



University of Sheffield

Serving Up Standards; An Institutional Ethnography of School Food Work in UK Primary Schools

Anna MacNair Hawkins

A thesis submitted in partial fulfilment of the requirements for the degree of
Doctor of Philosophy

The University of Sheffield
Faculty of Social Sciences
Department of Geography

July 2023

Abstract

School meals in the UK carry a significant weight of responsibility for improving the health and wellbeing of children through the provision of a well-balanced nutritious meal. There is a complex policy and legislative framework surrounding school food that is designed to ensure that these benefits are realised, especially for the most vulnerable children through the provision of free school meals. Despite this, school meals services struggle to compete with packed lunches brought in from home, with a significant proportion of children who are entitled to a free meal not taking up this option. An Institutional Ethnography (IE) of school food work was carried out to explore the problem of low meal uptake from the perspective of school food workers in three Sheffield primary schools. IE is a feminist qualitative research approach that explores how work takes place in institutional contexts, mapping how institutional power shapes practice. This research offers an alternative framing of school food as a practice that is struggling to compete with the norms and expectations set by the dominant food industry, in particular the predominance of heavily marketed processed and unhealthy foods and the expectation of choice. The accounts of frontline workers identified powerful dietary norms as a significant barrier to school meal uptake, with many families and children finding school meals unfamiliar and unappealing because they did not resemble the food that they were used to eating. Policy expectations for increased meal uptake, increased choice and reduced use of processed foods create new work pressures that are not reflected in the allocation of space and resources, which have reduced over time. This work uses analytical and visualisation techniques from systems thinking to produce systems maps that show how power imbalances shape the practice of school food and makes recommendations for how policy makers can use the expertise of food workers to improve outcomes.

Declarations

I, Anna M Hawkins, confirm that the Thesis is my own work. I am aware of the University's Guidance on the Use of Unfair Means (www.sheffield.ac.uk/ssid/unfair-means). This work has not previously been presented for an award at this, or any other, university.

Three of the chapters included in this thesis have been submitted to academic journals and are at various stages of peer-review.

- **Mapping working practices as systems: an analytical model for visualising findings from an Institutional Ethnography** has been submitted to *Qualitative Research*.
- **School food hero and the battle of the food foes: a story of public health policy, power imbalance and potential** has been submitted to *Journal of Social Science and Medicine*.
- **Spatial barriers to the effective delivery of school food policy in UK primary schools; findings from an Institutional Ethnography** has been submitted to *People Place and Policy*.

Contents

Abstract.....	i
Declarations	ii
Contents.....	iii
Acknowledgements.....	vi
List of Figures	vii
Introduction	1
Thesis Format.....	1
Description of the study.....	2
Rationale for the study.....	2
Key terms explained.....	3
Aims, Objectives and Research Questions	5
Literature review.....	6
Contribution	11
Introduction to the papers.....	11
Methodology.....	15
Introduction	15
Research philosophy and positionality	15
Theoretical Framing of the study.....	16
Methods and research design.....	25
Data analysis and presentation	29
Ethical considerations.....	33
A summary of my method	33
References.....	34
Mapping Working Practices as Systems: An analytical model for visualising findings from an Institutional Ethnography.....	41
Abstract.....	41
Introduction	41
Systems thinking.....	43
My Research Process outlined.....	46
Data analysis	48
Mapping school food practices	51
Discussion.....	53
Conclusions	54

References.....	55
School Food Hero and the Battle of the Food Foes: a story of public health policy, power imbalance and potential.....	59
Abstract.....	59
Introduction	59
Methodology	62
Findings.....	64
Discussion.....	67
Conclusion / Recommendations.....	69
Conclusion	70
References.....	71
Spatial barriers to the effective delivery of school food policy in UK primary schools: Findings from an Institutional Ethnography.....	75
Abstract.....	75
Introduction	75
Literature review.....	76
Methodology	80
Findings.....	82
Systems diagrams.....	86
Discussion.....	87
Conclusions and recommendations.	88
References.....	89
School food: Protected space or weak competitor?.....	94
Abstract.....	94
Introduction	94
Methodology	98
Findings.....	100
Discussion.....	104
Conclusion	107
References.....	108
Discussion and Conclusions	113
Introduction	113
Research Aim and Objectives and how these have been met.....	113
Reflections on the research design.	120
Key findings and recommendations	122

Where next?.....	123
Final thoughts.....	124
References.....	125
Appendices	128
Appendix 1 - Interview schedule.....	129
Appendix 2 - Examples of field sketches and notes.	132
Appendix 3 - Sample school menu.....	138
Appendix 4 - Sample meal uptake report.....	141
Appendix 5 - Meal evaluation sheet.....	142
Appendix 6 - Ethics approval letter	147
Appendix 7 - Participant information sheet.....	148
Appendix 8 - Consent form	151
Appendix 9 - Development of the systems diagrams.	153

Acknowledgements

I would like to thank my supervisor Dr Megan Blake for her guidance and wisdom throughout this long journey, and for introducing me to a wide range of fascinating methodologies and literature. I also appreciate the many times you have reassured me that I was up to this task. I would like to thank Dr Desiree Fields for her work supporting the development and refinement of my research proposal, and Dr Pamela Richardson for her invaluable support during the final write up stage.

I would like to thank my department managers at Sheffield Hallam University who have sponsored my doctoral studies, and to my dear colleagues who have inspired and supported me along the way.

To my daughter Natasha I give thanks for you being the first in our family to take the title 'Dr Hawkins'. It has been good to see what it looks like in print, and I hope to follow in your footsteps soon. And to my son Sam I give thanks for filling our home with beautiful music and reminding me not to neglect my creative side. I am enormously and equally proud of you both.

And finally, to my husband Iain for providing the scaffolding and space for me to take on this challenge, and for holding me together and making me smile when I felt like giving up. And thank you for proof-reading my thesis, which we all know is almost as challenging a task as writing it.

List of Figures

Figure 1: How the data gathering process unfolded	29
Figure 2: Schematic overview of South African agro-food system structure. (Greenberg, 2917:470)	45
Figure 3: A sample of the data coding.....	49
Figure 4: a summary of key findings from my Institutional Ethnography of school food.	50
Figure 5: The school perspective on why school food differs from the food that children are used to eating.....	51
Figure 6: The wider food system shown as acting on the school food environment.....	53
Figure 7: Systems diagram showing the institutional and policy processes shaping school food practices and outcomes	86
Figure 8: How kitchen space and the school food offer have changed over time.....	87
Figure 9: School food visualised as a nested power within the wider food system (Hawkins, forthcoming)	106
Figure 10: The school perspective on why school food differs from the food that children are used to eating.....	117
Figure 11: The wider food system acting upon the school food environment.	118

Introduction

School food has always carried a considerable burden to mitigate the harmful environment that many children are born into (Rose et al, 2019). The nature of this harm has changed over the years and the job that school food has to do has become, in many ways, far more complex and challenging as the dietary health problems have gone from some children not having enough to eat, to many children eating too much of the 'wrong' kind of food (Food Foundation,2022).

School food policy in UK primary schools seeks to ensure that children get at least one good quality and balanced meal a day, but it is struggling to convince enough parents to choose a school meal over a packed lunch brought in from home. This presents both a commercial challenge to the school meal service and results in a lack of evidence to demonstrate that school food is having a tangible positive impact on children's health and wellbeing.

This thesis presents the findings from an Institutional Ethnography (IE) of school food work in three Sheffield primary schools that sought to explore the problem of low meal uptake from the perspectives of those doing this work, recognising them as expert informants. Institutional ethnography is a research approach that seeks to reveal the hidden work that goes on in order to try and make institutional processes work.

This chapter will introduce the research presented in the four linked papers that make up this publication format thesis. It will go on to outline the rationale for the area of focus and set out the aims, objectives and research questions that have structured the research. IE provides this study with both a methodological approach and a conceptual frame, both aspects will be introduced below and discussed in more detail in the methodology chapter.

Thesis Format

This thesis is submitted in publication format and as such incorporates a collection of papers that are in a format suitable for publication in a peer-reviewed journal. The thesis follows the University of Sheffield guidance for a publication format thesis which can be found here: <https://www.sheffield.ac.uk/research-services/code/thesis/preparation/formats#publication>

'The thesis must remain an original contribution to the field of research. Within the introductory section to the thesis, the student should clearly explain the nature and extent of their contribution to each of the publications presented, as well as the contribution of any co-authors and other collaborators. The materials contained within the thesis must normally be derived from original research undertaken by the student while supervised by a University of Sheffield supervisor' (University of Sheffield, Nd)

This thesis contains four papers in publication format alongside traditional thesis chapters which contextualise and link the papers to demonstrate how they represent a coherent body of work.

I am sole author for three of the papers and lead author for the fourth which is co-authored with Dr Rachel Rundle. The paper is based upon findings from my research only.

Three of the papers are currently under review and the fourth is planned for submission in the near future.

- **Mapping working practices as systems: an analytical model for visualising findings from an Institutional Ethnography** has been submitted to *Qualitative Research* and

has been accepted pending revisions. The version included in this thesis is the revised manuscript which is currently with reviewers.

- **School food hero and the battle of the food foes: a story of public health policy, power imbalance and potential** has been submitted to *Journal of Social Science and Medicine* and is under review.
- **Spatial barriers to the effective delivery of school food policy in UK primary schools; findings from an Institutional Ethnography** has been submitted to *People Place and Policy* and has been accepted pending revisions. The version included in this thesis is the revised manuscript which is currently with reviewers.
- **School food: protected space or weak competitor** has not yet been submitted but the target journal for this paper is *Children's Geographies*.

Description of the study

This research project used IE as a methodical research approach to explore the delivery of school food policy at the local scale with the aim of producing an alternative account of school food delivery that would challenge the nutrition-dominated behavioural discourses that dominate school food research (Mazarello et al, 2015; Illøkken et al, 2021; Dimpleby & Vincent, 2013). It does this by making visible the work that is subsumed by the institutional discourse of school food provision, but which is instrumental in the delivery of school food policy. The findings from this research provide evidence to support policy recommendations that are informed by the lived experiences of those doing the work of school food delivery.

At a conceptual level, this work applies and adapts Institutional Ethnography as a research approach to map the ways in which circulations of power work to shape social practices. Sometimes these power sources are clearly attributable to institutional and policy processes, but sometimes they are found to be much more vast and remote from the setting of school food. Through the application and refinement of the methodology, bringing in analytical approaches such as critical bifocality (Weis & Fine, 2012), systems thinking (Arnold & Wade, 2015) and I have also developed a new methodological model for analysing and visualising the findings from an Institutional Ethnography (IE).

The IE was carried out in three primary schools (pupils aged between 4-11) in Sheffield, UK between 2017 and 2019. Schools were identified by a member of the local government school food team. The schools chosen were of a similar size (around 500 pupils) and had a similar demographic profile (around 50% - 60% of children in the schools were entitled to free school meals because their parents or carers were in receipt of means tested benefits). Despite having similar profiles, the schools had different approaches to school food service and different kitchen and dining spaces. Two of the schools had been built in the last 15 years and the third had been built in the 1930s. This sampling approach allowed a focus upon the differences in meal service rather than the ways in which different populations responded to the same food environment.

Rationale for the study

Shifting Practices and Policy Impact

There is an urgent need to consider effective ways of shifting practices for positive outcomes such as addressing chronic health inequalities, and minimising environmentally damaging practices. There are a wide variety of theoretical approaches to understanding the performance of everyday

life and proposing mechanisms for delivering change such as policy design, legislation, financial instruments, and social marketing approaches (Shove, 2014).

This work explored poor policy impact and outcomes in the area of school food. Understanding why policies fail is important in order to improve the policy design and delivery process. In the case of school food, as in so many other areas of poor policy impact, the gap between policy intentions and outcomes needs unpacking. My work does this by drawing upon the lived experiences and expertise of people who do the work of policy implementation in school kitchens and dining rooms.

Why School Food?

School food is an important area for investigation for a number of key reasons, firstly there is strong evidence that the increased interest that public health policy makers have taken in school food is not having the desired impact (Kelly & Barker, 2016; Ravikumar et al, 2022; Jamie & Lock, 2009; Van Cauwenberg et al, 2010). School food is increasingly burdened with addressing chronic health inequalities linked to diet, and the nutritional regulations and school food guidance literature is extensive (Illøkken et al, 2021, Adamson, 2013; Nelson, 2006). Whilst school food has always been seen as a way of addressing socio economic inequality through the provision of free school meals, at times of rising socio-economic inequality and childhood poverty, the expectation of school food to mitigate the damaging effects only increases (Impact on Urban Health, 2022).

Low uptake of school meals and competition from packed lunches from home are often problematised in policy and research but not really explained (Dimpleby & Vincent, 2013). The dominant narrative in research (Food Foundation, 2022; Department for Education, 2023; Illøkken et al, 2021, Adamson, 2013) is that choosing a school meal is a good decision and more parents and children need to be persuaded or encouraged to make the 'right' choice. Despite improvements in meal quality and some improvements in uptake (especially where free school meal provision has been extended), child health linked to diet continues to decline. School food policy isn't having the desired impact and this is considered to be a policy problem.

Understanding why school food is not improving child health requires exploration at a number of scales. This work addresses a gap in the research literature by drawing upon the accounts and experiences of this largely female workforce. The people working in school kitchens and dining rooms have a crucial perspective on this gap between policy intention and outcome and have an important contribution to make to future policy developments, but they are seldom asked to do so.

School food represents a unique nexus of competing economic, educational, and nutritional regulatory demands, and the daily production of 'school dinner' is a work process that is coordinated trans-locally and across time by texts such as policy, legislation, recipes and best practice guides. Texts dictate the ways in which food can be procured, how it should be cooked, what food should be offered, and how it should be served (Department for Education, 2016), as well as how space is allocated to the work (Department for Education, 2014). Discovering and mapping the 'textual architecture' of routine work process is central to the Institutional Ethnography approach and by applying this, I have been able to offer new insights into the barriers encountered by school food workers when attempting to implement policies.

Key terms explained.

This research uses a conceptual frame constructed from Institutional Ethnography, Practice Theory and Systems Thinking; all of which will be discussed in the methodology chapter. The following terms appear frequently in this Thesis and so a brief definition is provided here for clarity. In so doing I acknowledge that these definitions are by no means exhaustive or fixed.

Institutions

This study uses Institutional Ethnography's conceptualisation of textually coordinated institutional power to reveal the ways in which power shapes everyday social practices. Institutions are defined as 'clusters of text-mediated relations organised around a specific ruling function' (DeVault & McCoy in Smith, D 2006:17).

It is useful to see school food as an institutional process because it is coordinated by ruling texts in the form of policy and operational guidelines produced and applied at a number of scales. 'The analytic goal is to make visible the ways the institutional order creates the conditions of the individual experience' (McKoy in Smith, D 2006:109).

Practice

Practice theory provides an ontological account of everyday life that conceptualises routinised performances of actions as social practices that 'endure between and across specific moments of enactment' and become stabilized to the extent that they exist as an 'entity' that can be imagined even when the practice is not being performed (Shove, Pantzar & Watson, 2012:7). School dinner is a social practice that exists as a conceptual entity in its own right. Practice theory is useful as it provides an alternative framing to the more behavioural accounts of school food that dominate existing research in which school food is presented as a logical and good choice that more individuals need to make.

Texts

Institutional Ethnography recognises texts as 'material objects that carry messages' and, crucially, that are replicable and so can be used by different people at different times to coordinate work process within an institutional context. They are incorporated into an ethnography as they 'enter into and play their part in ongoing sequences of action'. When a text 'enters' the account of working practices it is said to have been activated. The analytical focus in Institutional Ethnography is not the text itself, but rather the way that the actions of those who activate it are shaped and coordinated by their interpretation and application of the text (Smith, 2014:5). Texts are the carriers of the ideological account of the work practice (Smith, 2005).

Systems Thinking

Systems thinking originated in systems engineering but has more recently adopted by a wide range of disciplines, including community psychology and latterly public health bodies seeking to understand the complex drivers of health inequalities, and then use this knowledge to better design and evaluate interventions (Egan, 2019; Hawe and Ghali, 2008). Arnold and Wade (2015: 670) define systems as 'complex behaviours'. The complexity here refers to the range of elements (e.g., actors), locations, technologies and drivers that coalesce to form a system. The rationale for adopting 'systems thinking' has sometimes been to understand complexity better in order to tame it or 'adjust outcomes'.

A feature of systems thinking that was especially useful to my work is that it allows for the drawing of systems boundaries to capture remote processes that affect the local context, in recognition of the fact that significant systemic change often requires a fundamental shift in the status quo, and that drawing the boundaries too tightly around the problem can often lead to ineffectual interventions (Foster-Fishman and Behrens, 2007). Systems thinking was primarily used as an analytical and visualisation tool and was introduced later in the study in response to some research problems I encountered when working with data from IE (see paper 1).

Aims, Objectives and Research Questions

'[Institutional Ethnography] is not meant as a way of discovering the everyday world as such, but of looking out beyond the everyday to discover how it came to happen as it does.' (Smith, 2006:3)

Research Aim

1. To map and subsequently theorise the ways in which circulations of institutional power work to shape the practices of school food, to identify the barriers to effective policy implementation and make recommendations for revisions and improvements to school food policy.

Research Objectives

1. To identify the ways in which the work of school food delivery is coordinated trans-locally and across time by the activation of texts.
2. To map the ways in which institutional power shapes the social practice of school dinner through the activation of texts.
3. To identify the ways in which the institutional discourse or 'ideological account' of school food provisioning subsumes and displaces the actualities of the work that people do.

In order to meet the stated objectives this research asks the following questions:

1. Which texts are activated in the work process and to what effect? (Objectives 1, 2 & 3)
2. What strategies are adopted to make school food policy deliverable at the local scale? (Objectives 1 & 3)
3. Who is involved in the day-to-day delivery of food in school and what work do they do? (Objective 1 & 3)
4. What problems and tensions are experienced by the different actors and agents involved in school food delivery in accordance with the ideological account as set out in policy and best practice? (Objectives 2 & 3)

Literature review

Each of the following papers includes a review of relevant literature, and so this section tries to provide a summary of the overarching themes that set the context for the research rather than covering all of the areas of literature referred to in the papers. These key themes were the ones used to establish the rationale for the research, and the aims and objectives. The papers explore a range of themes in more depth and the literature reviewed there speaks more explicitly to the research findings and the contribution of each paper.

School Food: UK Policy Context

In the UK, school meals became a statutory responsibility of Local Education Authorities (LEAs) in the 1940s; the norm then for a single hot food option that was prepared in school from raw ingredients which were stored on site (Walley, 1955). School food was regulated by nutritional standards from the 1940s at which time the requirement was that lunch “substantial enough” to be deemed the “main meal” of the day (Education Act 1944 reviewed in Gillard, 2003). Children were served all components of the meal as standard (Evans, 2009; Rose et al, 2019). In the 1980s the school meal service was unregulated and replaced by a commercial market driven approach to school food provision, as part of a wider programme of state and welfare rollback favoured by the government at the time (Rose et al 2019) This period saw the removal of nutritional standards and changes in the structure of school food provision. Fast food-style service, the proliferation of snack items, and allowing single item purchases rather than whole meals (e.g., a bowl of chips). Some local authorities moved away from full-service kitchens, with meals being prepared off site and delivered to schools to heat and serve. This new format of food provision was much cheaper for individual schools than operating a full-service kitchen, but it led to a decline in meal quality and uptake (DHSS, 1980). The turn of the millennium saw a renewed policy interest in school food quality, largely in response to concerns around meal quality and uptake since deregulation. This included a return to full-service kitchens in school plans/designs and the introduction of statutory nutritional standards for school meals served in state-funded schools (Rose et al, 2019).

Since 2000, each UK country has reintroduced food standards on either a voluntary or compulsory basis. School food in England is currently regulated by ‘The Requirements for School Food Regulation 2014’, a statutory instrument which came into force in 2015 and which sets out the nutritional standards for the food served and provided in the majority of schools in England (Department for Education, 2014).

The statutory instrument has been supported by a number of guidance documents since its publication and is currently supported by ‘School Food in England: departmental advice for governing boards’ published by the Department for Education in 2016. This document aims to support the implementation of school food standards, which it states ‘are to ensure that food provided to pupils in school is nutritious and of high quality; to promote good nutritional health in all pupils; protect those who are nutritionally vulnerable and to promote good eating behaviour.’ (Department for Education, 2016: 4).

Compliance with current school food standards, although a statutory requirement, is not systematically monitored. There is a significant body of work discussing the implementation and evaluation of school food standards prior to 2011 (Nelson et al, 2012; Grey, 2008; Adamson et al, 2013; Evans, Mandle & Christian, 2016) There have been no significant studies into the impact of the 2014 standards or the experience of those tasked with delivering them.

There are tensions between the health and nutritional policies tasked with improving health outcomes, and the financial pressures that schools and school meal services face. This can result in schools using fast food sales and vending machines as an important income stream, and kitchen

staff turning to processed foods for convenience (Fernandes, 2013; Devi et al, 2010; Parnham et al, 2022; Stevens et al, 2013)

School food and public health nutrition.

Existing policy, evaluation frameworks and academic research articles exploring school food in the UK prioritise issues of nutritional quality and uptake - often concluding that schools need to offer better food in order to support children and their families to make better food choices, mitigating the effects of harmful foods in the wider food environment (Department for Education, 2016; Mazarello & Lakshman, 2015). This assumes individualised behavioural drivers of action that have been challenged by social practice theorists and public health researchers who present a compelling challenge to this individualised behavioural account of the way that everyday life comes to be performed, and in particular the ways in which food behaviours stabilise (Shove, 2010; Kelly & Barker, 2016).

School food is often burdened with addressing wider societal anxieties about healthy diets and is increasingly seen as an important 'weapon' in the 'battle' against childhood obesity (Adamson, 2013; Nelson, 2006; Illøkken et al, 2021; Dumbleby & Vincent, 2013) and mitigator of wider processes of poverty and inequality (Impact on Urban Health, 2022). This public health nutritional framing is not, however, one that is usually adopted or endorsed by children negotiating school dinner time, who often prioritise the social opportunities this break from classroom activity allows (Daniel & Gustafsson, 2010; Fletcher et al, 2014; Best, 2017). Nor does it acknowledge the primary concerns of many staff and parents, who will often prioritise children eating something or 'enough' at lunchtime over them eating a nutritionally balanced meal (Morrison, 1996, Harman & Capellini, 2015). Moreover, there is very little evidence to support the effectiveness of these policies in reducing childhood obesity (D'Angelo et al, 2020; Jamie & Lock, 2009, Van Cauwenberg et al, 2010; Ravikumar et al, 2022).

'School dinner' as a sociocultural practice is almost entirely subsumed by a nutritional discourse, which dominates both policy and academic research in the UK. This is despite studies that show how important school lunchtime is for children and young people as a social event taking place in a social space (Illøkken et al, 2021; Briggs and Lake, 2011; Best, 2017; Morrison, 1996). Moreover, what is noticeably absent from policy and academic research, is a detailed account of the work that is done by those who deliver school meals; there are very few accounts of how this practice is performed in a contemporary context, and what the routines and norms of school dinner time have become. Practice theory draws an important distinction between the practice as entity (ideological account) as it is captured in institutional process texts and in the popular imagination, and how it is performed in a myriad of different ways in different contexts (Shove, Pantzar & Watson, 2012).

The geographies of school food practices.

Very little is written about the contemporary performance of the practice of school dinner because most studies are focussed upon what the children eat, rather than how and where and when the practice happens (Daniel & Gustafsson, 2010). What the children eat is, of course, important - but the practice is so much more than this and includes the practice of meal provision and the work that takes place in kitchens. Practice theory recognises the materialities that shape practice, but this has not yet extended to an exploration of how time and space affect school food work.

School dining rooms have been the setting for geographical and sociological research, as well studies that focus upon nutrition and health. It has been argued that "[L]unch is a much more nuanced and negotiated time/space compared to the rest of the school day" and that school lunch practices present an opportunity to study the ways in which children resist and manipulate institutional control (Daniel & Gustafsson, 2010: 266). Power exerted through lunchtime practices

is further explored by Jo Pike who draws upon Foucault's notions of governmentality to explore the ways in which power is exerted and resisted within the spatialities of the school dining hall, identifying 'circularities of power played out between children and adults in the dining room, decentring traditional understandings of power as possessed by adults and exercised upon children for the purpose of domination' (Pike, 2008: 417). Pike's work does not, however, focus upon the ways in which these power relations link back to institutional power structures or how this power has shaped the working practices that culminate in the school dinner hall. There is an assumption that the power shifts between the children and the adults, but the system that shapes the performance of school food practices is more complex than this binary and includes larger, more powerful, and possibly less visible elements of the system (Hawe et al, 2009).

There have been a number of studies exploring the social value of a shared meal in school. In her 1996 study of commensality practices in school dining rooms, Marlene Morrison identified a number of key performative features of school meals that are often absent from the ideological account. She identified that the time and space constraints meant that, in some cases, children were prevented from talking too much to their friends in order to concentrate on 'eating up quickly' (Morrison, 1996: 659). Briggs and Lake (2011: 2231) identified that children in the school they studied were allowed to sit wherever they liked, regardless of whether they ate school dinner or brought a packed lunch, because when they were segregated, children were swapping the meal type in order to be able to sit with their friends. These findings suggest that it is important to look at how the social practice of school food is performed as a critical factor shaping what is eaten.

Time and space constraints appear often in evaluations of the school dining experience (Morrison, 1996; Fletcher et al 2014, Kitchen et al 2013; Nelson et al, 2012) with queuing being identified as especially problematic. Those at the front of the queue get the widest choice and the most pleasant dining experience but have to be hurried along in order to make space for those in the queue. Queuing is noticeably absent from the ideological account of school dinner provision as a nutritional exchange - and yet, managing the time-space geographies of school dinner are clearly a key determinant in how the practice is performed (Morrison, 1996).

Kitchen Spaces

Whilst there is a scarcity of literature about contemporary school kitchen design, there are articles discussing institutional kitchen design in Architectural journals published in the 1950s, which were responding to an expansion in public catering and the new leisure trend of dining away from the home that followed the second world war (Walley, 1955; Kitchen Design, 1957). These articles recognise food preparation spaces as important and offer helpful insights into assumptions about the kind of work that would take place in these kitchens and the format of food service. When these articles were written the norm was for a single hot meal option and desert, which would be served from a hatch to individuals or in batches to be served at table (known as 'family service').

It is notable that the school food plan published in 2013, a document that provides detailed recommendations for improving the quality and uptake of school meals, does not mention kitchen design or kitchen space allocation. The recommendations for improving the work of kitchen staff focus upon improving training, providing certification, and raising the status of kitchen staff within the catering sector (Dimbleby & Vincent, 2013).

Giving a more detailed account of the 'performance space' in which school dinner happens was an important focus of this research and the findings make a new contribution to knowledge by extending the site of school food research into kitchens as well as dining rooms and bringing in the perspectives of school food workers as well as children.

Gendered work of feeding children.

It has been shown that women play a central, albeit unrecognised, role in mitigating the effects of food shortages on children and families, subsuming this work into their role as wife, partner, mother and carer (Beatty et al, 2021; Lambie-Mumford et al, 2015).

Dominant neoliberal and patriarchal discourses around family health and wellbeing reinforce the idea that women are responsible for prioritising their families' well-being and material needs. Food being a key area of conflict between the desires of family members and their perceived societal material needs of maintaining a healthy diet (DeVault, 1991). Women often feel guilt and anxiety when they feel that they are not able to deliver on these dominant but often contradictory expectations (Peterson, Tanner & Fraser, 2014).

There is a belief that women's role as nurturer has been naturalised, with food being an important way that women have shown a form of care for their families (Yates-Doerr & Carney 2015). Women have also been responsible for managing precarious household food supplies, making decisions about how scarce resources would be distributed within the household, often prioritising the needs of the male breadwinner [if / where there is one] in order to maintain domestic harmony (Rioux, 2015). In times of poverty and food shortage, women will often restrict their food intake to ensure that their children have enough to eat (Bruning et al, 2011, Dowler & O'Connor, 2012).

The work of food provisioning both in the home and in schools is still highly gendered and the complexity of the work is often obscured (DeWalt, 1991; Counihan, 2008). In the domestic context it is recognised that mothers are expected to feed their family healthy food whilst also showing love through food and minimise conflict around mealtimes (Jackson et al, 2009, Kaufman & Karpati, 2007). In addition to this, it is recognised that children are forming relationships with food in an environment in which calorie dense and highly palatable food is aggressively marketed and normalised part of the wider food environment and that mothers are expected to mitigate against the negative effects of this by moderating choice (Lang & Heasman, 2015; Russi, 2013). In the institutional context of school food, this contested and negotiated work is also taking place and yet, the time and skill it takes to do this work is absent from much of the research into school food. This is a good example of women's work or 'feminized' labour being rendered invisible (Criado - Perez, 2020).

A child's school food practices are closely informed by home food practices in positive and negative ways (Morrison, 1996; Briggs and Lake, 2011). On some occasions, children felt self-conscious about the contents of their packed lunches because they were seen to be of poor quality by either peers or lunchtime staff (Harman & Cappellini, 2015). Most accounts of school lunch time, however, reveal a number of social benefits for children who bring packed lunches, namely that many children who bring packed lunches are provided with food their parents know they like and will eat; they might have the opportunity to trade or share items with friends in reciprocal social situations, and they won't have to queue (Metcalf et al, 2008, Briggs & Lake, 2011; Anderson et al 2015; Morrison, 1996; Daniel & Gustafsson, 2010).

According to the policy and guidelines that form the ideological account of the practice of school food, the role of the school food team is to produce a nutritionally balanced meal on a budget, the role of the parent is to select school meals as the most nutritionally balanced and 'best value' option for their children. Most of the people in this scenario will be women. The role of the child is to eat the food, but the hidden work involved in getting children to eat healthily rather than eating what they want is not accounted for in this narrative of how school food is supposed to work. What we know from existing research is that when this practice is performed, not all of these actors perform the roles set out for them in this way (Nelson et al 2012, Morrison, 1996).

Women as low paid workers and providers of care.

This research is informed by a feminist framing that is interested in the 'gendering' that takes place in work, with IE focusing upon the ways in which gendered work is often 'subsumed and obscured'. Working environments dominated by women are often places where hidden work takes place in order to meet the dominant expectations of the work. These expectations are more likely to have been established in male-dominated spaces such as academic research, policy design, and architectural practice. The majority of women in the UK are employed in sectors which are characterised as 'feminized', namely the 5 Cs of clerical, cashiering (retail), cleaning, catering and caring (Kamerāde and Richardson, 2018).

There is an argument that women 'put up with' working conditions and expectations and are willing to do extra work if the role demands it, or to balance work against other life commitments such as caring for families (Boterman & Bridge, 2015, Pilcher 2000). This willingness to accept lower pay and more challenging working conditions in order to balance competing needs of employment and caring work can be seen as a structural segregation in the labour market (Bettio and Verashchagina 2009:38-41). School food work has followed the pattern of public service restructuring which has exposed the predominantly female workforce to more job insecurity (Bell and Blanchflower 2011, 2014) as catering services moved from local authority managed to a more fragmented private catering company model, in which catering contracts are won and lost on a 'best value' basis (Rose et al, 2019). Many school food workers are often also parents and carers of children in the school at which they work, as the hours work well with the start and end of the school day. Women are more used than men to doing the unpaid work of caring and household management so are more likely to work part-time or in flexible roles to accommodate this (Grant et al. 2006; McDowell, 2014). School food workers (both kitchen staff and lunchtime supervisors) are predominantly women, and in my research settings were all women apart from one male lunchtime supervisor.

Contribution

This work makes an empirical contribution by mapping the practice of school food work from the perspective of people doing the work, and in so doing produces new knowledge about the implementation of school food policies that can inform research and practice. It also makes a theoretical and methodological contribution that has broad relevance and significance to a variety of policy fields as well as making specific policy recommendations for improving the impact of school food policy that are informed by the expertise and experience of school food workers. It addresses the criticism that practice theory fails to adequately account for the role that power plays in shaping practices by developing a methodological model that can be used to identify the ways in which power shapes practice, and by applying this to the example of school food practices. In addition to this the model offers a new way of working with data from IE to visualise working practices as systems that are shaped by competing power structures. By focusing upon spaces as well as texts, this work brings a geographical perspective to bear on IE and Systems Thinking in a way that enables productive engagement with applied policy problems. And finally, this work presents a new conceptual framing of school food as nested within the dominant food system, rather than protected from it by policy and legislation.

Introduction to the papers

The following four papers are all derived from the same piece of ethnographic empirical work, each taking a different frame or focusing upon a different aspect of the findings in order to speak to a specific audience. As IE is an exploratory method rather than one with a fixed hypothesis, the findings from the research were in some ways unanticipated and therefore the papers map on to the research questions but are not structured by them. Following an introduction to the papers, I have shown how the papers relate to the research questions and the unique contribution of each paper to the overall thesis.

The first paper focuses upon the methodological journey that I went on when I started to apply my research design in the field and found that I needed to adapt my analytical and visualisation framing in order to make clear the ways in which power shaped practice. Accounting for power in the shaping of practices had been a key objective of my research from the outset, but I found that the more commonplace analytical and presentation models associated with IE were limiting as they often presented findings as a linear narrative. I found that this approach did not make it possible to show the dynamics, feedback loops and power imbalances that came from my informant's accounts and the exploration of texts. In response to this I adapted my research design to use elements of systems thinking to the analysis of my findings, which gave me the challenge of turning narrative accounts into process maps. I did not set out to make a novel methodological contribution, but through the process of refining and adapting IE, framing work as practices and then bringing in systems thinking as an analytical and visualisation tool, I realised that I had a replicable method that not only helped to visualise power dynamics in the performance of a practice, but also for refining the findings from deep qualitative research into a format that better suited a policy and practice audience.

The second paper takes a public health nutrition framing and is co-authored with Dr Rachel Rundle who is a Nutritionist working in the field of child diet and health. The paper focuses upon a range of findings from my research that help to explicate a particular aspect of the school meal policy problem, namely why improvements in nutritional regulation are not improving child health or food choices. This paper makes the case that the framing of school food as a 'saviour' of child health is problematic and fails to account for the significant power imbalance that exists between school food and the wider food environment dominated by multinationals. This paper works with the accounts of school food workers that speak about the difficulty they have applying healthy food policies because of the resistance faced from children and parents who are unfamiliar with the

food and in response, are either very selective about which elements of the balanced meal they select and eat or are sent with a packed lunch from home that is often filled with unhealthy but familiar foods. This paper presents the case against trying to compete with the dominant food environment on choice and makes recommendations for tightening of regulation around food in school, and the benefits of simplifying the meal offer. Dr Rundle's contribution is to help set the policy context and work with me to identify which of my findings would be of most interest to this audience. The findings and analysis are my own work.

The third paper discusses findings that relate specifically to the design and use of space, and the impact these are having on school food practices. It speaks to a social policy audience and works from the accounts of school kitchen workers struggling to produce the range and quantity of meals required within the space available. This paper was one of the most straightforward examples of following IE methods for identifying the textual coordination of working practices based upon the accounts of informants. School food workers spoke repeatedly of space constraints in new school buildings and how kitchen sizes had reduced significantly since they occupied new buildings. I was able to follow this line of enquiry to identify the textual processes that determined school kitchen design and provide evidence that school kitchens have been getting smaller. I then make the case that this represents a diversion between the policy processes for allocating space for school kitchens, and the aspirations of school food policy to increase uptake of balanced meals prepared on site concluding with recommendations for policy makers to revisit some of the spatial assumptions implied in school food policy.

The fourth paper focuses upon the issue of school food as a nested and weak competitor within a powerful food system. It revisits some of the same issues as paper two but uses a food system framing to focus more attention on evidencing the power being exerted upon school food, and in particular the ways in which 'protected space' supposedly afforded to school food by nutritional regulations is failing to adequately protect the school food environment from unhealthy food options. It makes the case that despite this significant imbalance, there is evidence of school food working in small ways to resist the power of the food system. In the case of this paper, it was trying to explicate the very common theme that emerged from school food workers that children (and sometimes parents) found school food threatening and unfamiliar, because it diverged so significantly from the food that they were used to eating. This felt like a very important line of enquiry, but also a vast and intimidating one that I couldn't realistically explore empirically within the resource constraints of the project, and so I turned to food system literature and looked for ways to explain why a balanced meal cooked from raw ingredients might have become so alien and unfamiliar to children. Having argued that school food is under enormous pressure from the normative expectations set by the food industry, I then used examples from my research to argue that the significance of school food workers achievements in encouraging children to eat fresh and healthy food should be recognised in the context of these power imbalances.

Paper 1: Mapping Working Practices as Systems: An analytical model for visualising findings from an Institutional Ethnography.

This paper maps to research questions 2 and 4 and makes a methodological contribution.

Abstract

This paper presents a new methodological toolkit that was developed whilst carrying out an institutional ethnography to explore school food working practices. The toolkit brings together two complimentary approaches; Institutional Ethnography and Systems thinking to offer a novel approach to the analysis and visualisation of ethnographic data as systems maps that show how power shapes practices. This novel contribution allows for the mapping of complex working practices to show interdependencies and flows and addresses limitations in the application of Institutional ethnography. This approach will be useful for researchers and practitioners who want to design effective interventions to change outcomes of working practices or tackle policy problems related to impact.

Paper 2: School Food Hero and the Battle of the Food Giants

This paper maps to research questions 1, 2 and 4 and makes an empirical and conceptual contribution and makes recommendations to policy makers and school food managers.

Abstract

This paper explores the issue of school food policy impact from the perspective of school food workers to offer an alternative account of why school food may not be having the desired impact on child health or food choices. Drawing upon the findings from an institutional ethnography carried out in three UK primary schools, we argue that school food is being asked to perform an unrealistic task of luring children and families away from more unhealthy food options, without being given adequate resources or powers to do this job effectively. We theorise that the narrative of school food as a 'saviour' needs to be revisited in light of the power imbalances that structure dietary choices and conclude with recommendations for policy makers who want to see school food have a greater impact in improving child health.

Paper 3: Spatial barriers to the effective delivery of school food policy in UK primary schools: Findings from an Institutional Ethnography.

This paper maps to research questions 1, 2, 3 and 4 and makes an empirical contribution and makes recommendations to school building and school food policy makers.

Abstract

School food policy sets ambitious targets for improving child health and wellbeing through the provision of nutritionally balanced school meals, but there is very little evidence that improvements in the policy and legislation surrounding school meals is having a positive impact. This paper reports on findings from an institutional ethnography carried out three UK primary schools to explore the issue of poor meal uptake and impact. It identifies a number of spatial barriers that schools face and traces these reported issues to a divergence between school food policies and building design processes. It concludes with recommendations for policy makers to reconsider the spatial implications of school food policies, and to work with the accounts of school food workers to improve policy impact.

Paper 4: How the school food environment works to both resist and reproduce corporate food system power.

This paper maps to questions 1, 2, 3 and 4 and makes a conceptual contribution that speaks to a food research audience.

Abstract

The school food environment is often conceptualised as a space of opportunity and responsibility in the battle with a dominant food regime that normalises and promotes overconsumption and contributes to an unhealthy diet. This framing of school food has enabled a proliferation of policy and research findings that fail to recognise the ways in which the dominant food system extends its power and influence into this safe space, preferring instead to award agency to parents, children and school staff. Using a methodological approach informed by the work of Dorothy Smith, this paper reports on findings from ethnographic field work to uncover and map the hidden power relations that inform and shape the food practices that are performed within primary schools in the UK. In doing so I seek to re-frame the normal performance of school food work as examples of resistance that could support the transition to a more sustainable food system.

Methodology

Introduction

This methodology chapter will discuss the development of my research as well as detailing the research design, data gathering methods, analysis and presentation used in my research. This section outlining the development of the theoretical frame is largely absent from the more succinct methodology sections of the papers that follow, although Paper 1 does discuss some of these elements in more depth. There will inevitably be some repetition of methods, sampling, and analysis in each of the following papers. To avoid excessive repetition, I have highlighted where more detailed examples can be found in the papers.

This chapter will cover the following:

- Research philosophy and positionality
- Theoretical framing of the study
- Methods and research design
- Analysis and presentation of findings
- Ethical considerations

Research philosophy and positionality

As a qualitative researcher I acknowledge that all research is inherently subjective and that there are multiple constructed realities. My epistemological standpoint takes elements from social constructionism and phenomenology insofar as I believe that knowledge is socially constructed through dialogue and discussion, and that people's knowledge is formed from experience (Savin-Badin & Major, 2013). Understanding research as inherently subjective does not diminish the value of qualitative research, but rather it is a reminder to the researcher that their presence cannot be erased through research design, and that the way in which researchers engage with subjects will always shape the production of knowledge.

My understanding of the situated and contextual nature of knowledge are compatible with IE as a research approach which repeatedly asks the researcher to reflect upon the standpoint that the researcher takes and how the research progresses, reminding the researcher to refocus onto the experiences of informants. Letherby (2003) conceptualises feminist research as both theory and practice asking that the researcher consider how research is done and whether the methods are feminist. These considerations shaped the research framing and design such as thinking about where the research should take place and the ways in which the researcher relates to the informants. My positionality as a researcher was an important factor in my commitment to feminist research praxis.

Positionality

'Doing research of any kind commits you to a certain social relation'
(Campbell & Gregor, 2008:15)

Unlike many historic positivist methodologies that problematise and seek to erase the presence of the researcher, feminist methodologies such as IE do not believe that this position is possible or desirable (Campbell & Gregor, 2008), but rather asks the researcher to remain reflexive throughout the research and committed to the philosophical and ethical beliefs of the method, acknowledging the epistemological power that resides with the researcher (Murray, 2022).

My positionality as a researcher exploring school food work was influenced by a number of personal factors. I have been interested in food and cooking for a very long time, even training and working as a chef in my earlier years. I am also a mother of two children who have passed through the school system in the city where the research was carried out. Although neither of my children attended the schools that participated in the IE, my younger child was still in primary school when the research started. I have at times struggled to feed my children well, have used food as a reward and felt helplessness and guilt at my inability to choose well for myself or my children. Rather than pretend to be an objective observer in the field, I chose instead to share a few reflections of my experience as a mother feeding children when these topics came up in the informal discussions that often took place in school kitchens and dining rooms as part of the research.

As a feminist researcher I recognise that my experiences as a mother, partner, cook, and food researcher shape my engagement with research informants, but they also drive my interest in and commitment to the subject (DeVault, 1991). Throughout the work I have remained committed to include the voices of my informants in my research, to pursue the lines of enquiry that they activated, and write the work in a way that respected their expertise (Hesse-Biber & Piatelli, 2014).

Theoretical Framing of the study.

