF.

CPD, as identified in this research, becomes training for staff to perform. The question about progress was linked to preparation for Ofsted inspections; the section on lesson plans was about ensuring monitoring documentation is in place; non-negotiables relate to consistency and control of every aspect of a teacher's practice; strategies from RSN and Sherrington, as prescriptive but easy to follow and implement techniques in lessons. It appears that the aim of this CPD session was construction of the technicist teacher, valued by that organisation. Evidence is used to prevent critique or questioning from the audience, references are to published research in journal articles that teachers do not normally have access to. The presenters in CPD have no formal training in educational research or quantitative research methods, they are the professional management class of SLT disseminating work of the EEF. This is similar to Sam's reflection about English teachers using statistics, incorrectly, to tell the audience that their previous practices and experience were wrong and 'following Rosenshine to the letter was the only way to do it.' My silence, as well as others during CPD, was a result of the mechanisms of disciplinary power. As seen in this research, experienced teachers are becoming disgruntled with processes they view as making them less professional. By using Foucauldian theory to problematise this situation, I can interpret CPD as an opportunity to understand the processes and mechanisms being used to produce docile compliant technicist teachers. By identifying boundaries placed upon my behaviours and actions, by the school as an institution, I can work at these boundaries to find possibilities or spaces where I can achieve agency. This will alter my experiences of these sessions from inculcation to spaces for personal development and transformation.

Research contribution

This research continues to develop the body of research using Foucault to problematise the English education system, by extending into a new context determined by evidence-based practice and high levels of academisation. As well as using disciplinary power, governmentality and parrhesia, my interpretations have included ways in which joy and pleasure in teaching can be used as a technology of the self. My analysis of classroom teachers' responses also contributes to research into teacher resistance, for example in the work of Fuller (2019), Colman (2020), and Thomson, McKay and Blackmore (2024) on resistance in school leaders. In addition, my consideration of the experiences of science teachers in English schools contributes to the work of Priestley et al. (2012) and Biesta, Priestley and Robinson, (2015) on the factors affecting teacher agency and belief in Scotland, and Rushton and Bird's (2024) exploration of achieving agency for ECTs in England.

My dissertation has also demonstrated use of an adaptation to Codd's (1988) approach to deconstruction of policy texts, to uncover discourses that circulate in the English education system. The adapted method also considered ways that supporting data and referencing is used to mask incoherences and contradictions in discourses. This is pertinent in a climate of an orientation towards evidence-based practice. The role and value of the EEF has been problematised as a key stakeholder, which enables questioning of the practices of other key stakeholders mentioned in EEE. Finally, this research has shown how document analysis combined with RTA can produce rich understandings of how discourses in policy documents are circulated through key stakeholders to impact on the practices of individual teachers.

What are the implications and what might change?

Teacher recruitment and retention in England is challenging, especially in rural areas of high socio-economic disadvantage. There have been, for several years, particular challenges with recruitment and retention in science (Allen et al., 2023). Experienced science teachers are becoming demoralised with the content that they are teaching and the methods that they are being forced to use. They describe the impact of superficial tasks such as changing logos on PowerPoint presentations and producing records of their lesson planning on their workload.

The disciplinary practices of NPM are having a negative impact on the staff exposed to them, which leads to high turnover rates in schools. However, possibilities for change are identified by the interviewed teachers. A joy and pleasure were seen in responses when teachers discussed having the opportunity to be creative and have freedom in their practice. Perhaps the time of the technicist teacher produced in low-trust high accountability systems is over and a move to providing autonomy to teachers, rather than high performing MATs might make a difference to retention of science teachers.

The findings of this research are highly contextualised to a small group of teachers working in a specific geographical area. There are many LA schools and MATs with different modes of action in the area and across the country, so experiences of these teachers cannot be generalised as representative of the system. My interpretations of EEE and ISS represent, as Codd (1988) describes, one of 'a plurality of readings' (p.239) since as a researcher I bring my experiences and theoretical knowledge into all interpretations made. The recollections of teachers cannot be seen to represent 'truths' of the system, due to the social construction of these experiences by the teachers and during the interview.

Education in English secondary schools is entering a potential time of change. Large scale dissatisfaction in the incumbent government could mean a Labour government for the first time in 14 years, following a General Election later this year. Labour's education policy (2024) would lead to further changes in curriculum and valued outcomes of education. This could provide space to consider different mechanisms of school accountability and modes of teacher professionality. Issues with science teacher recruitment and retention could provide a shift in power relations as they become more valuable for SLT. Disappearance of Sam's 'charismatic luddites', may reduce as members of SLT come to realise that staff, who do not adhere to the 'letter of the law' of institutional norms, are not easily replaced. In these spaces of tension, resistance to highly prescriptive practices could take place where professional managers of SLT come to value experience and expertise of classroom teachers in decision making process.

Despite the issues for science teachers that have been highlighted in this dissertation, Foucauldian perspectives of care of the self and opportunities for self-transformation still provide hope that there are other ways of being.

Appendix 1

University of Glasgow

College of Social Sciences

College of Social Sciences Research Ethics Committee

07 December 2020

Dear Emma

Project Title: What are the power relations, exercised through educational discourses supporting the National Curriculum, influencing the classroom practice of Science teachers working in areas of high socio-economic disadvantage?

Application No: 400200042

The College Research Ethics Committee has reviewed your application and has agreed that there is no objection on ethical grounds to the proposed study. It is happy therefore to approve the project, subject to the following conditions:

- Start date of ethical approval: 01/01/2021
- Project end date: 31/12/2022
- Any outstanding permissions needed from third parties in order to recruit research participants or to access facilities or venues for research purposes must be obtained in writing and submitted to the CoSS Research Ethics Administrator before research commences. Permissions you must provide are shown in the *College Ethics Review Feedback* document that has been sent to you as the Collated Comments Document in the online system.
- The data should be held securely for a period of ten years after the completion of the research project, or for longer if specified by the research funder or sponsor, in accordance with the University's Code of Good Practice in Research: (https://www.gla.ac.uk/media/media_490311_en.pdf)
- The research should be carried out only on the sites, and/or with the groups and using the methods defined in the application.
- Approval is granted for virtual methods outlined in the application however restrictions noted below should be followed for any face to face data collection methods.

    - **Approval has been granted in principal:** no data collection must be undertaken with the exception of methods highlighted above until the current research restrictions as a result of social distancing and self-isolation are lifted. You will be notified once this restriction is no longer in force.

Any proposed changes in the protocol should be submitted for reassessment as an amendment to the original application. The **Request for Amendments to an Approved Application** form should be used:
https://www.gla.ac.uk/colleges/socialsciences/students/ethics/forms/staffandpostgraduateresearchstudents/

Yours sincerely,

Appendix 2

University of Glasgow
College of Social Sciences

Participant Information Sheet

Research Project title: What are the power relations, exercised through educational discourses supporting the National Curriculum, influencing the classroom practice of Science teachers working in areas of high socio-economic disadvantage?
Researcher: Emma Whillis
Supervisor: Dr Fiona Patrick

You are being invited to take part in a research study. Before you decide to take part, it is important for you to understand why the research is being done and what it will involve. Please read the following information carefully and discuss it with others if you wish. Ask the researcher/s if there is anything that is not clear or if you would like more information. Take some time to decide whether you wish to take part.

Thank you for reading this.

What this study is about and why you have been invited to take part

This research study will explore the influences on teachers' classroom practice when teaching aspects of the Key Stage 3 and 4 science national curriculum. The aim is identify the key messages that teachers are exposed to relating to how the Science national curriculum should be taught on a day to day basis and how these impact upon the way lessons are taught and student learning is assessed.

You have been invited to take part because I am interested in your views as an experienced science teacher working in a school / academy serving an area with above average socio-economic disadvantage.

This research is being used as part of my doctoral dissertation towards an EdD qualification. This dissertation comprises of the final two years of a five-year programme.
After this project has been written up, you may request either a summary of results or a full copy of the final dissertation document. To do this please contact me at the email address listed below.