Institutional Ethnography

Institutional ethnography as a research approach, involves discovering work problematics through the process of research rather than developing fixed ideas about the questions that need to be asked in advance. Institutional ethnographers must collect data that captures detailed accounts of the coordinated activities that constitute the 'everyday' life and work of the relevant area of study (Campbell & Gregor 2008). Informants are identified as their work coordinates with others, and so they not only provide their expert account of the work, but they also direct the researcher to the next point of enquiry as they track the work process in situ.

Textual Coordination of Work Processes

Institutional Ethnography is designed to reveal hidden power structures to those whose work is being subsumed, devalued and erased by them. My research adapted this approach to show how textually based institutional power shapes the social practice of 'school lunch' in a contemporary context. School food in the UK is regulated by a range of texts, from statutory national policy, to localised best practice guides. When people working with the same texts find that their actions are coordinated by the requirements of working with the text then 'the text has the power to coordinate and concert - to hold people to acting in particular ways' (Campbell & Gregor, 2008: 32).

I was also alert to the ways in which spaces and materialities shaped working practices, recognising that these would also likely be textually coordinated in some way and that institutions are not only conceptual but can be represented through material sites of enactment (Billo & Mountz, 2016).

Institutional ethnography seeks to reveal work that is subsumed by institutional discourse and in so doing, makes visible and gives recognition to those whose work is erased by this process. Rather than track the work process with the sole aim of revealing that which is hidden, this study utilised the method to focus upon the shaping of a social practice by the competing demands of institutional power (Murray, 2022). Using the example of school food, this means not only looking for examples of school food policy being activated, but also recognising the negotiations that take place around the delivery of school food within the wider institutional context of the school. School dinner time is as likely to be shaped by the policies school food competes against as it is by school food policy itself. It is the space 'around' the practice, the invisible forces shaping it, that practice theory has not yet adequately addressed.

Dorothy Smith's contribution to understanding everyday life has been to discover how ideas, legitimised through coordinated discourses, organise knowledge and action (Luken & Vaughan, 2006:302). Smith developed Institutional Ethnography as 'a method of enquiry designed to create an alternative to the objectified subject of knowledge of social science discourse' (Smith, 2005: 10). Not only does the method strive to make visible the realities of everyday work that are often obscured, but it is also about finding a new place from which to make the enquiry. As an approach it advocates working from the point of problematic as identified on the ground, by individual experience (Walby, 2013; Kearney et al, 2018). Smith's approach emerges from a frustration with what she sees as the transfer of agency from people to sociological concepts. A transfer which takes place when the enquirer steps up and away from the everyday happenings and doings of people's lives, and takes instead a position above, looking for patterns that they believe cannot be viewed from 'street level', patterns that the people (who have now vanished as agents) cannot themselves see. Smith argues, however, that this transfer of position not only robs people of agency, turning them instead into objects of study (Kearney et al, 2018) - it obscures what is really happening. The patterns as seen from above do not tell the same story as the lived experience. The method of enquiry she advocates gives voice to experience (Smith, 2008).

"It is a sociology that proceeds by inquiry; it relies on the local actuality of people's doings and how they're coordinated to discover how those issues relevant to the issues of concern are being put together" (Smith, 2008: 420).

Institutional ethnography is developed with the aim of exploring 'ruling relations' that exert themselves on everyday lives through institutional structures and texts. It is often used to reveal new perspectives within large organisations, such as the experiences of doing care work, navigating the school system as a single parent or exploring the experience of female academics attempting to achieve 'ideal academic' status (Smith, 2005; DeVault, 2013; Lund, 2012). Institutions are defined as 'clusters of text-mediated relations organised around a specific ruling function' (Devault & McCoy in Smith, D 2006: 17). IE is a good fit when exploring the everyday work that takes place within a recognisably 'organisational' context' such as school food. School food provisioning does not take place in a 'textual vacuum', it is heavily mediated by policy, guidance and textual toolkits such as menu cards and serving suggestions. A significant focus of my research will be to 'discover' what these texts are and the ways in which they coordinate the work.

Practice Theory

Practice theory provides an ontological account of everyday life that conceptualises routinised performances of actions as social practices that 'endure between and across specific moments of enactment' and become stabilized to the extent that they exist as an 'entity' that can be imagined even when the practice is not being performed (Shove et al, 2012:7).

Practice theory offers a compelling challenge to dominant theories about the drivers of human action, and in particular the drivers of consumer 'behaviour' that represent a significant body of academic work and, crucially, continue to dominate policy development (Shove, 2010). Practice theory as a challenge to the 'behaviour change' paradigm enables a reorientation of focus, away from the individual as a lone agent making individualised decisions informed by knowledge of and attitudes towards, available 'choices'. Instead, it suggests that the central unit of enquiry should be 'social practices ordered across time and space' (Giddens, 1984: 2-3). Practices are neither static nor uniform, it is the dynamic quality of practices that makes practice theory such a useful way of exploring how change takes place in everyday life (Shove et al, 2012). This theoretical reorientation has been instrumental in challenging individualised approaches such as theories of planned behaviour, social marketing and 'nudge' (Kuijer & Bakker, 2015), and when trying to capture a range of intersecting ways of working such as can be found in school food work. School food work is not 'a job', but rather a set of coordinated activities that use spaces, knowledge and

resources in different ways. Children participate in the work of school food, as do their parents and people remote from the site of the work, such as architects and policy makers.

My research uses practice theory to frame school food work as a complex social practice that exists as both a conceptual entity and as a routinised performance. Most people will have an understanding about what school food is, based upon their own experiences or representations of the practice in popular culture such as film and television; this represents the practice as entity (Vihalemm et al, 2015). The practice as entity is also the way in which school food appears in policy and best practice guidance. There is an assumption about how the practice will be performed based upon the ways in which it is regulated and presented in these texts.

The performance of the practice is how it actually happens rather than the idea of how it will happen. The practice as performance will vary depending upon the place, norms, spaces, culture and material resources made available. My work is not attempting to capture the definitive account of the performance, because this does not exist, but instead to identify the ways in which the performance diverges from the 'entity' as it is captured in policy and in the idealised account of the work. Put simply, the difference between what should happen according to school food policy, and what actually happens in different contexts when the practice is performed.

The practice as entity is very similar to IE's conceptualisation of the ideological account of work or institutional discourses of how work should happen (Lund, 2012) which can be contrasted with the actualities of work (practice as performance). What applying IE to the study of practices does, is to account for the role that power plays in the divergence of practice as entity, and practice as performance.

Power in practices

It is acknowledged that practice theory still has some work to do to account for the role that 'power' plays in shaping social practices (Watson, 2014, Vihalemm et al, 2015). Power in this context means the ability to shape and influence how practices come to be performed as well as the power to define the ideological account or practice as entity. Practice theory speaks of material flows and infrastructures as 'enabling practice' (Watson & Shove, 2022:12) or 'emerging from intricate and emerging flows of energy and matter' (Labanca et al, 2020:2). This framing of emergent practices doesn't invite an exploration of the different interests being prioritised by the types of materials and infrastructures that come to dominate, or the practices that are associated with them. Some practice theorists are 'wary' of suggesting that political and professional practices directly shape everyday life (Shove et al, 2015) and there is very little mention of commercial interests and their role in shaping practices.

My research addresses the ontological 'flatness' of practice theory by making visible the role that power plays in shaping practice and so makes a new contribution to practice theory by enabling its use in explorations of inequality and subjugation.

There is a significant body of work exploring the ways in which the social organisation of everyday life works to reproduce inequality which highlights the importance of identifying and challenging what are variously described as 'structures of power'(Cahill, 2007 : 279; Weis & Fine, 2012: 173), 'ruling relations' (Smith, 2005, 2008), and 'spatial embeddedness of power' (Kesby 2005: 2827) that reproduce 'circuits of dispossession and privilege' (Weis & Fine, 2012:187). An example of this would be Dorothy Smith's study of the extent to which Canadian elementary schools relied upon the unpaid work of mothers to support the work of the school, and the disadvantages experienced by children whose mothers were involved with paid work that precluded this (Smith, 2005).

Institutional Ethnography as a research approach, has been developed with the identification of hidden power structures as its primary function, and thus a key aim of my research has been to address one of the limitations of practice theory by applying IE's conceptualisation of textual power to the study of a social practice.

Conflicts and Contradictions

Constructing a conceptual or frame from a number of different places is not without its challenges. The reason I chose to do so was because both IE and practice theory offered useful conceptual toolkits for making sense of everyday life, and I believed that there was the potential for each to be enhanced by the other. There were however some philosophical and conceptual challenges that I needed to work through.

Practice theory asks that we view practices as entities that 'capture carriers' or lose them through defection, and in doing so it takes a position outside of the performance of the practice (Vihalemm et al, 2015). An example often used in practice theory literature is contrasting the practice of driving with the practice of cycling, arguing that rather than more people choosing to drive rather than cycle, the practice of driving has captured people who had defected from the practice of cycling (Shove et al, 2012). In viewing everyday life as a series of overlapping and shifting practices that exist as an understood social entity, independent of the carriers and performers the researcher is, in effect, stepping up and away from the lived experience in order to develop a picture of the structures that are formed by the accumulation of lots of different lived experiences. We are, to borrow a metaphor from Smith, taking the elevator to the 14th floor so that we can look down on the street and see 'patterns and consistencies' (Smith, 2008:417) that are invisible from the street level perspective at which life is being performed.

The danger of doing this, so Smith believes, is that if you construct theories about society from this position above and outside of everyday experience, then it is tempting to try to explain and predict everyday experience using these theories. Smith is critical of attempts to fit the experience of everyday life into a theoretical framework that is constructed by viewing it from a distance. Not only can this give a distorted view of reality, but it also perpetuates existing ruling relations by failing to give experience a voice (Smith, 2005).

Practice theory, on the other hand, sets out to challenge discourses of 'individual choice and behaviour', seeing the focus upon the individual experience as problematic. This body of work recognises individual agency as a burden of responsibility for choosing and behaving 'well' in the context of, for example, climate change or public health policy (Smith, 2006).

These conflicts are not irreconcilable and did not dissuade me from borrowing elements of each to construct my frame, but they need acknowledging before going on to make the case that the two ideas can work together to enhance the understanding of social practices and the process of change.

Synthesis of uses.

Institutional ethnography is proving especially valuable in revealing the mechanisms and consequences of ...transformation, because of its open ended and cumulative character (DeVault,2013, pp 333-334)

Practice theory is not stepping away from individual experience to rob people of agency or to eliminate them as subjects. Practice theory's focus upon the cumulative is a way of challenging the obsession with individual choice and behaviour. I believe that this challenge is valid, from both an ethical and pragmatic perspective. Lecturing the individual does not recognise issues of power and agency, and it also does not work (Shove, 2010; Kelly & Barker, 2016).

An issue for practice theory in application, however (be it policy development or product design) is that it can become heavily laden with normative judgements, judgements that do not always stand up to scrutiny and which can sometimes hinder efforts to use theory in meaningful ways to tackle actually existing problems such as resource consumption (Kuijjer & Bakker, 2015).

Smith's view that the enquiry starts from the problematic experience of the individual has been useful in identifying the entry point for the research. The usual process for identifying a research focus is to explore existing research, identify a gap and then aim to address it. But if I as a researcher had entered the site of study having already decided upon the problematic, then Smith's approach would have been somewhat lost to me.

The strength of the institutional ethnographic approach is that it provides a way of challenging and interrogating the normative assumptions that creep into practice theory when it is tasked with not only understanding change, but with influencing the direction of change (Vihalemm et al, 2015). Research that has change as its focus is in itself an exertion of power (Cahill, 2007) and this needed considering when approaching the design of the field work.

Participatory approaches in Human Geography.

To some extent research that uses IE can be framed as participatory because research informants set the problematic and provide expert information to the researcher. When developing my methodological approach, I spent some time critically exploring literature on participatory approaches in human geography and related fields. Although a lot of this developmental work isn't referenced in the methodology sections of the papers, I feel it provides a useful overview of my research journey.

In his 2005 paper, Mike Kesby discusses the merits, and challenges the criticisms of participatory approaches. He seeks to 'reconcile participatory approaches and poststructural critique and to challenge the idea that such approaches circumvent power (Kesby, 2007, p2814). This arises to challenge Cooke and Kothari's (2001) suggestion that participation does not circumvent power or enable empowerment because, they argue, participation is full of authority and domination, much like other externally imposed forms of research, and so must be resisted. Kesby suggests that 'participatory approaches aspire to a broader notion of ethical research than the conventional wisdom of 'do no harm'. They facilitate arenas in which participants and researchers can collaboratively generate knowledge and informed action.' (Kesby, 2007, p2813).

This idea of collaboration in research design is taken further by Cahill (2007), who argues that in participatory action research (PAR) projects, individuals identify their individual experiences as shared, as social and then as political. Her aim is to 'reframe and connect the social justice orientation of PAR to a feminist poststructuralist project in which participation itself becomes the basis for personal and social transformation' (Cahill, 2007, p268).

Whilst championing the benefits of participatory approaches, Kesby acknowledges that an uncritical acceptance of participatory approaches as benign and inclusive could lead to those who cannot or choose not to participate being overlooked or dismissed. They are also laden with western ways of knowing, and this frames the knowledge produced, and actions facilitated (Kesby, 2007, 2816). Cahill (2007 p269) also identifies a problem with participatory approaches that foreground local experience, and in so doing lose sight of the ways that broader structural processes interact at a local scale. In reference to their work on 'safe spaces', Weis and Fine (2012) express concern that interpretation of their work has, at times, focussed upon the study of safe spaces in isolation from the structural conditions that create a need for such spaces to exist. They argue that social theory and analysis cannot afford to separate lives, spaces or 'social problems' from global and local structures that create them (Weis & Fine 2012 p175). This call for

the study of 'global and local structures' in tandem with ethnographic analysis became a key focus of my research.

Locating power in participation.

It has been acknowledged that practice theory needs to tackle issues of power if it wishes to go beyond understanding past changes and contribute to efforts to change the future (Watson, 2014). Participatory approaches concerned with social change are all about 'Interrogating the asymmetries of power' (Cahill, 2007, 275). However participatory approaches have themselves, as has been discussed, been accused of reinforcing existing power relations (Cooke & Kothari, 2001). The thorny issue of where power lies in the research process is a key focus of Kesby's (2007) paper, which differentiates between understandings of power as a 'commodity' and 'effect', arguing that to conceptualise power as a resource is unhelpful because resources cannot represent power unless they are utilised to achieve a desired effect.

Despite acknowledging the flaws and the criticisms, Kesby is driven by what he sees as the positive impacts of a participatory programme (Stepping Stones) to dispute the 'binary logic which suggests that resistance is the only possible response to the identification of power effects within participatory approaches' (Kesby, 2005 p2817). He draws upon Allen's (2003; 2011) work on power, particularly the distinction between 'power over' and 'power with', claiming that 'power with', or 'associational power' produces *negotiation* (agents with different resources, no obligation to comply, directed towards identifying and achieving common ends) and persuasion (reciprocity and equality, using strength of argument to produce an effect).

Key to Kesby's rehabilitation of power is defending the possibility of meaningful 'empowerment' through participation in research. Again drawing upon John Allan's work, he argues that empowerment is a different "guise of power" which, rather than being hierarchical, vertical, dominating, and exploitative mode over others, is a reciprocal, lateral, accountable, and facilitating mode of power (Allen, 2003, p 5, 53, 58, 197).

The possibility of empowerment is crucial to the participatory project because these projects are about change - which itself means challenging existing power relations, and participants often need support to develop the resources to do this (Kesby, 2005). Participation can no longer be seen as unequivocally privileged and power-free. It must be seen as partial, situated, contestable and a work in progress subject to future challenge. It is now possible to see it as necessary and legitimate to deploy forms of governance, such as participation, as a means to outflank more oppressive and less self-reflexive forms of power (Kesby, 2007, 2819-2820).

Participation and Practices as Performances.

If we accept that power is an effect, then empowerment is unstable and requires constant reproduction through performances that achieve the desired effect. Spatially embedding participation in 'safe space' can limit the likelihood of this ongoing reproduction of performances that represent empowerment; because it is outside these 'safe spaces' that established power relations exist and where the challenge needs to take place if power as an effect is to manifest itself (Kesby, 2007). In reference to their work on 'safe spaces', Weis and Fine argue that they wish to resist attempts to 'silo' the study of safe spaces. 'Safe spaces reveal the miraculous ways people cope with oppression but do not easily shed light on the structural architecture of the problem' (Weis & Fine, 2012 p175). In making the case for participatory research within Human Geography, Kesby argues that we must identify how wider geographical settings have been reworked to make them conducive to the stable reperformance of empowered forms of agency (Kesby, 2007).

Where does participation begin and who decides what the research problem is?

Cahill (2007 p274) considers it problematic when discourse of empowerment is mobilized in connection with specifically determined goals or ideas because it 'brings to mind reform or assimilationist models that hold up ideals which reproduce social hierarchies'. This issue resonates with the problem of researching school food practices without getting unhelpfully tied down by normative assumptions of what constitutes 'good' practices. Cahill's PAR project followed the Freirean model which started with the issues identified by the women themselves (Cahill, 2007, p270), a concept that mirrors a lot of the methodological rationale behind Dorothy Smith's 'method of enquiry....' designed to create an alternative to the objectified subject of knowledge of social science discourse' (Smith, 2005, p10). An approach that seeks to find a new place from which to make the enquiry and advocates working from the point of problematic as identified on the ground, by individual experience.

It was critical that the research problematic emerged from research informants, rather than their expertise being mobilised to help understand a problem that had been identified by me and been informed by powerful narratives about what constitutes good and bad food practices.

Contesting Privilege with Participatory Research.

The 'stepping stones' project that Kesby (2007) uses as an example of how participation leads to change (for the better) works with people at risk from sexual violence and life threatening sexually transmitted infections. The 'problem' seems obvious, and Kesby argues 'those of us privileged enough to spend time contemplating lives more dangerous than our own miss a fundamental dimension of self-reflexivity if we neglect our own potential to facilitate change in those lives' (Kesby, 2007, 2827). Even Cahill acknowledges that whilst her project was all about challenging dominant discourses that 'pathologize young working-class women of colour' (Cahill, 2007 p 280) some of the stereotypes produced by these discourses seemed to be based in reality - something which made challenging them confusing and complex for project participants (Cahill, 2007).

The conundrum of how to affect positive change without reproducing dominant discourses that 'pathologize' is addressed in a paper by Stoudt et al (2012) where the authors suggest that the construct of 'privilege' can be used as a way of acknowledging power, but in doing so finding a way for those with privilege (and here I am interpreting privilege as an expression of power) to examine their own social responsibilities and connectivity to injustice (Stoudt et al, 2012). Embracing this idea gives legitimacy to those privileged enough to have the resources to instigate participatory projects, supporting Kesby's view that the possession of privilege should be seen as a responsibility to engage rather than a reason not to (Kesby 2007). These ideas helped me to resolve tensions I felt about taking a proactive approach to engaging with my field of research as an outsider. As a researcher I have the privilege of access and resources that many school food workers do not have, and if deployed in line with the guiding principles of IE, I felt that I could engage responsibly.

Identifying the ruling relations or structures of power.

The exploration of structures of power and how they shape everyday lived experience can be challenging because it requires the researcher to switch attention between the close and local level lived experience, and remote structures of power that may feel vast and unreachable through qualitative enquiry.

"It is important to track structures, discourses, and practices to fully theorize a history of the present" (Weis & Fine, 2012 p189).

"If the personal is political it is also an opening for examining the way structures of power inform the everyday lives of young women" (Cahill, 2007, 287).

Weis & Fine's (2012) propose 'critical bifocality' as a way to reveal the relationship between groups and structures of power. It does this by thinking about epistemology, design, and the politics of research as a theory of method in which researchers try to make visible the sinewy linkages or circuits through which structural conditions are enacted in policy and reform institutions as well as the ways in which such conditions come to be woven into community relationships and metabolized by individuals' (Weis & Fine, 2012 p174). They propose a method that will enable and encourage exploration of the linkages between what is uncovered ethnographically at the local level; and global shifts and argue that researchers must pay attention to the explicit linkages between collected ethnographic action and narratives and what is happening in broad context (Weis & Fine, 2018').

Critical Bifocality as a way of moving between scales in research.

Weis and Fine (2012) ask how critical bifocality might enable and encourage researchers to examine how specific contextual elements operate on actors to produce outcomes, and in reference to how shifts in the global economy might impact upon local parenting practices. They theorize how a realignment at the global level might have consequences for the local level with regard to lived-out social and economic dynamics of individual and collectivities (Weis & Fine, 2018). Critical bifocality is a useful analytical frame for exploring school food practices as these take place within a global as well as local context. The food industry is global and operates within an environment that is dominated by neoliberal ideology which assumes that markets are the best mechanism for meeting human need, minimising the role of the state (Libman et al 2012 p4). School food policy in the UK is built around a state-led regulatory instrument (Department of Education, 2016) and so is somewhat in conflict with the way the wider food system operates, but the 'problems' that school food is tasked with tackling, namely health inequalities linked to diet, absolutely can and must be traced to the structural shifts in the food industry.

In their work looking at the US foreclosure crisis as a public health crisis, Libman et al (2012) take a social-ecological approach that emphasises the complex relationships that exist between health and housing, and they do so by looking 'up stream' and by setting what is observed to be happening 'now' within a socio-economic and historical context. School food is often frames as a key actor in a public health crisis and so it makes sense to look, again, 'upstream' to understand the wider forces at play, accounting for the role that remote structures such as financialisation of food markets play in shaping the lived experiences, frustrations and anxieties of research informants (Weis & Fine, 2018)

There is a lot of anxiety about food, especially from those groups who have the resources to escape the impact of poor quality or scarcity. Anxiety manifests itself a lot in Weis and Fine's (2012; 2018) discussion about parenting practices and educational provision 'Circuits redistribute capital and opportunities, but they also intensify the effects of scarcity, insecurity and class anxieties' (Weis & Fine, 2012, p195). Critical bifocality demands that the lived experiences of food anxiety such as expressed by school food workers, be explored critically by linking them to shifting structures (Renick et al, 2021).

There is a powerful normative discourse around the right and wrong way to feed children (Briggs and Lake, 2011; Dimpleby and Vincent, 2013; Food Foundation, 2022), and there were a lot of comments from research informants that expressed despair at the food choices that some parents were making for their children. Critical bifocality speaks explicitly to this need to understand structural inequality as the driver of 'cultures' of lost causes (Fine, 2016) rather than assume that those people who do not conform to normative expectations of 'correct' behaviour are in need of remediation.

'We know that social inquiry launched from the perch of power and privilege is fraught with unchecked distortions, a bias toward the downstream, erasure of structural causes' (Fine, 2016: 362)

Reconciling street level enquiry with the need to 'look up'.

It was interesting to consider how this call for critical bifocality both supports and challenges Smith's method of enquiry, which asks the researcher to explicate lived experience by exploring 'ruling relations' that exert themselves on everyday lives through institutional structures and texts whilst privileging the accounts of informants, for whom the structures of power may be remote and opaque. Whereas Weis & Fine advocate an approach that 'looks up' and 'looks down'; Smith suggests that observing from anywhere but 'within' not only gives a distorted view of reality, but it also perpetuates existing ruling relations by failing to give experience a voice (Smith, 2005). The call for 'bifocality' resonates more comfortably with Cahill's belief that 'the emphasis in the participatory research process is upon social analysis even though it starts with personal experience.' (Cahill, 2007, 279) – To me this suggested that it might be possible to reconcile bifocality with IE if the structures of power are identified through participatory approaches, and not just in addition to them, this will require a methodological commitment to keep the experiences of informants as the subject of enquiry.

From this exploration of multi-level analysis, I decided that I should focus my analysis upon the ways in which structures impact upon practices rather than being overly concerned with identifying what is 'wrong' with a practice. To allow my research informants to identify the 'problem' that needed exploration, and then to work with accounts and observations, but also be prepared to look 'up and out' to see what structures of power might be creating conditions that my research informants were managing at the local scale.

A summary of my conceptual framework

Practice theory and Institutional Ethnography created the initial frame for the study, School food is conceptualised as a complex social practice (Practice theory) and also as work that is coordinated by texts (Institutional Ethnography). Practice theory is used to challenge the public health discourses that dominate school food research in which food consumption decisions are framed as choices. Through its focus on textually mediated working practices IE provides an alternative perspective on how power shapes practices which is largely missing from practice theory (Watson, 2014)

Critical bifocality and systems thinking have been used to address two issues encountered when working with research informants accounts. Critical bifocality showed me how to look 'up and out' to a scale of influence that was not visible to my research informants but was clearly a powerful upstream determinate of the problems they were encountering during their working practices (Weis and Fine, 2012). IE does not give a clear description of how this can happen beyond institutional boundaries. Systems thinking gave me a way of conceptualising the findings as a system rather than as a linear story and provided ways of capturing the power dynamics operating at different scales. It also provided a method for 'mapping' IE data. Something that is often spoken about in IE research but rarely happens in a visual format.

Methods and research design

My research used Institutional Ethnography's conceptualisation of textually coordinated institutional power to reveal the ways in which power shapes everyday social practices.

Institutional ethnography is a feminist methodological approach that looks for the ways in which (typically) gendered work is hidden by dominant narratives of how work 'should' happen (Smith, 2005; Lund, 2012; Campbell and Gregor, 2008). This focus on gendered work rather than gender is important, however. It is not the gender of workers in the research that is in focus, but rather the selection of a working environment. School food work is a highly gendered working environment in which most employees are female.

IE seeks to avoid methodological or theoretical dogma (Murray, 2022) and asks the reader to work from the standpoint of the research informants, rather than looking to map what they observe to existing theory, or to theorise from the accounts of informants. Taking an a-theoretical approach is in itself a radical and feminist standpoint when the academy still so robustly privileges theory over the accounts of the everyday, especially the everyday lives of women or people doing 'feminised' work (Beatty et al, 2021; Smith, 1999)

Establishing the research problem

Whilst I selected school food as a bounded institutional context within which to explore food practices and policy enactment, it was important that I did not establish the key focus of the research because this needed to come from expert informants who had the lived experience of the work (Smith, 2005). As with many institutional settings it is sometimes necessary to take a pragmatic approach to gain access, and so I started my enquiries by contacting the local authority school food team and asking them for a meeting to discuss the work that they did and to get their perspective on problems that school food was facing. From this initial meeting it became clear that low uptake of school lunch was a problem, and that they were struggling to identify effective strategies to persuade more children and families to switch from packed lunches to school dinners. The problem was framed in terms of the negative effects unhealthy food options were having on children, but also the viability concerns of the school meal service if they didn't increase uptake.

The impact of the Covid-19 Pandemic on my research.

As I have been studying part-time alongside a full-time job, I had to schedule field work for the narrow margins of time between the end of university teaching semesters and the end of school terms. Whilst I had concentrated most of my fieldwork into the period 2017-2019, I still had a significant number of leads left to follow when the Covid-19 Pandemic hit in March 2020.

Although I observed lunch service on at least two occasions in each school, there had been an intention to go back and carry out more observations and interviews with staff. Because of the sudden and traumatic nature of the Pandemic lockdown, my contact with schools ended abruptly as they and I turned our attention to the significant challenges facing us.

Before the pandemic, the plan was that I was going to attend a number of breakfast clubs in schools and use that as a way of meeting parents who may be interested in participating in the research, providing vital perspectives and balancing some of the critical views of poor parenting that had been provided by other school workers. Because of the sensitive nature of discussing food and parenting, I wanted time to get to know parents in schools before approaching anyone for an interview, and so once access to schools ended, so did my access to these parents.

The overall effect on my research was that I was unable to gather as much empirical data as I had hoped, and I recognise that whilst I gathered a good depth of qualitative insights from my informants, the number of informants is limited. I do feel that I completed a sufficient and coherent amount of fieldwork and have been able to make a number of valuable contributions to knowledge despite the restrictions I faced.

Sampling

The local authority school food team worked with me to identify three schools who were keen to work with me. The schools chosen had a number of common characteristics:

- They all had full-service kitchens and provided a similar school meal service.
- All schools used the same catering company supplier who employed the staff, set the menus and provided marketing information to schools.
- All schools were of a similar size (around 500 pupils) and served a similar demographic population (around 50%-60% of children in the schools were entitled to free school meals). The schools were not chosen because they were in areas of high deprivation, but because they were schools who took an active interest in the school meal service and were keen to welcome a researcher into the school. The high proportion of children on free school meals did subsequently become an important factor in the research because it made the issue of low uptake even more problematic and in need of explanation.

There were differences in the design of the buildings, with two occupying new school buildings (less than ten years old) and one occupying a building that was built in the 1930s. The three schools also took slightly different approaches to the serving of school meals. The variables were limited to the school food service environments so that the variations in these working practices could be foregrounded, as opposed to seeing how similar work took place in schools that served very different populations. This would also be important and no doubt revealing context to explore but was beyond the scope of this project.

Data gathering

The data gathering process started with an extended semi-structured interview with a member of the local authority school food team, who had an overarching role coordinating the food service across the city. This interview helped to set the key aims and entry point for the research by setting the research 'problematic' which was primarily low uptake of school meals.

“In some schools we’ve only got 60% uptake amongst the children that are entitled to a free school meal, it’s a problem!” (Local Authority school food team member)

The fieldwork then started in schools. In each school I undertook a preliminary extended interview with a member of the school leadership team with responsibility for the food service. The interviews were guided by an interview schedule (**Appendix 1** - Interview schedule) that asked the person about their role and responsibilities in relation to school food and the expertise this represented (Smith, G in Smith D 2014) and then moved on to asking them about how the work of applying school food policy was done in their school, what challenges they faced and how they worked to manage them. I asked each participant who they thought I should speak to next.

The structure of interview schedules evolved as the study progressed with questions being structured around the role of the informant in relation to school food work (for example interviews with architects went very differently to those with school cooks because of the different working knowledge they possessed). Despite having a schedule, interviews followed a largely unstructured

format enabled themes to be explored flexibly and left space for the unanticipated to emerge (Savin-Baden and Howell Major, 2013).

Whilst interviews in IE are not used to reveal things *about* the participant, but rather to reveal the shape of the work that they do and how this work is coordinated with others in the institutional context (DeWalt & McKoy in Smith, 2006), what this study acknowledges is that the work of feeding others, especially children, is both heavily gendered, and also most often a complex process of negotiation between the person (usually a woman) providing the food and those they are tasked with feeding (DeVault, 1991, Kaufman & Karpoti, 2007). I anticipated that individual attitudes towards food and feeding others would inform the ways in which they negotiate textual coordination of their work and so semi-structured interviews allowed for participants personal beliefs and behaviours surrounding food preparation and consumption to be discussed in relation to their work (Counihan, 2008: 174). In total I spent six days observing school food practices in situ, in addition to this I carried out fifteen interviews that lasted between thirty and ninety minutes.

Following the leads set by research informants, interviews were conducted between 2017 and 2019 with:

- Three School business managers or deputy heads (with lead responsibility for school food)
- Three School Head cooks
- Three Kitchen support staff
- One Catering company manager
- One local authority school food officer
- One former LA school architect

Interviews with the school business managers, architect, and the local authority school food officer lasted between 60 and 90 minutes. The school cooks and kitchen staff between 30 and 60 minutes and the catering company manager around 60 minutes.

Two of the school cooks didn't want their interviews recording and so I took notes during those interviews, the others were professionally transcribed.

Observation.

Observation and work shadowing are an important method in IE and were used extensively to provide as holistic an account of working practices as possible (DeWalt and DeWalt, 2002: 92) and because food practices have often become stabilized and habitual through reproduction (Southerton, 2013). In all three schools I was invited to observe and participate in lunch service, in one school I was served lunch alongside the staff and pupils, in another I spent time in the kitchen during lunch preparation and service, and in the third I observed the lunch service from the dining room and then was invited to eat with the staff at the end of the meal service. At all times I was guided by my research informants, being directed to the people and places that they felt were important to the way work was done in their school. During observation and shadowing I took notes and sketches and spoke to staff and curious children about what I was doing in their dining room in a white lab coat armed with a clipboard (a health and safety requirement that the children found amusing).

“ The goal for design of research using participant observation as a method is to develop a holistic understanding of the phenomena under study that is as objective and accurate as possible given the limitations of the method”
(DeWalt and DeWalt, 2002: 92)

Because IE privileges the accounts of informants, observation provided me with prompts for discussions with school food workers, rather than me theorising too heavily from my observations.

Some of my sketches and notes from observations can be found in **Appendix 2** - Examples of field sketches and notes.

Children's workshop.

Although beyond the original plan for my research, in one school I was invited to work with a group of pupils to explore their knowledge and perspective on school food, focusing mainly upon their knowledge of the processes involved in selecting, ordering, obtaining, and eating school meals. The workshop activity I carried out with the children lasted for two hours and had six participants. The scenario for this workshop was that the pupils were tasked with producing a guide to school meals for new pupils at the school, again this format stays true to the guiding principle of the methodological approach that frames research informants as experts. As I was unable to repeat this workshop in other schools due to my fieldwork period being cut short, I have not reported on the findings from this workshop in this research as it felt like an under-developed line of enquiry and there was less clarity about the ways in which it would contribute towards my research objectives.

Use of texts.

During the observation and interviews, I was alert to references made to texts. Texts can include memos, policy documents, posters, menus, evaluation sheets and monitoring documentation. They are seen as coordinators of everyday activities and are an important aspect of institutional ethnography. Institutional ethnographers treat institutional texts as the carriers of the ideological account of the work practice (Smith, 2005) and as such identifying texts was an important ongoing analytical process during interviews and observation of work practices.

The focus of textual analysis here is upon how they coordinate and shape work practices rather than upon contents of the texts per se. It is not possible to anticipate the range of texts that will be encountered until field work commences. Only those texts that are 'activated' in a working practice by being utilised or referred to in interviews or observation will be of interest. One of my research objectives was to discover the 'hidden' textual architecture of the work by asking why people are doing things in a particular way (Smith and Turner, 2014). Texts that were analysed included:

- School menus.
- Nutritional standard guidance documents.
- School food policy documents.
- Schools web pages discussing school meal service.
- Design and build guidance for UK primary schools.
- Headteacher perception survey.

This immersive and evolving approach to fieldwork is a fundamental characteristic of IE. Rather than attempting to identify an ideal research sample in advance of the research, each informant directs the researcher to the next point of enquiry. This comes from the tenet of IE that holds the informants as experts rather than the researcher, the researcher therefore does not pre-determine the scope of the research. In practice this resulted in the research work extending to include interviews with members of the catering company that provided the school meal service for the local authority, a school architect, and several parents. I have shown the research process as it unfolded in a process diagram (**Figure 1**).

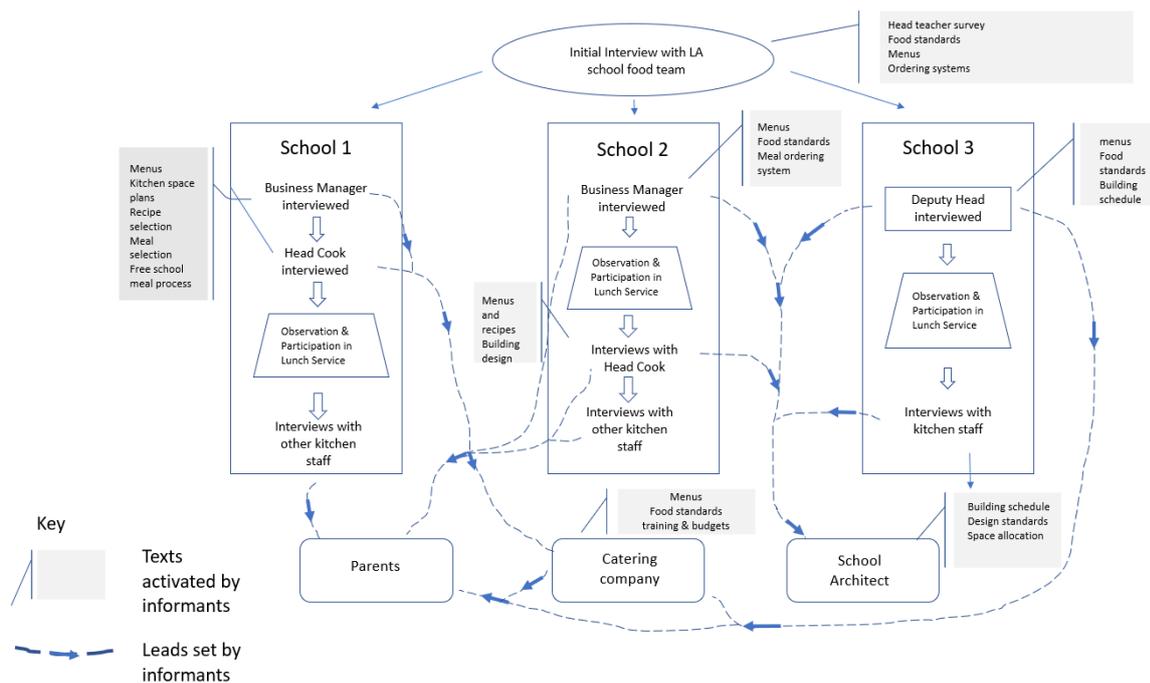


Figure 1: How the data gathering process unfolded

Data analysis and presentation

Using IE to explore school food working practices meals was very successful as a data gathering approach, allowing for multiple perspectives on a problem and identifying unexpected and interesting factors shaping school meal provision and uptake. However, a challenge arose when I approached the data analysis and write up stage of the work. Because IE is so determined to avoid methodological dogma, the original suite of books and publications about how to ‘do IE’ say very little about data analysis and presentation. They speak of mapping, but they don’t provide examples of how to ‘map’ (Murray, 2022), and in fact most IE research is written up as a narrative account that the reader follows as an unfolding but rather linear story that is largely aspatial (Billo & Mountz, 2016).

At the outset data analysis plan was to carry out an IE and generate data in the format of interview transcripts and notes, observation notes and sketches, and content analysis of texts. I would then apply coding and thematic analysis to the data and then to write up as a summarised narrative account with quotations and other examples of primary evidence in support. I then used critical bifocality as an analytical lens for working with IE data. Critical bifocality asks the researcher to seek out the ‘sinewy linkages’ that connect lived experience to structures of domination and oppression (Weis & Fine, 2012).

As the research developed, it became clear to me that in order to meet my research objectives of visualising how power circulates and shapes practice, and to show these ‘sinewy linkages’ I would need a more holistic way of visualising my findings and capturing the ways in which different accounts intersected.

Another shortcoming of narrative summary as a way of communicating findings, is that it doesn’t lend itself well to wider application in say, policy development or the design of targeted interventions (Vannini, 2013). To meet my research objectives of carrying out impactful research, I needed a clear and concise way of communicating the findings that would be accessible and useful to policy makers and practitioners. I had encountered systems thinking in some of the public

health literature that I had read in the development of my research proposal and felt that this approach would significantly improve my data analysis and visualisation.

Systems thinking and Critical Bifocality.

Systems thinking originated in systems engineering but has more recently adopted by a wide range of disciplines, including community psychology and latterly public health bodies seeking to understand the complex drivers of health inequalities, and then use this knowledge to better design and evaluate interventions (Egan, 2019; Hawe and Ghali, 2008). Arnold and Wade (2015: 670) define systems as 'complex behaviours', where someone using a more sociologically informed frame may see a social practice or performance. The complexity here refers to the range of elements (e.g., actors), locations, technologies and drivers that coalesce to form a system. The rationale for adopting 'systems thinking' has sometimes been to understand complexity better in order to tame it or 'adjust outcomes'.

“ Systems thinking is the ability to think abstractly in order to: 1 incorporate multiple perspectives; 2 work within a space where the boundary or scope of problem or system may be “fuzzy”; 3 understand diverse operational contexts of the system; 4 identify inter- and intrarelations and dependencies; 5 understand complex system behaviour; and most important of all, 6 reliably predict the impact of change to the system.” (Arnold and Wade, 2015:673)

In the above definition, people in the system are reduced to elements and the performance of everyday life subjected to a systems taxonomy that seeks to make it more predictable. This argument fails to recognise complexity as a qualitative benefit when seeking to understand social performance of everyday working practices. Complexity in the performance of everyday life is only problematic when one seeks to predict how it will come to be performed, complexity when understood as the defining characteristic of a system (such as most systems that incorporate people will be) becomes a quality to be worked with rather than something to be eradicated.

A feature of systems thinking that was especially useful to my work is that it allows for the drawing of systems boundaries to capture remote processes that affect the local context, in recognition of the fact that significant systemic change often requires a fundamental shift in the status quo, and that drawing the boundaries too tightly around the problem can often lead to ineffectual interventions (Foster-Fishman and Behrens, 2007).

IE recognises hidden or 'subsumed' complexity as the key to understanding how and why everyday life operates as it does, often in ways that contradict the official accounts of what 'should' be happening. Complexity in IE is not seen as a problem, but rather an honest representation of how life actually happens and something that needs to be acknowledged rather than ignored just because it cannot be neatly incorporated into an official record of how work should be performed. IE is good at exploring complexity, but the rigour of the method often requires the researcher to 'draw a line' when exploring the lived experiences of participants ethnographically. It is not feasible to follow every line of enquiry to its conclusion and this can present a challenge when the power dynamics affecting the local context appear to be vast and remote. In this case power dynamics were often expressed by research informants as a sense of powerlessness in relation to competing with the kinds of foods that children and families were used to eating. My job as a researcher was to explore what might be making them feel this way but this felt like a daunting prospect within the resource constraints of a solo research project. Systems thinking allowed me to widen the scale of analysis to incorporate more than I was able to explore ethnographically.

Systems diagrams as a problem-solving and communication tool.

Identifying where a 'problem' sits within a wider system of drivers was one of the main objectives of this research, and adopting some of the visualisation methods used in systems thinking has been useful in the presentation of findings in two ways: firstly, it helps to identify the upstream determinants of some of the problems manifesting themselves within the local context; and secondly it supports the identification of interventions at points that would support systemic change rather than simply continuing to manage the recurring problem at the local scale. Many policy failures (especially targeting public health outcomes) can be attributed to 'weak prevention', that is interventions that address the problem but have limited and poorly sustained impact (Hawe et al, 2009: 268). This often happens because the intervention doesn't draw the system boundary wide enough to attempt to address the upstream causes of problems, many of which (especially in relation to health inequalities) are structural and socio-economic in nature (NIHR, 2017).

Systems mapping has been used to good effect in food system analysis to visualise how, for example, corporations structure consumer food choices in the South African context (Greenberg's, 2017) This allows the complexity of actors and agents that shape the consumer food environment to be made visible. I decided to work with my data to produce systems maps or diagrams to capture more complex and dynamic processes uncovered during my research. I outline the approach I adopted below in the sub-section 'how I worked with different data'.

How I worked with different data.