Interview process
During the interviews, you will be asked questions about the influences on your teaching practice, there will be no judgement made upon your practice. Interviews will take place at a convenient time

for you over the conferencing platform Zoom. The interview can take place with or without the video feed, depending upon your preference, and should take no longer than 40-60 minutes. You will be able to stop the interview at any time you wish without giving a reason.

Interviews will be audio recorded digitally. The files will be uploaded to a secure online storage system held by the University and deleted from the recording device, immediately after the interview. Before I transcribe your interview, I will use codes to de-identify you, and I will keep the codes separate from the interview transcript. This will make it more difficult for anyone to identify you. It is important for you to note that confidentiality may not be guaranteed, due to the limited size of the participant sample.

Please also note that confidentiality will be maintained as far as it possible, unless during our conversation I hear anything which makes me worried that someone might be in danger of harm, in which case I might have to inform relevant agencies of this.

The research data (unprocessed, raw, data and interview transcripts) will be securely stored on the University of Glasgow storage systems, in password protected files and any hard copies in a secure locked drawer. Raw data will be retained until December 2022 and then destroyed. Processed data will be held for 10 years on the University of Glasgow Enlighten system. Personal data (such as your name and other personal identifiers) will be destroyed as soon as de-identification is completed, or by December 2021 whichever is sooner.

This project has been considered and approved by the College Research Ethics Committee

If you would like any further information about this project, please contact me on my email address [redacted]@student.gla.ac.uk or my supervisor Dr Fiona Patrick at Fiona.patrick@glasgow.ac.uk.

To pursue any complaint about the conduct of the research: contact the College of Social Sciences Ethics Officer, Dr Muir Houston, email: Muir.Houston@glasgow.ac.uk

End of Participan: Information Sheet

Appendix 3

University of Glasgow

College of Social Sciences

Consent Form

Title of Project: What are the power relations, exercised through educational discourses supporting the National Curriculum, influencing the classroom practice of Science teachers working in areas of high socio-economic disadvantage?

Name of Researcher: Emma Whillis
Name of supervisor: Dr Fiona Patrick

Please tick as appropriate

Yes ☐ No ☐ I confirm that I have read and understood the Participant Information Sheet for the above study and have had the opportunity to ask questions.

Yes ☐ No ☐ I understand that my participation is voluntary and that I am free to withdraw at any time during the interview process, without giving any reason.

Yes ☐ No ☐ I consent to interviews being audio recorded through the Zoom application.

Confidentiality/anonymity clauses

Yes ☐ No ☐ I acknowledge that participants will be referred to by pseudonym.

Yes ☐ No ☐ I acknowledge that there will be no effect on my employment arising from my participation or non-participation in this research.

Clauses relating to data usage and storage

I agree that:

Yes ☐ No ☐ All names and other material likely to identify individuals will be de-identified.

Yes ☐ No ☐ The material will be treated as confidential and kept in secure storage at all times.

Yes ☐ No ☐ Personal data and interview recordings will be deleted after transcription.

Yes ☐ No ☐ All other data (including transcription of interviews) will be stored on the University of Glasgow One Drive and transferred to the Enlighten: Research Data storage. This data will be retained and disposed of in line with University protocols after 10 years.

Yes ☐ No ☐ I waive my copyright to any data collected as part of this project.

Consent clause, tick box format

I agree to take part in this research study ☐

I do not agree to take part in this research study ☐

Name of Participant ..... Signature .....

Date .....

Name of Researcher .....Signature .....

Date .....

PRIVACY NOTICE

Privacy Notice for Participation in Research Project: What are the power relations, exercised through educational discourses supporting the National Curriculum, influencing the classroom practice of Science teachers working in areas of high socio-economic disadvantage? Researcher: Emma Whillis

Your Personal Data

The University of Glasgow will be what's known as the 'Data Controller' of your personal data processed in relation to your participation in the research project: What are the power relations, exercised through educational discourses supporting the National Curriculum, influencing the classroom practice of Science teachers working in areas of high socio-economic disadvantage? This privacy notice will explain how The University of Glasgow will process your personal data.

Why we need it

We are collecting basic personal data such as your name and contact details in order to conduct our research. We need your name and contact details to arrange interviews and follow up any findings, if required.