Most interviews were recorded and transcribed, in some cases participants preferred not to be recorded and notes were taken. In addition to interview data, I had notes and sketches taken during observations and coded analysis of texts that had been referenced by research informants. I used open coding to identify key themes. I was interested in exploring why people were doing things in a particular way, this could be references to documents or other 'texts', or references to barriers or issues that they were navigating. This focus is what makes IE a distinct form of ethnographic enquiry, as it seeks to understand working practices explicitly. In exploring this 'how' and 'why', I was looking for indicators of power dynamics, habitual or normative drivers, spatial and temporal factors that informants referenced or that I observed. Because IE follows a linear process, each interview and set of site observation notes were analysed in turn, this is because each research participant's account not only adds a layer to the bigger picture but suggests the next point of enquiry for the researcher (Campbell and Gregor, 2008). At the end of the process, I looked again for common themes so I could start assembling a picture of how the accounts intersected. It was at this point that I found that I was starting to use more diagrammatic visualisation approaches to make sense of my findings.

Notes, sketches, transcriptions, and textual analysis were then used in conjunction build a picture of the work that was done and to explicate how that work was coordinated by institutional processes and shaped by power structures. Each informant's story helps the researcher to see more of the emerging 'big picture' (Campbell and Gregor, 2008:85) so the analysis of data is not so much looking for confirmation of a theme by repetition, or triangulation, but rather seeking to add each informant's account to the development of the mapped practice, looking for 'institutional hooks and traces' in the accounts of the work (McKoy in Smith 2006: 123)

Examples of my coding process can be seen in paper 1.

Communication and Visualisation

Narrative accounts

As well as working to produce a more novel way of communicating the findings in systems maps, I also produced summary narrative accounts of some of the key themes that emerged during the IE. I feel that this approach is useful for highlighting specific elements of the findings rather than how they intersect or the up-stream processes that have influenced them (Weis & Fine, 2018). This approach also allowed me to incorporate quotations from research informants so that their voice was not lost and subsumed (Kearney et al, 2018)

Systems Scribing

To produce the systems maps I adopted a 'system scribing' approach. Systems scribing combines the practice of scribing (the process of visually representing ideas while people talk) with systems thinking. Just as systems thinking emerged from more technical systems design disciplines, systems scribing borrowed representative tools from system engineering – using elements such as actors, frames, relationships, and annotations (Bird and Riehl, 2019). Scribing is most commonly used to record discussions as they are happening live, with systems scribing focusing more specifically on the ways in which discussions and accounts describe relationships and dynamic flows. In this case I did not have a scribe accompany me on my site visits and to interviews as I adopted the analytical approach later in the project.

I worked with a live scribe and illustrator Alexandra Plummer on the production of two of the final systems diagrams in order to develop this method of translating narrative accounts into systems diagrams. Both Alexandra and I were learning about the systems scribing approach developed by Bird and Riehl (2019) as we worked with my data and the process was iterative, exploratory, and creative. I have provided a visual walk through of the process we went through to develop the first system diagram in Appendix 9 - Development of the systems diagrams.

Having both attended a workshop on system scribing, I tried to create my own version of the system that had been uncovered through my fieldwork. This proved complicated to capture, and through discussions with Alexandra and my supervisor Pamela Richardson, we realised that I was trying to tell the whole story from multiple standpoints in one diagram. We decided that it would be clearer if we worked from different standpoints or perspectives for different systems diagrams and created a series that would tell different parts of the story.

The first part of the story that we decided to try to tell visually, was the school food workers' perspective on why school meal uptake was so low. To do this we worked with the narrative accounts I had produced from my ethnographic fieldwork, with me reading them to Alexandra who asked a series of questions to clarify understanding before producing an initial draft of the system diagram.

Alexandra then went away and created three draft versions of the system that I had described, and we worked together to narrow down which version we would take forward. Some of the feedback that informed this discussion can be found in Appendix 9 - Development of the systems diagrams. As an illustrator Alexandra favoured images that were visually rich and open to interpretation, whereas I was much more familiar with using symbology and keys (primarily in the form of maps and spatial diagrams). Through the development of drafts, we found a compromise between our approaches that I felt achieved a balance between creative approaches and a format that might be accepted by the kinds of academic publications that I was targeting with my work.

I wanted to experiment with alternative ways of communicating the findings from my fieldwork because it became apparent to me when I started to write up my findings, that I was deciding where to start telling the story that described the system. This felt like forcing a looping, circular process

into a linear one for the purposes of describing it. Of course, no research like this can rid itself of power dynamics, the researcher always makes decisions about how research findings will be communicated, and these decisions will shape how findings will be received and interpreted by readers. The decision to experiment with visualisation techniques, working with a scribe who wasn't present during the research, wasn't intended to erase these power dynamics but only to mitigate them and offer some alternative ways of working with IE data.

I think that there is a lot of potential to develop this process of visualising findings from qualitative research so that the methods become more refined into toolkits that can be disseminated and adapted by others. This was my first foray into this work and so the method is not one that is tried and tested but experimental and evolving.

Examples of my systems diagrams can be found in the findings sections of papers 1 and 3.

Ethical considerations

One of the ethical concerns I had at the outset was how to incorporate honest accounts of school food workers when access to schools had been coordinated by a local authority school food worker who was a known and trusted colleague within schools, but also had a quality control and evaluation role in relation to school food. I wanted my research informants to feel safe and I wanted to protect anonymity, but because of the small and known sample size, it might be possible for some people reading the research to link the findings to schools.

All participants gave informed consent and were reminded of their right not to participate in research and to request removal from the research within a designated time period. None did so but it was important to me that I didn't report anything that could be read as overtly critical of other workers within the field, or of policy processes set at the local level, because I didn't want any repercussions for my research informants, and I also wanted to be able to disseminate key findings as widely as possible. As it turned out most of the things that informants spoke about referred to much bigger systems of power and influence such as the prevalence of unhealthy foods in the wider food environment, the pressures of delivering national policy, and the processes of allocating space in buildings.

Ethical approval was granted by the University of Sheffield Ethics Committee.

A summary of my method

1. Informants set the problematic and direct the path of the research (Institutional Ethnography).

The initiation of the research process works with IE's standpoint approach to the establishing of the research problematic. This means that the researcher learns from the research informants what the research problematic is through interview or work shadowing discussions. Following the IE method, the investigation follows the line set by research informants, who may direct the researcher to other informants or texts that are coordinating the work. Texts are analysed to identify the ways in which they are shaping the work (Smith and Turner, 2014).

2. Where institutional pathways reach a dead end, look up and out (Critical Bifocality).

Where the method deviates from the standard IE is when research informants accounts do not have a clear institutional pathway. This could be that informants discuss an issue that is shaping their work from beyond the institutional boundary, or for which there isn't a clear process of textual coordination. In the example from my research, this was when informants talked about the food

served in school being unfamiliar to many children and families because it did not resemble the food they were used to eating, or the food that children brought in from home. Whilst the school food legislation could be seen as a coordinating text for what was served in school, the unfamiliarity issue was not so clearly mapped to institutional processes. To address this issue, I adopted critical bifocality as a method for exploring the upstream processes that may have created a situation where school food was considered unfamiliar. Critical bifocality, as the name suggests, encourages looking 'up and out' of the field of research and gives the researcher permission to look for drivers that might not be visible to research informants (Weis and Fine, 2012). In practice this meant that whilst research informants often blamed parents for making food choices, I as the researcher was able to offer an alternative perspective about the role of the food industry in driving dietary tastes.

3. Conceptualising and visualising findings as a system (Systems thinking and Systems Scribing)

Although IE as a research approach is characterised by a lack of methodological dogma, the analysis and presentation of findings, whilst often referring to the 'mapping' of work practices or social relations (Campbell and Gregor, 2008) is dominated by narrative accounts. I felt that the linear nature of this format failed to capture the complexity of the interrelated processes and practices that I was uncovering. In response to this challenge, I looked to systems thinking as a way of conceptualising and visualising my findings as systems. Systems thinking as an approach also accommodated systems that operated over large conceptual and temporal scales, which can be hard to capture succinctly in a narrative (Christens et al, 2007). Systems thinking allowed for the visualisation of not only the institutional and textual processes uncovered by IE, but also the upstream drivers identified through critical bifocality. Whilst I was keen to adopt new methods of visualisation, I lacked the skills or confidence to approach this task alone, and so decided to work with a live scribe and illustrator to translate my narrative summaries of the findings into systems diagrams. We worked with an approach to visualisation called system scribing (Bird and Riehl, 2019) which offers a model for organising and visualising findings as systems diagrams. We chose system scribing because it incorporates standpoint (or perspective) as a key concept, so a system can be presented from the perspective of different actors within the system.

References

- Adamson, A., Spence, S., Reed, L., Conway, R., Palmer, A., Stewart, E., . . . Nelson, M. (2013). School food standards in the UK: Implementation and evaluation. *Public Health Nutrition*, 16(6), 968-81.
- ALLEN, John, (2003). *Lost geographies of power*. Oxford, Blackwell.
- Allen, J. (2011). Topological twists: Power's shifting geographies. *Dialogues in Human Geography*, 1(3), 283-298.
- Andersen, S. S., Holm, L., & Baarts, C. (2015). School meal sociality or lunch pack individualism? using an intervention study to compare the social impacts of school meals and packed lunches from home. *Social Science Information*, 54(3), 394-416.
- Arnold, R. D., & Wade, J. P. (2015). A Definition of Systems Thinking: A Systems Approach. *Procedia Computer Science*, 44(C), 669-678.
- Beatty, C., Bennett, C. & Hawkins, A., (2021). Managing precarity: food bank use by low-income women workers in a changing welfare regime. *Social Policy and Administration: an international journal of policy and research*, 55 (5), 981-1000
- Bell, D. & Blanchflower, D. (2011). 'Underemployment in the UK in the great recession'. *National Institute Economic Review*, 215, R23.

- Bell, D. & Blanchflower, D. (2014). Labour Market Slack in the UK. *National Institute Economic Review*, 229, F4-F11.
- Best, A. L. (2017). *Fast food kids: French fries, lunch lines and social ties*. New York: NYU Press.
- Bettio F. and Verashchagina A. (2009). Gender Segregation in the Labour Market: Root Causes, Implications and Policy Responses in the EU. EU Expert Group on Gender and Employment (EGGE). Luxembourg: European Commission.
- Billo, E., Mountz, A. (2016). For institutional ethnography. *Progress in Human Geography*., 40(2), 199–220.
- Bird K and Riehl J (2019) Systems Scribing: An Emerging Visual Practice Available at: www.kelveybird.com (accessed 13 December 2022)
- Boterman, W. R. & Bridge, G. (2015). Gender, class and space in the field of parenthood: Comparing middle- class fractions in Amsterdam and London. *Transactions of the Institute of British Geographers*, 40, 249-261.
- Briggs, L., & Lake, A. A. (2011). Exploring school and home food environments: Perceptions of 8-10-year-olds and their parents in Newcastle upon Tyne, UK. *Public Health Nutrition*, 14(12), 2227.
- Bruening M, MacLehose R, Loth K, Story M, Neumark-Sztainer D. (2012) Feeding a family in a recession: food insecurity among Minnesota parents. *Am J Public Health*. 102(3):520-6. doi: 10.2105/AJPH.2011.300390. Cahill, C. (2007). The Personal is Political: Developing new subjectivities through participatory action research. *Gender, place & culture*, 14 (3), 267-292.
- Campbell, ML & Gregor, FM. (2008). *Mapping social relations: A primer in doing institutional ethnography* Toronto: UTP,
- COOKE, Bill, and KOTHARI, Uma (2001). *Participation: the new tyranny?* London, Zed Books.
- Counihan, C., & Van Esterik, P. (2008). *Food and culture: A reader*. New York; London: Routledge.
- Criado-Perez, C. (2020). *Invisible women: exposing data bias in a world designed for men*. Vintage.
- D'Angelo, C; Gloinson, ER; Draper, A; Guthrie, S. (2020) Food Consumption in the UK: Trends attitudes and drivers. Cambridge, The Rand Corporation.
- Daniel, P., & Gustafsson, U. (2010). *School lunches: Children's services or children's spaces?*. Abingdon, Oxfordshire.
- Department for Education, (2014) Area Guidelines for mainstream schools: BB103. available at <https://www.gov.uk/government/publications/area-guidelines-and-net-capacity> (Accessed 15/4/23)
- Department for Education, (2016). *School food in England: Departmental advice for governing boards*. London: UK Government.
- DeVault, M. L. (1991). *Feeding the family: The social organization of caring as gendered work*. Chicago: Chicago: University of Chicago Press.
- De Vault, M. (2013). Institutional Ethnography: A Feminist Sociology of Institutional Power, *Contemporary Sociology*, 42(3), 332–340.
- Devi, A., Surender, R., & Rayner, M. (2010). Improving the food environment in UK schools: Policy opportunities and challenges. *Journal of Public Health Policy*, 31(2), 212.
- DeWalt, K. M., & DeWalt, B. R. (2002). *Participant observation: A guide for fieldworkers*. Walnut Creek, Calif.; Oxford: AltaMira Press.

- DHSS (Department of Health and Social Security) (1980) Black Report: Inequalities in Health: Report of a Research Working Group. Department of Health and Social Security, London. Available at: <https://www.sochealth.co.uk/national-health-service/public-health-and-wellbeing/poverty-and-inequality/the-black-report-1980/> (accessed 16/6/23)
- Dimbleby H & Vincent J (2013) The School Food Plan. http://www.schoolfoodplan.com/wp-content/uploads/2013/07/School_Food_Plan_2013.pdf (accessed 9/2/2023)
- Dowler, E. A., & O'Connor, D. (2012). Rights-based approaches to addressing food poverty and food insecurity in Ireland and UK. *Social Science & Medicine*, 74(1), 44-51.
- Egan M (2019). *Guidance on systems approaches to local public health evaluation part 1: Introducing systems thinking*. NIHR School for Public Health Research.
- Evans CEL & Harper CE (2009) A history and review of school meal standards in the UK. *Journal of Human Nutrition and Dietetics* 22:89-99
- Evans, C., Mandl, V., Christian, M. S., & Cade, J. E. (2016). Impact of school lunch type on nutritional quality of English children's diets.
- Fernandes, M. M. (2013). A national evaluation of the impact of state policies on competitive foods in schools. *Journal of School Health*, 83(4), 249-255.
- Fine, M. (2016). Just methods in revolting times. *Qualitative Research in Psychology*, 13(4), 347-365.
- Fletcher, A., Jamal, F., Fitzgerald-Yau, N., & Bonell, C. (2014). 'We've got some underground business selling junk food': Qualitative evidence of the unintended effects of English school food policies. *Sociology*, 48(3), 500-517.
- Food Foundation (2022) The Superpowers of Free School Meals: [an evidence pack](https://foodfoundation.org.uk/publication/superpowers-free-school-meals-evidence-pack). Available via: <https://foodfoundation.org.uk/publication/superpowers-free-school-meals-evidence-pack>. (last accessed 15/5/23)
- Foster-Fishman, P. G., & Behrens, T. R. (2007). Systems change reborn: Rethinking our theories, methods, and efforts in human services reform and community-based change. *American Journal of Community Psychology*, 39(3/4), 191-196.
- Giddens, A. (1984). *The constitution of society: Outline of the theory of structuration* Polity Press.
- Gillard D (2003) Food for Thought: child nutrition, the school dinner and the food industry. Accessed via: www.educationengland.org.uk/articles/22food.html (accessed 15/6/23)
- Gray, J. (2008). Implementation of school food standards in England – a catering perspective. *Nutrition Bulletin*, 33(3), 240-244.
- Grant, L., Yeandle, S. & Buckner, L. (2006). Working below potential: *Women and part-time work: Synthesis report*. Sheffield: Centre for Social Inclusion, Sheffield Hallam University.
- Greenberg S (2017). Corporate power in the agro-food system and the consumer food environment in South Africa. *The Journal of Peasant Studies*, 44(2): 467-496.
- Harman, V., & Cappellini, B. (2015). Mothers on display: Lunchboxes, social class and moral accountability. *Sociology*, 49(4), 764-781.
- Hawe, P., & Ghali, L. (2008). Use of social network analysis to map the social relationships of staff and teachers at school. *Health Education Research*, 23(1), 62-69.
- Hawe, P., Shiell, A., & Riley, T. (2009). Theorising interventions as events in systems. *American Journal of Community Psychology*, 43(3-4), 267-276.

- Hesse-Biber, S. N., & Piatelli, D. (2014). The feminist practice of holistic reflexivity. In S. N. Hesse-Biber (Ed.), *Handbook of feminist research: Theory and praxis* (pp. 557–582). SAGE Publications.
- Illøkken, Johannessen, B., Barker, M. E., Hardy-Johnson, P., Øverby, N. C., & Vik, F. N. (2021). Free school meals as an opportunity to target social equality, healthy eating, and school functioning: experiences from students and teachers in Norway. *Food & Nutrition Research*, 65, 1–13.
- Impact on Urban Health (2022) *Investing in Children's Future: A Cost Benefit Analysis of Free School Meal Provision Expansion*. London: Impact on Urban Health. Accessed at [https://urbanhealth.org.uk/insights/reports/expanding-free-school-meals-a-cost-benefit-analysis#:~:text=The%20breakdown%20of%20total%20discounted,%3A%20C2%A312m%20\(0.03%25\)](https://urbanhealth.org.uk/insights/reports/expanding-free-school-meals-a-cost-benefit-analysis#:~:text=The%20breakdown%20of%20total%20discounted,%3A%20C2%A312m%20(0.03%25)) (last accessed 27/11/23)
- Jackson, P., & Jackson, P. A. (2009). *Changing families, changing food*. Basingstoke: Basingstoke: Palgrave Macmillan, 2009.
- Jaime, P. C., & Lock, K. (2009). Do school-based food and nutrition policies improve diet and reduce obesity? *Preventive Medicine*, 48(1), 45-53.
- Kearney, G. P., Corman, M. K., Gormley, G. J., Hart, N. D., Johnston, J. L., & Smith, D. E. (2018). Institutional ethnography: a sociology of discovery—in conversation with Dorothy Smith. *Social Theory & Health*, 16(3), 292–306.
- Kaufman, L., & Karpati, A. (2007). Understanding the sociocultural roots of childhood obesity: Food practices among Latino families of Bushwick, Brooklyn. *Social Science & Medicine*, 64(11), 2177-2188.
- Kelly M and Barker M (2016). Why is changing health-related behaviour so difficult? *Public Health* 136: 109–116.
- Kesby, M (2007). Spatialising participatory approaches: the contribution of geography to a mature debate. (Report). *Environment & planning A*, 39 (12), 2813-2831.
- Kitchen, S., Poole, E., & Reilly, N. (2013). *School food: Head teachers' and school senior managers perceptions survey*. (Research Report). London: Department for Education.
- Kuijter, L. and Bakker, C. (2015). Of chalk and cheese: behaviour change and practice theory in sustainable design. *International journal of sustainable engineering*, 8 (3), 219-230.
- Kamerāde, D., & Richardson, H. (2018). Gender segregation, underemployment and subjective well-being in the UK labour market. *Human Relations*, 71, 285–309.
- KITCHEN DESIGN: Schools, Hospitals, Factories, Hotels, Restaurants and Cafés. (1957). *Architects' Journal (London)*, 126(3275), 16–17
- Labanca, N., Pereira, Â. G., Watson, M., Krieger, K., Padovan, D., Watts, L., Moezzi, M., Wallenborn, G., Wright, R., Laes, E., Fath, B. D., Ruzzenenti, F., De Moor, T., Bauwens, T., & Mehta, L. (2020). Transforming innovation for decarbonisation? Insights from combining complex systems and social practice perspectives. *Energy Research & Social Science*, 65, 101452–.
- Lambie-Mumford, H., and Green, M. A. (2015) Austerity, welfare reform and the rising use of food banks by children in England and Wales. *Area*, 49:3) pp273-279.
- Lang, T., & Heasman, M., (2015). *Food wars: The global battle for mouths, minds and markets* (Second edition. ed.) Oxon, Routledge.
- Letherby, G. (2003). *Feminist research in theory and practice*. Open University Press.
- Libman, K, Fields, D., and Saegert, S (2012). Housing and Health: A Social Ecological Perspective on the US Foreclosure Crisis. *Housing, Theory, and Society*, 29:1, 1-24

- Luken, P. C., & Vaughan, S. (2006). Standardizing childrearing through housing. *Social Problems*, 53(3), 299-331.
- Lund, R. (2012). Publishing to become an “ideal academic”: An Institutional Ethnography and a Feminist Critique. *Scandinavian Journal of Management*, 28(3), 218–228.
- Mazarello Paes V, Ong KK, Lakshman R (2015) Factors influencing obesogenic dietary intake in young children (0–6 years): systematic review of qualitative evidence *BMJ Open*; 5: e007396. doi: 10.1136/bmjopen-2014-007396
- Metcalfe, A., Owen, J., Shipton, G., & Dryden, C. (2008). *Inside and outside the school lunchbox: Themes and reflections*. Abingdon, Oxfordshire.
- McDowell, L. (2014). Gender, work, employment and society: feminist reflections on continuity and change. *Work Employment and Society*, 28, 825–837.
- Morrison, M. (1996). Sharing food at home and school: Perspectives on commensality. *The Sociological Review*, 44(4), 648-674.
- Murray, O. M., (2022) Text, process, discourse: doing feminist text analysis in institutional ethnography, *International Journal of Social Research Methodology*, 25:1, 45-57.
- Nelson, M., Nicholas, J., Suleiman, S., Davies, O., Prior, G., Hall, L., Poulter, J. (2006). *School meals in primary schools in England*. (Research Report No. RR753). Nottingham: DfES Publications.
- Nelson, M., Nicholas, J., Riley, K., & Wood, L. (2012). Seventh annual survey of take up of school lunches in England. *Children's Food Trust*, Available at: [www.Childrensfoodtrust.Org.uk/assets/research-reports/seventh annual survey2011-2012 full report.Pdf](http://www.Childrensfoodtrust.Org.uk/assets/research-reports/seventh_annual_survey2011-2012_full_report.Pdf) (Accessed 14/5/ 2017)
- NIHR CLAHRC northwest coast (2017) Health inequalities assessment toolkit (HIAT). Retrieved from <http://www.hiat.org.uk/> (accessed 16/9/2018)
- Parnham, Chang, K., Rauber, F., Levy, R. B., Millett, C., Lavery, A. A., Stephanie von Hinke, & Vamos, E. P. (2022). The Ultra-Processed Food Content of School Meals and Packed Lunches in the United Kingdom. *Nutrients*, 14(14), 2961.
- Petersen, A., Tanner, C. & Fraser, S. (2014). Practicing food anxiety: Making Australian mothers responsible for their families' dietary decisions. *Food and Foodways; Explorations in the History and Culture of Human Nourishment*, 22, 175-197.
- Pike, J. (2008). Foucault, space and primary school dining rooms. *Children's Geographies*, 6(4), 413-422.
- Pilcher, J. (2000). Domestic Divisions of Labour in the Twentieth Century: Change Slow A-Coming. *Work, Employment and Society*, 2000, 14, 771-780.
- Ravikumar, D., Spyreli, E., Woodside, J., McKinley, M., & Kelly, C. (2022). Parental perceptions of the food environment and their influence on food decisions among low-income families: a rapid review of qualitative evidence. *BMC Public Health*, 22(1), 9–9.
- Renick, J., Abad, M. N., van Es, E. A., & Mendoza, E. (2021). “It’s All Connected”: Critical Bifocality and the Liminal Practice of Youth Work. *Child & Youth Services*, 42(4), 349–373.
- Rioux, S. (2015). Capitalism and the production of uneven bodies: Women, motherhood and food distribution in Britain c. 1850– 1914. *Transactions of the Institute of British Geographers*, 40(1), 1-13.
- Rose, K., Lake, A. A., Ells, L. J., & Brown, L. (2019). School food provision in England: A historical journey. *Nutrition Bulletin*, 44(3), 283–291.

- Russi, L., (2013). *Hungry capital: The financialization of food* Zero Books.
- Savin-Baden, M., & Major, C. H. (2012). *Qualitative research: The essential guide to theory and practice*. London: Routledge.
- SHOVE, Elizabeth (2010). Beyond the ABC: Climate change policy and theories of social change. [online]. *Environment and planning A*, **42** (6), 1273-1285.
- Shove, E. (2014). Putting practice into policy: reconfiguring questions of consumption and climate change. *Contemporary Social Science.*, 9(4), 415–429.
- Shove, E., Pantzar, M., & Watson, M. (2012). *The dynamics of social practice everyday life and how it changes*. London: SAGE.
- Shove, E., Watson, M., & Spurling, N. (2015). Conceptualizing connections: Energy demand, infrastructures and social practices. *European Journal of Social Theory*, **18**(3), 274–287.
- Smith, D. (1999). *Writing the social: Critique, theory and investigations*. Toronto: The University of Toronto Press
- Smith, D. (2005). *Institutional Ethnography: A Sociology for People*. Lanham, AltaMira Press.
- Smith, D. (Ed.). (2006). *Institutional ethnography as practice*. Oxford: Roman & Littlefield Publishers.
- Smith, D. (2008). From the 14th Floor to the Sidewalk: Writing Sociology at Ground Level. *Sociological inquiry*, **78** (3), 417-422.
- Smith D. & Turner S. (eds) (2014) *Incorporating texts into Institutional Ethnography*, Toronto, University of Toronto Press.
- Southerton, D. (2013). Habits, routines and temporalities of consumption: From individual behaviours to the reproduction of everyday practices. *Time & Society*, **22**(3), 335–355.
- Stevens L, Nicholas J, Wood L, et al. (2013) School lunches v. packed lunches: a comparison of secondary schools in England following the introduction of compulsory school food standards. *Public Health Nutr* **16**, 1037 -1042.
- Stoud, B., Fox, M. and Fine, M. (2012). Contesting Privilege with Critical Participatory Action Research. *Journal of social issues*, **68** (1), 178-193.
- University of Sheffield (nd) *Thesis formats guidance*, available at www.sheffield.ac.uk/research-services/code/thesis/preparation/formats#publication (accessed 29/6/23)
- Van Cauwenberghe, E., Maes, L., Spittaels, H., van Lenthe, F., J., Brug, J., Oppert, J., & De Bourdeaudhuij, I. (2010). Effectiveness of school-based interventions in Europe to promote healthy nutrition in children and adolescents: Systematic review of published and 'grey' literature. *British Journal of Nutrition; Br J Nutr*, **103**(6), 781-797.
- Vannini P (2013) Popularizing ethnography: reflections on writing for popular audiences in magazines and blogs. *Qualitative Research* **13**(4): 442–451.
- Vihalemm, T., Keller, M., & Kiisel, M. (2015). Social practices as sites of social change. In *From Intervention to Social Change* (pp. 39–60). Routledge.
- Walby, K. (2013). Institutional ethnography and data analysis: Making sense of data dialogues. *International Journal of Social Research Methodology*, **16**(2), 141-154.
- Walley, JE., TECHNICAL SECTION: 10 DESIGN: BUILDING TYPES design of school kitchens. (1955). *Architects' Journal (London)*, **121**(3140), 615–618.
- Watson, M. (2014). *Placing Power in Practice Theory - A DEMAND centre working paper*. Unpublished.

Watson, M., & Shove, E. (2022). How Infrastructures and Practices Shape Each Other: Aggregation, Integration and the Introduction of Gas Central Heating. *Sociological Research Online*, 136078042110554-.

Weis, L and Fine, M. (2012). Critical bifocality and circuits of privilege: expanding critical ethnographic theory and design. (Report). *Harvard educational review*, **82** (2), 173-201

Weis, L., & Fine, M. (2018). Critical Bifocality. In *The Wiley Handbook of Ethnography of Education* (pp. 91-111). John Wiley & Sons, Inc.

Yates-Doerr, E., & Carney, M. A. (2015). Demedicalizing health: The kitchen as a site of care. *Medical Anthropology*, 1-19.

Mapping Working Practices as Systems: An analytical model for visualising findings from an Institutional Ethnography.

Abstract

This paper presents a new methodological model that was developed whilst carrying out an Institutional Ethnography to explore school food working practices. The model brings together two complementary approaches; Institutional Ethnography and Systems Thinking, to offer a novel approach to the analysis and visualisation of ethnographic data as systems maps that show how power shapes practices. This novel contribution allows for the mapping of complex working practices to show interdependencies and flows, and addresses limitations in the applicability of Institutional Ethnography to policy research. This approach will be useful for researchers and practitioners who want to utilise findings from Institutional Ethnography to design effective interventions, change outcomes of working practices, or tackle policy problems.

Keywords: Institutional Ethnography; Systems Thinking; System Mapping; School Food; Policy Problems

Introduction

This paper introduces a methodological and analytical model that was developed to visualise qualitative research findings as systems maps, in order to account for the power imbalances that shape practices. This work makes an important and novel contribution to the development of qualitative research through the application of a systems mapping approach as an analytical and data visualisation model for ethnographic research data, which enhances its accessibility and impact beyond the academy, and in the field of applied policy research.

This model was developed as part of a research project to explore a 'wicked' policy problem, namely why school food policies were not having the anticipated impact on school meal uptake, by exploring the day to day working practices in school food work. The aim of the research was to show what happened when school food workers tried to implement policies, and to make recommendations based upon this analysis. Practices rather than behaviours are the focus of attention here, as this work adopts a framing that sees the performance of everyday life as complex evolving social practices (Giddens, 1984: 2-3). Practices are neither static nor uniform, it is the dynamic quality of practices that makes practice theory such a useful way of exploring how everyday life takes place (Shove et al, 2012). A commitment to visualise the dynamics of practice was a key driver of my exploration of alternative communication methods.

An important focus of my work was to account for the ways that power shapes practice to address an acknowledged shortcoming of practice theory (Watson, 2014; Vihalemm et al, 2015). Many studies that explore how the social organisation of everyday life works to reproduce inequality recognise that there is the need to work to identify (and in most cases, challenge) what are variously described as 'structures of power' (Cahill, 2007 : 279; Weis and Fine, 2012: 173), 'ruling relations' (Smith, 2005, 2008), and 'spatial embeddedness of power' (Kesby, 2005: 2827) that reproduce 'circuits of dispossession and privilege' (Weis and Fine, 2012:187). School food is an important case study because there is a strong policy framework in place aimed at reducing dietary health inequalities in children through the provision of affordable and nutritionally controlled school meals, and as such, the failure of this policy to have a measurable positive effect is

concerning (Impact on Urban Health, 2022). Stabilised inequalities are often the result of an imbalance of power, and so the hope was that mapping the manifestations of power and influence in the school food system would show why the well-intentioned policies were not achieving the desired outcomes.

The contribution this paper makes is to outline a new approach to working with narrative accounts generated by Institutional Ethnography, by using Systems Thinking and scribing to translate them into systems maps that make visible the ways in which power shapes working practices.

Institutional ethnography

The research adopted Institutional Ethnography (IE) as a research approach. IE is a qualitative methodology that was developed by Sociologist Dorothy Smith as a method for revealing hidden work practices that are often subsumed within institutional discourses and highlighting the way that everyday life is shaped by 'ruling relations' or power structures, that are often hidden from view in the day-to-day performance of practices. Smith argues that the official account of how work takes place within an institutional context often fails to recognise the many nuanced situations and negotiations that take place to navigate these 'ruling relations', resulting in a simplified account of complex work (Smith, 2008). IE is considered a feminist methodological approach as it highlights the gendered nature of the work that is often obscured, and the methodology has been deployed to reveal, for example, the subsumed roles that mothers play in supporting schools, the ways in which care work is done, and the hidden work of managing health conditions (Smith, 2005; Smith and Turner, 2014; DeVault, 2013).

Whilst methodological texts discussing IE often talk about 'mapping' social complexity, they are most often written up as a narrative account, or the mapping of a single participant's experience (Taber, 2010; Vannini, 2013; Smith and Turner, 2014), which can be limiting as a way of understanding the ways in which different accounts intersect. Narrative accounts also tend to present findings as a linear description which fails to capture the dynamics and feedback loops of a complex system, or to see where in that system to target an intervention. The researcher decides where to start telling the story, and this becomes where the story begins rather than simply the point in the system at which the researcher enters. To better capture these intersections and visualise the power imbalances that I encountered, I adopted a Systems Thinking approach to the analysis and visualisation of the data produced from an IE of school food practices. My research speaks not only to an academic audience, but also to people working in applied policy research and policy design. The research problematic for this project was set by a local authority school food team, and so the findings needed to be communicated in a format that was succinct, accessible, and engaging.

IE as a research approach involves discovering work problematics through the process of research, rather than developing fixed ideas or hypotheses in advance. Institutional ethnographers must collect data that captures detailed accounts of the coordinated activities that constitute the 'everyday' life and work of the chosen area of study (Campbell and Gregor, 2008). Research informants are identified as their work coordinates with others, and so they not only provide their expert account of the work, but also direct the researcher to the next point of enquiry. In this study the line of enquiry started with local government school food officers and led on to school management teams, school architects, kitchen and lunchroom staff, children, and parents.

Texts as coordinators of everyday activities and work are key to IE as a methodology. Institutional ethnographers treat texts as data in order to 'see' the creation of discourse. Texts can include memos, policy documents, posters, menus, evaluation sheets and monitoring documentation, and are the carriers of the ideological account of the work practice (Smith, 2005). The focus of textual analysis here is upon how they coordinate and shape work practices, and how different people interpret and apply the content of the texts. It is not possible to anticipate the range of texts that

will be encountered until field work commences, only those texts that are 'activated' in a working practice by being utilised or referred to in interviews or observation will be analysed. One of my research objectives was to discover the 'hidden' textual architecture of the work by asking why people are doing things in a particular way (Smith and Turner, 2014), when viewed from the standpoint of a range of actors who participate in the 'work' of school food.

There is a somewhat contradictory claim made by IE to present working practices from the standpoint of the informants rather than through the theorising of expert researchers, whilst at the same time ascribing a role of explicating what is 'actually happening' by analysing the way that various accounts intersect. This 'seeing things as they really are' does place the researcher in a powerful role in relation to informants, who merely experience the day to day without seeing the bigger picture (Tummons in Reid and Russell, 2017). The exploration of structures of power and how they shape everyday lived experience can be challenging because it requires the researcher to switch attention between the close and local level lived experience, and remote structures of power that may feel vast and unreachable through qualitative enquiry. Looking beyond the institutional context felt at times like I was straying beyond the boundaries of IE, but when so many of my informants spoke about food norms as a barrier to policy enactment, I knew it wouldn't be effective to stay within the boundaries of school food. Weis & Fine (2012) propose 'critical bifocality' as a way to reveal the relationship between groups and structures of power. It does this by thinking about epistemology, design, and the politics of research as a theory of method in which researchers try to make visible the sinewy linkages or circuits through which structural conditions are enacted in policy and reform institutions, as well as the ways in which such conditions come to be woven into community relationships and metabolized by individuals (Weis & Fine, 2012 p174). They propose a method that will enable and encourage exploration of the linkages between what is uncovered ethnographically at the local level; and global shifts and argue that researchers must pay attention to the explicit linkages between collected ethnographic action and narratives, and what is happening in broad context (Weis & Fine, 2018).

Using IE to explore school food working practices meals was very successful as a data gathering approach, allowing for multiple perspectives on a problem, and identifying unexpected and interesting factors shaping school meal provision and uptake. However, a challenge arose when I approached the data analysis and write up stage of the work. Whilst there is frequent mention of 'mapping' (Campbell and Gregor, 2009), there is very little detail about how to work analytically with data to produce a map (Murray, 2022). Almost all institutional ethnographies are written up as narrative accounts, which can be read as interesting stories about the field of study but do not lend themselves well to wider application in say, policy development or the design of targeted interventions (Vannini, 2013). I needed a clear and concise way of communicating the findings that would be accessible and useful to policy makers and practitioners, and for that I decided to adapt Systems Thinking approaches I had encountered in public health research reports.

Systems thinking

Systems thinking originated in systems engineering but has more recently adopted by a wide range of disciplines, including community psychology, and latterly public health bodies seeking to understand the complex drivers of health inequalities, and then use this knowledge to better design and evaluate interventions (Egan, 2019; Hawe and Ghali, 2008). Arnold and Wade (2015: 670) define systems as 'complex behaviours', where someone using a more sociologically informed frame may see a social practice or performance. Complexity refers to the range of elements (e.g., actors), locations, technologies and drivers, that coalesce to form a system. The rationale for adopting 'Systems Thinking' in more technological contexts such as process design, has been to understand complexity better in order to tame it or adjust outcomes (Arnold and Wade,

2015). When applied to human systems, complexity becomes a defining characteristic of the system.

A feature of Systems Thinking that was especially useful to my work is that it allows for the drawing of systems boundaries to capture remote processes that affect the local context, in recognition of the fact that significant systemic change often requires a fundamental shift in the status quo, and that drawing the boundaries too tightly around the problem can often lead to ineffectual interventions (Foster-Fishman and Behrens, 2007). This approach complemented my use of critical bifocality as a way of looking beyond institutional processes when informants' accounts directed me there.

IE recognises hidden or 'subsumed' complexity as the key to understanding how and why everyday life operates as it does, often in ways that contradict the official accounts of what 'should' be happening. IE is good at exploring complexity, but the rigour of the method often requires the researcher to 'draw a line' when exploring the lived experiences of participants ethnographically. It is not feasible to follow every line of enquiry to its conclusion and this can present a challenge when the power dynamics affecting the local context appear to be vast and remote. In this case power dynamics were often expressed by research informants as a sense of powerlessness in relation to competing with the kinds of foods that children and families were used to eating. My job as a researcher was to explore what might be making them feel this way, but this felt like a daunting prospect within the resource constraints of a solo research project. Systems Thinking allowed me to incorporate and account for more complexity than I was able to explore ethnographically.

Systems diagrams as a problem-solving tool

Identifying where a 'problem' sits within a wider system of drivers was one of the main objectives of this research, and adopting some of the visualisation methods used in systems thinking has been useful in the presentation of findings in two ways: firstly, it helps to identify the upstream determinants of some of the problems manifesting themselves within the local context; and secondly it supports the identification of interventions at points that would support systemic change, rather than simply continuing to manage the recurring problem at the local scale. Many policy failures (especially targeting public health outcomes) can be attributed to 'weak prevention', that is interventions that address the problem but have limited and poorly sustained impact (Hawe, 2009: 268). This often happens because the intervention doesn't draw the system boundary wide enough to attempt to address the upstream causes of problems, many of which (especially in relation to health inequalities) are structural and socio-economic in nature (NIHR, 2017). Dietary health problems such as those school food seeks to address are clearly related to changes in the types of food that people have access to (Kelly and Baker, 2016), and whilst this was often referenced by my research informants, it was usually attributed to people making poor choices rather than to the choices available to them. But I was nevertheless prompted to explore why food choice had become so problematic, which felt challenging within the scope of my research project.

An excellent example of a systems mapping approach being applied to food system analysis can be found in Greenberg (2017) which used this approach to demonstrate how corporations structure consumer food choices in the South African context. **Figure 2** taken from Greenberg's (2017) work and shows the complexity of actors and agents that shape the consumer food environment. I have drawn upon the evidence from Greenberg's (2017) research to demonstrate the scale and complexity of the food system within which school food is operating.

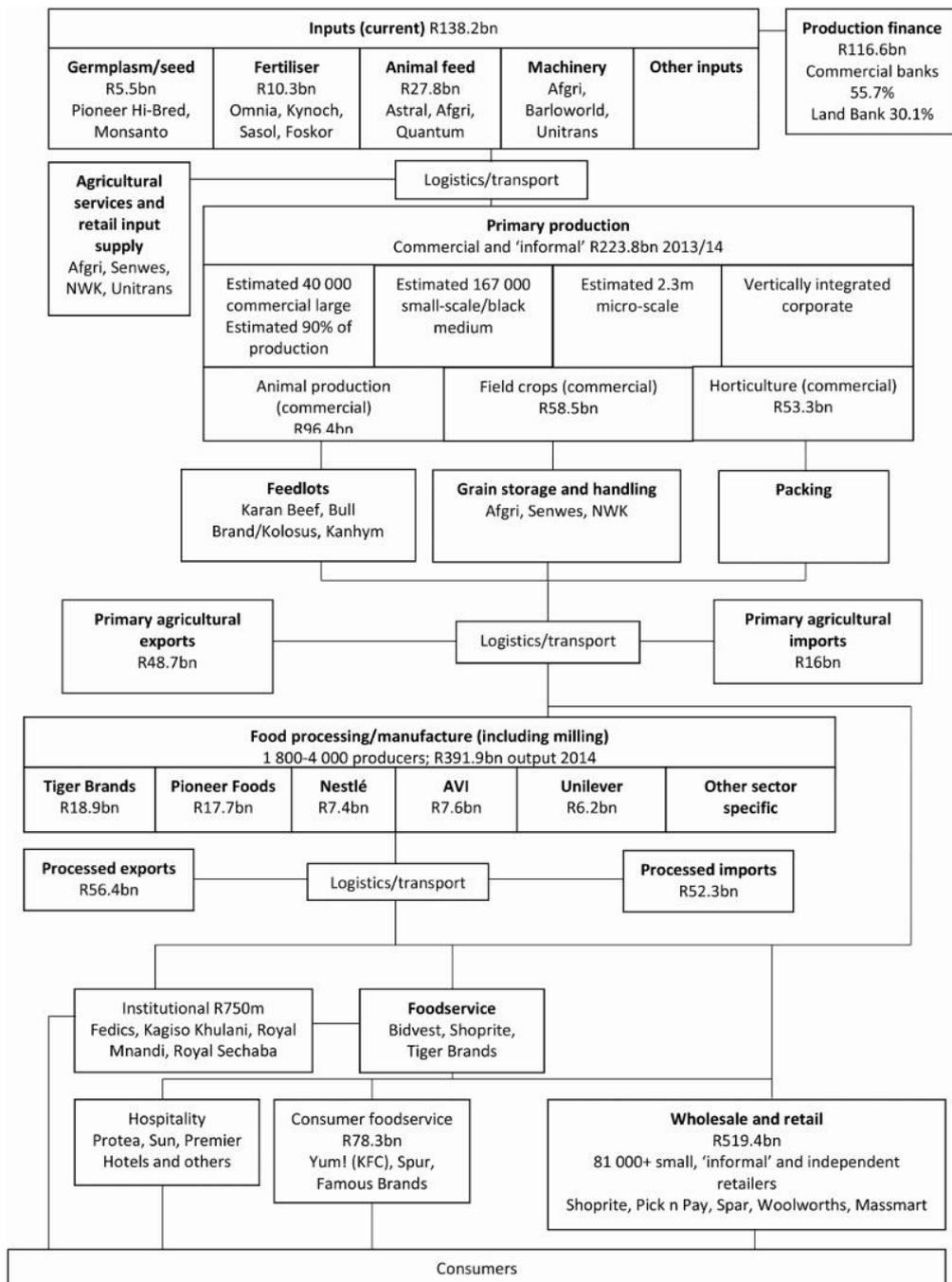


Figure 2: Schematic overview of South African agro-food system structure. (Greenberg, 2917:470)

Systems mapping as an analytical approach.