We only collect data that we need for the research project and your data will be deidentified, any personal indicators will be removed from findings that are written up in the dissertation and pseudonyms will be used.

Please see accompanying **Participant Information Sheet**,

Legal basis for processing your data

We must have a legal basis for processing all personal data. As this processing is for Academic Research, we will be relying upon **Task in the Public Interest** in order to process the basic personal data that you provide. For any special categories data collected we will be processing this on the basis that it is **necessary for archiving purposes, scientific or historical research purposes or statistical purposes**

Alongside this, in order to fulfil our ethical obligations, we will ask for your **Consent** to take part in the study Please see accompanying **Consent Form**.

What we do with it and who we share it with

All the personal data you submit is processed by the researcher (Emma Whillis). In addition, security measures are in place to ensure that your personal data remains safe: deidentification of data after interviews, use of pseudonyms, all information stored in encrypted files on the University of Glasgow cloud. Please consult the **Consent form** and **Participant Information Sheet** which accompanies this notice.

I will provide you with a copy of the study findings and details of any subsequent publications or outputs on request.

What are your rights? *
GDPR provides that individuals have certain rights including: to request access to, copies of and rectification or erasure of personal data and to object to processing. In addition, data subjects may also have the right to restrict the processing of the personal data and to data portability. You can request access to the information we process about you at any time.

If at any point you believe that the information, we process relating to you is incorrect, you can request to see this information and may in some instances request to have it restricted, corrected, or erased. You may also have the right to object to the processing of data and the right to data portability.

Please note that as we are processing your personal data for research purposes, the ability to exercise these rights may vary as there are potentially applicable research exemptions under the GDPR and the Data Protection Act 2018. For more information on these exemptions, please see UofG Research with personal and special categories of data.

If you wish to exercise any of these rights, please submit your request via the webform or contact dp@gla.ac.uk

Complaints
If you wish to raise a complaint on how we have handled your personal data, you can contact the University Data Protection Officer who will investigate the matter.
Our Data Protection Officer can be contacted at dataprotectionofficer@glasgow.ac.uk

If you are not satisfied with our response or believe we are not processing your personal data in accordance with the law, you can complain to the Information Commissioner's Office (ICO) https://ico.org.uk/

Who has ethically reviewed the project?

This project has been ethically approved via the College of Social Sciences Research Ethics Committee or relevant School Ethics Forum in the College.

How long do we keep it for?

Your **personal** data will be retained by the University only for as long as is necessary for processing and no longer than the period of ethical approval 31st December 2023. After this time, personal data will be securely deleted.

Your **research** data will be retained for a period of ten years in line with the University of Glasgow Guidelines. Specific details in relation to research data storage are provided on the Participant Information Sheet and Consent Form which accompany this notice.

End of Privacy Notice _____

Appendix 4

Interview themes with potential prompts to facilitate detailed responses.

The following questions represent the concepts that I would like to cover during the interview. Question 1 will be asked in all interviews, with questions 2-7 asked if the participant does not mention these concepts when asked. Sub questions signified by a letter are possible prompts that could be used to add detail to offered answers.

1) What are the significant influences on the way in which you teach?
2) Has your approach to teaching changed over your career?
    a) What are these changes?
    b) What has prompted these changes?
    c) How do you feel about these changes?
3) What are your thoughts on the current national curriculum for science?
    a) How does this compare to previous national curricula that you have taught?
4) Currently, what is your school's / academy's approach to delivering CPD?
    a) What are the messages of this CPD?
    b) How much say do you have in this CPD?
    c) What impact does this CPD have on your practice?
    d) Do you engage in personal CPD?
    e) Where do you access this CPD?
5) What are your experiences of the systems of performance management?
    a) What strategies are used by your school / academy to monitor teaching and learning?
    b) How do these strategies impact upon your classroom practice?
    c) What involvement are you able to have in these strategies?
    d) How are your annual performance management targets determined? How much influence do you have on these targets?
6) What are your views on the current Ofsted framework?
7) In the ideal world, how would you like to be able to teach in your classroom?
    a) Which of these factors are you able to influence?
    b) Which of these factors are currently achievable?
    c) What would need to change to allow your ideal situation to be realised?

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