“The use of models that include different levels radiating out from the individual and finishing at a macro-level can be both frustratingly simple and profound. Thinking in terms of such levels can be liberating if used for consideration of contextual influences on individuals” (Christens et al, 2007: 234).

Both IE and Systems Thinking recognise the role of power in the shaping of work practices and systems. As the aim of this project was to propose some interventions that could meaningfully address the problem of low school food uptake, it was first important to acknowledge that this would require identifying the dominant power relations that were responsible for the status quo

(Christens et al, 2007; Peirson et al, 2011). This can seem daunting, especially when drawing the boundaries of the system wide to capture processes of globalisation and conglomeration within the food system. But if these processes perpetuate the status quo, then system change is not possible without addressing these forces (Foster-Fishman and Behrens, 2007).

My Research Process outlined.

The model discussed here was developed as part of an IE in 3 primary schools in Northern England over a 2-year period. Ethical clearance for the study was obtained from the University of Sheffield ethics committee. I was invited by the Local Authority school food team into schools to understand more about the problem of low meal uptake by exploring the working practices and perspectives of those involved in the day-to-day work of school food. The aim of the research was to use the findings from the IE to make recommendations for improving school food uptake, and the first interview was carried out with a member of that team which established the key aims and entry point for the research.

“In some schools we’ve only got 60% uptake amongst the children that are entitled to a free school meal, it’s a problem!” (Local Authority school food team member)

This quotation succinctly summarises what could be described as a ‘wicked’ policy problem, because there is a failure of the policy to achieve its desired outcomes without a clear explanation about what has gone wrong. In the UK at the time of the study, all children in infant schools were entitled to free school meals, and children of any age from low-income households were also entitled to free school meals. A complex policy framework existed to make school meals nutritious and accessible, and yet a significant percentage of children chose to forego a school meal in favour of packed lunches brought from home that were deemed less healthy and also more expensive to the parents as they replaced a free meal.

The three schools were chosen by the local authority partner as they had several common characteristics such as being of a similar size (around 500 pupils) and serving a similar demographic population (around 50%-60% of children in the schools were entitled to free school meals). There were differences in the design of the buildings, with two occupying new school buildings (less than five years old) and one occupying a building that was built in the 1930s. The three schools also took slightly different approaches to the serving of school meals, and all were happy to welcome a researcher into the school. The variables were limited to the school food service environments so that the variations in these working practices could be foregrounded, as opposed to seeing how similar work took place in schools that served very different populations. This would also be an important and no doubt revealing context to explore but was beyond the scope of this project.

Data gathering methods in IE are not that different to other forms of ethnographic research. What distinguishes IE is the focus upon the textural coordination of work, looking for ways in which work is coordinated across a number of sites and focusing in particular upon the conditions that shape those working practices. In each school I undertook a preliminary extended interview with a member of the school leadership team with responsibility for the food service. The interviews were guided by an interview schedule that asked the person about their role and responsibilities in relation to school food, and then moved on to asking them about how the work of applying school food policy was done in their school, what challenges they faced and how they worked to manage them. I asked each participant who they thought I should speak to next. Despite having a schedule, interviews followed a largely unstructured format, enabling themes to be explored flexibly and leaving space for the unanticipated to emerge (Savin-Baden and Howell Major, 2013).

Following the leads set by research informants, interviews were conducted between 2017 and 2019 with:

- Three School business managers or deputy heads (with lead responsibility for school food)
- Three School Head cooks
- Three Kitchen support staff
- One Catering company manager
- One Local Authority school food officer
- One former Local Authority school architect
- Three parents

Observation and work shadowing are an important method in IE and were used extensively to provide as holistic an account of working practices as possible (DeWalt and DeWalt, 2002: 92), and because food practices have often become stabilized and habitual through reproduction (Southerton, 2013). In all three schools I was invited to observe and participate in lunch service, in one school I was served lunch alongside the staff and pupils, in another I spent time in the kitchen during lunch preparation and service, and in the third I observed the lunch service from the dining room and then was invited to eat with the staff at the end of the meal service. At all times I was guided by my research informants, being directed to the people and places that they felt were important to the way work was done in their school. During observation and shadowing I took notes and sketches and spoke to staff and curious children about what I was doing in their dining room in a white lab coat armed with a clipboard (a health and safety requirement that the children found amusing).

“The goal for design of research using participant observation as a method is to develop a holistic understanding of the phenomena under study that is as objective and accurate as possible given the limitations of the method”
(DeWalt and DeWalt, 2002: 92)

In one school I was invited to work with a group of pupils to explore their knowledge and perspective on school food, focusing mainly upon their knowledge of the processes involved in selecting, ordering, obtaining and eating school meals. The scenario for this workshop was that the pupils were tasked with producing a guide to school meals for new pupils at the school, again this format stays true to the guiding principle of the methodological approach that frames research informants as experts. In addition to the work with research informants; policy documents, menus, recipes, school food websites and other key texts mentioned by research informants were also analysed. In total I spent six days observing school food practices in situ. In addition to this I carried out fifteen follow up interviews that lasted between thirty and ninety minutes. The workshop activity I carried out with the children lasted for two hours and had six participants.

Use of texts

During the observation and interviews, I was alert to references made to texts. Texts can include memos, policy documents, posters, menus, evaluation sheets and monitoring documentation. They are seen as coordinators of everyday activities and are an important aspect of institutional ethnography. Institutional ethnographers treat institutional texts as the carriers of the ideological account of the work practice (Smith, 2005) and as such, identifying texts was an important ongoing analytical process during interviews and observation of work practices.

The focus of textual analysis here is upon how they coordinate and shape work practices rather upon contents of the texts per se. It is not possible to anticipate the range of texts that will be encountered until field work commences. Only those texts that are ‘activated’ in a working practice by being utilised or referred to in interviews or observation will be of interest. One of my research

objectives was to discover the 'hidden' textual architecture of the work by asking why people are doing things in a particular way (Smith and Turner, 2014). Texts that were analysed included:

- School menus.
- Nutritional standard guidance documents.
- School food policy documents.
- Schools' web pages discussing school meal service.
- Design and build guidance for UK primary schools.
- Headteacher perception survey.

This immersive and evolving approach to fieldwork is a fundamental characteristic of IE. Rather than attempting to identify an ideal research sample in advance of the research, each informant directs the researcher to the next point of enquiry. This comes from the tenet of IE that holds the informants as experts rather than the researcher, the researcher therefore does not pre-determine the scope of the research. In practice this resulted in the research work extending to include interviews with members of the catering company that provided the school meal service for the local authority, a school architect, and several parents.

Data analysis

Most interviews were recorded and transcribed, but in some cases, participants preferred not to be recorded and notes were taken. In addition to interview data, I had notes and sketches taken during observations and coded analysis of texts that had been referenced by research informants. I used open coding to identify key themes. I was interested in exploring why people were doing things in a particular way, this could be references to documents or other 'texts', or references to barriers or issues that they were navigating. This focus is what makes IE a distinct form of ethnographic enquiry, as it seeks to understand working practices explicitly. In exploring this 'how' and 'why', I was looking for indicators of power dynamics, habitual or normative drivers, and spatial and temporal factors that informants referenced or that I observed. Because IE follows a linear process, each interview and set of site observation notes were analysed in turn. This is because each research participant's account not only adds a layer to the bigger picture but suggests the next point of enquiry for the researcher (Campbell and Gregor, 2008). At the end of the process, I looked again for common themes so that I could start to assemble a picture of how the accounts intersected. It was at this point that I wanted to take a more literal approach to 'mapping' the work as a system.

Notes, sketches, transcriptions, and textual analysis were then used in conjunction to build a picture of the work that was done and to explicate how that work was coordinated by institutional processes and shaped by power structures. Each informant's story helps the researcher to see more of the emerging 'big picture' (Campbell and Gregor, 2008:85), so the analysis of data is not so much looking for confirmation of a theme by repetition, or triangulation, but rather seeking to add each informant's account to the development of the mapped practice and looking for 'institutional hooks and traces' in the accounts of the work (McKoy in Smith 2006: 123).

Figure 3 shows a sample of the coding process. The codes both add to the emerging picture of the working practice and direct the researcher to the next stage of enquiry. In the examples shown below the two emergent codes identified common problems that required further explication:

1. Why does school food differ from the food that children are used to eating?
2. Why is there insufficient space in new school kitchens for staff to meet increased demand for school meals?

Quotation /observation	Institutional hook or trace	coding
“But what’s hard for us is we produce homemade food and I think a lot... Maybe I shouldn’t make sweeping statements, but a lot of children don’t recognise it... because it’s different from what they see at home.” (School food worker)	Don’t recognise [the food] different from what they see at home	School food differs from the food the children are used to, which makes them reluctant to choose it.
“But your parents now, such as your 20- and 30-year-olds they’ve been brought up differently and they’ve had better choice and there’s more processed foods”. (School food worker)	Younger generation of parents are used to processed foods rather than cooking from whole food ingredients (which is how school food is produced)	School food differs from the food the children are used to, which makes them reluctant to choose it.
Kitchen staff tell me that when most children in the school choose a school meal (which happens once a year for the school Christmas meal) they have to come in the night before because there isn’t time or space to prepare that many meals in the kitchen during a normal service. (Notes from conversation with school cook – new school building 2)	There isn’t enough space or time resource to deliver increased numbers of school meals.	New school kitchens are not big enough to cope with increased uptake. They struggle to manage with current uptake levels.
“If every child took a dinner there’s no way the dining hall and kitchen could cope.” ‘ (School Architect)	The kitchen and dining facilities are not designed to cope with 100% uptake of school dinners. Facilities. Look for the text that is used to calculate kitchen space?	New school kitchens are not big enough to cope with increased uptake. They struggle to manage with current uptake levels.

Figure 3: A sample of the data coding.

Figure 4 summarises some of the key findings from the institutional ethnography which will be discussed in forthcoming papers (Hawkins, forthcoming; Hawkins & Rundle Forthcoming). For the rest of this paper, I will use one of the identified problems to outline the process for creating systems maps from the ethnographic data; why does school food differ from the food that children are used to eating?

Within the institutional boundary of school food (work that was coordinated by a shared textual and regulatory framework)	Outside of the institutional boundary (work that was not coordinated by the school food textual and regulatory framework)
School food choices are partially determined by the social-spatial practices within schools (the structure of the dining hall and the social arrangement of dining). These include peer pressure and staff praise in the lunch queue, and whether there is space and time in the dining room to monitor what children eat.	Preferences for school meal uptake is partially determined by children and family's food preferences and norms.
The quality of school food preparation is shaped by the space provision for food preparation and service	
School food's ability to respond to customer demand is heavily constrained by budgets and school food nutritional standards.	

Figure 4: a summary of key findings from my *Institutional Ethnography of school food*.

I used the analysed data to produce a range of narrative accounts from the standpoint or perspective of different research informants to understand the trans local coordination of the work and the ways in which power dynamics at both an institutional scale, and beyond, operated to shape that work. These narrative accounts were focused upon distinct aspects of the wider problem of school meal uptake that would require different intervention approaches. Despite my analytical process cumulating in the transformation of my findings into a traditional 'persuasive' narrative account (Campbell and Gregor, 2008: 93), I did not feel that this format gave a clear picture of working practices because it wasn't able to capture the interdependencies of the pressures and processes that were shaping the work that I had observed. Nor did this format allow me to clearly show how power was operating within the system, because the narrative was linear and only ever able to be told from a single standpoint. I realised that I wanted to find a way to show my findings diagrammatically in the form of systems maps.

To produce the systems maps I adopted a 'system scribing' approach. Systems scribing combines the practice of scribing (the process of visually representing ideas while people talk) with systems thinking. Just as systems thinking emerged from more technical systems design disciplines, systems scribing borrowed representative tools from system engineering – using elements such as actors, frames, relationships, and annotations. (Bird and Riehl, 2019).

Scribing is most commonly used to record discussions as they are happening live, with systems scribing focusing more specifically on the ways in which discussions and accounts describe relationships and dynamic flows. In this case I did not have a scribe accompany me on my site visits and to interviews, instead I adapted the method so that I shared the narrative accounts that emerged from the institutional ethnography with a systems scribe, who created a visual representation in the form of a system diagram.

Mapping school food practices

In this section I will show two examples of the systems maps produced and discuss the benefits of this novel approach.

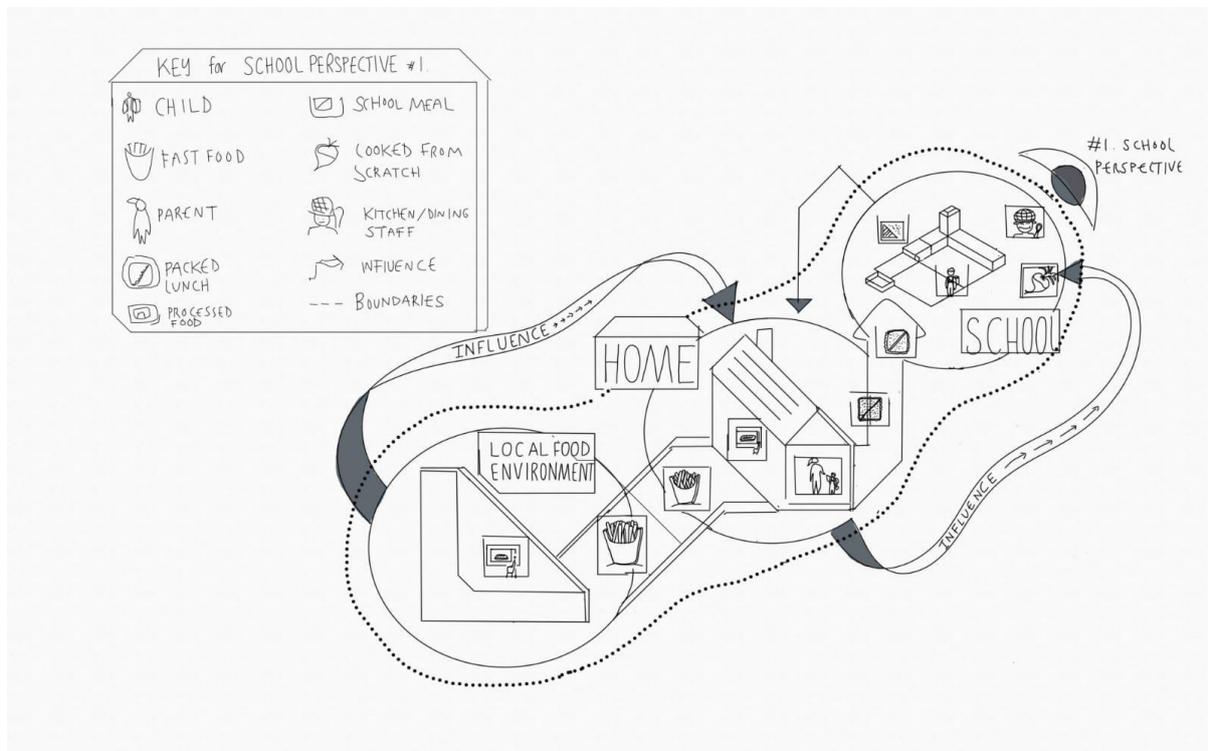


Figure 5: The school perspective on why school food differs from the food that children are used to eating.

Figure 5 is the first of the systems maps created using systems scribing approaches to interpret and visualise the findings from the IE. This system map represents the school perspective on the problem of why school food isn't what children are used to eating, which leads to low uptake. In it we see that the home occupies a central position in terms of determining the food preferences of the children, with the local food environment (represented by shops and other food outlets) playing a part, but parental choice is seen as the primary site of power and agency when setting food preferences.

The school food environment is seen as offering food that is cooked 'from scratch' (prepared from basic whole ingredients), but this is seen as contrasting with the dominant food norms set by the home food environment and supported by what food is available in the local shops and takeaway food outlets. Packed lunches represent one of the main ways in which food from the wider food environment permeates the institutional boundaries of school food, in both a literal and normative sense. The contents of packed lunches brought from home are not subject to the same nutritional regulation as school meals and so parents are free to choose what their children eat. The normative power of what children are 'used' to eating is the real challenge to the 'protected space' that the nutritional regulation of school food is supposed to provide.

Accounting for obscured powers shaping practices.

An assessment of this system map would suggest that an intervention to improve the acceptance and therefore uptake of school food should be targeted at the home, as the parent is identified as a key decision-making power in this system. However, there were contradictory accounts of who had the power to establish and modify food norms. When speaking in their role as parents, some of the school cooks conceded that they themselves felt powerless when trying to control what their

children ate and wanted to eat because of the unrestricted access they had to poor quality food in the wider food environment of their neighbourhood.

“Since my oldest two have gone up to secondary now, I’ll give them the money for their dinner and their bus fares, they’ll go in the shop and spend it. And they’ll spend it on junk. My daughter has put a big amount of weight on, and I’ve told her it’s down to eating junk, going to the co-op and getting a packet of doughnuts, not just getting one, they’re getting a packet because it works out cheaper. I hate it me, whereas when they were [at primary school] I could see what they are eating, and I knew it wasn’t junk”.

(Parent and school cook)

This frustration at the availability of unhealthy food was a recurring theme, but for me it represented a challenge because these accounts were crucial to the explication of the experience of school food work, but it was not possible to pursue the problem of changing food environments ethnographically within the time and resource constraints of the project. One of the recognised challenges of IE is knowing when to draw a line under the research. The meandering and linear nature of IE can mean there is no natural end point, and often the project boundaries are determined by the resource scope and time pressures (Taber, 2010). Here instead I applied critical bifocality as an approach for exploring more remote power structures that were acting upon food work in schools. I did this by exploring literature that tracked how the wider food system operates to shape the consumer food environment (Greenberg, 2017).

Figure 6 shows some of the organisations, institutions and structures that have been consistently shown to shape and influence the consumer food environment and shape food norms (Bernstein, 2016; Hawkes, 2005; Lang and Heasman 2015). These larger forces were hidden from the perspective of most of the people who participated in the IE, but incorporating these actors into the system map revealed a very different picture and suggests a very different intervention approach, one that does not misattribute power to parents and recognises the powers that are acting upon them in the form of product availability and marketing. This map combines my research findings with a synthesis of food system research to produce an alternative account of the power dynamics shaping school food work. This systems map is used to make the case for a reorientation of policy focus away from blaming parents and children for failing to recognise and choose school food, and to argue for policy design that addresses the ways in which the dominant food system infiltrates the supposedly protected space of school food (Hawkins and Rundle, forthcoming).

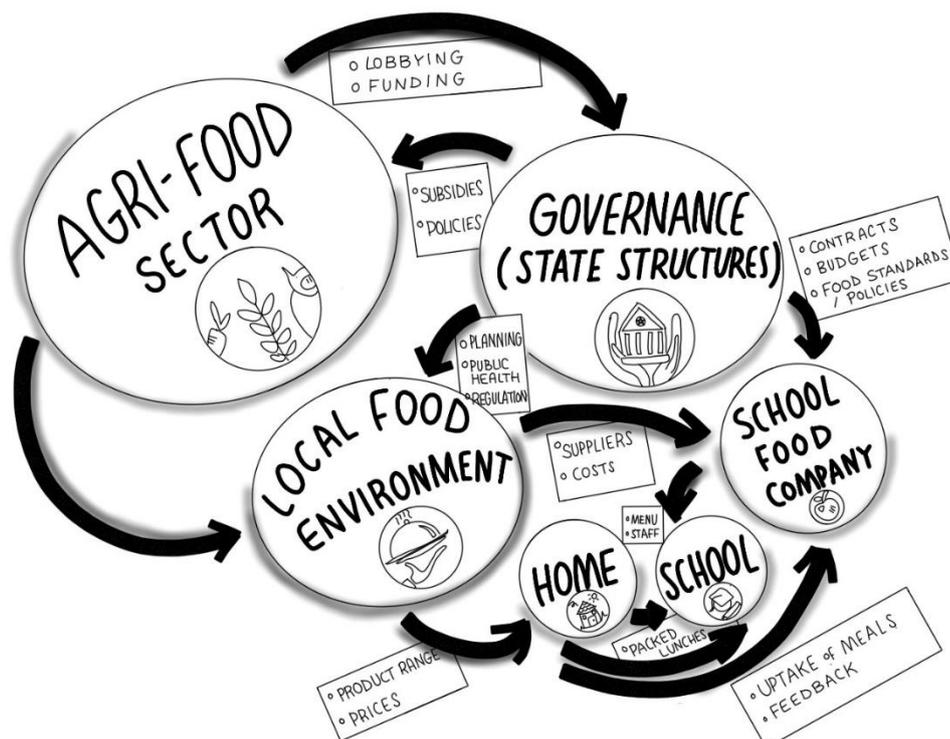


Figure 6: The wider food system shown as acting on the school food environment.

Discussion

I was tasked with exploring the working practices around school food with the aim of developing a set of recommendations that would support an increase in school meal uptake. In this context, working practices extended to conceptualise school children’s interactions with the school food processes as work. The prevalent discourse in school food policy and research literature is that school meals are nutritionally balanced and affordable, with families on low incomes able to access free school meals (Department for Education, 2016: 4; Adamson, 2013; Nelson, 2006). The assumption is often that the nutritional regulation of school food will be appealing to parents and that participation in school meal rituals will be seen as socially as well as nutritionally beneficial (Andersen et al 2015; Department for Education, 2016; Daniel and Gustafsson, 2010; Fletcher et al, 2014; Best, 2017). The fact that school meal uptake remains below target numbers is therefore a cause for concern for policy makers and school food professionals.

To develop recommendations to change levels of school meal uptake, I needed to suggest intervention points in the current working practices, and so needed to map not only the complex working practices but also account for the powers that shaped them (Taber, 2010). When exploring the school food context, I found that institutional processes were often failing under the exertion of pressure from beyond the institutional boundaries. This represented a challenge both in terms of the scope of the research, and how to visualise these power dynamics in relation to school food. Adopting a system thinking approach to data analysis and visualisation allowed me to incorporate power relationships beyond the scope of my fieldwork.

Combining IE and Systems Thinking approaches helped me to explicate and articulate the relationship between distant, powerful, and conceptually vast processes like the global food system, and the day-to-day performance of school food practices by describing them as part of a complex system. This approach recognises that institutions are not closed systems with clearly delineated boundaries and that institutional power does not exist within a vacuum.

The food supply chain has long been conceptualised as a highly complex system, especially since the acceleration of the global market that accompanied developments in industrial agriculture, food processing and financialization since the second world war (Greenberg, 2017; Hawkes, 2005; Lang and Heasman, 2015). What my novel methodological approach enables is the incorporation of school food into the wider food system. Once the system boundary is redrawn it becomes clear that far from existing in a protected annexe, school food was actually operating as a weak competitor within the wider food system. The visualisation approach clearly shows the power dynamics included those being exerted by global players in this food system, that were acting upon children and parents and changing food environments and norms. This allows me to challenge the dominant policy narrative, arguing instead that far from being given power by the nutritional regulation of school food, it is having its ability to compete constrained by this regulatory framework (Hawkins and Rundle, Forthcoming). This argument is strengthened by the visual representation as a system map because it makes it much harder to suggest interventions aimed at persuading parents and children to eat differently, without addressing the larger powers that are also persuading parents and children to eat in a certain way.

Conclusions

The location of school food outside of the dominant food system by scholars and policy makers afforded it an advantageous position in the battle against the perceived decline in children's diets and concerns about the negative impact this was having on health (Evans et al, 2016). Through the development of this methodological approach, I have been able to reincorporate school food into this dominant food system and show this as a system map. This visualisation makes it clear that there are very large and powerful forces shaping the consumer food environment and altering food norms (Greenberg 2017, Winston 2013), and that an intervention that does not address these forces is unlikely to succeed. Whilst the scale of the task facing school food looks daunting when represented this way, I argue that it is important to visualise this complex system so that we can start to attribute power more accurately and stop expecting small and relatively powerless institutions such as schools and the home to solve the public health problems created by a powerful global food system.

In creating these systems diagrams to represent the 'mapped practices' revealed through ethnographic methods, the intention is not to present a fixed model of a practice, but to visualise the complexities, dynamics and interrelationships between actors, spaces, and practices as they were revealed to me by my research informants, and to recognise power differentials within these systems. The dynamics of power of course remain contested, but they are experienced and articulated as having a measurable impact through the accounts provided by informants, usually expressed as their sense of frustration or powerlessness.

My work makes a novel contribution in three ways:

1. It offers a new way of analysing and presenting the findings from IE research in a systems diagram to allow for a more holistic reading of the complexities and trans-local connections articulated by research informants.
2. It offers a way of visualising and accounting for the power dynamics that shape everyday practices, including power dynamics that are obscured and experienced as a sense of 'powerlessness' by research participants.
3. It allows for the application of IE in a wider range of research contexts by offering a more accessible and concise way of visualising findings that can inform programmes of evaluation and change.

IE as a research approach seeks to free the complex reality of work as it is performed from the rigidity of the 'ideological account' of how that work is supposed to be performed. Findings are

usually written up as narrative accounts that reveal hidden work processes and offer a more detailed and nuanced explication of why work processes happen as they do and how this work is coordinated. But with a detailed narrative account it is not always easy to visualise these connections or to account for the interconnectedness and power relationships of actors and agents within a system. Systems Thinking provides both a visual model for communicating the coordination of actors and agents within a network, and it also provides an analytical and conceptual model for developing and proposing interventions to bring about change.

Both IE and Systems Thinking work to explicate day to day lived experiences by helping to reveal the location and dynamics of power within complex systems. This compatibility supported the development of an analytical model that allowed visual as well as conceptual mapping of working practices (Campbell and Gregor, 2008; Egan, 2019). My work proposes a new way of interpreting and presenting findings from ethnographic research that can be used to complement or summarise the more traditional narrative account. This visualisation approach allows the reader to explore complex system of practices and experiences from a number of different perspectives and helps to suggest appropriate intervention points when designing programmes of change (Christens et al, 2007). It is my hope that evolving the ways in which research findings from IE are communicated will make this important research methodology applicable in a wider range of research contexts, bringing the benefits of deep qualitative research to a wider audience.

Declaration of conflicting interests: I can confirm that there are no conflicting interests.

References

- Adamson A, Spence S, Reed L, Conway R, Palmer A, Stewart E and Nelson M. (2013). School food standards in the UK: Implementation and evaluation. *Public Health Nutrition*, 16(6): 968-81.
- Allen MW, Armstrong DJ, Riemenschneider C K, and Reid M F (2006). Making sense of the barriers women face in the information technology work force: Standpoint theory, Self-disclosure, and causal maps. *Sex Roles*, 54(11-12): 831-844.
- Andersen SS, Holm L and Baarts C. (2015). School meal sociality or lunch pack individualism? using an intervention study to compare the social impacts of school meals and packed lunches from home. *Social Science Information*, 54(3): 394-416.
- Ashutosh A (2010) *Crossing Streets, Crossing Nations: South Asian Transnational Identities in Toronto*. PhD thesis, Department of Geography, Syracuse University.
- Bernstein H (2016). Agrarian political economy and modern world capitalism: The contributions of food regime analysis. *The Journal of Peasant Studies*, 43(3): 611-647.
- Best AL (2017). *Fast food kids: French fries, lunch lines and social ties*. New York: NYU Press.
- Billo E and Mountz A (2016). For institutional ethnography. *Progress in Human Geography*., 40(2):199-220.
- Bird K and Riehl J (2019) Systems Scribing: An Emerging Visual Practice Available at: www.kelveybird.com (accessed 13 December 2022)
- Briggs L and Lake AA (2011). Exploring school and home food environments: Perceptions of 8-10-year-olds and their parents in Newcastle Upon Tyne, UK. *Public Health Nutrition*, 14(12): 2227-2235
- Campbell ML and Gregor FM (2008), *Mapping social relations: A primer in doing institutional ethnography* Toronto: UTP
- Chandon P and Wansink B (2012), Does food marketing need to make us fat? A review and solutions. *Nutrition Reviews*, Volume 70 (10): 571-593.

Christens BD, Hanlin CE, and Speer, PW (2007). Getting the social organism thinking: Strategy for systems change. *American Journal of Community Psychology*, 39(3-4): 229-238.

Daniel P and Gustafsson U (2010). *School lunches: Children's services or children's spaces? Children's Geographies*, 8(3): 265-274.

Del Casino V, Grimes AJ, Hanna SP and Jones JP (2000) Methodological frameworks for the geography of organizations. *Geoforum* 31: 523–538.

Department for Education (2016). *School food in England: Departmental advice for governing boards*. London: UK Government.

DeWalt KM and DeWalt BR (2002). *Participant observation: A guide for fieldworkers*. Oxford: AltaMira Press.

Egan M (2019). *Guidance on systems approaches to local public health evaluation part 1: Introducing systems thinking*. NIHR School for Public Health Research.

Evans C, Mandl V, Christian MS and Cade JE (2016). Impact of school lunch type on nutritional quality of English children's diets. *Public Health Nutrition*, 19(1): 36-45.

Fletcher A, Jamal F, Fitzgerald-Yau N and Bonell C. (2014). 'We've got some underground business selling junk food': Qualitative evidence of the unintended effects of English school food policies. *Sociology*, 48(3): 500-517.

Foster-Fishman PG and Behrens TR (2007) Systems change reborn: Rethinking our theories, methods, and efforts in human services reform and community-based change. *American Journal of Community Psychology* 39(3/4): 191-196.

Giddens A (1984) *The Constitution of Society: Outline of the Theory of Structuration*. Cambridge: Polity Press.

Greenberg S (2017). Corporate power in the agro-food system and the consumer food environment in South Africa. *The Journal of Peasant Studies*, 44(2): 467–496.

Harman V and Cappellini B (2015) Mothers on display: Lunchboxes, social class and moral accountability. *Sociology*, 49(4): 764-781.

Hawe P and Riley T (2005) Ecological theory in practice: Illustrations from a community-based intervention to promote the health of recent mothers. *Prevention Science*, 6(3): 227-236.

Hawe P and Ghali L (2008) Use of social network analysis to map the social relationships of staff and teachers at school. *Health Education Research*, 23(1): 62-69.

Hawe P, Shiell A and Riley T (2009). Theorising interventions as events in systems. *American Journal of Community Psychology* 43(3-4): 267-276.

Hawkes C (2005) The role of foreign direct investment in the nutrition transition. *Public Health Nutrition* 8(4): 357-365.

Hawkins (2023) Spatial barriers to the effective delivery of school food policy in UK primary schools: Findings from an Institutional Ethnography. *People, Place and Policy*.

Hawkins and Rundle (forthcoming) School Food Hero and the Battle of the Food Giants. *Social Science and Medicine*.

Impact on Urban Health (2022) *Investing in Children's Future: A Cost Benefit Analysis of Free School Meal Provision Expansion*. London: Impact on Urban Health. Accessed at [\(https://urbanhealth.org.uk/insights/reports/expanding-free-school-meals-a-cost-benefit-analysis#:~:text=The%20breakdown%20of%20total%20discounted,%3A%20%2%A312m%20\(0.03%25\)\)](https://urbanhealth.org.uk/insights/reports/expanding-free-school-meals-a-cost-benefit-analysis#:~:text=The%20breakdown%20of%20total%20discounted,%3A%20%2%A312m%20(0.03%25)) (last accessed 27/11/23)

- Jaime PC and Lock K (2009). Do school-based food and nutrition policies improve diet and reduce obesity? *Preventive Medicine*, 48(1): 45-53.
- Kelly M and Barker M (2016). Why is changing health-related behaviour so difficult? *Public Health* 136: 109–116.
- Lang T and Heasman M (2015) *Food wars: The global battle for mouths, minds and markets* (Second edition) Oxon, Routledge.
- Mackenzie M and Blamey A (2005) The practice and the theory: Lessons from the application of a theories of change approach. *Evaluation* 11(2): 151-168
- Morrison M (1996) Sharing food at home and school: Perspectives on commensality. *The Sociological Review* 44(4): 648-674.
- Murray OM (2022) Text, process, discourse: doing feminist text analysis in institutional ethnography, *International Journal of Social Research Methodology* 25:1 45-57.
- Nelson M, Nicholas J, Suleiman S, Davies O, Prior G, Hall, L and Poulter J (2006). *School meals in primary schools in England*. (Research Report No. RR753). Nottingham: DfES Publications.
- NIHR CLAHRC north west coast (2017) Health inequalities assessment toolkit (HIAT). (Accessed 20 October 2020).
- Peirson LJ, Boydell KM, Ferguson HB and Ferris LE (2011) An ecological process model of systems change. *American Journal of Community Psychology* 47(3-4): 307-21.
- Philo C and Parr H (2000) Institutional geographies: Introductory remarks. *Geoforum* 31: 513-521.
- Reid J and Russell L (2017) *Perspectives on and from institutional ethnography*. Bingley, England: Emerald Publishing Limited.
- Savin-Baden M and Major CH (2013) *Qualitative research: The essential guide to theory and practice*. London: Routledge.
- Smith D (2005) *Institutional ethnography: A sociology for people*. Lanham: AltaMira Press.
- Smith DE (2008) From the 14th floor to the sidewalk: Writing sociology at ground level. *Sociological Inquiry* 78(3): 417-422.
- Smith DE and Turner SM (Eds) (2014). *Incorporating texts into institutional ethnography*. Toronto: University of Toronto Press.
- Southerton D (2013) Habits, routines and temporalities of consumption: From individual behaviours to the reproduction of everyday practices. *Time and Society* 22(3): 335-355.
- Taber N (2010) Institutional ethnography, autoethnography, and narrative: an argument for incorporating multiple methodologies. *Qualitative Research* 10(1): 5–25.
- UK Gov (2014) *School food standards: A practical guide for schools, their cooks and caterers*. (Guidance). Available at <https://www.schoolfoodplan.com/wp-content/uploads/2015/01/School-Food-Standards-Guidance-FINAL-V3.pdf> (accessed 13 December 2022)
- Van Cauwenberghe E, Maes L, Spittaels H, van Lenthe FJ, Brug J, Oppert, J and De Bourdeaudhuij I (2010). Effectiveness of school-based interventions in Europe to promote healthy nutrition in children and adolescents: Systematic review of published and ‘grey’ literature. *British Journal of Nutrition* 103(6): 781-797.
- Vannini P (2013) Popularizing ethnography: reflections on writing for popular audiences in magazines and blogs. *Qualitative Research* 13(4): 442–451.

Winson A (2013) *The Industrial Diet: The degradation of food and the struggle for healthy eating*, New York, New York University Press.

School Food Hero and the Battle of the Food Foes: a story of public health policy, power imbalance and potential

Authors: Anna Hawkins and Dr Rachel Rundle

Abstract

This paper explores the issue of school food policy impact from the perspective of school food workers to offer an alternative account of why school food may not be having the desired impact on child health or food choices. Drawing upon the findings from an institutional ethnography carried out in three UK primary schools, we argue that school food is being asked to perform an unrealistic task of luring children and families away from more unhealthy food options, without being given adequate resources or powers to do this job effectively. We theorise that the narrative of school food as a 'saviour' needs to be revisited in light of the power imbalances within society that structure dietary choices, presenting this in the form of a story about the evolution of the school meal set against a shifting food environment. We conclude with recommendations for policy makers who want to see school food have a greater impact in improving child health.

Key words: School food, public health, food systems, child health, nutrition

Introduction

It is half past eight in the morning and everywhere children are preparing to cross the threshold of their school gates, into a space that should offer them protection, emotional support, stimulation, education, care and nourishment of mind and body. Children will arrive in various states of hunger and nourishment, some will bring food from home, and some will not yet have eaten and will be looking forward to morning snack. Schools are evaluated and monitored for the difference that they make to the lives of their pupils, mitigating the enormous inequality that exists in communities, adding value, levelling up. When the political and economic climates worsen and quality of life is threatened, it is schools that are asked to carry that extra burden (Impact on Urban Health, 2022).

School food, and more specifically the lunchtime school meal, is increasingly portrayed as a hero rescuing children from the evils of the modern diet by providing them with the nutrition they desperately need and won't get elsewhere (Mazarello, et al, 2015:2; Food Foundation, 2022). Dining rooms are asked to foster the sense of community that has been eroded by the fragmentation of traditional family mealtimes. School is where children should learn how to identify and enjoy healthy fruits and vegetables and learn how to budget and cook, all the things that people have forgotten how to do since the rise of microwave ready meals and fast-food deliveries, ultra-processed snacks, super-sized portions eaten alone in front of a screen (Illøkken et al, 2021; Dimpleby & Vincent, 2013). Many countries around the world have policies and rules about what food is and isn't allowed in schools, but notably many don't and some use school catering outlets as an important supplementary income stream to counter constant budget cuts and escalating costs (Fernandes, 2013; Devi et al, 2010)

The case against the modern diet is damning and there is broad consensus in the evidence in favour of nutritionally balanced meals served in socially nourishing spaces (D'Angelo et al, 2020; Farthing 2012), and yet there is a dark truth lurking in this story, over in the corner of the dining room by the waste bins overflowing with uneaten broccoli and apple cake. Despite the legislative

and policy framework surrounding school food, despite the headline grabbing campaigns and powerful evidence base supporting nutritional regulation, children's health is not improving, in fact their diets are getting worse whilst the uptake of school meals dips and falters (Kitchen et al, 2010; Black et al, 2017). There have been international trials involving school meals that seek to understand why the hero appears to be in trouble, but the findings are complex and often offer an opaque or contradictory picture about marginal benefits and potential policy failure (D'Angelo et al 2020; Kitchen et al, 2010; Impact on Urban Health, 2022).

And yet there is no appetite to abandon the school meal and put the hero out to pasture, school food has an even more important job to do now that so many more families are struggling to heat their homes, to afford food or the basic costs of living a decent life. Now more than ever people are looking to the school meal to save the day, policy makers, school cooks, head teachers, government ministers, nutritionists, doctors and dentists (Impact on Urban Health, 2022; Farthing, 2012). But why is the expectation so high when the evidence of success is so sparse? How well equipped is our hero to tackle a foe whose power and popularity only ever seem to grow?

We present the story of the rise and fall of the school meal, showing how it has always carried the burden of rescuing precious and vulnerable members of our society from an ever-evolving foe of diet related ill health (Dimpleby & Vincent, 2013; Kelly & Barker, 2016). We will trace school food from its origins as a response to the malnutrition and poverty of the early 20th century, follow its fall from grace in the maelstrom of deregulation, market competition and food regime change of the mid to late 20th century (Lang & Heasman, 2015). During this time health issues related to hunger made way for ones linked to excessive and inappropriate rather than insufficient food intake (Stuckler et al, 2012; Kelly & Barker, 2016). Through to the rehabilitation of the hero narrative in the early 21st century, when school food was asked to clean up its act and fix the damage that had been done because of deregulation. We will arrive at the present day and tell the story from the perspective of the people who are right now working in school kitchens and dining rooms, knowing the weight of the burden they carry, wanting to save the day, but find themselves fighting a losing battle against an ever more powerful, agile and popular foe.

We end the story, not with a happy ever after, but with a suggested roadmap to a better future, making some radical but evidence-based suggestions for how school food can stop trying to play by the rules set by its foe, and instead be armed with the tools it needs to stand firm and fight for the health of the children, families and communities that it cares so much about.

This paper offers an important and novel contribution by contrasting an analytical chronology of the school food hero narrative as it appears in policy and research with the lived experiences and accounts of people working in school food gathered through ethnographic fieldwork. This work aims to show the reality of trying to implement ambitious policy aims within a highly competitive food environment in which school food has neither the powers, budgets nor freedoms to adequately compete. We conclude by making policy and practice recommendations for how school food could once again become an impactful public health intervention.

The UK Policy Context

The authors of this paper come bring two different perspectives to the framing of the school food problem, one from Public Health, and the other from Social Science. The origin story of our school food hero can be found in historical reviews of school food policy and provision in the UK (Gillard, 2003; Evans & Harper, 2009; Rose et al, 2019). School food provision has been a central tenet for policies aiming to improve children's health outcomes, from the emergence of the school meal in the early 1900s as a means of addressing severe malnutrition, to the statutory requirement for meal provision and the introduction of nutritional standards by the 1940s. These early developments saw school food fulfil its hero status with improvements in nutrition and reduction in childhood morbidity and mortality. The school food at the time was required to be "substantial

enough” to be deemed the “main meal” of the day (Education Act 1944 reviewed in Gillard, 2003). Through the 1950s and 1960s school food was provided in an environment that offered few alternatives however, at a societal level, the outsourcing of food production saw corresponding shifts in food culture and habitual food behaviours within society (Mingay et al 2021). The emergence of our modern food system presented a challenge to our school food hero: a direct challenge with more alternatives available and an ideological challenge where choice became more desirable than good quality provision. The introduction of an unregulated school meals market in the 1980s (Rose et al 2019) saw the removal of nutritional standards and changes in the structure of school food provision. Fast food-style service, the proliferation of snack items, and allowing single item purchases, such as a bowl of chips, rather than whole meals which saw our hero’s powers begin to wane. This fall from grace was forecast in the ‘Black Report: Inequalities in Health’ published in 1980, that warned poorer child health outcomes, such as obesity and tooth decay, would result from the removal of school food standards and increasing children’s autonomy in food choice (DHSS, 1980; Evans and Harper 2009).

The journey of our school food hero, from denigration in the 1980s and 1990s, and the road to redemption in the early 2000s, saw a shift from a profit maximising provision of high fat, sugar and salt (HFSS) options to, once again, the prioritisation of nutritional standards and a re-focussing on the quality of food provided (Rose et al, 2019). The Caroline Walker Trust (1992) produced revised nutrient guidelines in the early 1990s, but these were not mandatory, nor fully realised, until 2005 when policy commitment for improving school meal standards came in “Choosing a Better Diet: a food and health action plan” (DH, 2005) and the School Food Trust was established to provide practical support and guidance for their implementation. This was welcomed by public health teams and many local authority providers at the time, who had been working behind the scenes to improve school meal uptake against the backdrop of an all-time low for public trust in school food.

Redeeming school food from its nadir required our superhero to adapt, revitalise and re-charge their superpowers. Food-based school meal standards were introduced in 2009 and with the subsequent publication of the School Food Plan (Dimbleby & Vincent, 2013) the vision and road map for redemption were set out. The role that the multiple stakeholders within the school food system all have to play – the cooks, lunchtime supervisors, school staff, leadership teams and parents –and the resource implications were acknowledged. Like all good super-heroes, the need for a back-up team and holistic support (practical, financial, and ideological) was imperative if the powers of our school food hero were to regain their strength. Providing more nutritious good quality food and making this more accessible is only part of the story.

Different perspectives on school food and nutrition policy not only show us how our school food hero has evolved but offer insights into the future, where policy sets the direction of travel, but the real power comes from improved quality of provision and the collective efforts of stakeholders. Yet, these are not the only consideration that will see the realisation of these powers in improved child health outcomes there is one vital element missing in our story; that is an understanding of the evolution and characterisation of our school food hero’s foe.

The Evolution of a Foe.

The World Health Organisation’s 2021 review of contextual factors influencing the implementation of school food and nutrition policies recognises the complexity of the food systems and other external factors impacting on their success. The foe against which our school food hero is embattled is characterised by these collective influences – a food system shaped by multi-national food giants, proliferation of highly palatable ultra-processed food that are cheap and readily available, with choice maximisation at every opportunity. The evolution of school food policy when contrasted with such food regime analysis (WHO, 2021) shows us how our food hero’s powers have diminished, fighting an increasingly powerful foe that is causing damage to children’s health

whilst also growing in popularity. The foe has weaponised food choice, with companies offering a myriad of choices making sure that we are always more likely to choose from them (Lang & Heasman, 2015; Russi, 2013; Winston, 2014). Food multinationals sponsor sporting events and diet programmes and provide us with advice and guidance about moderation in the small print, but in every other way they actively encourage excessive and harmful consumption of food that is proven to provide very little nutritional benefit (Cullerton et al, 2022). We know that food multinationals are powerful players in global markets with huge political lobbying power. We can evidence the harm that the transformation of the food industry towards ever more ultra-processed, calorie dense foods has had on public health, how diseases follow the extension of these dietary patterns and norms around the globe (Kelly & Barker, 2016; Winston, 2014).

The transformation of food from locally produced whole ingredients to a global market in ultra-processed food is well known, but it is not a popular message for the public to absorb because we also know is that people love to choose ultra-processed energy dense food. It is popular, affordable and aggressively marketed, especially to children and in communities where other treats and rewards may be beyond reach (Cullerton et al, 2022) These are foods that children choose for themselves because they look appealing, taste nice and are easy to consume. We know that packed lunches are often filled with food that is marketed as appropriate food for children, with elevated nutritional claims, but is ultra-processed and full of things to make it palatable (Parnham et al, 2022). It is often affordable, and it will usually be what the child wants because the food industry is very clever about marketing to children (Ertz et al, 2022; Kraak et al, 2015).

This food foe, the nemesis of our school food hero, is not a single entity but a myriad of systemic oppositional factors that compete for children's tastes and preferences, shaping their choices from an early age. When we talk to the people working in school kitchens, in dining rooms, in catering companies and in school offices they talk a lot about choice, with choice being both an area of concern but also a priority. It is seen as important to provide children and families with choice at school, even though the choices that children and families make are often seen as problematic and wrong (Ravikumar et al, 2022).

Methodology

This paper draws upon findings from an Institutional Ethnography (IE) carried out in 3 UK primary schools over a two-year period with the aim of gaining insights from school food workers about the relatively low uptake of school meals, and how this could be improved.

IE is an approach to qualitative research that was developed by Canadian Sociologist Dorothy Smith which seeks to uncover and understand the hidden working practices that shape the way that everyday life is structured (Smith, 2005). It focuses upon how people interpret and apply messages about how work 'should' be done and explores that variation between the official account of the work and what actually happens in practice. This makes it a valuable research approach when seeking to understand poor policy outcomes, such as the failure of improved school food policy and practices to make a significant impact on meal uptake or child health.

IE uses a range of common data gathering methods such as semi and unstructured interviews, observation and content analysis. Research participants are classed as 'expert informants' who not only provide insights, but largely shape the direction of the research by suggesting ongoing points of enquiry. Because of this approach IE does not so much seek to confirm truths by triangulation of a number of accounts, but instead uses each informant's account to build a picture of the working practice. The approach has been used in a number of contexts including mapping the experiences of doing care work, the work that mothers do to support schools, the experience of female academics attempting to achieve 'ideal academic' status, and the hidden work of managing health conditions (Smith, 2005; DeVault, 2013; Lund, 2012; Smith & Turner, 2014).

The data gathered from the ethnographic fieldwork was coded, analysed and interpreted using systems thinking approaches which allowed for the creation of systems maps of the uncovered practices to complement the more traditional narrative account approach found in IE.*

Sampling

We were given access to three primary schools (pupil aged between 4-11) via a local government school food officer. The schools had several common characteristics such as being of a similar size (around 500 pupils) and serving a similar demographic population (around 50-60% of children in the schools were entitled to free school meals). Despite having similar socio-economic profiles, the schools had different approaches to school food service and different kitchen and dining spaces. This sampling approach allowed analysis to focus upon the differences in meal service rather than the ways in which different populations behaved in a similar school food environment.

Data gathering

Following the leads set by research informants, interviews were conducted between 2017 and 2019 with:

1. Three School business managers or deputy heads (with lead responsibility for school food)
2. Three School Head cooks
3. Three Kitchen support staff
4. One Catering company manager
5. One local authority school food officer
6. One former LA school architect
7. Three parents.

In addition to this I carried out content analysis on the following 'texts' that were referenced by research informants:

1. School meal menus and recipe guides.
2. School food nutritional standard guidance documents
3. School food policy documents
4. Schools web pages discussing school meal service.
5. Design and build guidance for UK primary schools.
6. Headteacher perception survey

I also participated in observation of working practices including meal production and service, and created sketches and notes based upon my observations.

Data analysis and presentation.

Notes, sketches, transcriptions, and textual analysis were coded and subject to thematic analysis and then used to build a picture of the work that was done and to explicate how that work was coordinated by institutional processes and shaped by power structures, helping to build a 'big picture' of the working practices (Campbell and Gregor, 2008:85)

From the analysed data we created a range of narrative accounts from the standpoint of different groups of informants, such school kitchen staff and parents. In addition to these accounts, we worked with a systems scribe to translate the accounts into systems maps. Systems scribing combines elements of live scribing (the process of visually representing ideas while people talk) with systems thinking. Systems scribing borrows representative tools from system engineering – using elements such as actors, frames, relationships, and annotations. (Bird and Riehl, 2019). The systems maps and a deeper explanation of the method can be found in Hawkins (forthcoming).

Findings

The following three themes emerged from the qualitative fieldwork with school food workers.

- Children navigating the choices available at lunchtime in a way that misses the nutritional opportunities of the school meal.
- School food not being chosen even when it is free.
- The range of choices schools have to offer putting pressure on the resources of school food staff and facilities.

Choosing badly from the school food offer

Cooks in school kitchens tell us that even though they have always cooked healthy and tasty meals for their own children, when they are old enough to go out into the world, they often make bad choices, and they feel powerless to do anything about it. They tell us that it is hard to get children in the lunch queue to choose vegetables, that they often reject the fruit. They often find the choices that the children make when navigating the school meal offer frustrating. They have worked so hard to comply with the nutritional regulations, following recipes, meal plans and presentation guides to the letter, but the children don't choose well, and this leads to waste, both in a literal sense but also a waste of opportunity to make the difference that they know a decent hot meal can make.

“Do you know when kids do have everything on their plates.... and their dinner does look lovely. But when they're not, and they're not having vegetables, they're just having meat and potatoes, there's no colour. You're not getting vitamins out of sausage and mash, are you?” (School Cook 2)

Some children they know will take everything on offer, but from the range of options available cooks, teachers and parents know that it is possible for children to choose badly. Often children will choose a limited selection or take everything and then only eat the sausages before dumping the rest in the bin. A school cook tells me that they know which children are really hungry because they take everything on offer, and they eat it all.

All the school cooks know that Friday is a busy day because it is the one day that they can serve chips. On a Friday there is up to a 60% increase in meal uptake. Some families who are struggling to pay for school meals will make sure that their child can have school lunch on a Friday. Only choosing a school meal on the one day that the school serves chips is seen as both a bad choice and completely understandable, because everyone likes chips.

Some parents know that their child will never choose well, and so they remove choice by giving them a packed lunch. Some people want to make their children happy at lunchtime so fill a box with all the colourful and tasty things that they know their child will like, it is an act of love for some, it is an act of desperation for others. They are terrified of their child going hungry, because we have been told a child going hungry is a terrible thing, better that they eat anything rather than nothing.

“[parents] are terrified of them not eating, they don't like it so they're not going to eat it. They want to give them something they're going to like and know they're going to eat, but the problem is that the things they are enjoying and are eating are completely and utterly inappropriate” (School 3 Deputy Head)

Not choosing a school dinner, even when it is free.

What everyone working in school food wants is for all children to choose a school meal. Currently not enough families do, and this is a problem because it means that budgets are too low to benefit

from economies of scale, and it also means that lots of food is coming into the school and competing with the school meal offer.

“I’ve got a nephew who comes to this school and he loves having his dinner here, but then, because some of his friends have packed lunches and he was seeing them with chocolate bar and packet of crisps – now he’s wanting packed lunch and they’re letting him have packed lunch and he qualifies for free school meals as well so why go to expense of packed lunch, filling him up full of rubbish, when he could have a perfectly good meal with a nice dessert?”(School Cook 3)

Schools have spent a lot of time and effort trying to win parents back since meal quality has been improving, showing them how much things had changed and improved. But schools tell us that some parents just won’t listen, they don’t want to try, they continue to reject the school food offer no matter how many taster events they hold or colourful and creative menus they publish.

“we’ve done taster days with parents of ones who have dinners, yeah. I mean I’ve even stayed and done taster sessions at parents’ evenings and, they’re not bothered, it’s like I said – they’re fussy!” (School cook 4)

A significant proportion of parents are rejecting school meals even when they are free. This is seen as a baffling choice on the one hand, but school food workers are not completely surprised, even though they are frustrated. They think they know why a lot of parents and children continue to reject school food and they think it is because the food on offer isn’t familiar to a lot of people, it isn’t the kind of food that children are used to eating and it is seen as a risky and undesirable choice for parents to make.

“We try to get the parents involved which is very difficult. They are not open at all to tasting anything or they are really negative about some of the menu items even though the children are really open to them, they’ll tell them something is disgusting you don’t like it.” (Deputy head school 3)

Sometimes this is because the food that is cooked at home is not like the food on offer in schools, and parents think their food is better and that their children are more likely to eat it. They want to send familiar and known food for their children to eat and as much as it pains them to admit it, sometimes the school staff know that the lunch boxes some children bring are excellent, but they would still prefer the parents to choose a school meal because by withdrawing their custom these parents just make it harder for schools to keep their meal service viable.

Often the contents of packed lunches are seen as a very bad choice, with lots of frustration expressed at parents for making such poor food choices on behalf of their children. This belief is backed up by plenty of research comparing the contents of packed lunches with school meals and confirming what people working in school food know already, packed lunches contain foods that would not be allowed to be served from school kitchens. Salty, sweet, fatty, calorie-dense and ultra-processed foods (Parnham et al, 2022; Stevens et al, 2013) Foods that children choose because they are engineered to appeal to them and are easy to eat, but which are driving lots of health problems. Some kitchen staff despair at packed lunches and resent having to accommodate them, they talk about children bringing in chocolate and sweets as bad influencers that then make other children less likely to eat the healthy foods on offer, as though these packed lunches are reminding children of what they are missing.

“You don’t want to be eating your school meal and your friend has got three chocolate bars and a packet of crisps, because you’re almost seeing what you could have had!” (School 3 deputy head)

Some schools try to implement packed lunch policies, but what do you do when faced with a child bringing in a non-compliant packed lunch? Do you remove it and leave the child with no lunch, or do you send a note home? School staff don't know what to do, they know some schools have been brave and banned packed lunches completely when meals are free, but you can't force someone to pay for a meal, and you can't let a child go hungry and you can't eject them from the school premises at lunch time because of the contents of their packed lunch. There is a sense of powerless and hopelessness aimed at parents who seem entrenched in bad dietary choices. Schools blame parents for making bad choices, but when they speak as parents those same people acknowledge that they feel powerless to control the choices that their children are making.

"Since my oldest two have gone up to secondary school now, I'll give them the money for their dinner and their bus fares, they'll go in the shop and spend it. And they'll spend it on junk. My daughter has put on a lot of weight, and I've told her it's down to eating junk, going to the shop and getting a packet of doughnuts, not just getting one, they're getting a packet because it works out cheaper. I hate it." (School cook 4)

Choice offer of school meals being a problem from a resourcing perspective.

When people in schools talk about choice, a lot of the time they see choice as both a good thing and a bad thing. On the one hand they feel that lots of people can't be trusted to choose well, but they also believe that offering a good choice of meals is an important way to win customers and make sure that children eat something.

"I just think it's making the kids more fussy, I think kids these days are a lot more fussy than when I was younger – if you've got it on your plate, you either ate it or you didn't – and if you didn't eat it you were hungry. Whereas now because they've got that choice so they shouldn't be going hungry – and I understand that, I do understand that they're getting that choice, so they don't go hungry." (School cook 2)

So, whilst they believe that choice is important it also causes a lot of practical problems in the day-to-day work of school food. With up to 4 main savoury options available each day, there is a lot of modelling work to be done to anticipate what children and families will choose so they can be prepared and have the right stock in. But in most schools the choices are not confirmed until the day, so whilst they can predict based upon past trends, there is still an element of risk and uncertainty about how many main meals, sandwiches or baked potatoes will be chosen. This uncertainty is absorbed and managed by a highly knowledgeable and agile kitchen staff who know their children and can anticipate which dishes will be chosen and which won't and accept this as a necessary part of the job. They show me how they divide up the staff resource, kitchen space and storage space so that they can handle the range of dishes that they have to make each day. This is normal for them, and some cooks tell me they are preparing multiple meals at home every day too, just to cater for the wide range of needs and appetites of their families, worried that if they don't their children will go out and get fast food instead.

"I like my kids to have healthy meals so say if one will like one thing that's healthy but the other one doesn't, it's just to make sure they do get healthy food, that's one of the reasons that I do separate meals." (School cook 3)

Whilst there is a lot of pride in the range of choices on offer, I also hear about the impact it has. In some of the newer school buildings the kitchen space is so small that they struggle to find space to store all the food they need to accommodate such a range of choices. In the older school building the kitchen was designed for cooking in a different era, when most children had a school lunch and everything was cooked from scratch and it took twice as many staff to do the work in the time

available, now they rely upon yoghurt pre-mix powder that has a longer shelf life than fresh and use time saving pre-chopped and frozen vegetables. These staff know they are lucky to have so much space to work in, but they are also working at capacity and the head cook comes in earlier than their contracted hours to manage the stock take and ordering required for such a complex menu. Most of the kitchen staff remember a very different kind of school meal, when they were at school there was just one option and everyone had to eat it, that was normal back then and was how things were at home too. But that approach isn't seen as realistic or desirable anymore.

The way choice is being presented and managed in school kitchens is impressive, but many schools have their school meals service coordinated by a private catering company. These companies are trying to offer a choice that will appeal to families right across a city, families with different expectations, food cultures, tastes and resources. They try to design menus that will appeal to everyone but are still struggling to make an impact on uptake. It is difficult to design dishes that will entice and yet be familiar to a diverse range of children and families. Catering company workers are equally conflicted about choice, they think choice is a good and necessary to their business but trying to offer the right kind of choice feels like an impossible task. People are too picky; they only want unhealthy options, or they want things that will not be acceptable and appealing to enough parents to make commercial sense. The descriptions of dishes that work well in one school are alien and off-putting in another.

“We have like three clients, don't we? We have the parents and carers, we have the schools, and we have the children. ... and we serve a huge diversity of schools with very different tastes” (Catering company)

Most school food workers think that not offering a choice will lead to more parents withdrawing their custom, but they also recognise that they are seemingly unable to offer the right choices to appeal to the parents who are currently choosing packed lunches, even when the meal is free. They recognise the problem underlying the whole debate around healthy and unhealthy eating is that most people make unhealthy food choices when those foods are available, and it is not easy to market food to children on the basis that it is healthy. This doesn't tend to be what children prioritise.

Discussion

In the tale of the fallen hero how can balance be restored and good triumph over evil? No one wants to see school food fail, especially now when there is a global cost of living crises and schools are taking on an even more important role. In this story we have seen school food rescue children from the illnesses of malnutrition and poverty by providing a hot meal. But it is easy to be a hero when you are stepping into a void by feeding a hungry child who will eat whatever they are given because it is all they have. These days the problem is not often that children are hungry (although of course many around the world are) but that they are full of the wrong kinds of food, and that food not only makes them ill but transforms their expectation of how food should look, smell and taste (Stuckler et al, 2012) The evolution of food from a relatively small selection of locally and seasonally available produce to a global industry dominated by highly engineered, aggressively marketed processed foods offered in a dizzying array of options but controlled by a small number of powerful multinationals presents the humble school food hero with the seemingly impossible challenge of winning people back from the clutches of the food giants with virtually no comparative budget or power. That school food achieves as much as it does is testament to the ingenuity and dedication of school food workers, but the evidence is damning, children's diets are not improving despite all their efforts to feed them well. The food giants are winning.

Everyone knows that many children will make unhealthy choices if they are available, this comes through evidence from clinical trials as well as from the accounts of frustrated kitchen staff and

parents (Nelson et al 2006; Day et al, 2015; Ravikumar et al, 2022) Some people think that children should be able to choose whatever food they want and that any kind of restriction will set them up for a life of disordered eating (Cullerton et al, 2022) Some people think that all unhealthy choices should be removed from children in schools, but as we have seen, it is still hard to make children choose well even when all unhealthy choices are removed. This is because children are now more likely than their grandparents to have been raised on a diet dominated by processed foods (D'Angelo,2020). In policy and literature discussing school food, what is often missing is an acknowledgement that the proliferation of these problematised foods makes them normal and are marketed as completely appropriate and desirable food. And we know that the companies making a lot of money from harmful food are incredibly powerful (Lang & Heasman, 2015; Hawkes, 2005; Stuckler et al, 2012).

What we have heard from our school food workers is that the food they provide is not what children are used to eating, and this leads to a lot of people rejecting the meal in favour of the more familiar and safe option of a packed lunch. They also know what food is familiar and popular, because when they serve chips and fish fingers or pizza, many more children choose the meal. These are unhealthy foods which might be seen as bad choices, but they are popular choices. The truth is that not only children make unhealthy choices if they are available, most adults do too (D'Angelo et al, 2020; Ravikumar et al, 2022).

If you have been raised on a diet of processed food then some of the meals prepared in school kitchens will not look, sound or taste familiar so when schools try to offer choice, they are operating within a choice environment that has been engineered and reproduced by the food giants. Because school food is a hero and not a villain, it can't use the same weapons as the giants, the weapons of salt, sugar, fats and flavourings. In some schools around the world those multinationals freely operate within schools (Best, 2017; Fletcher et al, 2014; Devi et al, 2010). In schools that are not bound by school food policies the food that is offered and chosen is often considered unhealthy but if the food doesn't resemble the familiar and popular food that children and families are used to, then it will be rejected. We know that the ultra-processed foods plaguing dietary health make their ways into schools, either in vending machines, or packed lunches from home, or even in the school kitchen. Many of the foods that school cooks turn to for convenience, and many of the ones that are popular are classified as highly processed (Parnham et al, 2022; Devi et al, 2010; Fletcher et al 2014).

It can be daunting to look up at the foe looming over you, to take in its might and power, but if we want to understand what is happening in schools, what is happening to our health and the health of our children, then we cannot ignore the scale of the problem (Hawkins, forthcoming). If we keep heaping expectations onto the school food hero whilst ignoring the reality of the fight that it has on its hands then it will continue to fail, because it is being set up to fail by being encouraged to mimic the tactics of its foe rather than stand on its own merits.

We find our hero cloak in tatters, running out of energy and ideas as it is relentlessly attacked by a powerful and charismatic foe. In the wreckage alongside the school food hero, we have exhausted public health professionals, community GPs, dieticians, dentists, distressed and powerless parents, teachers and cooks. Everyone is shouting, finding someone else to blame as the food giants grow more powerful day by day, making more money, offering more choices, making sure that people always choose them (D'Angelo, 2020).

So, what hope can we offer our hero, what can school food do to make a difference against such a powerful foe? We propose stepping out of the competitive choice environment and taking another approach, by taking away choice*. We see our foe bristle and recoil at this suggestion because it knows that when people are given a choice, they always win. They smile because they don't think we mean it, promoting choice has worked so well for so long that they think the battle

is won. That is how they have grown so powerful, by controlling choice. They know how to make sure people choose them time and time again, and they do this successfully. But where is the evidence that choice is good for us, especially in relation to dietary health? The truth is that there is no evidence that offering a wide range of food options is good for children's dietary health (Mazarello et al, 2015, D'Angelo et al, 2020; Kelly & Barker, 2016). There is strong evidence that school food had a significant impact on child health when it emerged in the early 20th Century, but then there was no choice involved, it was the choice between a meal or no meal, and almost everyone chose the meal.

Conclusion / Recommendations

1 - Universal free school meals and a ban on food from home**

What would happen if schools returned to the original model of offering one good quality meal option per day? Removing choice is tough, but it might be an experiment worth conducting in the context of school food. The removal of choice would have to extend to a ban on packed lunches, because our research participants confirm that the policing of packed lunches is divisive and creates more work for staff. It is not easy for parents to resist the powers of the food giants either, any parent knows that it is not as simple as setting rules and expecting them to be followed, children say no, they push back, they melt down, they refuse food and drive parents desperate with worry. The evolving tastes, norms and expectations set by the food industry have affected parents too, and they have no special powers or weapons with which to fight this fight. Many try, but many don't want to. It isn't parents' fault that the food environment has become so toxic that there are thousands of bad choices placed conveniently in their path every single day.

Some schools have successfully banned packed lunches, but they can only do this if the alternative is a free school meal. Providing a universal free school meal is one way to take power back from the food giants, it makes it possible to say to all parents that the school provides food and hold that line. WHO (2021) recognises the importance of equitable access to FSM as a means of enacting a rights-based approach to food and health and addressing the inequalities that exist within our food system, namely that good quality, nutritious food costs more. What would happen if schools were to provide a free hot meal to all their children, and ban all food from home? It feels like such a radical act, but this is how school food was designed to operate, it was never armed to compete with a wide array of processed convenience foods.

2 - One meal option per day per child

Limiting choice but guaranteeing quality could be a radical but positive way forward for school food. Rather than preparing up to four meal options every day, schools prepare one main meal for everyone (with adaptations for specific dietary needs). This is a radical departure from all of the dominant narrative about choice being necessary, but choice is not operating well at the moment. Even with up to four options, many children don't choose a balanced meal, and many reject the meal completely. So where is the evidence that choice is good and necessary? Take away the need to compete on choice and give schools the budget to prepare a good quality meal from simple fresh ingredients every day. When this has been allowed to happen the evidence of benefit is much stronger (Illøkken et al 2021; Afshin et al, 2015).

There is understandable anxiety about children rejecting food and going hungry, but there is also evidence that giving children lots of choice leads to them making bad food choices (Mazarello et al, 2015). The only ones clearly benefiting from the status quo are the food giants who of course reinforce the narrative that choice is important, and that restricting choice will have a negative impact. But where is the robust evidence to support this view? Children have individual needs, but this is not the same as children needing lots of choice.

3 - Revisit the school food standards and resource the work of getting children to eat new foods.

The food giants are still stalking the perimeter of the school and until there is the political bravery to tackle the industry, they will still be the ones setting the expectations and tastes of the wider population. So maybe it is time to take a more nuanced approach to school food standards so that the focus on food groups can make way for an approach that prioritises minimally processed ingredients and food that tastes and looks good, after all whilst there is clear evidence that the nutritional quality of meals has improved since the introduction of school food nutritional standards, there is no evidence that this is having a positive impact on child health. Our research suggests that this might be because of the way that children are navigating the choices available or rejecting the meals altogether.

But we know that just presenting children with a healthy and tasty meal cooked from fresh ingredients won't be enough. School food workers will tell you that it takes time and resource to get children to try new foods, and in the schools we visited we certainly saw plenty of children dump a significant proportion of their meals into the bin. Research on food neophobia shows that certain techniques and approaches can be effective in encouraging children to try new foods and the Food for Life programme advocates investment in activities that promote sensory acceptance and widening food preferences, and countering the normative power of the food industry (Blomkvist et al, 2018; Food for life, Nd; WHO, 2021). To have the desired impact, school food needs to be resourced not only to produce good food, but to support children to eat it.

Conclusion

Maybe over time school food can gain the trust and respect of more children and parents, not because it mimics the wider food environment but because it stands up to it, challenging the idea that the best thing for children is to offer them a range of options and ask them to choose well. We know this doesn't work, increasing choice hasn't resulted in improved diets or health (Kelly & Barker, 2016; Lang & Heasman, 2015).

Right now, the school food hero stands on an important threshold, there is greater appetite for schools to feed children well and to do this in a way that helps poorer communities level up and avoid the widening inequalities inflicted by the cost-of-living crises. But heroes need help too, they need to be given the support to fight the foe, and at the moment school food is being held back from its potential to improve child health because it is not able to compete with the food giants who have breached the barricades set up by the school food standards to protect children. They enter in packed lunches, they sneak in through pre-mixes and processed meats in the school kitchen, they make the food that schools are allowed to provide look unfamiliar, unexciting and unappealing. None of us can beat the food giants at their own game, so it is time to think about ways of taking away their power. They tell us over and over again that choice is good, that we need choice, that we are free to choose but they put so many choices in our way that we usually end up choosing something that makes them money. It is time to see choice as weaponised by the food giants and have the courage to use the powers available to schools to take it away, to create a safe space where their children can be nourished in mind and body.

* For a detailed account of the research design please see Hawkins, A (Forthcoming) Mapping Working Practices as Systems: An analytical model for visualising findings from an Institutional Ethnography, *Qualitative Research*.

** we are not suggesting taking away food options for children with food allergies or intolerances or banning schools from providing meals that are halal or kosher.

***we acknowledge that there will always be examples of children with very specific dietary needs that may not be safely met by schools and in these cases there may need to be alternative arrangements made.

References

- Afshin, A., J. Penalvo, L. Del Gobbo, M. Kashaf, R. Micha, K. Morrish, J. Pearson-Stuttard, C. Rehm, S. Shangguan, J.D Smith, & D. Mozaffarian. (2015). 'CVD Prevention Through Policy: A Review of Mass Media, Food/ Menu Labeling, Taxation/Subsidies, Built Environment, School Procurement, Worksite Wellness, and Marketing Standards to Improve Diet.' *Current Cardiology Reports* 17(11).
- Best, A. L. (2017). *Fast food kids: French fries, lunch lines and social ties*. New York: NYU Press.
- Bird K and Riehl J (2019) Systems Scribing: An Emerging Visual Practice Available at: www.kelveybird.com (accessed 13 December 2022)
- Black, A. P., D'Onise, K., McDermott, R., Vally, H., & O'Dea, K. (2017). How effective are family-based and institutional nutrition interventions in improving children's diet and health? A systematic review. *BMC Public Health*, 17(1), 818–818. <https://doi.org/10.1186/s12889-017-4795-5>
- Blomkvist, E. A. M., Helland, S. H., Hillesund, E. R., & Øverby, N. C. (2018). A cluster randomized web-based intervention trial to reduce food neophobia and promote healthy diets among one-year-old children in kindergarten: study protocol. *BMC Pediatrics*, 18(1), 232–232. <https://doi.org/10.1186/s12887-018-1206-8>
- Calvert HG, Ohri-Vachaspati P, McQuilkin M, Boedeker P, Turner L. (2021) Prevalence of Evidence-Based School Meal Practices and Associations with Reported Food Waste across a National Sample of U.S. Elementary Schools. *International Journal of Environmental Research and Public Health*. 18(16):8558. doi: 10.3390/ijerph18168558. PMID: 34444303; PMCID: PMC8393708.
- Campbell ML and Gregor FM (2008), *Mapping social relations: A primer in doing institutional ethnography* Toronto: UTP
- Caroline Walker Trust, (1992) *Nutritional Guidelines for School Meals. Report of an Expert Working Group*. London: The Caroline Walker Trust
- Child Poverty Action Group and the British Youth Council, 2012. Going Hungry? Young People's Experiences of Free School Meals. Available via <https://cpag.org.uk/policy-and-campaigns/report/going-hungry-young-peoples-experience-free-school-meals> last accessed 15/5/23
- Cohen JFW, Hecht AA, Hager ER, Turner L, Burkholder K, Schwartz MB. (2021) Strategies to Improve School Meal Consumption: A Systematic Review. *Nutrients*. 13(10):3520. doi: 10.3390/nu13103520. PMID: 34684521; PMCID: PMC8538164.
- Cullerton, K., Patay, D., Waller, M., Adsett, E., & Lee, A. (2022). Competing public narratives in nutrition policy: insights into the ideational barriers of public support for regulatory nutrition measures. *Health Research Policy and Systems*, 20(1), 1–86. <https://doi.org/10.1186/s12961-022-00891-6>

D'Angelo, C; Gloinson, ER; Draper, A; Guthrie, S. (2020) Food Consumption in the UK: Trends attitudes and drivers. Cambridge, The Rand Corporation.

Day, R., Sahota, P., Christian, M., & Cocks, K. (2015). A qualitative study exploring pupil and school staff perceptions of school meal provision in England. *The British Journal of Nutrition*, 114(9), 1504-1514. doi:10.1017/S0007114515002834

Department of Health (2004) Choosing health? choosing a better diet a consultation on priorities for food and health action plan

De Vault, M. (2013). Institutional Ethnography: A Feminist Sociology of Institutional Power, *Contemporary Sociology*, 42(3), 332–340.

Department of Education (2023) School Food: guidance for governors accessed via <https://www.gov.uk/government/publications/school-food-standards-resources-for-schools/school-food-guidance-for-governors>

Devi, A., Surender, R., & Rayner, M. (2010). Improving the food environment in UK schools: Policy opportunities and challenges. *Journal of Public Health Policy*, 31(2), 212. doi:10.1057/jphp.2010.9

DHSS (Department of Health and Social Security) (1980) Black Report: Inequalities in Health: Report of a Research Working Group. Department of Health and Social Security, London. Available at: <https://www.sochealth.co.uk/national-health-service/public-health-and-wellbeing/poverty-and-inequality/the-black-report-1980/> (accessed 20/6/23)

Dimbleby H & Vincent J (2013) The School Food Plan. Available at: https://www.schoolfoodplan.com/wp-content/uploads/2013/07/School_Food_Plan_2013.pdf (accessed 14/5/23)

Ertz, M., & Le Bouhart, G. (2022). The Other Pandemic: A Conceptual Framework and Future Research Directions of Junk Food Marketing to Children and Childhood Obesity. *Journal of Macromarketing*, 42(1), 30–50. <https://doi.org/10.1177/02761467211054354>

Evans, C.E.L. and Harper, C.E. (2009), A history and review of school meal standards in the UK. *Journal of Human Nutrition and Dietetics*, 22: 89-99. <https://doi.org/10.1111/j.1365-277X.2008.00941.x>

Farthing, R (2012) *Going Hungry? Young People's experiences of Free School Meals*. London. Child Poverty Action Group. <https://cpag.org.uk/policy-and-campaigns/report/going-hungry-young-peoples-experience-free-school-meals> accessed 1.2.23.

Fernandes, M. M. (2013). A national evaluation of the impact of state policies on competitive foods in schools. *Journal of School Health*, 83(4), 249-255. doi:10.1111/josh.12024

Fletcher, A., Jamal, F., Fitzgerald-Yau, N., & Bonell, C. (2014). 'We've got some underground business selling junk food': Qualitative evidence of the unintended effects of English school food policies. *Sociology*, 48(3), 500-517. doi:10.1177/0038038513500102

Food for Life (nd), *Managing Fussy Eating*, available at www.foodforlife.org.uk/skills/health-and-nutrition/schools-health-and-nutrition/managing-fussy-eating, last accessed 15/5/23

- Nelson, M., Nicholas, J., Suleiman, S., Davies, O., Prior, G., Hall, L., Poulter, J. (2006). *School meals in primary schools in England*. (Research Report No. RR753). Nottingham: DfES Publications.
- Parnham, Chang, K., Rauber, F., Levy, R. B., Millett, C., Lavery, A. A., Stephanie von Hinke, & Vamos, E. P. (2022). The Ultra-Processed Food Content of School Meals and Packed Lunches in the United Kingdom. *Nutrients*, 14(14), 2961–. <https://doi.org/10.3390/nu1414296>
- Ravikumar, D., Spyreli, E., Woodside, J., McKinley, M., & Kelly, C. (2022). Parental perceptions of the food environment and their influence on food decisions among low-income families: a rapid review of qualitative evidence. *BMC Public Health*, 22(1), 9–9. <https://doi.org/10.1186/s12889-021-12414-z>
- Rennie, K.L. and Jebb, S.A. (2005), Prevalence of obesity in Great Britain. *Obesity Reviews*, 6: 11-12. <https://doi.org/10.1111/j.1467-789X.2005.00164.x>
- Rose, K., Lake, A.A., Ells, L.J. and Brown, L. (2019), School food provision in England: A historical journey. *Nutr Bull*, 44: 283-291. <https://doi.org/10.1111/nbu.12394>
- Russi, L., (2013). *Hungry capital: The financialization of food*, Zero Books.
- Smith, D. (2005). *Institutional ethnography: A sociology for people*. Lanham: AltaMira Press.
- Smith DE and Turner SM (Eds) (2014). *Incorporating texts into institutional ethnography*. Toronto: University of Toronto Press.
- Stevens L, Nicholas J, Wood L, et al. (2013) School lunches v. packed lunches: a comparison of secondary schools in England following the introduction of compulsory school food standards. *Public Health Nutr* 16, 1037 -1042 .10.1017/S1368980013000852 23578700
- Stuckler, D., McKee, M., Ebrahim, S., & Basu, S. (2012). Manufacturing epidemics: The role of global producers in increased consumption of unhealthy commodities including processed foods, alcohol, and tobacco. *PLoS Medicine*, 9(6), e1001235. doi: 10.1371/journal.pmed.1001235
- Winston, A. (2014). *The industrial diet: The degradation of food and the struggle for healthy eating*. New York: New York University Press.
- World Health Organisation (2021) *Implementing School Food and Nutrition Policies; a review of contextual factors*. WHO, Geneva available at: <https://www.who.int/publications/i/item/9789240035072> (last accessed 27/11/23)

Spatial barriers to the effective delivery of school food policy in UK primary schools: Findings from an Institutional Ethnography.

Anna Hawkins

Abstract

School food policy sets ambitious targets for improving child health and wellbeing through the provision of a nutritionally balanced school lunch, but there is very little evidence that policy and legislation designed to improve the quality of school food is having a positive impact on either the number of children choosing a school meal, or on improving children's health. This paper reports on findings from an institutional ethnography carried out in three UK primary schools between 2017 and 2019 to explore the issue of low meal uptake. It discusses the spatial issues that school food workers reported as impacting upon their work and traces these issues to a divergence between school food policies and building design processes. It concludes with recommendations for policy makers to reconsider the spatial implications of school food policies that seek to increase uptake, and to work with the accounts of school food workers to improve policy impact.

Key Words: school food, policy design, practice theory, institutional ethnography, school kitchens

Introduction

The policy environment surrounding school food is a complex and demanding one, in which a meal served to children at lunchtime is framed as an essential factor mitigating population health inequalities, as well as being important in the social development of children and young people (Mazarello & Lakshman, 2015; Impact on Urban Health, 2022; Illøkken et al, 2021; Adamson et al, 2013; School Food Plan, 2014). The work of delivering effective school food policy rests upon a number of assumptions, including the capacity of the current system to deliver a wide range of healthy and appealing choices and respond to the policy aspiration of increased uptake (Department for Education, 2023; Dumbleby & Vincent, 2013). The people who are tasked with delivering these increasingly complex and demanding policy promises are primarily school cooks and lunchtime supervisors working within resource allocations over which they have very little control.

This paper reports on findings from an institutional ethnography carried out in three UK primary schools between 2017 and 2019 which set out to explore the issue of low uptake, particularly amongst children entitled to a free school meal. An objective of my research was to identify recommendations that could support improved policy impact and this paper reports on findings that relate specifically to the design and use of kitchen and dining space, and how this shapes the practice of school lunch. The practice of school lunch includes the work to design, promote, cook, serve, and eat the food. Practice theory as a conceptual lens encourages a focus upon the materiality of the local environment, exploring how spaces, as well as cultures, shape the performance of the practices (Vihalemm, 2015). This approach has been used to explore the evolution of home heating and daily travel practices as new ways of understanding barriers to adopting more environmentally sustainable behaviours (Shove et al, 2012; Batel et al, 2016).

The research framed school food as a complex social practice, something that many people identify with as a concept, often built upon their own experience of school meals and the presentation of the practice in popular culture (Vilhalemm, 2015). School lunch is subject to variations in the way that the practice is performed in different contexts, often managing competing narrative assumptions and policy directives around what good food choices and behaviours are. Viewing school food through a practice lens allows for the exploration of how the practice has evolved over time, and what forces have shaped this morphology. Seeing practices as dynamic and contextual recognises that there will be differences between the official account of school lunch found in policy and research and the way that it happens in different places at different times. In the case of school food there is compelling evidence that the primary task of improving children's dietary health is having limited success, particularly when looking for long-term indicators of improved diet or health (d'Angelo et al 2020; Kitchen et al, 2010; Black et al, 2017) and that the school meals service is struggling to win customers in a competitive environment, whilst also adhering to statutory nutritional standards. For the school meal service to remain viable it is essential that the majority of children take up the option of a school lunch in order for economies of scale to be felt, and yet many school meals services are struggling to compete with packed lunches brought from home (Dimbleby & Vincent, 2013; Stevens et al, 2013).

This work makes a unique empirical contribution to the understanding of school food policy implementation from the perspective of school food workers whose accounts and experiences are almost entirely missing from school food policy and research. As the people delivering these policies at the front line, these perspectives can make a valuable contribution to knowledge, especially when trying to understand why policies are not having the desired impact. The majority of existing school food research focuses upon the nutritional rationale for school meal uptake (Dimbleby & Vincent, 2013; Food Foundation, 2022; Impact on Urban Health, 2022), in particular how school lunches are healthier than packed lunches (Parnham et al, 2022; Anderson et al, 2015). There is very little research that explores the design and use of spaces used in the preparation, service, and consumption of school meals, or that considers these spatial factors as contributors to the evolution of the practice. My work seeks to map the power dynamics that are shaping practices, and to identify meaningful intervention points that could support improved levels of uptake of school meals. This paper concludes by drawing upon the experiences of school food workers to provide policy recommendations to help achieve desired levels of school meal uptake.

Literature review

Power in practices.

Practice theory offers a compelling challenge to dominant theories about the drivers of human action, and in particular the drivers of consumer 'behaviour' that represent a significant body of academic work and, crucially, continue to dominate policy development (Shove, 2010). Practice theory as a challenge to the 'behaviour change' paradigm requires a reorientation of focus, away from the individual as a lone agent making individualised decisions informed by knowledge of and attitudes towards available choices. Instead, it suggests that the central topic of enquiry should be 'social practices ordered across time and space' (Giddens, 1984: 2-3). The recognition that practices are dynamic makes practice theory such a useful way of exploring how change takes place in everyday life (Shove et al 2012). Whilst this theoretical reorientation has been instrumental in challenging individualised approaches such as theories of planned behaviour, social marketing, and 'nudge', it is acknowledged that practice theory does not adequately account for the role that 'power' plays in shaping social practices (Watson, 2014, Vilhalemm, 2015). Power within an institutional context such as school food can be identified in the processes that feel remote to workers on the front line. For example, the policies and processes that determine school

kitchen design can be experienced by school kitchen staff negatively, making their work harder, yet they feel powerless to influence these processes.

Many studies that focus upon the ways in which the social organisation of everyday life works to reproduce inequality recognise that it is important to identify (and in most cases, challenge) what are variously described as ‘structures of power’ (Cahill, 2007: 279, Weis & Fine, 2012: 173), ‘ruling relations’ (Smith, 2008), and ‘spatial embeddedness of power’ (Kesby 2005: 2827), processes which are argued to reproduce ‘circuits of dispossession and privilege’ (Weis & Fine, 2012: 187). An example of this would be Dorothy Smith’s study of the extent to which Canadian elementary schools relied upon the unpaid work of mothers to support the work of the school, and the disadvantages experienced by children whose mothers were involved with paid work that precluded this (Smith, 2005). IE is deployed here not only as a method for exploring hidden work, but also as a way of foregrounding the power that institutional (and other) processes exert to shape how work is done.

School Food: the UK Policy Context

School meals emerged in the mid-nineteenth century as a philanthropic response to concerns about the poor physical health caused by malnutrition in the nation’s children. It remained a fragmented and localised provision until 1941 when the first national school meals policy and nutritional standards were launched. The Education Act of 1944 made provision of school meals a duty of all Local Education Authorities (LEAs) with the full net cost being met by Government from 1947. A standard charge was introduced for meals in the 1950s and full financial responsibility for the delivery of a school meals service passed to LEAs in 1967 (Evans & Harper, 2009).

School food in the UK was deregulated in the 1980s which meant that the provision of school meals was no longer a statutory obligation required of LEAs. Nutritional standards were abolished, as was the fixed national price of a school meal (UNISON, 2005). In response to this cost-cutting measure, some LEAs stopped providing a catering service. In 1986 free school meals were limited to children whose parents received means-tested benefits and in 1988 the Local Government Act was passed which required LEAs to put the meals service out to competitive tender. This ‘lowest bid wins’ approach prioritised economic efficiency over nutritional quality, with predictably detrimental impact upon the latter (Rose et al, 2019).

In response to concerns that this process had a harmful effect upon the quality and uptake of school meals, since 2000 each UK country has reintroduced food standards on either a voluntary or compulsory basis. School food in England is regulated by ‘The Requirements for School Food Regulation 2014’ a statutory instrument which came into force in 2015, and which sets out the nutritional standards for the food provided in the majority of schools in England; grant-maintained or ‘private’ schools are excluded from this legislation (UK Gov, 2014, School Food Plan, 2014).

The ‘Requirements for School Food Regulation 2014’ has been supported by a number of guidance documents since its publication. Current guidance states that:

‘A great school food culture improves children’s health and academic performance. Increasing the take-up of school meals is also better for your school’s finances. A half-empty dining hall – like a half-empty restaurant – is certain to lose money...Your school has a unique role to help children learn and develop good healthy eating habits for life, creating happier, healthier adults of the future’ (Department for Education, 2023).

Compliance with current school food standards, although a statutory requirement for all state-funded primary schools, is not systematically monitored, although school food culture more broadly

is now being inspected by OFSTED (Department for Education, 2023). Whilst there is a significant body of work discussing the implementation and evaluation of school food standards prior to 2011 (Nelson et al, 2012; Grey, 2008; Adamson et al, 2013; Evans et al, 2016), there have been no studies into the impact of the 2014 standards, or the experience of those tasked with delivering them.

Since deregulation in the 1980s when school meals services stopped being a statutory requirement, and competitive tendering for services was introduced, school meals services are also subject to market conditions and can provide an important revenue stream for schools (Devi, 2010). Current guidelines ask school governors to have a strategy for increasing meal uptake, although it does not specify to what level (Department for Education 2023).

School food and public health nutrition

Existing policy, evaluation frameworks and academic research articles exploring school food in the UK prioritise issues of nutritional quality and uptake, often concluding that schools need to offer better food to support children and their families to make better choices (Department for Education, 2016; 2023). This assumes individualised behavioural drivers of action, an assumption that is challenged by social practice theorists, who offer an alternative account of complex social practices that evolve and capture (or lose) participants. An approach that offers insight into why policies often fail to make an impact on supposedly 'bad' choices (Shove, 2010).

School food provision is often tasked with addressing wider societal anxieties about healthy diets and is increasingly seen as an important 'weapon' in the 'battle' against childhood obesity (Illøkken et al, 2021, Adamson, 2013; Nelson, 2006). This public health nutritional framing is not, however, one that is usually adopted by children at school dinner time, who often prioritise the social opportunities this break from classroom activity allows (Daniel & Gustafsson, 2010; Fletcher et al, 2014; Best, 2017). Nor does it acknowledge the primary concerns of many staff and parents, who will often prioritise children eating something or 'enough' at lunchtime over them eating a nutritionally balanced meal (Morrison, 1996; Harman & Capellini, 2015; Farthing, 2012). Moreover, there is very little evidence to support the effectiveness of these policies in reducing childhood obesity (Kelly & Barker, 2016; Ravikumar et al, 2022; Jamie & Lock, 2009; Van Cauwenberg et al, 2010) which is a policy failure that has not been explored or explained. Whilst there is an assumption in policy that this is due to poor levels of uptake (Department of Education, 2023) the evidence that school-based interventions result in long-term health improvements remains weak (Black et al, 2017).

There are tensions between policies tasked with improving health outcomes and the financial pressures that schools and school meal services face. This can result in kitchen staff turning to processed foods for convenience (Fernandes, 2013; Devi et al, 2010; Parnham et al, 2022; Stevens et al, 2013). 'School dinner' as a social practice is almost entirely subsumed by a nutritional discourse that dominates both policy and academic research in the UK. This is despite studies that show how important school lunchtime is for children and young people as a social event taking place in a social space (Briggs and Lake, 2011; Best, 2017, Morrison, 1996).

Assumptions about changing school meal practices and the implications for school kitchen design.

Since the introduction of a school meals service there have been significant changes in the assumptions about what a school meal would constitute. When school meals became a statutory responsibility of LEAs in the 1940s, the norm was for a single hot food option to be provided, as well as a dessert that could be hot or cold. Meals were to be prepared in school from raw ingredients which were stored on site (Walley, 1955). Children were served all components of the meal as standard (Evans, 2009; Rose et al, 2019). Following the deregulation of the school meal

service in the UK during the 1980s, some local authorities moved away from full-service kitchens, with meals being prepared off site and delivered to schools to heat and serve. In addition to this and the removal of nutritional standards, the practice of allowing children to select and pay for individual items was introduced, allowing children to purchase items of convenience food to eat elsewhere or later in the day. This new format of food provision was much cheaper for individual schools than operating a full-service kitchen but led to a decline in meal quality and a reduction in uptake. In 2005 the celebrity chef Jamie Oliver made the decline in school food standards the focus of a television show and public campaign, and in response to this there was a return to full-service kitchens in school designs alongside the introduction of statutory nutritional standards for school meals served in state funded schools (Rose et al, 2019).

The introduction of school meal standards was not accompanied by a reversal of the practice of allowing children to make their own food choices. The norm for school meals currently is to offer a range of options each day from which children can choose. In the schools included in this study, a meat and vegetarian hot meal option was provided each day, as well as a jacket potato, a salad bar, a sandwich bag, a dessert, yoghurt, fresh fruit, and bread. This range of options is in line with national best practice guidelines (Dimbleby and Vincent, 2013; Department of Education, 2023) Despite this expansion in the range of meals being prepared, kitchen space allocation has reduced over time which is impacting upon the work of kitchen staff and their ability to meet school food policy aims, as will be discussed below.

The history of school building design.

In the UK there was a resurgence of interest in the architecture of education in response to the building schools for the future (BSF) funding programme, which was announced by the then Labour government in 2004 (Mahony et al, 2011; Tse et al, 2015; Woolner, 2011). BSF was an ambitious programme that sought educational transformation through the rebuilding and refurbishing of all secondary schools in the UK using the then relatively new Public Finance Initiative (PFI) model of financing (Mahony & Hextall, 2013). In 2007 BSF was extended to select primary schools under the Primary Capital Programme. This significant investment, both financial and ideological, led to a new research interest related to school building design which included conferences, special editions and even the launch of a Master's Degree in Educational Architecture at the University of Sheffield (Burke et al, 2010). This programme was one of the first things to be cut by the coalition government who came to power in 2010, and so this investment and interest in the impact of design on practice was short lived.

It is notable that even this renewed interest in the relationship between space design and practice failed to include school kitchens as spaces worth mentioning. When discussing the role that building design plays in the experiences of staff in schools, it does not recognise the work of the kitchen staff or discuss the environment in which this work takes place.

School kitchen design

Whilst literature about contemporary school kitchen design is rare, articles discussing institutional kitchen design can be found in Architectural journals in the 1950s, in response to the expansion of public catering in the post-war years and the new leisure trend of 'dining out' (Walley, 1955; Kitchen Design, 1957). These articles acknowledge the role that kitchen design plays in the work of institutional food provision and offer helpful insights into the assumptions about the kind of work that would take place in these kitchens and the format of school food service at the time, namely a single hot meal offer with dessert, served from a hatch to individuals or in batches to be served at table (known as 'family service'). This information is derived from schematics showing kitchen layout, identifying areas dedicated to vegetable preparation and service counters. There is no detailed discussion about the work that takes place in these spaces.

Even the school food plan published in 2013, a document that provides detailed recommendations for improving the quality and uptake of school meals, does not mention kitchen design or space allocation. The recommendations for improving the work of kitchen staff focus upon improving training, providing certification, and raising the status of kitchen staff within the catering sector (Dimbleby & Vincent, 2013).

How school kitchens and dining spaces are designed now

Currently, the process for allocating space for school kitchens and dining rooms in the UK is to use the primary School schedule of accommodation tool provided by the UK government (Department for Education, 2014). Kitchen spaces are classified differently to dining space in contemporary design guidance, with dining space described as 'usable areas' and kitchens as 'supporting the functioning of the building' (Department for Education, 2014). The minimum size for a full-service kitchen is now $30 \text{ m}^2 + 0.08 \text{ m}^2$ for every pupil dining on site.

'The size of the core preparation area will depend on the equipment needed, which in turn will depend on the type of preparation system to be used that ranges from traditional, through cook and chill to pre-prepared 'fast food'.'
(Department for Education, 2014)

The allocation of kitchen and food storage space is based upon a formula derived from the number of children in each age group within the school. When comparing the kitchen area for the production of 500 meals outlined in the 1955 Architecture journal with the space allocation for a school with 500 primary school pupils produced by the current schedule of accommodation toolkit, we see a reduction from 142m^2 in 1955 to 65m^2 using the current calculation for school kitchens. It is not clear in the contemporary design guidance why kitchen space has decreased so significantly over time.

There is currently more flexibility in the design and space allocation for dining halls as there is the option to utilise the main school hall as a dining room, as well as being able to use other supplementary circulation space such as corridors flexibly. Schools also have the option of running a staggered lunch break and using timed sittings to distribute the space and time pressure to serve and seat all pupils (Department for Education, 2014; School Food Plan, 2013).

Methodology

This paper reports upon findings from an Institutional Ethnography (IE) carried out in 3 UK primary schools between 2016 and 2019. The aim was to gain insights from school food workers about the relatively low uptake of school meals, and how this could be improved. School food workers accounts are missing from existing research into school food, and so making them the primary focus of this research addressed an empirical gap in knowledge as well as providing a critical new perspective from which to explore a policy problem.

IE is a qualitative research approach developed by Canadian Sociologist Dorothy Smith which seeks to discover the hidden working practices that shape the structures of everyday life (Smith, 2005). The methodology focuses upon how people interpret and apply messages about how work 'should' be done and how these interpretations lead to variation between the official account of the work and what happens in practice. This makes IE a useful research tool for exploring poor policy outcomes, such as the failure of school food policy to improve uptake and impact of school meals. Institutional Ethnography has been developed with the identification of hidden power structures as its primary function (Campbell and Gregor, 2008).

IE uses a range of common data gathering methods including semi and unstructured interviews, observation, work shadowing and content analysis. Research participants are classed as 'expert

informants' who provide insights into working practices, and largely shape the direction of the research by suggesting ongoing points of enquiry. It uses each informant's account to build a picture of the working practice rather than seeking to confirm 'truths' by triangulation of several accounts. IE was developed with the aim of exploring 'ruling relations' that exert themselves on everyday lives through institutional structures and texts.

Texts in IE

A key aim of my work is to apply Institutional Ethnography's conceptualisation of textual power to the study of a social practice. IE recognises texts as any 'material objects that carry messages' and crucially, that are replicable and so can be used by different people at different times to coordinate work process within an institutional context (Smith and Turner, 2014: 5). When a text enters the account of working practices it is said to have been activated. The analytical focus in IE is not the text itself, but rather the way that the actions of those who activate it are shaped and coordinated by their interpretation and application of the text (Smith and Turner, 2014) Texts are the carriers of the 'ideological account' of the work practice against which the lived experience can be compared (Smith, 2005). To give an example, the theme of this paper was identified through the mention of kitchen and dining space in interviews, and the observation of meal preparation and service. As a result of these prompts, I was then directed to speak to a school architect to find out more about the design process, who explained the ways in which building design and schedule of accommodation texts discussed above were used to determine the space allocated to kitchens in new school buildings. The activation of these texts allowed me to explore the processes that were shaping the experiences of using space that kitchen staff had identified as significant. Through this process I not only learned more about how space shaped practice but was also able to discover how these experiences were being coordinated by the schedule of accommodation texts.

IE is often used to reveal new perspectives within large organisations and the approach has been used in a number of contexts to explore both paid and unpaid work, including experiences of health and social care workers, the work that mothers do to support schools, the experience navigating academic conventions, and the work of managing chronic health conditions (Smith, 2005; DeVault, 2013; Lund, 2012; Smith & Turner, 2014). IE works with informants to map the work that they actually do and use this to explore the ways in which these lived experiences diverge from the more formalised account or dominant discourses of the work, especially when there are unanswered questions about why policies and processes are not having the desired outcome (Campbell and Gregor, 2008). It was appropriate for this research because it helped to challenge the dominant policy narrative that assumes that a healthy range of meal options will result in good levels of meal uptake (Department for Education, 2016; 2023) with insights from people doing the work about why policies were struggling to make an impact (Hawkins, forthcoming).

Sampling

I worked with three UK primary schools (pupils aged between 4-11) that were identified by a member of the local government school food team. School **A** had been built in the 1930s and schools **B** and **C** were less than 10 years old and had been designed using the current space allocation guidelines (Department for Education, 2014) The schools were of a similar size (around 500 pupils) and were characterised by a similar demographic profile (around 50% - 60% of children in the schools were entitled to free school meals because their parents or carers were in receipt of means tested benefits). All three schools had a similar proportion of children choosing a school lunch (around 50%), with the other 50% bringing in packed lunches from home. All three kitchens had a head cook and between three and four supporting cooks.

Despite having similar profiles, the schools had different approaches to school food service and different kitchen and dining spaces. This sampling approach allowed a focus upon the differences

in meal service rather than the ways in which different populations responded to the same food environment. The research was limited to three schools because of the resources and scope of the research project.

Data gathering

Following the leads set by research informants, I carried out fifteen semi-structured interviews with three school business managers or deputy heads (with lead responsibility for school food), three school head cooks, three kitchen support staff, the manager of the school catering company, a local authority school food officer, and a former school architect. Interviews followed a schedule but also made space for unstructured discussion, enabling themes to be explored flexibly and leaving space for the unanticipated to emerge (Savin-Baden and Howell Major, 2013). Research informants suggest the next point of enquiry, and so the number of interviews simply reflects the number of leads that were followed up during the time available to complete the project.

In addition to interviews, I carried out content analysis on a number of 'texts' that were referenced by research informants during interviews or whilst being observed. These included school meal menus and recipe guides, school food nutritional standards and guidance documents, school food policy documents, school web pages discussing school meal service, and design and build guidance for UK primary schools.

I also participated in school meal service and observed kitchen and dining working practices, making sketches and notes based upon my observations.

Data analysis and presentation.

Notes, sketches, interview transcripts, and texts were coded to identify common themes and to capture references to texts. Some of these themes related to school food being unfamiliar to children, and parents being afraid of their children not eating the food (Hawkins, forthcoming) as well as references to school food standards, policies, building design, time constraints and budget constraints. This analysis looked for ways in which the work was being coordinated by institutional processes and shaped by power structures, helping to build a 'big picture' of the working practices (Campbell and Gregor, 2008:85).

From the analysed data I produced narrative accounts from the perspective of different groups of informants, such as school kitchen staff and school managers. IE most commonly communicates findings using narrative accounts using the term 'mapping' conceptually rather than as a way of organising or visualising accounts (Murray, 2022). I wanted to develop the conceptual use of mapping into a more visual and accessible way of communicating findings (Hawkins, forthcoming) and so I applied a systems scribing approach to translate the accounts into systems maps. Systems scribing is a method for visualising the coordination of different accounts and borrows representative tools from system engineering, using elements such as actors, frames, relationships, and annotations to show dynamic systems and processes of change over time (Bird and Riehl, 2019).

Findings

Findings are presented in two ways, firstly as a narrative summary of the key themes that emerged from the IE fieldwork with observations and quotations from research informants and secondly in process diagrams that show how changing policy processes can be seen to shape space allocation as well as the expectations about what a school meal service would provide, and subsequently how these influence working practices.

School kitchens are not big enough to meet the desired policy outcomes of increased demand.

Of the three schools that participated in the IE, two reported issues with inadequate food storage and preparation space. Both schools B and C had been built as part of the Building Schools for the Future Primary Capital programme, and whilst many staff reported improvements in the quality of building spaces and equipment, kitchens had reportedly become much smaller than in previous buildings.

The impact of reduced kitchen space on meal provision was twofold. Staff reported that they had inadequate space to work and prepare the wide variety of meal options for the current uptake of school meals, which was between 40% - 60% of children enrolled at the school. With policies aiming to increase uptake of meals to improve child health and improve the financial viability of the school meal service (Department for Education, 2022), many staff were sceptical that they had the capacity to deliver on these targets within the current kitchen space. In one of the new school kitchens, staff reported that on the one day that many children stay for lunch, the annual Christmas meal, staff had to start the preparation the day before. Working some additional hours to support the Christmas lunch was an act of good from staff, but it highlighted the potential capacity issues and if uptake throughout the year reached these desired levels, this could not be sustained.

In school B, the head cook and kitchen staff had to share a small cupboard space used as a changing room, an office for menu planning and stock management, and for the storage of cleaning equipment and supplies. In school A that occupies an older building with generous kitchen space including a large and well-lit office, the head cook reflected that when she had started working in school food there were a lot more kitchen staff and more of the food was prepared from basic ingredients which took longer, whereas now they had access to more pre-prepared food and so needed fewer staff and less kitchen space. Whilst this wasn't reported as a negative development, it does suggest that there is a tension between the school food policy objectives related to using minimally processed foods and preparing meals from fresh ingredients (Department for Education, 2014), and the resources provided to deliver these objectives.

School Kitchens don't provide adequate storage space to meet expanded demand for school food or to support stock management.

Providing a range of hot and cold meal options every day is a demanding and complex process, especially when many school cooks don't receive the meal order until the morning of service. In addition to this, expanding the school food offer to include breakfast clubs, healthy snacks and cooking classes places demands upon the food storage and service space. Several school staff in schools B and C mentioned issues with storage and stock management due to limited kitchen space and so were unable to hold contingency stock and thus required to make frequent orders.

The kitchen on the other hand, is tiny. Probably a quarter of what they had at the other school. They have struggled with space, like even for stock, they don't have space for holding stock which has been a real challenge for them, like when we had the snow days and couldn't get delivery, they don't hold the stock like they used to. You used to be able to have 20 tins of beans in the back for emergencies, but the cook just doesn't have the space. (School C deputy head)

In school B the cook showed me how the supplies for the school breakfast club were now competing for space with the school lunch supplies, meaning she was only able to hold enough food for a few days' worth of meals, increasing the amount of time she had to spend ordering stock (from her desk in the cupboard she shares with the cleaning supplies).

Challenges over dining space allocation - dining hall space needs to be big enough for children to be supported to eat healthily.

Dining space provision is another key area where different configurations of available space are shaping school meal practices. Because all schools visited use a serving hatch system, where children queue for individual service, there is always a need to manage queuing times and availability of seating space.

In School A whilst the kitchen space was generous in comparison to the newer schools, the dining room space was much smaller, and this resulted in more pressure to move children through the space in the available time. In comparison, the two newer schools (B and C) had elected to either combine their dining and hall space allocation, or use their hall as the dining room, resulting in much larger dining areas and fewer time / space pressures.

In schools B and C which had larger dining rooms, staff were able to spend more time sitting with children, noticing when they weren't eating and encouraging them to eat a healthy range of foods. In both of these spaces a member of staff stood by the food bins, stopping children who they thought hadn't eaten enough and encouraging them to go back to the table and eat some more. In school A with less dining space this wasn't happening, it was much busier and there was more pressure to finish up and move on. Very few staff were eating in the dining room and there was less circulation space for lunchtime supervisors to move around the tables.

I heard lots of accounts from the serving staff about their strategies for encouraging children to take all elements of a balanced meal, but the real challenge came when the children sat down to eat, with many staff expressing frustration at how hard it was to get children to eat a healthy balanced meal. Time spent in the dining hall with children and creating a welcoming and relaxing atmosphere where dining together could foster valuable social interactions was seen as crucial, but it was recognised that schools did not automatically prioritise space for this to happen and accordingly, compromises needed to be made.

School B had a small dining room space adjacent to the larger school hall, separated by folding doors. After trying to restrict the meal service to the allocated dining room, the school decided to open the doors at lunchtime and allow dining to take place in the hall space. It was reported that there was resistance to this from the caretaker who would have to ensure that the hall space was cleaned ready for the afternoon lessons, but they had been persuaded to take on this extra work for the sake of an improved lunchtime experience.

'It's just one hall too. We did have an option when we moved to this building to have a separate dining room, but we chose not to have one, but to have a cooking room instead.' (School C Deputy Head)

The deputy head of school C explained that in the design of the new building they had the option of a very small separate dining space or providing a dedicated room for cooking lessons, and they chose to use the hall space for dining so as to provide this additional space. again, this meant that the school sports hall had to be transformed very quickly into a dining space and then returned to a clean and tidy space in time for lessons. These compromises are managed at a local level, but this process represents a lot of work and resourcing if schools are to be expected to deliver a holistic approach to healthy food.

Queueing times, uncertain seating plans and the anxiety of busy lunchtimes

Queueing times are regularly cited as one of the reasons that children choose to take a packed lunch instead of a school meal. Long queues were reported to lead to disruptive behaviour and schools have well thought out strategies to manage lunchtime demand, often sending younger year groups in to eat first, letting the older children out to play and calling them in as the queue

length diminishes. Queue length is partially determined by the space allocation in the dining room, but the main issue is the size and capacity of the serving hatch, combined with the range of dishes on offer and the ways in which children select their meals. Since deregulation and the introduction of choice, children now queue and choose from a selection rather than being served a single meal at table (Rose et al, 2019).

In most schools I visited children chose a meal in the morning and were allocated a coloured wrist band or sticker that the serving staff could use to identify what to serve them. Children would pass down a line, have their meal identified and then be served the relevant components, with some encouragement and negotiation taking place about which elements of the meal the children wanted and were required to take. Children then selected a dessert, bread and were then often directed to a self-serve salad bar. Getting nearly three hundred children aged between four and eleven through this process is a complex logistical challenge. In many cases these schools did not have spare time or space and so significantly expanding the number of children taking a school meal would represent a challenge. Currently children who bring in a packed lunch require seating space, but because they don't need to be served, they take up far less time and don't contribute to queuing pressures.

School space allocation – assumptions and expectations for school food

As the school design had been identified as a key issue by a number of research participants, I was directed to speak to a school building architect about their experiences of designing primary schools and look at the area guidelines and space allocation that were used in the design of primary school buildings at the time.

The school architect explained to me that the space allocation for kitchen space was a fixed formula calculated on the number of children in the school and the number of classes in each year group. This space allocation can be found in the scheduling documents for school buildings, but as with other elements of the school space allocation, it is not clear what assumptions about school food preparation work and food storage have informed these calculations.

There is a set formula, for example if you've got a two-form entry primary school you get a schedule of accommodation and a target maximum area. Dining areas have been getting smaller and smaller because they say there has been less take up of dinners. (School architect)

The school architect and one of the deputy headteachers who had been involved in the design process for their new school building confirmed that school dining space was seen as flexible space that could be traded for other specialist space provision within the school. The assumption was that other areas in the school, such as the hall could double up as dining space. As the kitchen and food storage sizes are fixed and non-negotiable, the spaces are clearly deemed adequate, and yet the people doing the work of school food delivery in these spaces tell me that they barely cope with the current low levels of demand, let alone being able to expand provision to meet policy aims.

Systems diagrams

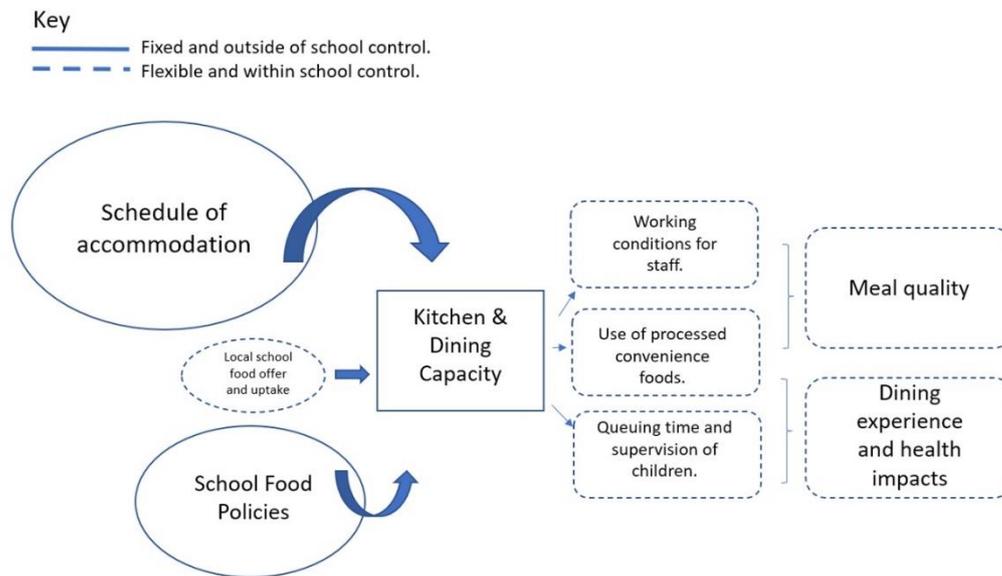


Figure 7: Systems diagram showing the institutional and policy processes shaping school food practices and outcomes

Figure 7 brings together the accounts and observations from fieldwork with the findings from the analysis of texts activated by research participants, visualising this as a system. The most powerful force shown here is the schedule of accommodation, which sets the size of kitchens and dining spaces within which national and local school food policies must be enacted. Schools have no power to change national policies, but they do have some flexibility in how they respond to the pressures exerted by them. The message from school food workers who participated in this study is that any expansion in the uptake of school meals risks compromising meal quality and the dining experience.

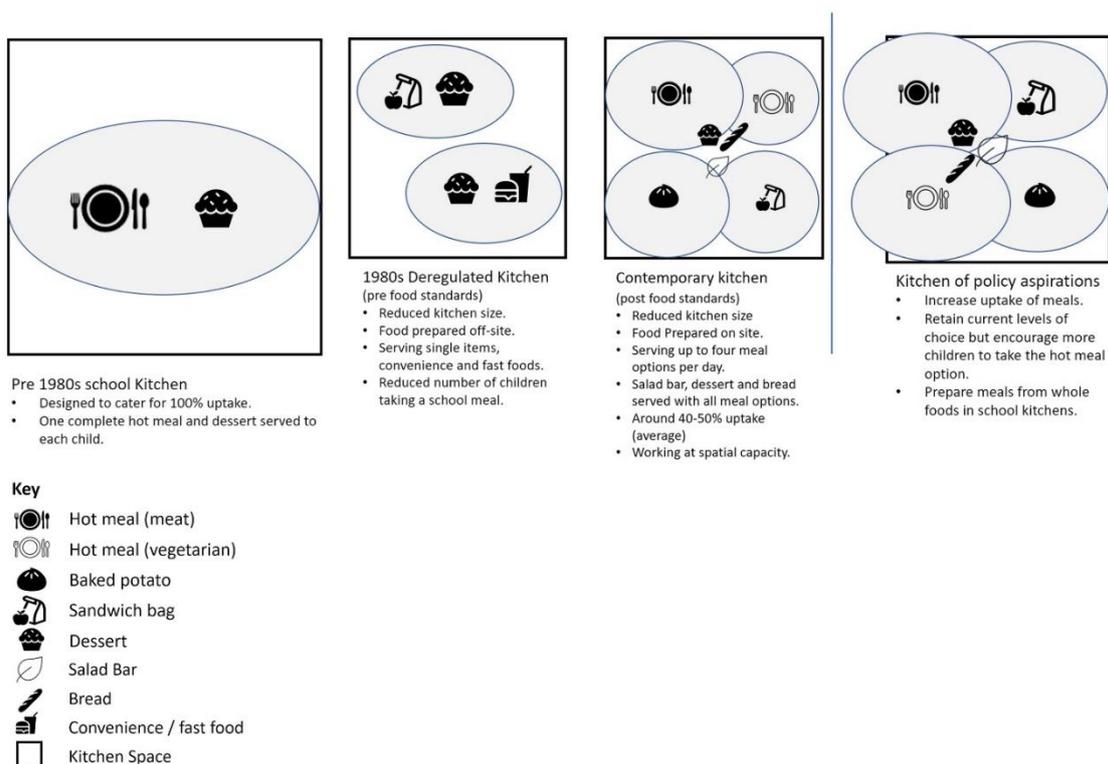


Figure 8: How kitchen space and the school food offer have changed over time.

Figure 8 shows in more detail how the divergence between school food policy and kitchen space allocation over time has created the pressures reported by school food workers, who are now expected to deliver a much more complex range of food options in significantly smaller spaces. Policy aspirations to increase uptake whilst maintaining choice do not appear to take into consideration the significant reduction in food preparation and storage space in the contemporary school kitchen.

Discussion

School food is tasked with supporting improvements in child health through the provision of meals in schools (Illøkken et al, 2021; Dimpleby & Vincent, 2013). These aims are ambitious in their scope and place a significant responsibility on the school meals service to deliver nutritionally balanced but also appealing food options that children and families will choose over packed lunches from home which have been found to contain a higher proportion of ultra-processed foods than school meals, and contain foods that would not be permitted under school food nutritional regulations (Parnham et al, 2022; Anderson et al, 2015). As well as delivering a range of healthy and appealing options, school food policy asks schools to have strategies in place to increase the uptake of school meals (Department of Education, 2023). There are concerns about the lack of evidence that school food is having the desired impact because many children do not choose a school meal, and due to the prevalence of processed convenience food in the school food offer (Fernandes, 2013; Devi et al, 2010; Parnham et al, 2022; Stevens et al, 2013). School food nutritional policy seeks to improve these health impacts through increased uptake and meal quality, but to deliver on this school kitchens need to be able to meet increased demand for school meals, whilst minimising the use of processed foods, minimising food waste and staying within strict budgets (Dimpleby & Vincent, 2013; Department for Education, 2023).

Framing school food as a complex practice, this research has demonstrated how the work of providing school meals has changed over time, and how this evolution has been shaped by changing institutional processes and policy that have exerted power upon the practice (Shove et al 2012). My research makes a new contribution to knowledge by working from the accounts of school food workers to offer a new perspective on the barriers to policy delivery. These accounts have been largely absent from research into the delivery of school food policy, and they offer new insights into some of the challenges experienced when attempting to deliver policies at the front line. I have mapped institutional processes to show how power imbalances between competing policy areas are shaping and constraining practices in school kitchens, adding a deeper level of explication to these accounts, and showing the textural processes that have led to the 'problems' encountered by people doing the work to meet policy aims (Smith, 2014).

School kitchen size has reduced over time as expectations about the work that would be done there shifted in line with changing ideological approaches to the provision of school meals, from a statutory duty to feed all children from a state-subsidised service to a deregulated free market model with no nutritional responsibilities (Rose et al, 2019). In recent decades there has been a gradual return to the original ideological framing of school food as vital to the health and wellbeing of children (Adamson et al, 2013; School Food Plan, 2014; Department for Education, 2023) but this has not been matched by increased resources. Spatially this can be seen as a shift from full-service kitchens designed to feed all children in the school a single hot meal option prepared from raw ingredients on site, to kitchens that are now half the size but serving up multiple meal options to a reduced number of children and struggling to work within the space and time allocated to the task. Schools want to increase uptake, but there are concerns that in newer buildings there isn't the capacity to meet increased demand without compromising meal quality, or the working conditions of staff.

School dining rooms also now need to incorporate space for queues, as children can no longer be served a single option at table and must queue and select from a wide range of options. Unsupervised children are known to make poor food choices (D'Angelo et al, 2020) so there is also work involved in ensuring they choose and then eat a healthy meal. This requires dining spaces where children can take their time to eat, and staff are able to supervise appropriately.

Conclusions and recommendations.

Tracking food policy alongside developments in school building design, I argue that there has been a divergence between these two processes, and that food policy aims are not being reflected in the allocation of space for kitchen staff. Kitchen staff are working at capacity in these spaces, and when they have to meet occasional spikes in demand (such as the annual Christmas dinner) staff have to work additional hours to meet this demand.

Older school buildings have much more generous kitchen and food storage spaces. This space was needed at the time of build because the expectation was that meals would be prepared daily from raw ingredients and that most children would take a school meal (Rose et al, 2019). School food policy and guidelines such as those issued by the Department for Education (2016; 2023) and the Food Foundation (2022) advocate for a return to the days of freshly cooked meals and increased uptake, but with the additional burden of having to provide a range of meal options. In modern school buildings there isn't the space to store additional ingredients or to cook these additional meals.

To support school food policy aims of increased uptake of high quality nutritionally rich meals, school building design needs to recognise the value and importance of this neglected area, this could apply to the design of new buildings or the retrofitting older schools. School food workers

involved in this research demonstrated a passion for the work and a commitment to improving the health and wellbeing of children by feeding them well. However, they are working within institutional constraints beyond their control and in spaces that do not seem to be designed to meet even current levels of demand, or that recognise the complexity of the practice.

I conclude by asking that policy makers value the experience of this committed and highly experienced workforce and make use of their knowledge in the policy design process. To that end I make the following recommendations:

- Policy makers should involve school food workers in school food policy design, with a particular emphasis upon their assessment of the resources needed to deliver changes in the school food offer.
- Reconnect school food policy makers, professional kitchen designers and school building designers to discuss the spatial implications of policy decisions connected to school food that make use of the lived experience of school food workers.
- Policy makers should consider the work required to not only prepare the food, but to serve it and then encourage children to eat a balanced meal. This work becomes more complex with increased choice and has important spatial requirements.

References

Adamson, A., Spence, S., Reed, L., Conway, R., Palmer, A., Stewart, E., McBratney, J., Carter, L., Beattie, S. and Nelson, M. (2013) School food standards in the UK: Implementation and evaluation. *Public Health Nutrition*, 16, 6, 968-81.

Andersen, S.S., Holm, L. and Baarts, C. (2015) School meal sociality or lunch pack individualism? using an intervention study to compare the social impacts of school meals and packed lunches from home. *Social Science Information*, 54, 3, 394-416.

Batel, S., Castro, P., Devine-Wright, P. and Howarth, C. (2016) Developing a critical agenda to understand pro-environmental actions: contributions from Social Representations and Social Practices Theories. *Wiley Interdisciplinary Reviews. Climate Change*, 7, 5, 727–745.

Bell, D. and Blanchflower, D. (2011) Underemployment in the UK in the great recession. *National Institute Economic Review*, 215, R23.

Bell, D. and Blanchflower, D. (2014) Labour Market Slack in the UK. *National Institute Economic Review*, 229, 1, F4-F11.

Best, A. L. (2017) *Fast food kids: French fries, lunch lines and social ties*. New York: NYU Press.

Bettio, F. and Verashchagina, A. (2009) *Gender Segregation in the Labour Market: Root Causes, Implications and Policy Responses in the EU*. EU Expert Group on Gender and Employment (EGGE). Luxembourg: European Commission.

Bird, K. and Riehl, J. (2019) *Systems Scribing: An Emerging Visual Practice*. www.kelvybird.com [Accessed: 13/12/2022]

Black, A.P., D'Onise, K., McDermott, R., Vally, H. and O'Dea, K. (2017) How effective are family-based and institutional nutrition interventions in improving children's diet and health? A systematic review. *BMC Public Health*, 17, 818. <https://doi.org/10.1186/s12889-017-4795-5>

Boterman, W.R. and Bridge, G. (2015) Gender, class and space in the field of parenthood: Comparing middle- class fractions in Amsterdam and London. *Transactions of the Institute of British Geographers*, 40, 2, 249-261.

- Briggs, L. and Lake, A.A. (2011) Exploring school and home food environments: Perceptions of 8-10-year-olds and their parents in Newcastle upon Tyne, UK. *Public Health Nutrition*, 14, 12, 2227-35.
- Burke, C., Cunningham, P. and Grosvenor, I. (2010) Putting education in its place: Space, place and materialities in the history of education. *History of Education*, 39, 6, 677–680.
- Cahill, C. (2007) The personal is political: Developing new subjectivities through participatory action research. *Gender, Place & Culture*, 14, 3, 267-292.
- Campbell, M. and Gregor, F. (2002) *Mapping social relations: A primer in doing institutional ethnography*. Toronto: University of Toronto Press.
- D'Angelo, C., Gloinson, ER., Draper, A. and Guthrie, S. (2020) *Food Consumption in the UK: Trends attitudes and drivers*. Cambridge: The Rand Corporation.
- Daniel, P. and Gustafsson, U. (2010) *School lunches: Children's services or children's spaces?* Oxfordshire: Abingdon.
- Department for Education (2014) *Area Guidelines for mainstream schools: BB103*. London: Department for Education. [Accessed: 15/4/23].
- Department for Education (2016) *School food in England: Departmental advice for governing boards*. London: Department for Education.
- Department for Education (2023) *School Food: guidance for governors*. London: Department for Education. <https://www.gov.uk/government/publications/school-food-standards-resources-for-schools/school-food-guidance-for-governors> [Accessed: 15/04/23].
- De Vault, M. (2013) *Institutional Ethnography: A Feminist Sociology of Institutional Power* [Review of *Institutional Ethnography: A Feminist Sociology of Institutional Power*]. *Contemporary Sociology*, 42, 3, 332–340.
- Devi, A., Surender, R. and Rayner, M. (2010) Improving the food environment in UK schools: Policy opportunities and challenges. *Journal of Public Health Policy*, 31, 2, 212-226.
- Dimbleby, H. and Vincent, J. (2013) *The School Food Plan*. http://www.schoolfoodplan.com/wp-content/uploads/2013/07/School_Food_Plan_2013.pdf [Accessed 09/02/2023].
- Evans, C.E.L. and Harper, C.E. (2009) A history and review of school meal standards in the UK. *Journal of Human Nutrition and Dietetics*, 22, 89-99.
- Evans, C., Mandl, V., Christian, M. and Cade, J. (2016) Impact of school lunch type on nutritional quality of English children's diets. *Public Health Nutrition*, 19, 1, 36-45.
- Farthing, R. (2012) *Going Hungry? Young People's experiences of Free School Meals*. London: Child Poverty Action Group. <https://cpag.org.uk/policy-and-campaigns/report/going-hungry-young-peoples-experience-free-school-meals> [Accessed: 01/02/2023].
- Fernandes, M.M. (2013) A national evaluation of the impact of state policies on competitive foods in schools. *Journal of School Health*, 83, 4, 249-255.
- Fletcher, A., Jamal, F., Fitzgerald-Yau, N. and Bonell, C. (2014) 'We've got some underground business selling junk food': Qualitative evidence of the unintended effects of English school food policies. *Sociology*, 48, 3, 500-517.

Food Foundation (2022) The Superpowers of Free School Meals: an evidence pack. <https://foodfoundation.org.uk/publication/superpowers-free-school-meals-evidence-pack> [Accessed: 15/05/23].

Giddens, A. (1984). *The constitution of society: Outline of the theory of structuration* Polity Press.

Gray, J. (2008) Implementation of school food standards in England – a catering perspective. *Nutrition Bulletin*, 33, 3, 240-244.

Harman, V. and Cappellini, B. (2015) Mothers on display: Lunchboxes, social class and moral accountability. *Sociology*, 49, 4, 764-781.

Hawkins, A (Forthcoming) Mapping Working Practices as Systems: An analytical model for visualising findings from an Institutional Ethnography. *Qualitative Research*.

Hawkins, A. and Rundle, R. (Forthcoming) School Food Hero and the Battle of the Food Foes: a story of public health policy, power imbalance and potential, *Social Science and Medicine*.

Illøkken, K.E., Johannessen, B., Barker, M.E., Hardy-Johnson, P., Øverby, N.C. and Vik, F. N. (2021) Free school meals as an opportunity to target social equality, healthy eating, and school functioning: experiences from students and teachers in Norway. *Food & Nutrition Research*, 65, 1–13.

Impact on Urban Health (2022) Cost benefit analysis of free school meal provision expansion. <https://urbanhealth.org.uk/insights/reports/expanding-free-school-meals-a-cost-benefit-analysis> [Accessed: 07/03/23].

Jaime, P. C. and Lock, K. (2009) Do school-based food and nutrition policies improve diet and reduce obesity? *Preventive Medicine*, 48, 1, 45-53.

Kelly, M.P. and Barker, M. (2016) Why is changing health-related behaviour so difficult? *Public Health*, 136, 109–116.

Kesby, M. (2007). Spatialising participatory approaches: The contribution of geography to a mature debate. (report). *Environment & Planning A*, 39(12), 2813-2831.

The Gas Council (1957) *Kitchen Design: Schools, Hospitals, Factories, Hotels, Restaurants and Cafés*. *Architects' Journal* (London), 126(3275), 16–17

Kitchen, S., Tanner, E., Brown, V., Payne, C., Crawford, C., Dearden, L., Greaves, E. and Purdon, S. (2010) *Evaluation of the Free School Meals Pilot: Impact Report*. Department for Education Research Report DFE-RR227. London: Department for Education.

LACA (2015) A professional standard for a midday supervisor. <http://whatworkswell.schoolfoodplan.com/site/article-files/5c8866e7-9964-49fa-9365-7fa04ac79e3c.pdf> [Accessed: 14/08/2023].

Lund, R. (2012) Publishing to become an “ideal academic”: An institutional ethnography and a feminist critique. *Scandinavian Journal of Management*, 28, 3, 218-228.

Mahony, P. and Hextall, I. (2013) “Building Schools for the Future”: “transformation” for social justice or expensive blunder? *British Educational Research Journal*, 39, 5, 853–871.

Mahony, P., Hextall, I. and Richardson, M. (2011) “Building Schools for the Future”: reflections on a new social architecture. *Journal of Education Policy*, 26, 3, 341–360.

Mazarello, V., Ong, K. and Lakshman, R (2015) Factors influencing obesogenic dietary intake in young children (0-6): Systematic review of qualitative evidence. *BMJ Open*, 5, 9.

Morrison, M. (1996) Sharing food at home and school: Perspectives on commensality. *The Sociological Review*, 44, 4, 648-674. <https://doi.org/10.1111/j.1467-954X.1996.tb00441.x>

Murray, O.M. (2022) Text, process, discourse: doing feminist text analysis in institutional ethnography. *International Journal of Social Research Methodology*, 25, 1, 45-57, <https://doi.org/10.1080/13645579.2020.1839162>

Nelson, M., Nicholas, J., Riley, K. and Wood, L. (2012) Seventh annual survey of take up of school lunches in England. Children's Food Trust. www.Childrensfoodtrust.Org.uk/assets/research-reports/seventh_annual_survey2011-2012_full_report. Pdf [Accessed: 14/05/2017].

Nelson, M., Nicholas, J., Suleiman, S., Davies, O., Prior, G., Hall, L., Wreford, S. and Poulter, J. (2006) School meals in primary schools in England. Research Report No. RR753. Nottingham: DfES Publications.

Parnham, J.C., Chang, K., Rauber, F., Levy, R. B., Millett, C., Lavery, A. A., Stephanie von Hinke, and Vamos, E.P. (2022) The Ultra-Processed Food Content of School Meals and Packed Lunches in the United Kingdom. *Nutrients*, 14, 14, 2961.

Pilcher, J. (2000) Domestic Divisions of Labour in the Twentieth Century: Change Slow A-Coming. *Work, Employment and Society*, 14, 771-780.

Ravikumar, D., Spyreli, E., Woodside, J., McKinley, M. and Kelly, C. (2022) Parental perceptions of the food environment and their influence on food decisions among low-income families: a rapid review of qualitative evidence. *BMC Public Health*, 22, 1, 9-9.

Rose, K., Lake, A.A., Ells, L.J. and Brown, L. (2019) School food provision in England: A historical journey. *Nutrition Bulletin*, 44, 3, 283-291.

Savin-Baden, M. and Howell Major, C. (2013) *Qualitative research: The essential guide to theory and practice*. London: Routledge.

School Food Plan (2014) *School food standards: A practical guide for schools, their cooks and caterers. (Guidance)*. London: Department for Education.

School Food Plan (2014) *What Works Well*. <http://whatworkswell.schoolfoodplan.com/> [Accessed: 14/08/2023].

Shove, E. (2010) Beyond the ABC: Climate change policy and theories of social change. *Environment and Planning A*, 42, 6, 1273-1285. <https://doi.org/10.1068/a42282>

Shove, E., Pantzar, M. and Watson, M. (2012) *The dynamics of social practice everyday life and how it changes*. London: SAGE.

Smith, D.E. (2005) *Institutional ethnography: A sociology for people*. Lanham: AltaMira Press.

Smith, D.E. (2008) From the 14th floor to the sidewalk: Writing sociology at ground level. *Sociological Inquiry*, 78, 3, 417-422.

Smith, D.E. and Turner, S.M. (Eds.) (2014) *Incorporating texts into institutional ethnography*. Toronto: University of Toronto Press.

Stevens, L., Nicholas, J., Wood L. and Nelson, M. (2013) School lunches v. packed lunches: a comparison of secondary schools in England following the introduction of compulsory school food standards. *Public Health Nutrition* 16, 6, 1037-1042.

The Gas Council (1957) Kitchen Design: Schools, Hospitals, Factories, Hotels, Restaurants and Cafés. *Architects' Journal* (London), 126(3275), 16–17

Tse, H.M., Learoyd-Smith, S., Stables, A. and Daniels, H. (2015) Continuity and conflict in school design: a case study from Building Schools for the Future. *Intelligent Buildings International*, 7, 2-3, 64–82.

UK Government (2014) The requirements for school food regulation 2014. (Statutory Legislation). London: UK Government.

UNISON (2005) School Meals, Markets and Quality. London: UNISON.

Van Cauwenberg, E., Maes, L., Spittaels, H., van Lenthe, F.J., Brug, J., Oppert, J. and De Bourdeaudhuij, I. (2010) Effectiveness of school-based interventions in Europe to promote healthy nutrition in children and adolescents: Systematic review of published and 'grey' literature. *British Journal of Nutrition*, 103, 6, 781-797.

Vihalemm, T., Keller, M. and Kiisel, M. (2015) From intervention to social change: A guide to reshaping everyday practices. Ashgate.

Walley, J.E., TECHNICAL SECTION: 10 DESIGN: BUILDING TYPES design of school kitchens. (1955). *Architects' Journal* (London), 121(3140), 615–618.

Watson, M. (2014) Placing power in practice theory - A DEMAND centre working paper. Unpublished manuscript.

Weis, L. and Fine, M. (2012) Critical bifocality and circuits of privilege: Expanding critical ethnographic theory and design. *Harvard Educational Review*, 82, 2, 173-201.

Woolner, P. (2010) The design of learning spaces, London, Continuum.

School food: Protected space or weak competitor?

Abstract

The school food environment is often conceptualised as a protected space of opportunity and responsibility in the battle with a dominant food regime that normalises and promotes overconsumption and contributes to an unhealthy diet. This framing has enabled a proliferation of policy and research that sets high expectations for school food, whilst failing to recognise the ways in which the dominant food system extends its power and influence into this safe space, preferring instead to award agency to parents, children, and school staff. This paper reports on the findings from two years of ethnographic field work to uncover and map the hidden power relations that inform and shape the food practices that are performed within primary schools in the UK. In doing so, it offers an alternative framing of school food as a weak competitor and presents the performance of school food work as examples of resistance that could support the transition to healthier food practices.

Key words: school food, food systems, children's diets, institutional ethnography

Introduction

The dominant narrative in school food policy and research works from the assumption that the school food environment represents a protected space from the harms of the dominant food system because of the legislative and policy framework that exists to ensure that food choices within schools are controlled (Storcksdieck, Genannt & Bonsmann, 2014). In the UK, a legislative framework ensures that meals are well balanced and nutritious, with schools given the power to control the food and drink that is consumed on site (Department for Education, 2016; 2023). This framing of a protected school food environment gives rise to ambitious policy aspirations for improving the health and wellbeing of children through the transformation of their diets (Impact on Urban Health, 2022; Dimbleby & Vincent, 2013). That there is very little evidence that school food is succeeding in this endeavour is seen as an ongoing policy problem (D'Angelo et al 2020; Ravikumar et al, 2022; Kitchen et al, 2010), with parents often being blamed for failing to choose school food and engendering poor dietary habits in their children (Mazarello et al, 2015; Harman & Cappellini, 2015; Briggs & Lake, 2011).

There is a strong body of evidence demonstrating the damage that modern western diets are having on both public health and the environment (Minghay, 2021; Van der Kamp et al 2018; Wang & Horton, 2015). It is widely acknowledged that globalisation and the concentration of power within the dominant food system has altered the consumer food environment, creating problematic new food norms (Lang & Heasman, 2015; Ehimario, 2012; Stuckler et al, 2012). This paper argues that these normative assumptions about choice, flavours and textures of food do not only exist outside the perimeter of the school, but they also permeate and alter the school food environment just as they have the home.

School food policy rarely sets itself explicitly in opposition to the corporate food environment. Whilst it recognises the role that widely available unhealthy food options have on health (Illøkken, 2021; WHO, 2021), it tends to frame itself as a mechanism for improving the food choices of children and their families, suggesting a policy logic that sees the locus of change in the individual rather than the environment within which the individual chooses (Food Foundation, 2022). Despite

problematising the impact that poor diet is having on health, school food is still operating from within this altered environment where, for example, variety and choice are conceptualised as positive and necessary (Dimbleby & Vincent, 2013).

School food policy in the UK has had a long-held aspiration to improve the health and wellbeing of children (Rose et al, 2019), not only improving the food that they eat in school, but also improving the types of food that they like and choose more generally, both now and in the future (Impact on Urban Health, 2022; Illøkken, 2021; Orłowski et al, 2017). The question of why school food needs to take on this role is rarely critiqued, but it is important to re-examine the assumptions that underpin this policy discourse by asking what is it that is so problematic about the status quo, that school food needs to try to divert children and families to make better choices than the ones they are currently making?

Between 2017 and 2019 I carried out an Institutional Ethnography of school food work in three linked UK primary schools. My aim was to explore the issue of low meal uptake, but a prominent theme discussed by my research informants was the barriers they faced when trying to deliver on the aspirations enshrined in school food policy, because of what they saw as the negative influence of the dominant 'unhealthy' food environment. This led me to question the notion of the protected space that policy and legislation is assumed to offer school food, and to consider how this framing might in itself represent a barrier to school food policy delivery. My research uses a social practice framing to understand school meals as a complex assemblage of actors, norms, spaces, and resources, rather than as a series of rational choices made in response to public health information (Shove, Pantzar & Watson, 2012; Vihalemm et al, 2015). I also use critical bifocality as an analytical approach to looking 'up and out' from the practices I am observing, to critically explore what might be their upstream drivers (Weis & Fine, 2018).

This paper makes an important new contribution to school food policy and research by arguing that the protected food space in schools is being undermined by the food industry, and that the failure to acknowledge these corporate power dynamics in policy and research could be contributing to the lack of impact that school food policy is having on dietary change. I use empirical findings from ethnographic field work to highlight the ways in which corporate power permeates the school food environment, shaping school food practices, but also ways in which the institutional and socio-cultural power dynamics within schools offer forms of resistance. These examples of resistance are presented as opportunities for school food to deliver on the considerable policy expectations it carries, if it is given the support and resource to do so.

Corporate power and the consumer food environment

Before focusing upon the school food environment, it is important to explore the complexity and reach of the global food system and the influence that this exerts on consumer behaviour (D'Angelo, 2020), a food system that is dominated by multinationals, and subject to horizontal and vertical integration models that make it difficult to determine who owns which part of the production, processing and distribution network, as well as being underpinned by complex financial mechanisms that make corporate interests difficult to pin down (Russi, 2013; Hawkes, 2005; Yoon, 2006). I include this summary of key themes from food regime literature as it exemplifies the scale and power of the food system that school food policy competes with.

Food regimes and the emergence of a processed food market

Food regime theory makes connections between the international relations of food production and consumption, and forms of accumulation that distinguish different periods of capitalist accumulation (Friedmann & McMichael, 1989). It tracks the transformation of the food production and distribution system from peasant co-production through colonial trade and expansion. The first regime is identified as running from the end of the 19th Century to the 1st World War and is

characterised by trade within a hierarchical colonial order; with colonies supplying raw materials to fuel industrial production in the metropolitan centres (Russi, 2013). The second food regime is identified as beginning after the 2nd World War and is characterised by comprehensive industrialisation of agriculture including chemical inputs, hybrid seed varieties, monoculture, and irrigation (Bernstein, 2016). The protection and promotion by states of domestic agriculture resulted in huge surpluses in the US, Canada, and Europe (Russi, 2013). These surpluses were used as food aid in developing countries, which establishes new import markets and import dependency in receiving nations. This era of food production also sees the emergence of the processed food sector in response to agricultural surpluses and advancements in technology (Hawkes 2005). Processing adds value to agricultural produce but also introduces more stages that absorb the final price of agricultural produce, ultimately driving down the price that farmers receive. (Lang & Heasman, 2015: 173).

Key features of the emerging 'third food regime' include the increased weight of financial capital, new actors and optimisation of financial performance; the growth of multinationals as a result of free trade markets; biotech growth supported by trade agreements supporting patented agricultural inputs; and an increase in the diversity of consumer choice through strategies of global sourcing, processing and product differentiation (Russi, 2013; Francis, 2000) Food regime theory makes visible the ways in which restructuring of corporate power necessitated a manipulation of consumer norms in order to develop new markets for different types and scales of production.

Foreign direct investment (FDI) and vertical integration in agribusiness.

The trend known as the 'nutrition transition' is seeing populations in developing countries consuming diets closer to those of more developed countries, with more animal products, vegetable oils, sweeteners and processed foods, and fewer whole grains (Hawkes 2005 p357). This transition can be attributed to a change in demand-side factors such as increased incomes and time scarcity of more urbanised lifestyles, but also results in powerful supply-side determinants such as a significant increase in the availability of affordable highly processed foods, and the promotional marketing of these foods by transnational food corporations (Greenberg, 2017). The growth of foreign direct investment into food processing, service, and retail since the 1980s has resulted in increased availability and consumption of highly processed foods. These markets' 'upstream dynamics' of changing consumption patterns create public health problems associated with 'westernised' diets such as rising obesity levels and diet related diseases (Hawkes, 2005). Vertical integration within the food value chain has become widespread within EU countries, this means that a single multinational corporation controls food production from agricultural inputs through to point of sale to the final consumer (Nikolaevna et al, 2015). This suggests the consolidation of multinational control of food production and marketing within developed countries, as well as its expansion into developing countries.

Financialization

The modern food regime represents a bundle of resources which provide opportunities for a quick profit. A significant problem with the current agri-food paradigm is that it presents hunger as a driver for production, but subordinates food production to the logic of financial profit - leading to inequalities of distribution (Burch and Lawrence 2009). The deregulation and subsequent expansion of derivatives commodity markets creates a significant group of participants in the food value chain who are uninterested in taking delivery of physical commodities. Derivatives commoditise variation, rendering volatility in the market a distinct asset class. As such, derivatives should not be understood as a form of ownership but as a mechanism for generating profit from uncertainty (Wigan, 2009).

Marketing

A revolution in agricultural production and the food supply chain in the 20th century also sees a restructuring of consumer tastes and markets through the mass marketing of highly processed food and beverages (Lang & Heasman, 2015 p180). Food marketing is following wider trends insofar as it is becoming more complex and targeted, utilising the collection of personal data from social media and consumer co-creation in the development of ever more nuanced and thus hard to regulate forms of product marketing (Cairns, 2012). Advertising is a known driver of obesogenic dietary intake (Mazarello et al, 2015; D'Angelo, 2020), and it is recognised that problematic consumption of unhealthy foods is supported by the industries that profit from these kinds of behaviours (Kelly and Barker, 2016).

In its pursuit of ever greater profits and returns on investment, the 'for profit' food sector is driving up consumption by increasing the availability of cheap, tasty, and calorie dense food on the market (Chandon & Wansink, 2012; Greenberg, 2016). In understanding the role of the profit motive in food production and marketing, it is possible to recognise 'that obesity is not a moral weakness but a normal response to the changing environment'. As such, it stands in contrast with traditional public health efforts that have focussed on providing science-based nutrition information and have exhorted people through didactic and sometimes moralizing appeals to change their 'dietary habits' (Chandon & Wansink, 2012 p589). Marketing unhealthy food to children and low-income populations is recognised as a tactic of the food industry (D'Angelo, 2020), with children being especially susceptible to making unhealthy food choices in the absence of supervision (Mazarello et al, 2015). Ultra-processed foods are not only marketed more aggressively to vulnerable populations, but they are also more widely available in more deprived neighbourhoods and are more likely to be chosen by low-income children than higher-income children (Parnham et al, 2022). Advertising power exerted by the food industry is recognised as greater and more effective than efforts of health professionals to persuade people to choose better by informing them of the health implications of different kinds of food (Kelly & Barker, 2016).

Corporate power and the school food environment

The most common examples of corporate food permeating the school environment is through analysis of vending machines and the sale of 'competitive foods' in schools. Competitive food is a term used in US school food policy to describe foods that are sold in schools (usually via vending machines), but which are not part of the formal lunch programmes (Fleischacker, 2007; Fernandes, 2013). Vending machines in schools, whilst not permitted in some European countries (and certainly very rare in elementary and primary schools) make an interesting case for exploring how easy or difficult it is for schools to defend their space from corporate interests, and in some cases how they could be seen to co-opt corporate power for institutional gain (Taber et al, 2015).

Vending machines and the sale of competitive foods, certainly in the US context and increasingly in secondary schools in parts of Europe, represent an income stream that is often used to offset low levels of funding for 'extracurricular' activities such as sports and cultural programmes (Terry-McElrath et al, 2014; Devi et al, 2010). Keeping vending machines out of schools, whilst reducing the on-site availability of unhealthy foods, certainly doesn't prevent children from bringing them in from elsewhere or leaving the school grounds to purchase them. There are even accounts of children setting up small-scale black markets selling products in schools that they have bought from wholesale suppliers (Fletcher et al, 2014). The contents of vending machines are sometimes directly influenced by a contractual arrangement with a supplier, and sometimes managed independently by the school. Research has shown that the nutritional standards of the food in schools with vending machine supplier contracts is lower than those without (Briefel et al, 2009).

The greatest direct commercial challenge to school meals services comes from packed lunches brought in from home. These are widely known to be less healthy than school meals (Stevens et al, 2013) and typically contain a high proportion of ultra-processed foods which have been specifically designed and marketed to children and families as suitable food (Parnham et al, 2022). As ultra-processed foods are more widely available in low-income areas, they are more likely to be found in the packed lunches of children in low-income areas.

There is a tacit acceptance that if school food standards are followed then the food children eat will be 'healthy', but there is evidence that in some cases guidelines and standards can become so complex that it is left to the food corporations themselves to interpret and provide lists of compliant foods, and when the nutritional value of these foods is scrutinised they are found not to be significantly or noticeably better than many non-compliant foods (Terry-McElrath et al, 2014), with ultra-processed foods increasingly finding their way into school kitchens (Parnham et al, 2022).

Methodology

Framing school meals as a social practice has been instrumental in the research design of this project. Historically most academic and policy literature related to the problematising of food consumption, and school food specifically, has done so from a public health perspective with the focus being on methods and strategies for achieving dietary change for the purposes of addressing public health concerns (Impact on Urban Health, 2022, D'Angelo et al, 2020). Health narratives are heavily influenced by behavioural theories developed within the field of psychology which tend to be individualising, in which individuals need to have their motivations understood and then need to be encouraged and enabled to make better choices (Shove, 2010).

In behavioural discourses the locus of power is often the individual, with discussions around changing consumption behaviours assuming that it is the consumer that holds the power to change structures and norms with better choices. Whilst practice theory is useful for reorientating focus away from individuals, it has also been criticised for failing to attribute power to the structures that shape the performance of everyday life and the setting of social norms (Hawkins, forthcoming). Practices are themselves seen as dynamic and productive, but the external forces shaping them are often unaccounted for (Watson, 2014, Vihalemm et al, 2015). This erasing of structural power is highly problematic as it fails to recognise the differential power to choose well that exists within populations that are marginalised due to intersections of class, race and gender (Anantharaman, 2018).

In order to understand the issue of low meal uptake I sought to reveal and map the ways in which power shaped the everyday practice of school lunch, to both challenge the individualising discourses around dietary choices, but also to account for the role that structural and relational power plays in the formation of the social practices associated with school food work.

Institutional Ethnography as a methodological approach for exploring power.

Institutional Ethnography (IE) was developed as a method for revealing hidden work practices that are subsumed within institutional discourses where the official account of the work often fails to recognise the many nuanced situations and negotiations that take place, resulting in a simplified account of complex work (Smith, 2005). IE is considered a feminist methodological approach as it highlights the gendered nature of the obscured work. It has been deployed to reveal the subsumed roles that mothers play in supporting schools, the ways in which care work is done and the hidden work of managing health conditions (Smith, 2006; Smith & Turner, 2014). IE as a research approach involves discovering work problematics through the process of research, rather than developing fixed ideas about the problems in advance. Institutional ethnographers must collect

data that captures detailed accounts of the coordinated activities that constitute the 'everyday' life and work of the relevant area of study (Campbell & Gregor 2008). Research Informants are identified as their work coordinates with others, and so they not only provide their expert account of the work, but also direct the researcher to the next point of enquiry as they track the work process in situ. In this study the line of enquiry started with local government school food officers and led on to school management teams, kitchen and lunchroom staff, catering company managers, and school architects.

Data collection methods included unstructured interviews that enabled themes to be explored flexibly and left space for the unanticipated to emerge (Savin-Baden & Howell Major, 2013). Observation and work shadowing was used to triangulate accounts of work provided in interviews with observations made of performed practices, in order to provide as holistic an account of working practices as possible (DeWalt & DeWalt, 2002: 92). The data collection methods are not dissimilar to other forms of ethnographic research, focusing upon observations, interviews, and documentary analysis (Murray, 2022). What differentiates IE is that the focus of the enquiry is on the way that work is coordinated, and in particular the textual architecture of that coordination. 'Texts' in IE are any fixed source that is used to shape the work across a number of sites and by different people (Smith, 2005). In my research, texts included recipe databases, school meal menus, school food policies and legislation, and policies and schedules of accommodation used to design school buildings.

My work adopts IE's generous definition of work to include deliberate and routinised tasks such as the work children do to navigate the school food environment at lunchtime, and the work that parents do to provide packed lunches, as well as more widely understood notions of paid work. Ethical clearance for the study was obtained from the University of Sheffield ethics committee.

Data analysis and visualisation.

Interviews were recorded and transcribed, and then used in conjunction with notes taken from work practice observation, and coded analysis of texts. Each informant's story helps the researcher to see more of the emerging 'big picture'. In IE the analysis of data is not so much looking for confirmation of a theme by repetition, or triangulation, but rather seeking to add each informant's account to the development of the mapped practice (Campbell & Gregor, 2008).

Whilst IE has many strengths as a method for unearthing hidden work and power structures, it is acknowledged as having very little to say about analytical approaches or ways of working with data (Murray, 2022). Though there have been some notable recent studies that have sought to address this, when I was thinking about how to work analytically with my data, I found that I needed to look beyond IE methods texts for inspiration.

Critical Bifocality was developed by educational researchers Lois Weiss and Michelle Fine who theorised the ways in which global forces shaped local actors and actions and foregrounded power, both political and economic, as contextual factors to be included in the analysis of contemporary practice (Weiss & Fine, 2012). Critical Bifocality was adopted as a complementary approach to IE as it also seeks to explicate the performance of the everyday by looking for upstream drivers that operate on actors to produce outcomes, including the ways in which structural conditions are enacted in policy. Whilst this is similar to IE's understanding of the textual architecture that shapes the working environment, Critical Bifocality enables a longer view that goes beyond the institutional context.

I used Critical Bifocality to explore the themes that came up repeatedly with my research, but which could not be easily understood in the context of institutional structures, namely why so many of my research informants said that the food that they served in schools was not seen as familiar, normal, or desirable to children and families. The gulf between the policy logic shaping school food

work, and the normative expectations shaping the diets of children and families needed exploration.

I wanted to find new ways of both analysing and communicating the findings from an IE, which tends to use narrative accounts to describe mapped working practices (Smith, 2006; Murray, 2022). Whilst this approach is familiar and useful in an academic context, it doesn't apply itself as well to more applied policy work, or wider dissemination of research findings (Hawkins, forthcoming). I wanted to show working practices in a visual format and so I used Systems Scribing as a visualisation tool for my findings. Systems Scribing uses representative tools from systems thinking to capture the dynamic processes described by research participants (Bird and Riehl, 2019).

Findings

School food workers' experiences of competing with the wider food industry.

The following findings highlight themes from my research that were centred around the dissonance between the underlying assumptions of school food policy, and the preferences and expectations that research informants believed were shaping food practices in schools.

The primary purpose of this research was to explore low uptake of school food, and in particular the role that institutional power played in the shaping of school food practices. However, it quite quickly became apparent that whilst institutional power did indeed have a significant role to play in the shaping of practices, when trying to trace the origins of some of these institutional processes many of the 'problems' identified by research informants involved trying to impose restricted choices on children and their families, and the extent to which these restrictions were accepted.

School food policy rests on the assumptions that a school meal is the preferred and 'best' choice, and in the schools that I worked with the majority of the children in the school were entitled to a free school meal, and yet at least half of those children were bringing in food from home instead of choosing the free meal provided by the school.

"There is only 61% uptake [of meals] amongst infants who get a free meal provided" (local government officer)

This first choice point is where many children are lost to the school food service and many of the school food workers we spoke believe this is because the food being offered in schools is not familiar to many children and families who are more used to eating processed ready meals, snacks, and fast food. In fact, it was reported that the food served in school is so alien to some children and families that parents are 'terrified' that their children won't eat it and go hungry.

"[parents] are terrified of them not eating, they don't like it so they're not going to eat it. They want to give them something they're going to like and know they're going to eat, but the problem is that the things they are enjoying and are eating are completely and utterly inappropriate" (Deputy Head)

School food workers placed the blame for this largely with parents, but when speaking as parents they also expressed a sense of powerless to shape the choices that their children made when choosing food, because of the easy and cheap availability of unhealthy food in their local food environment. Many parents chose instead to provide children with a packed lunch of food they were confident that their child would eat.

“Since my oldest two have gone up to secondary school now, I’ll give them the money for their dinner and their bus fares, they’ll go in the shop and spend it. And they’ll spend it on junk.... I hate it’ (School Cook)

For children who opt for a school meal, the normal practice in primary schools in the UK is a choice each day of a hot meal (with both a meat and a vegetarian option), a sandwich bag, or a baked potato with a choice of fillings. Children are also offered a dessert or yoghurt and are encouraged to supplement these choices with fresh fruit, selections from a salad bar and fresh bread. There is a different hot meal and main dessert offer each day and the menu operates on a 4-week rotation. So, within the school food system there is a significant amount of choice and the way in which choice is administered (through colourful descriptive menus, some with pictures of the food) is modelled on the ways in which food choices are offered in the commercial food sector. But whilst schools are able to offer choice, they are restricted in the types and range of food offered in ways that the dominant food sector is not, primarily because of the restrictions imposed by the food standards.

School catering companies have to produce menus that will be adopted by a wide range of schools and cater to a wide range of norms, but healthy options are not always the preference and school catering companies find themselves unable to meet consumer demand because of the regulatory framework in place.

“But what’s hard for us is we produce homemade food and I think a lot... Maybe I shouldn’t make sweeping statements, but a lot of children don’t recognise it.” (Catering Company Manager)

Discussions with catering company representatives revealed the precarious economies of scale that operate within the school food system. School cooks do not know which meals will be chosen by which children from one day to the next, and whilst data is collected and trends analysed to make predictions more accurate, the predictions themselves point to food preferences that are considered problematic, if not at all surprising to school food workers.

“How can I put it? Food moves, evolves, and there are trends with food. It is a challenge; we’ve got massive diversity within the city...schools with different mixes of nationalities. So yes, it’s challenging”. (Catering Company Manager)

The belief that a choice of food options is inherently good and necessary is not supported by evidence from research into the impact of school meals on child health, and many of the school food workers involved in this research carried conflicted views about choice. They all stated that they thought that it was good to offer a range of options, but they also said that they thought that ‘picky’ or ‘fussy’ eating behaviours in children and adults had been exacerbated and driven by the proliferation and expectation of choice. They reflected upon their own childhoods and how they had far less choice and were expected to eat what they were given. Not everyone looked back on this with fondness, but all understood it as an example of how much food expectations had changed. Despite this reflection almost all the school food workers I spoke to supported the continuation of choice as a way of encouraging more children to choose school meals over packed lunches.

“I just think it’s making the kids more fussy, I think kids these days are a lot more fussy than when I was younger – if you’ve got it on your plate you either ate it or you didn’t – and if you didn’t eat it, you were hungry. Whereas now because they’ve got that choice so they shouldn’t be going hungry – and I understand that, I do understand that they’re getting that choice, so they don’t go hungry.” (School Cook 2)

The range of options available each day allows children to be selective and in doing so, avoid many of the elements of the school meal that carry nutritional benefit. Kitchen staff know that this is happening, that children often refuse fruit and vegetables, but there is resistance within many schools to impose food selection on children, they are encouraged but ultimately get to choose what they take, and of course what they eat.

“Sometimes if I’ve been at a school and thought ‘none of these children are taking the vegetables, none of them are going to the salad bar’” (Local Government Officer)

One of the ways that school kitchens have adapted to meet this increased demand for choice, is to use some processed ingredients such as yoghurt powder pre-mixes, and pre-prepared frozen vegetables. This reduces the number of staff required to prepare up to four options of main meal and desserts every day. A school cook who had worked in kitchens since the 1980s reflected that there used to be more staff preparing fewer dishes, because back then everything was prepared from basic raw ingredients.

“There were loads of people in the kitchen, we had loads of hands because there was more to do, you know what I mean? There was more to do, because everything was fresh, you did your own potatoes, you had to do all your veg from scratch, you know.” (School Cook)

The use of processed foods in school kitchens has increased alongside wider trends, but school kitchens cannot add the levels of fat, salt, and sugar that the food industry has normalised.

Fish and Chip Fridays, the problem of making bad choices.

In the schools I worked with, there was up to a 30% increase in uptake of school lunches on Fridays, when chips are served. Fried potatoes can only be served once a week in accordance with school food nutritional regulations, and most food providers choose to do this on a Friday mirroring a cultural tradition for fish and chips to be served on this day. Other popular foods from the school menus are pizza, burgers, and sausages. Some of the kitchen staff I spoke to who were parents of older children were worried because at secondary schools, which were not subject to the same food regulations, pizza was available and chosen every day. The most popular foods in school mirror the kinds of food that are popular outside of the school context and are the ones that are considered least healthy. When these foods are available meal uptake increases, but when they are not parents send their children into school with packed lunches that contain ultra-processed foods.

The problem of packed lunches.

Packed lunches remain a battle ground in schools. Food that would not pass the nutritional standards imposed on school meals are frequently included in lunch boxes, much to the consternation of school staff. The reasons that parents give for sending their children with a packed lunch range from a belief that their children wouldn’t eat or like the food serve in school, to concerns about the nutritional quality of the meals provided in schools. Some parents didn’t trust their children to make balanced and healthy choices from within the school food offer and felt that a packed lunch gave them more control over their children’s diets. Some parents didn’t want their children to be offered a range of desserts every day. Some parents found the cost of school meals unaffordable.

Examples of packed lunch items that were considered unhealthy or inappropriate included crisps, sausage rolls, chocolate and hazelnut paste sandwiches, chocolate bars and cakes. These are all foods that are marketed as suitable for children, and which are considered suitable for children in

other contexts. The narrative of bad choices and parental blame came up again and again in my research, but there was very little critique of the food industry who were providing unhealthy foods that appeal to children (and adults). The expectation was that parents mitigated their children's tendency towards bad choices, even though when speaking as parents, many research informants acknowledged that this was something they struggled to do themselves, especially as children got older and had more exposure to a range of food options and the freedom to choose for themselves.

Social and institutional food practices which challenge and resist contemporary food norms.

Whilst the above examples show how food norms set by the food industry are making it hard for school food to be effective in improving diets, or financially robust, there were also examples of local practices that were influencing and shaping children's food choices in ways that challenged dominant food norms.

School food workers, especially the ones preparing the food and supervising the dining room, are incredibly important in shaping school food practices. Some children made food choices that they sometimes found a little challenging because they knew it would win the respect and good opinion of the cooks and lunchtime supervisors that they knew and respected.

“My older two started eating vegetables coz of school, coz they used to give them a high five. When I try em at home with veg they used to um and ah, but then then they were ‘oh mum I like sweetcorn, can we start having sweetcorn’. And that was just, because she wanted that high five – that they’d try it. Which is a good thing, well that’s something [school cook’s name] has always done.”
(School Cook)

I saw some children proudly showing their empty plates to lunchtime supervisors and heard of children who would try a new food when encouraged to do so by a trusted member of the kitchen staff. This represents hidden and unofficial work that these people take on board to support food policy objectives. There is no formal expectation that kitchen staff work at this nuanced interpersonal level, but many of them do even though they have hundreds of children to serve within a tight deadline.

Supervising children to make a healthy selection and then eat a good proportion of the food is crucial, but of course this has significant resource implications. In two of the schools I visited all the children eat at the same time in a large dining room, and staff have the time to pass between the tables monitoring what children are eating, and encouraging them to try and eat a good proportion and range of the food. Choosing to take this approach requires a large dining area and an ability to employ a number of lunchtime supervisors. But if the school has a smaller dining room and needs to move children on quite quickly, there is less time and space to do this work as was the case at the first school I visited.

Peer influencers.

Another area of nuanced interpersonal resistance that emerged during the field work was the unofficial role of peer influencers. This was a phenomenon that was reported by school food workers and that I observed happening in practice.

There are some children who are popular and who influence the tastes, behaviours, and choices of their peers. In the context of school food there are lots of examples of peer influencers dictating whether children select a school meal or packed lunch. It was also reported that some children can influence the foods that children take from the school lunch selection, for example some children taking or rejecting the vegetables can trigger a chain reaction down the lunch line.

“They’ll have everything on their plate and it looks lovely, but then once they get older they tend to follow each other as well – so if one kid’s at the beginning that’s a fussy eater and says I don’t want veg you’ll find next couple down the line, ‘I don’t want that’- and the same with puddings and stuff, they’ll follow each other” (School Cook)

Taking away choices.

There were some examples reported of schools that had decided to tackle the problem of unhealthy foods and influences entering the school by restricting choice. This was not one of the schools I visited but it was mentioned by a school food worker with a city-wide remit. A primary school in the city had taken the decision to ban all food from home, including packed lunches. This was only possible because of the universal free school meal programme that was in operation in UK infant schools at the time. There was no suggestion that parents should be forced to pay for a school meal. The approach was reported as successful, despite some initial resistance from parents. The option to remove children from school at lunchtime was still available to parents.

Banning packed lunches was also mentioned as a desirable way forward by other school food workers that I spoke to, but it was more an aspiration than something they thought was realistic. The fear with banning packed lunches was that it would spark a backlash from parents. Schools were tentatively considering the potential benefits of removing choice, one school had banned some drinks from home, and provided water to all children throughout the day. This was because children were bringing in sweetened drinks with their packed lunches or to have during break times. This had been a controversial and unpopular policy change with some parents, but the school had pressed ahead and implemented the ban, and quite quickly the resistance died down and the new practice became normalised.

“We don’t have a packed lunch policy. I’m not prepared to start to tackle it. Getting children to bring an appropriate drink to school has been 5 years of hell from parents who will do anything to try to go against the rules. We don’t have a water only policy, I would like to have a water only policy, but that’s a whole other level. We just have appropriate drink. Unsweetened squash, water, milk, or fruit juice. We’ve done a lot of work around it. It’s a big job monitoring the food in school, and packed lunches.” (Deputy Head)

Discussion.

The implicit framing of school food as a protected space enables the proliferation of aspirations and policy targets that present school food as the hero that will rescue children from poor diets, improve their health, concentration, social skills, and academic attainment (Illøkken et al, 2021). This framing assumes several underlying conditions that I argue need to be re-examined. One is that school food is the logical, rational, and preferable choice because of its health and wellbeing credentials, and the other is that school food policies, guidance, and legislation give schools power over the food choices that are made by pupils and their families. There are a number of policy failures that challenge this view, one is the relatively low uptake of school meals, even when they are free, and the other is the lack of evidence that improvements in the nutritional quality of school food is leading to improvements in children’s diets or health (Ravikumar et al, 2022; Kitchen et al, 2010; Impact on urban health, 2022).

My research set out to explore the policy problem of low meal uptake with an ethnographic study of school food work. What I discovered was that the main barrier to uptake of school meals in these schools was that the food produced in school is unfamiliar and it does not resemble the food that children and families are used to eating. As part of the policy discourse that frames school food as

a good and logical option, poor diets are attributed to people making poor choices (D'Angelo, 2020), but a significant body of research exploring food system change demonstrates how these 'poor choices' have in fact been engineered, supported and stabilized by a food industry that has transformed the consumer food environment, encouraging more and more consumption of processed and highly profitable food (Minghay, 2021; Lang & Heasman, 2015; WHO, 2021; Yoon, 2006). When understood in the context of these wider arguments about the role of the food industry in driving dietary health problems, the issues faced by the school meals service look less baffling. The norms, choices and preferences of children and families for seemingly 'unhealthy' food is entirely expected and understood – especially children and families in more deprived neighbourhoods where unhealthy food options are rife and marketing is targeted (Parnham et al, 2022).

School food, rather than being protected from the norms and expectations set by the wider food industry, is actually in competition with them. This competition takes a number of forms, some direct, such as the competition between school meals and packed lunches brought in from home; but some that are more indirect but much harder to address, namely the food norms, expectations and preferences that have been nurtured by the food industry. School meal services are attempting to mimic wider food system norms by presenting themselves as an option that needs to win customers and it does this by offering a wide range of options, advertising these through colourful and engaging marketing materials (Department for Education, 2023), and by offering foods that closely resemble ones that they know are popular and familiar. Despite this attempt to mimic competition, school meals services have their ability to compete weakened by being prevented from deploying the methods adopted by major food corporations to make cheap food highly palatable, such as including high quantities of fat, sugar, and salt (Winston, 2014). The modern school food system has to offer the range of choices the food industry encourages as normal and desirable, but with incomparably fewer resources and much more stringent restrictions.

School food workers I spoke to also expressed frustration about the expectation to offer choice, whilst at the same time believing that offering a choice was a necessary and beneficial way to keep customers happy and prevent a greater exodus to packed lunches. They expressed a sense of despair at the food choices children and families make, but they also recognise them as challenges they have faced as parents and consumers. In the schools I worked with, trends in meal choices showed a preference for foods such as chips, pizza, and sausage and on the days that schools offer these foods, they see an increase in uptake. But there is always stiff competition from packed lunches brought in from home. Packed lunches are villainised because of their lower nutritional quality, and because of the allure they offer to other children, but packed lunches contain items that have been engineered, packaged, and advertised as appropriate and desirable foods for children (Parnham et al, 2022). Blaming parents for making poor choices in this context feels both futile and grossly unfair.

The issue of choice and choosing well applies to the ways in which children navigate the service counter. Every day, even with a healthy range of options available, children gravitate towards the less healthy ones and must be encouraged and supported to eat fruit and vegetables. Given global trends in dietary choices and health, this should not be a surprise. Health issues related to over consumption of ultra-processed and nutrient poor foods are a global problem and there is no confusion about the drivers of these dietary trends (Kelly & Barker, 2016). Why is school food then expected to succeed where global governments and public health systems have failed?

The impact of corporate power in an everyday setting is hard to evidence. People do not frame their choices as being influenced by complex structural forces that lie beyond their view, often shouldering personal responsibility for their consumption practices (Middlemiss, 2010). It is the complexity and opaque nature of corporate influence in everyday consumption choices that leads to individualising narratives, they are easier to conceptualise, and on the whole, people are happy

to see themselves as free agents, rather than acting within a manipulated choice environment driven by market structures (Kelly & Barker, 2016). But if dietary change is necessary then we cannot ignore the forces that shape consumption. It is inadequate to frame diet as a matter of individual choice and ignore the entrenched and powerful forces that the corporate food environment exerts.

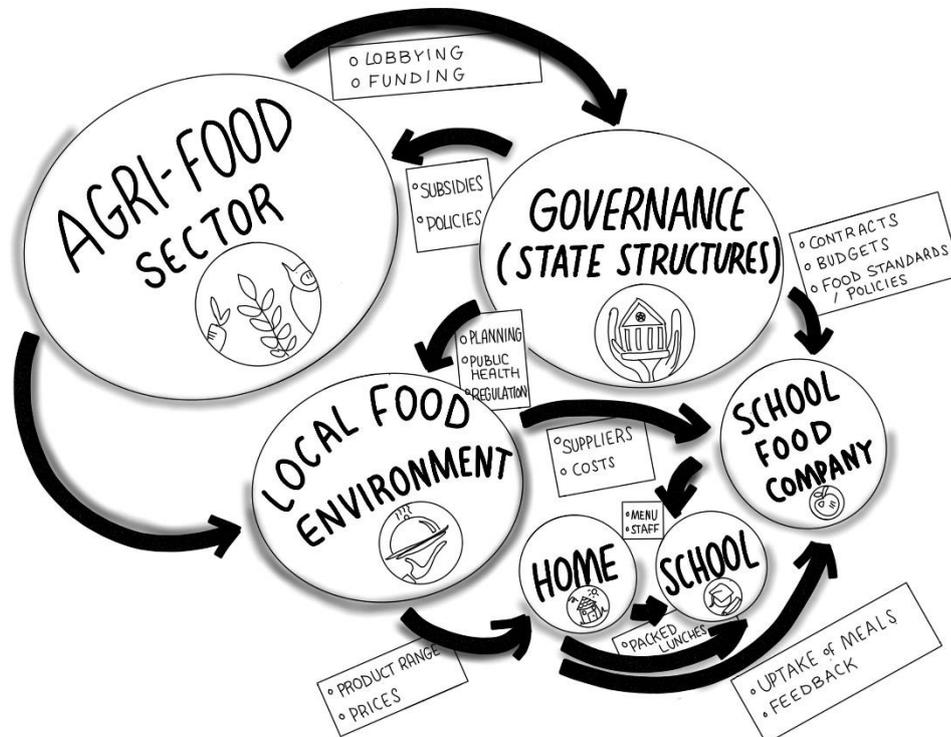


Figure 9: School food visualised as a nested power within the wider food system (Hawkins, forthcoming)

I argue that the framing of school food as a protected space fails to recognise the power imbalances that are acting upon it (Figure 9). In doing so it misattributes decision making power, but also understates the significance of the ways in which school food resists and fights back against these forces. Given the aggressive marketing of highly palatable but unhealthy foods, it should not be a surprise that school meals are unfamiliar to many families, especially families in more socio-economically deprived neighbourhoods such as the ones served by the schools in my study. These families have been targeted by food corporations that profit from and therefore have a vested interest in encouraging poor dietary choices (Parnham et al, 2022, D'Angelo et al, 2020).

In this context school meal uptake and the tactics deployed by school food workers to support healthy eating should be given due recognition and celebrated. Encouraging children to eat well takes time and is not easy. This is a good example of work that is subsumed within the discourse of school food that assumes that if you present healthy options in a visually appealing way, it will result in children trying the food and liking the food. My research confirms that this is not how things happen in reality. Children need to be encouraged to choose food that is not familiar to them, and to try food that is healthy but may not look or taste like most of the food available in their local food environment. This is where a lot of the work of resistance takes place, on an individual one to one basis between children and school food workers every single day. There is no quick fix or overarching coordinated campaign that can adequately replace this work, it requires care and deeply nuanced interpersonal skills deployed by workers who are not being paid to do this work but know how important it is and do it anyway.

Whilst there are obviously ethical limitations to the amount of formal work that individual children can be expected to do in support of healthier food choices, it is important to note that this is an

alternative locus of influence. Children are susceptible to food marketing messages and so are already working for the dominant food industry in reproducing some of these messages about popular brands and acceptable food choices (Ravikumar et al, 2022), but they can also be carriers of positive counter messages and have huge power in discreet local settings. Older children in schools already act as mentors and support anti-bullying and other inclusionary policies, offering volunteering roles to support and promote healthy eating within a school setting could represent an opportunity for schools.

School food policy assumes that unhealthy food can be managed, but it is not so easy to keep food norms and expectations out of schools and attempts to control the type of food and drink that can be brought into schools creates a lot of conflict and takes resources and resilience to implement. The scale and complexity of this work should not be underestimated, as I would argue it currently is. The food is the problem, not the people choosing it in an environment where this food is widely available and aggressively marketed (WHO, 2021).

Examples of reinforcing bans on certain foods and drinks can be seen as an opportunity, albeit one that needs proper support from policy and legislation. If governments will not regulate the food industry, then they need to provide a more robust legislative framework for protected spaces if there is any chance of diets changing for the better. Controlling food choices is a complex and contentious ideological conundrum (Kelly & Barker, 2016), but this is what schools are expected to manage at a local level every day.

Conclusion

This paper presents an alternative account of the power dynamics shaping contemporary school food practices, using evidence from ethnographic fieldwork set within the discursive framework provided by Practice Theory, Institutional Ethnography and Critical Bifocality. I argue that the framing of school food as a protected space within which dietary health can be restored fails to acknowledge the power imbalances that still operate within this space, namely the norms, expectations and preferences that have been manipulated over time by a food industry dominated by highly processed convenience foods. This framing creates a blind spot when trying to understand why school food is struggling to make an impact on dietary health.

School food standards, whilst important and beneficial in principle, can represent a barrier to uptake, because health credentials are not always the primary motivator for food choices, and a healthy hot meal is now an unfamiliar entity to many children. There is a compelling and long-standing case to argue that the dominant food industry has deliberately shifted food norms to privilege the types of food that it stands to profit from the most; heavily processed food with an extended shelf life that emerges from a highly complex production process, increasingly controlled by subsidiaries of the same company. That the most popular and familiar foods are considered inappropriate and harmful from a dietary health perspective is not the fault of school food workers, children, or parents. Many parents worry more about their children going hungry than them eating healthily, which should not be seen as an example of moral weakness but understood as an outcome of deliberate manipulation of tastes and expectations by the food industry. School food services are in competition with packed lunches brought in from home, and whilst it holds this position as a choice competing with other food choices, the protected space is critically compromised.

School food workers recognise how difficult it is to get children to choose and eat healthy food, and they understand the limited power and influence that they have as parents trying to persuade their children to choose well. This battleground is well known to people who feed children but is largely absent from the policy and literature that focuses upon healthy and nutritious school food as a

logical and preferable option, reinforcing the belief that school food legislation and policy gives schools the power to control food choices.

I offer an alternative account of school food as a nested competitor within the dominant food system rather than protected from it. This alternative framing makes visible the power dynamics that are currently obscured by dominant policy discourses and gives greater recognition to the achievements of school food workers who are taking on the might of the food industry every day in many small acts of resistance. School food services have the opportunity to make a significant contribution to improvements in dietary health because of the skills and knowledge of school food workers who are experts in feeding children. Whilst many of them see parents as the barrier to better food habits in children, it would be more helpful to understand the power dynamics acting upon parents as consumers within a complex and problematic food environment that encourages unhealthy but highly profitable diets. Framing school food as a competitor allows a different approach to policy design, one that does not deny the existence of dominant food norms and asks instead what an effective strategy might be for a food service operating within this competitive environment?

Set in this alternative framing, the current levels of school meal uptake do not look like a surprising policy failure but rather an example of a weak competitor making significant gains with extremely limited resources. This is not to say that policy aims to increase uptake should be abandoned, far from it. There is important work to do to improve children's health and school food is well placed to do this. But I would argue that school food workers are achieving amazing things already, and their knowledge and expertise should be informing policy design. With proper resourcing and recognition, school food services can offer some resistance to the food industry against which it competes every day for the health and wellbeing of children and families.

References

- Anantharaman, M. (2018). Critical sustainable consumption: a research agenda. *Journal of Environmental Studies and Sciences*. Vol 8(4). 553-561.
- Bernstein, H. (2016). Agrarian political economy and modern world capitalism: The contributions of food regime analysis. *The Journal of Peasant Studies*, 43(3), 611-647. doi:10.1080/03066150.2015.1101456
- Bird K and Riehl J (2019) Systems Scribing: An Emerging Visual Practice Available at: www.kelveybird.com (accessed 13 December 2022)
- Briefel, R., Wilson, A., & Gleason, P. (2009). *Consumption of low-nutrient, energy-dense foods and beverages at school, home, and other locations among school lunch participants and nonparticipants*. Chicago: Academy of Nutrition and Dietetics.
- Briggs, L., & Lake, A. A. (2011). Exploring school and home food environments: Perceptions of 8-10-year-olds and their parents in Newcastle upon Tyne, UK. *Public Health Nutrition*, 14(12), 2227.
- Burch, D., & Lawrence, G. (2009). Towards a third food regime: Behind the transformation. *Agriculture and Human Values; Journal of the Agriculture, Food, and Human Values Society*, 26(4), 267-279.
- Cairns, G. (2013). Evolutions in food marketing, quantifying the impact, and policy implications. *Appetite*, 62, 194-197.
- Campbell, M. L. & Gregor F. M. (2008), *Mapping social relations: A primer in doing institutional ethnography* Toronto: UTP,

- Chandon, P., & Wansink, B (2012), Does food marketing need to make us fat? A review and solutions. *Nutrition Reviews*, Volume 70, Issue 10: 571–593,
- D'Angelo, C; Gloinson, ER; Draper, A; Guthrie, S. (2020) *Food Consumption in the UK: Trends attitudes and drivers*. Cambridge, The Rand Corporation.
- Department of Education (2023) School Food: guidance for governors accessed via <https://www.gov.uk/government/publications/school-food-standards-resources-for-schools/school-food-guidance-for-governors> (accessed 16 June 2023)
- Department for Education, (2016). *School food in England: Departmental advice for governing boards*. London: UK Government.
- Devi, A., Surender, R., & Rayner, M. (2010). Improving the food environment in UK schools: Policy opportunities and challenges. *Journal of Public Health Policy*, 31(2), 212. doi:10.1057/jphp.2010.9
- Dimbleby H & Vincent J (2013) *The School Food Plan*. Available at: https://www.schoolfoodplan.com/wpcontent/uploads/2013/07/School_Food_Plan_2013.pdf (accessed 20/6/23)
- Ehimario, U. I., Sanders, D., Thandi, R. P., Tsolekile, L., Schwarz, C., Purdy, C., Hawkes, C. (2012). "Big food," the consumer food environment, health, and the policy response in South Africa. *PLoS Medicine*, 9(7), e1001253.
- Fernandes, M. M. (2013). A national evaluation of the impact of state policies on competitive foods in schools. *Journal of School Health*, 83(4), 249-255.
- Fleischhacker, S. (2007). Food fight: The battle over redefining competitive foods. *Journal of School Health*, 77(3), 147-152.
- Fletcher, A., Jamal, F., Fitzgerald-Yau, N., & Bonell, C. (2014). 'We've got some underground business selling junk food': Qualitative evidence of the unintended effects of English school food policies. *Sociology*, 48(3), 500-517.
- Food Foundation (2022) The Superpowers of Free School Meals: an evidence pack. Available via: <https://foodfoundation.org.uk/publication/superpowers-free-school-meals-evidence-pack> (accessed 15/5/23)
- Francis, R. (2000). Eating More Beef: Market Structure and Firm Behavior in the Pacific Basin Beefpacking Industry. *World Development*, 28(3), 531–550.
- Friedmann, H., and P. McMichael. 1989. Agriculture and the state system: The rise and decline of national agricultures, 1870 to the present. *Sociologia Ruralis* 29, no. 2: 93–117.
- Greenberg, S. (2017). Corporate power in the agro-food system and the consumer food environment in South Africa. *The Journal of Peasant Studies*, 44(2), 467-496.
- Harman, V., & Cappellini, B. (2015). Mothers on display: Lunchboxes, social class and moral accountability. *Sociology*, 49(4), 764-781. doi:10.1177/0038038514559322
- Hawkes, C. (2005). The role of foreign direct investment in the nutrition transition. *Public Health Nutrition*; *Public Health Nutr.*, 8(4), 357-365. doi:10.1079/PHN2004706
- Hawkins, A (Forthcoming) Mapping Working Practices as Systems: An analytical model for visualising findings from an Institutional Ethnography, *Qualitative Research*.

Illøkken, Johannessen, B., Barker, M. E., Hardy-Johnson, P., Øverby, N. C., & Vik, F. N. (2021). Free school meals as an opportunity to target social equality, healthy eating, and school functioning: experiences from students and teachers in Norway. *Food & Nutrition Research*, 65, 1–13.

Impact on Urban Health (2022), Cost benefit analysis of free school meal provision expansion. Available at <https://urbanhealth.org.uk/insights/reports/expanding-free-school-meals-a-cost-benefit-analysis> (accessed 27 June 2023)

Kelly M and Barker M (2016). Why is changing health-related behaviour so difficult? *Public Health* 136: 109–116.

Kitchen et al (2010) *Evaluation of the free school meal program: Impact Report*. Department for Education Research Report DFE-RR227.

Lang, T., & Heasman, M., (2015). *Food wars: The global battle for mouths, minds and markets* (Second edition. ed.) Routledge.

Mazarello Paes, V., Ong, K. K., & Lakshman, R. (2015). Factors influencing obesogenic dietary intake in young children (0–6 years): systematic review of qualitative evidence. *BMJ Open*, 5(9), e007396–.

Middlemiss, L. (2010). Reframing Individual Responsibility for Sustainable Consumption: Lessons from Environmental Justice and Ecological Citizenship. *Environmental Values*, 19(2), 147–167

Mingay E, Hart M, Yoong S, Hure A. Why We Eat the Way We Do: A Call to Consider Food Culture in Public Health Initiatives. *Int J Environ Res Public Health*. 2021 Nov 15;18(22):11967.

Murray, O. M., (2022) Text, process, discourse: doing feminist text analysis in institutional ethnography, *International Journal of Social Research Methodology*, 25:1, 45-57.

Nikolaevna, Z., Aslanbekovich, K., & Aleksandrovich, M. (2015). Features of vertically integrated agribusiness corporations in western Europe countries. *Modern Applied Science*, 9(8), 417-428.

Orlowski, M., Patton, S., Narayan, R., Patrick, A., Pobocik, R. S., Lodge, A., Spears, W. (2017). *Evaluation of a statewide project to nudge healthy choices in school lunchrooms*. London: SAGE Publications Ltd.

Parnham, Chang, K., Rauber, F., Levy, R. B., Millett, C., Laverty, A. A., Stephanie von Hinke, & Vamos, E. P. (2022). The Ultra-Processed Food Content of School Meals and Packed Lunches in the United Kingdom. *Nutrients*, 14(14), 2961.

Ravikumar, D., Spyreli, E., Woodside, J., McKinley, M., & Kelly, C. (2022). Parental perceptions of the food environment and their influence on food decisions among low-income families: a rapid review of qualitative evidence. *BMC Public Health*, 22(1), 9–9.

Rose, K., Lake, A. A., Ells, L. J., & Brown, L. (2019). School food provision in England: A historical journey. *Nutrition Bulletin*, 44(3), 283–291.

Russi, L., (2013). *Hungry capital: The financialization of food*, Zero Books.

Savin-Baden, M., & Major, C. H. (2012). *Qualitative research: The essential guide to theory and practice*. London: Routledge.

Shove, E., (2010). Beyond the ABC: Climate change policy and theories of social change. *Environment and planning A*, 42 (6), 1273-1285.

Shove, E., Pantzar, M., & Watson, M. (2012). *The dynamics of social practice everyday life and how it changes*. London: SAGE.

- SMITH, Dorothy (2005). *Institutional Ethnography: A Sociology for People*. Lanham, AltaMira Press.
- Smith, D. (Ed.). (2006). *Institutional ethnography as practice*. Oxford: Roman & Littlefield Publishers.
- Smith D. E. & Turner S. M. (eds) (2014) *Incorporating texts into Institutional Ethnography*, Toronto, University of Toronto Press.
- Stevens L, Nicholas J, Wood L, et al . (2013) School lunches v. packed lunches: a comparison of secondary schools in England following the introduction of compulsory school food standards. *Public Health Nutr* 16, 1037 -1042.
- Storcksdieck Genannt Bonsmann, S. (2014). Comprehensive mapping of national school food policies across the European Union plus Norway and Switzerland. *Nutrition Bulletin*, 39(4), 369–373.
- Stuckler, D., McKee, M., Ebrahim, S., & Basu, S. (2012). Manufacturing epidemics: The role of global producers in increased consumption of unhealthy commodities including processed foods, alcohol, and tobacco. *PLoS Medicine*, 9(6), e1001235.
- Taber, D. R., Chriqui, J. F., Powell, L. M., Perna, F. M., Robinson, W. R., & Chaloupka, F. J. (2015). Socioeconomic differences in the association between competitive food laws and the school food environment. *Journal of School Health*, 85(9), 578-586.
- Terry-McElrath, Y., Hood, N. E., Colabianchi, N., O'Malley, P. M., & Johnston, L. D. (2014). Profits, commercial food supplier involvement, and school vending machine snack food availability: Implications for implementing the new competitive foods rule. *Journal of School Health*, 84(7), 451-458.
- Van De Kamp, M. E., Seves, S. M., & Temme, E. H. M. (2018). Reducing GHG emissions while improving diet quality: Exploring the potential of reduced meat, cheese and alcoholic and soft drinks consumption at specific moments during the day. *BMC Public Health*, 18(1), 264–264.
- Vihalemm, T., Keller, M., & Kiisel, M. (2015). *From Intervention to Social Change*, Oxon.Routledge.
- Watson, M.t (2014). *Placing Power in Practice Theory - A DEMAND centre working paper*. Unpublished.
- Wang, H., & Horton, R. (2015). Tackling climate change: the greatest opportunity for global health. *The Lancet* (British Edition), 386(10006), 1798–1799.
- World Health Organisation (2021) *Implementing School Food and Nutrition Policies; a review of contextual factors*. WHO, Geneva available at: <https://www.who.int/publications/i/item/9789240035072> (accessed 15/5/23)
- Weis, L., & Fine, M. (2012). Critical bifocality and circuits of privilege: Expanding critical ethnographic theory and design. (report). *Harvard Educational Review*, 82(2), 173-201.
- Weis, L., & Fine, M. (2018). Critical Bifocality. In *The Wiley Handbook of Ethnography of Education* (pp. 91–111). John Wiley & Sons, Inc. <https://doi.org/10.1002/9781118933732.ch5>
- Wigan, D. (2009). Financialisation and Derivatives: Constructing an Artifice of Indifference. *Competition & Change*, 13(2), 157–172.
- Winson, A. (2014). *The industrial diet: The degradation of food and the struggle for healthy eating*. New York: New York University Press.

Yoon, B. (2006). Who is threatening our dinner table? the power of transnational agribusiness. *Monthly Review*, 58(6), 56-64.

Discussion and Conclusions

Introduction

Each of the preceding papers discusses specific aspects of the findings against the policy and literature that has been used to frame the contribution of each paper. This chapter offers a discussion and integration of the overarching themes addressed by the thesis. It will include a reflection upon the research design before concluding with a summary of the key findings and recommendations.

Research Aim and Objectives and how these have been met.

***Aim:** To map and subsequently theorise the ways in which circulations of institutional power work to shape the practice of school food to identify the barriers to effective policy implementation and make recommendations for revisions and improvements to school food policy.*

The thesis has addressed this overarching aim, through attending to the three specific research objectives in ways outlined below.

***Research Objective One:** To identify the ways in which the work of school food delivery is coordinated trans-locally and across time by the activation of texts.*

Mapping the ways in which texts coordinate work and are activated by research informants is an important characteristic of IE and one of the ways in which it distinguishes itself from more generalised applications of ethnographic research. Remaining alert to the ‘activation’ of texts is an important analytical role for the researcher as activations can sometimes be quite oblique, in other words someone may mention an issue that is impacting their work, but the researcher may have to work with informants to find the textual origin of the issue (if indeed one exists). As IE was developed before the widespread adoption of digital communication and data recording methods, the name ‘texts’ is still used, despite texts not being a neat fit for the kinds of sources referenced by informants. IE defines texts as the ‘carriers of the ideological account of work’ (Smith 2005) and an important way in which institutional power is activated (Campbell & Gregor, 2008). My role as a researcher was to both notice and trace the references to ‘texts’ and explore how work was shaped by but also deviated from this ideological account.

In some ways the ‘textual’ coordination of school food work was quite clearly visible and straightforward to map as the three schools I worked with were all coordinated by the same local authority school food team and used the same catering company. Nationally set school food standards were interpreted and applied by the catering company, who created a series of menus and meal plans that would be compliant with the legislative requirements and local policies (**Appendix 3** - Sample school menu). Whilst the fieldwork took place in three Sheffield schools, the problems that the schools were experiencing with meal uptake and impact are typical of the national picture which identifies low uptake of meals as impacting upon health and economic viability of the school meal service (Department of Education, 2023; Impact on Urban health, 2022).

At the local level this coordination took the form of a menu database that school cooks had to follow, and a four-week menu plan that was proposed by the catering company which could be adapted by the school if they felt a dish would not be popular at their school (usually because it had previously proven to be so). The menu database was also used by head cooks to generate stock orders depending upon the projected level of uptake at each school. The ordering system generated reports that showed past trends in uptake of different meal options which allowed to

school cooks to make more accurate predictions about future uptake levels (**Appendix 4** - Sample meal uptake report.)

The school meal service was monitored and evaluated by both the catering company, and the local authority (LA) school food team in their capacity as the commissioning authority for the catering service. Meal choice reports were also used by the local authority to monitor uptake levels in schools (**Appendix 5** - Meal evaluation sheet.)

Whilst it was quite easy to map the textual architecture of the work, the problem of low uptake meant that whilst the process was operating smoothly in all three schools, the desired policy outcomes of meal uptake and health benefits were being compromised. Whilst in the opinion of the local authority school food team, all three participating schools offered a good quality service, all schools had a significant proportion of children entitled to free school meals (either through means-tested or universal provision) who were electing to bring in a packed lunch from home rather than take a school meal. As packed lunches were believed to be of a lower nutritional quality, a belief that is supported by the literature (Parnham et al, 2022; Stevens et al, 2013), this choice was framed as problematic by many school food workers as well as researchers and policy makers (Nelson et al, 2006; Dimpleby & Vincent, 2013).

The ways in which the food standards were being framed was interesting because they were used as an indicator of quality, but also as a barrier to uptake. As a text they coordinated a lot of the work including the setting of menus and restricting how often certain foods could be served, but there were conflicted views about how the standards were valued by parents and children. The health benefits framing of the school food standards did not seem to resonate, and in fact there were lots of accounts of the food being alien and frightening to many children and families in these schools. This will be discussed further below in response to research objective two.

Spaces as well as nutritional policies and legislation have an impact upon school food work. IE produces somewhat aspatial understandings of institutions; the use of the term mapping in this approach is a figure of speech. Smith endeavours to write for the masses in ways that should be as accessible as a map (Campbell and Gregor, 2004). Mapping itself and spatial analysis more broadly remain largely absent from the approach (Murray, 2022) and IE does not place as much emphasis on differentiation between different spaces of the institution. As a result, the institution remains flat, and there is little attention given to the analyses of the spaces of institutional productions of power. (Billo & Mountz, 2016).

An interesting finding from this research relates to the ways in which school food spaces have evolved over time and the impact that this is having on school food work, in particular the extent to which schools felt that they had the capacity to meet policy targets for expanded uptake. This theme is the main focus of the paper 'spatial barriers to the effective deliver of school food policy in primary schools'. As discussed in this paper, there were a number of references to kitchen space being smaller in new school buildings than they had been in the older school buildings they replaced, and problematically small even when serving only around half of the pupils in the school a hot meal. Not only was preparation space considered too small, but food storage spaces were also too small for effective stock management. School food workers were not clear about why spaces had become smaller, although one school cook felt that spaces didn't need to be as big as they had been when school meals were prepared from raw ingredients every day and served to a larger number of pupils. This required an exploration of the textual coordination of this aspect of the work, which led to an interview with a school building architect who explained the schedule of accommodation and space standards documents that dictated how much space would be allocated to kitchen and dining space in a new school building (Department for Education, 2014).

It was not easy to find evidence of why space standards for kitchens have decreased, but it has been possible to evidence that they have. Not only was this reported by school food workers, but I

also found an architectural journal articles from the 1950s which set out the minimum space standards for a school kitchen (Walley, 1955), and from this I was able to make a direct comparison. Whilst there is no clear explanation given for the reduction in kitchen space, I present an argument that there has been a divergence between the school food policy, which prioritises increased meal uptake and a wide range of healthy food options cooked on site; and school building design processes, which prioritise cost saving and efficient use of space. This divergence is now creating challenges for school food workers and is resulting in work that is obscured from the official account, such as kitchen staff changing and working in cleaning supplies cupboards and working additional hours to prepare meals on time. School food in the UK was downgraded in status as part of the deregulation process in the 1908s that saw nutritional standards abandoned and fast-food style service adopted, with children able to choose from a range of individual items that included processed foods (Rose et al, 2019). In some schools full-service kitchens were replaced by 'heat and serve' provision (Evans & Harper, 2009). Whilst there has been a return to food standards and a strong policy emphasis on the importance of nutritional and tasty food (Department for Education, 2023), the space allocated to food storage and preparation has not responded accordingly.

In this example the power exerted by the school building design process and documentation is resulting in a deviation from the ideological account of the work that is implied in these texts, namely that the space allocated is sufficient for the scale and scope of work required to feed all children in the school a freshly prepared meal chosen from a range of options. Whilst the sample size of this research is small, the accounts of research informants are supported by the empirical evidence that school kitchens in new school buildings are significantly smaller than they were in the past. Whilst there have been advances in cooking technology, food policy is advocating for cooking from 'scratch' as used to happen in the much larger kitchens of the older buildings. In this context (predominantly female) workers are expected to meet the demands of the official account of the work (Lund, 2012), and they do this in ways that are obscured from this official account of space being sufficient such as working additional time or turning to convenience foods such as processed frozen vegetables and pre-mixes to save time and space. This is an illustration of the devaluing of women's work that stems from a lack of understanding or recognition of the complexity of the work (Smith, 2005; DeVault, 1991)

Research Objective Two: *To map the ways in which institutional power shapes the social practice of school dinner through the activation of texts.*

Accounting for the way that power shaped practices remained a commitment throughout my research, but the wording of this objective, and in particular the emphasis upon texts and institutional power created a conundrum once I started my field work. Whilst texts and institutional processes were clearly shaping practices in some of the ways outlined above, the most common reference to power dynamics came from references to the ways in which the dominant food system has changed normative expectations of food to such an extent that the freshly cooked healthy meals served in schools were unfamiliar and therefore less likely to be chosen, even by families who were entitled to a free meal.

Rather than institutional processes exerting power, my findings suggested that they were in fact failing under pressure from outside of the school food institutional context. I theorised that school food standards and policies, rather than giving school meals a competitive advantage, were actually compromising its ability to compete with the tastes, norms and preferences that had been set by the food industry (Lang & Heasman, 2015; Hawkes, 2005; D'Angelo, 2020). The nutritional discourses that dominate school food policy and literature assumes that parents will choose healthy food for their children over the unhealthy options of a packed lunch (Food Foundation, 2022), but this assumption isn't supported by evidence and many school food workers I spoke to believed that parents were more worried about their children going hungry because they wouldn't

like the food served in school, and so would rather send them with packed lunches they knew they would like even though this cost them more money.

A notable tension that emerged during interviews/fieldwork was that most research informants thought that parents were to blame for not making better choices for their children, interestingly, when speaking as parents they also expressed helplessness and frustration at their inability to control what their children were eating. This dissonance is reflected in the policy and research discourse around food and diet that simultaneously recognises how children and families are targeted by food marketing (Mazarello et al, 2015; Cullerton et al, 2022), but also assigning agency to parents to choose better for their children (Illøkken et al, 2021; Ravikumar et al, 2022). Although my ability to interview parents was limited due to the Covid 19 pandemic, this theme came up so frequently in discussions with research informants that I was compelled to explore further in order to understand why school food was considered so unusual for many families, which required an exploration of changes in the wider food environment.

Because this line of enquiry took me both beyond the institutional context and the scope of my ethnographic research, I needed to adapt my research design in order to account for food system power dynamics. I adopted critical bifocality as a way of exploring remote power dynamics and their effect. Critical bifocality is a compatible feminist qualitative research approach that looks for hidden power dynamics that act as 'upstream' determinants of contemporary practice (Weis and Fine, 2018). It asks the researcher to look 'up and out' of the field of study to ask what forces may have created the problems that are now being managed at a local level (Weis and Fine, 2012). When I looked 'up and out' of the school food environment, I was led to explore food system research which has been arguing for many years that the evolution of the food system has been driven by multinationals in a direction that has prioritised the production, distribution and marketing of highly processed and palatable foods that are leading to new problematic dietary norms and environmental harm (Kelly and Barker, 2017; Stuckler, 2012; Winston, 2014). Whilst this research is well established and no longer making controversial claims about the locus of the 'problem' of modern diets, these narratives appeared to be largely obscured from my research informants. They recognised that there was a lot of 'junk' food in their environment, but they still assigned agency to themselves and other parents to make better choices. The complex burden that falls predominantly on women to feed children and other family members 'well' is well understood in feminist research into the role of women as providers of care (Yates-Doerr & Carney 2015). Care means keeping people both healthy and happy, and women have a long history of carrying the guilt for their failure to do this job adequately (Peterson, Tanner & Fraser, 2014).

Research demonstrates that the food environment is the driver of the global rise in non-communicable diseases (Stuckler, 2012), and yet the power imbalance that exists between the multinationals and the women trying to feed children well, be that in the home or in an institutional setting, leads to a sense of powerlessness. All the school food workers I spoke to recognised this challenge, but they also took responsibility for it rather than demanding systemic change.

I argue that one of the reasons that agency and power continue to be misattributed to individuals in this way lies within the dominant framing of school food literature and policy which still speaks of processes of persuasion and choice aimed at the individual child or parent (Department for Education, 2016; Mazarello and Lakshman, 2015). There is tacit recognition of the wider food environment as problematic and the driver of dietary health (Impact on Urban Health, 2022), but the efforts are then directed towards an expectation that children and families choose better from the options available, rather than asking that there be systemic change to the food environment (Lang and Heasman, 2015). This approach can be seen in publications and discussions about packed lunches being unhealthy in contrast to the healthier option of a school meal (Briggs and Lake, 2011). When parents do not choose the healthier option for their child they are framed as making a bad choice, despite there being powerful emotions connected with this choice. I heard

that parents are ‘terrified’ of their children not eating, that they have been made fussy by the wide range of food choices available to them, that the food they are eating is inappropriate but familiar, and that some children have only ever eaten highly processed foods and don’t recognise the school dinner as food.

Whilst I would not argue that research informants should delve into food system research in order to understand the power dynamics acting upon their everyday food choices, I do think that the message that the food system itself is the problem does need wider recognition in school food and nutritional literature more generally. I argue that it is both unfair and ineffective to keep expecting school food to make significant inroads into problematic diets when it is in competition with food multinationals that set norms and manipulate the consumer choice environment, filling the shops in neighbourhoods with food that is deemed ‘inappropriate’ for children. It is unfair and ineffective to keep expecting food workers (in the home and in schools) to carry the burden of standing up to the power of food multinationals that target their children in advertising campaigns and place palatable and colourful foods in easy reach of their children every day (Cullerton et al, 2022). There is at last recognition creeping into nutritional literature and school food guidance that the structural forces outweigh the power of the individual (Kelly and Barker, 2015) and that contextual factors need to be addressed in food policy (World Health Organisation, 2021), but this message is not yet strong enough to drive the political will to tackle the damaging power of the food industry, the message continues to be that dietary health is a failing of parents and they need to be supported to choose better.

As part of my commitment to producing findings in an accessible format, I worked with a systems scribe to translate some of the narrative accounts emerging from my analysis into systems diagrams.

Figure 10 shows the narrative that emerged from the school food workers perspective on the power dynamics shaping the school food environment. In this image more power is attributed to the home than the school, which is why the home sits in the middle of the picture. Food norms are seen as being generated in the home and influenced by the food available in the local environment. Whilst there was recognition from many research informants that choosing well was difficult, they still say this responsibility as sitting with parents.

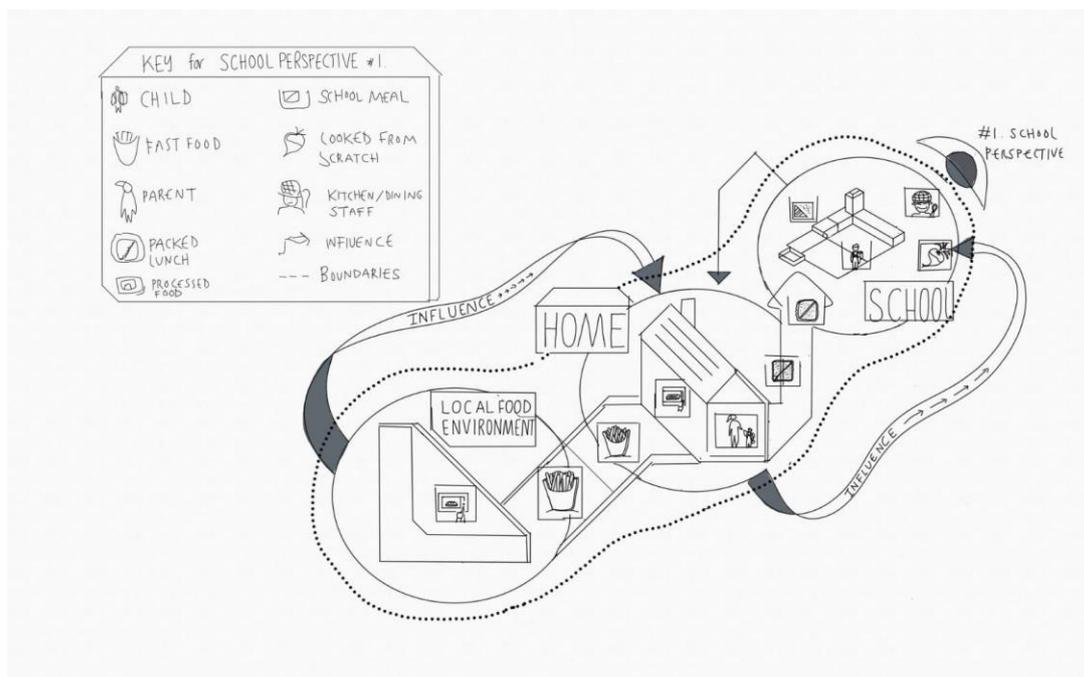


Figure 10: The school perspective on why school food differs from the food that children are used to eating.

Once I applied critical bifocality and looked for the forces that might be shaping this perspective, I produced the following diagram which incorporates many of the actors named in school food system research as well as those named by research informants, including the school food catering company. **Figure 11** attempts to show that whilst there is an institutional food system that is nominally protected by food standards legislation, in practice it is operating as a weaker nested entity within a much larger and more powerful food system.

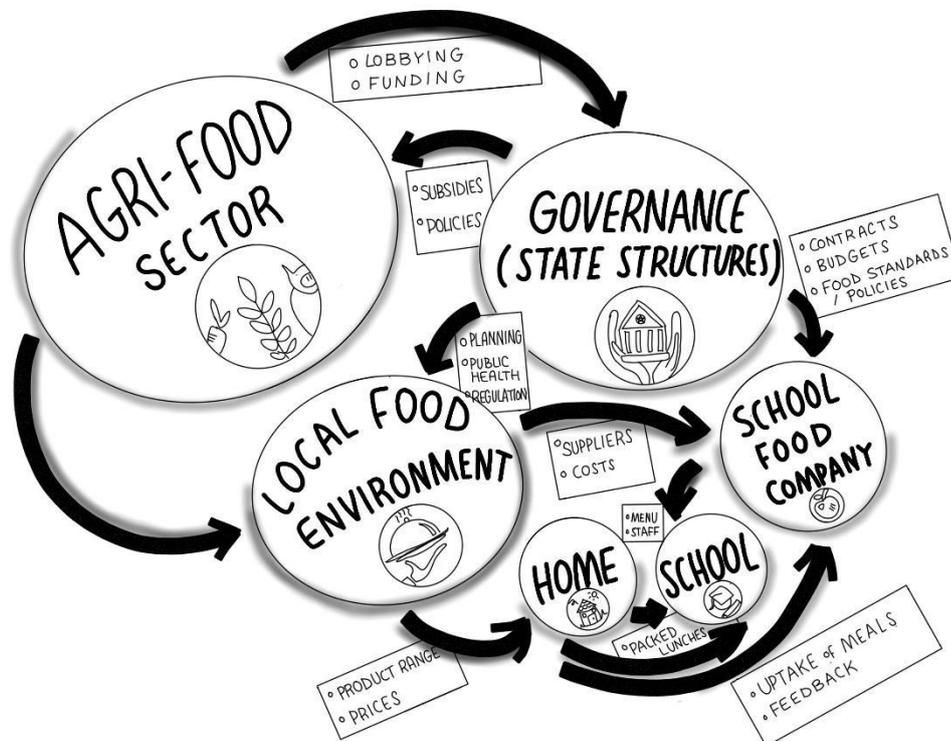


Figure 11: The wider food system acting upon the school food environment.

Whilst institutional forces did exist, the primary problem attributed to the low uptake of meals and poor impact of school food policy should be recognised as residing with the food industry and the dietary problems that it has created. School food workers were able to offer some resistance to those forces and were achieving a lot with very limited resources. This can largely be attributed to work that could be classified as hidden, subsumed or devalued. Mapping power dynamics to show how they shape practices offers an important alternative perspective that challenges both the ontological flatness of practice theory, and the misattribution of responsibility (and blame) for shaping food practices to relatively powerless agents such as schools and parents.

Research Objective Three: To identify the ways in which the institutional discourse or ‘ideological account’ of school food provisioning subsumes and displace the actualities of the work that people do.

As school food is framed as a logical healthy choice, there is very little formal recognition in the policy and literature that it is very hard to get children to eat well. Anyone who has ever had primary responsibility for this task knows that it is a very difficult and complicated job (DeVault, 1991; Counihan, 2008), and by this I mean people who feed children, not those with responsibility for devising policies and legislation related to feeding children.

Because it is mainly women who do this work, it can be classed as a highly gendered form of work, which means that anyone doing this work regardless of their gender is likely to experience these same issues of erasure. The problem of getting children to eat well lies at the heart of the work that is entirely absent from the policy discourse related to school food or children’s nutrition more

generally. Although there is increased recognition that the problem is getting more complex and new strategies are being developed and promoted for addressing 'fussy' eating (Blomkvist et al, 2018; World Health Organisation, 2021), the work involved in deploying these strategies is still not prioritised and valued.

Children not eating and going hungry was a powerful driver for school food workers. To avoid this lots of approaches were taken, and additional work carried out. Some of these involved building rapport with individual children so that they would try food in order to win the approval and recognition from staff; in one school a school cook would give children a high five if they tried new vegetables and this was powerful currency because they were a well-respected and liked dinner lady. Many other examples existed where choices were managed carefully so that children were nudged to eat a balanced meal; where dining room staff would spend time encouraging children to eat more; where teaching staff would take their lunch break with the children in order to support them to eat well. None of the research informants I worked with saw this as work that fell beyond their remit of care, they all took responsibility for trying to get children to eat well. But this work is not in the official account of the work which focuses upon food that looks and tastes good and the presentation and choice available (Department for Education, 2023; Dimpleby and Vincent, 2013). The assumptions that healthy food is what children prefer if it is presented well, that a salad bar will excite them, that fruit hidden in a dessert will be a good way to increase their nutritional intake were all challenged by the reality of the school food environments that I observed.

An inconvenient truth emerged from my research, although it is not a new finding at all, that health credentials are not the primary driver of dietary choice for many people. This isn't a controversial or new finding, but the emphasis on making school meals healthy and then expecting parents and children to choose them, does somewhat ignore this well-known fact (Kelly and Barker, 2016). It is a challenge to the discourses of care that parents, and mainly mothers, would choose unhealthy food for their children. When set against the fear that their children will go hungry, or be distressed by being asked to eat unfamiliar food many parents make this choice and many also prioritise making their children happy over ongoing food battles. Making people happy with food is a powerful narrative in food marketing and one to which many people are susceptible (Stuckler, 2012; Minghay et al, 2021; Mazarello et al, 2015). Whether or not one ascribes to the argument that food systems need to change in order to support better dietary health, there is very little evidence that current approaches to improving children's diets are working (D'Angelo et al, 2020; Jamie and Lock, 2009, Van Cauwenberg et al, 2010; Ravikumar et al, 2022). The power of persuasion lies with the food companies that have resources beyond the reach of school food workers or even policy makers. School food workers in my study were making some gains in increasing the range of foods that children were eating within schools, but the work to do this largely rested with the good will of staff, rather than it being acknowledged as a key skillset and resource that needed to be built in to school food provision.

There is no legislative requirement that teaching staff give up their lunch break to sit and eat with children in the dining hall. There is no policy directive that requires lunchtime supervisors to monitor what children are eating and encourage them to eat more vegetables before they get their dessert, nor one that asks school cooks to invest time and energy in persuading children to take a healthy balanced plate of food. This is work that is done because food workers care about children, and so are prepared to do additional work.

As well as doing additional work to persuade children to eat well, many school workers were also doing additional work to manage the space challenges that they encountered when moving to new buildings. As discussed above, there is evidence that school kitchen spaces have reduced over time; one of the schools I worked in occupied a building built in the 1930s and had a generous full-service kitchen space with an office for the head cook, changing space and generous food storage space. This reflects the era in which it was built as part of the inter-war and post war social housing

expansion that responded to the social problems associated with poor quality housing and public health (Burke et al, 2010; Mahoney et al, 2011). This era was characterised by a renewed interest in public health, and there was an expectation that the kitchen catered for all the children in the school, preparing a single hot food option every day from raw ingredients on site (Rose et al, 2019). The other two schools I worked in served similar neighbourhoods but had been rehoused in new school buildings that emerged from the Building Schools for the Future (BSF) programme of the early 2000s. Whilst the move to these new buildings were seen as important and positive for the schools generally, school kitchens had got much smaller.

Here again we encounter a dissonance between the powerful narratives of the duty of care that school food services have to address dietary health problems, and the recognition of the complexity of work involved in providing the range of food options that policy dictates. The school food workers I spoke to in the two newer school buildings with smaller kitchens were struggling to deliver the school food service to only half the children in the school. In one school the head cook admitted that in order to meet the demand for the annual Christmas meal, which most children choose, staff had to work additional hours the previous day to do the preparation work. Whilst all food workers supported the policy objectives of increasing meal uptake, those working in these smaller kitchens were worried about how they would meet that increased demand.

Other examples of hidden work would be the additional work of stock management, both to manage the complexity of the range of meals offered and to manage stock levels where food storage spaces were considered inadequate. All spaces in the newer kitchens were much smaller than the older building, including the office space for the head cook. In the 1930s building the head cook had a large, well-lit and spacious office where she could sit quietly away from the noise of the kitchen to do the work of ordering stock and managing the food plan for the month. This space was also available for staff changing into their work clothes. In the newer buildings the office space was a small space off the main kitchen, without natural light and shared with cleaning supplies.

In newer buildings the storage space for food was also being utilised for storing food for the breakfast and after school clubs as well as for the main school meal. There was not enough space to do this which meant more stock management work for cooks and more precarious supply chains which meant there was no room to store emergency or backup supplies.

In setting the space allocation formula for the schedule of accommodation there is an assumption that the space allocated is sufficient to meet the demands of school food policy. In the examples discussed above this appears not to be the case, but rather than work stalling, school food workers do additional work to manage the situation, a familiar pattern in work associated with feminized notions of care (Beatty et al, 2021).

Reflections on the research design.

My research did not neatly follow the plan as outlined in my initial research proposal but evolved and adapted to such an extent that I was able to make a novel methodological contribution to the field of IE research, and research that seeks to make hidden power dynamics visible. This methodological journey is largely covered in the first paper presented in this thesis, and so I will not revisit it in detail here, but rather reflect upon some of my experiences and outline the challenges and contradictions that I feel I have not adequately addressed elsewhere.

When I discovered IE - and its feminist applications- at the start of my research journey, it resonated powerfully with my own experiences as a single mother. I recognised the accounts of having to juggle the competing expectations of paid and unpaid work, of undertaking additional care work in the workplace to do a good job when the time and resources provided did not feel adequate to do so. I also knew, going into the research design, that I had heard many anecdotal accounts of how

hard it was to feed children well and yet I felt that this work was entirely subsumed in the 'ideological account' (Smith, 2005) of the work of mothers and others taking on this task.

In presenting a new methodological model for working with IE I do not wish to suggest that there is anything 'wrong' with the approach as set out by Dorothy Smith and others in the vanguard of IE (Murray, 2022). Whilst making a clear and novel contribution is important, any advances and developments I have made have been built upon the important work of others, and I offer my contribution as an example of how I worked with the method in ways that I hope others will find useful. This kind of language is still not welcome in many academic publications where the above statement might be seen as understating or minimising my contribution, but I do not see it that way.

I found it exciting to explore different ways of working to address inequalities and power imbalances, and then thinking about how I might assemble my own conceptual and methodological toolkit from a variety of disciplines including educational research (Weis & Fine, 2012), public health research (Hawe et al, 2008; 2009), and social practice research in geography (Shove et al, 2012; Vihalemm et al, 2015). My work combines existing elements to make something new, I think that this is valid and important as a new contribution but also takes nothing away from those different elements. I would like to advocate for the wider use of IE as an approach to exploring hidden work, and I hope that my contribution supports this.

Giving voice to experience

My work seeks to use the knowledge of expert informants in the field of school food work to give an alternative account of the work that challenges some of the assumptions carried in policy and research narratives. In practice this meant spending time in school kitchen and dining rooms, speaking to the people who did the work. In some cases, participants were happy to be recorded and I have included some quotations that give accounts in their voice, but many times I was making notes and observations, or working with people who did not want to be recorded.

There was an overwhelming dedication to the work of caring for children by feeding them well, but many participants were also reluctant to say things that they thought might be considered critical of the policies and processes that shaped their work. It is well known that women workers in lower paid jobs are managing a degree of precarity that make them less likely than their male counterparts to make demands of employers or be critical of working conditions (Beatty et al, 2021) and I was committed to reporting their contribution in ways that respected their expertise but also did not expose them to risk or harm. Sometimes this meant putting their experiences into my own words, and in doing so I recognise that I exerted my power over that narrative in ways that could be seen as erasing the voices of my research informants (Cahill, 2007). Whilst this is an important reflection, I also feel that there is a responsibility for research to make an impact, especially when it is seeking to address inequalities or power imbalances. My work speaks to policy makers and researchers as such it must be presented in a format that will engage those audiences. I hope that my attempts to work respectfully with my informants to present an authentic account of their work will allow their expertise to inform the policies that shape their working environments in positive ways.

Drawing the line, and having the line drawn.

As I set out in my methodology chapter, the Covid 19 pandemic had a serious impact upon my fieldwork, as I was no longer able to access schools and certainly had no wish to ask any of the participating schools to give time to my research whilst wrestling with the enormous challenges that schools faced at this time.

I did carry out some interviews with parents, but this was an area of the fieldwork that was cut short by the pandemic, and so to my regret the voices of parents are largely absent from this work. There was a lot of generalised criticism of ‘parenting’ in relation to food choices, and I would have liked to include more accounts from parents to balance this. However, some of the school food workers were also parents and so offered an alternative, albeit limited perspective. Research with parents about their relationship to school food work does exist and is referenced in my literature review (Morrison, 1996; Briggs and Lake, 2011; Harman & Cappellini, 2015), but it would be interesting to explore further the issues of parents resisting school food, and also the issue of choice in relation to their children’s diets.

Because my field work was ended prematurely, I had to work with a much smaller set of empirical findings than I had hoped for. Whilst acknowledging this, I do believe that the fieldwork I had completed gave me enough to present a comprehensive picture of school food work within a limited geographical context, and that from this I was able to identify issues that applied to school food work more generally. Whilst for pragmatic reasons I limited my research to schools within Sheffield, the processes, and challenges I uncovered are of interest to the wider academic and policy communities. As will all deep qualitative research that works with a small sample size, I am not trying to argue that the picture I painted is representative of wider truths, but that through the process of deep exploration I have uncovered things that could help to explain wider problems and suggest places for research to go next. There is a recognition that it can sometimes be hard to know where to draw the line when carrying out IE (Lund, 2012; Murray, 2022) and I can see how this would be the case, but for me wider forces came into play that took the decision out of my hands.

It is also important to recognise that I was personally impacted by the pandemic. I work full time as a university lecturer and so my working life continued without a break but had to adapt to the new realities of online delivery. Research time was removed from my work plan and I was expected to prioritise teaching over all else. As well as managing a challenging job I am a mother and embedded within a wider network of family and friends, and the pandemic was a time of personal stress and anxiety during which time I did very little work on my PhD (although I never stopped worrying about it).

Key findings and recommendations

1 - School food is a competing nested power and not a protected space.

School food policy and legislation isn’t providing adequate protection to the school food environment which is struggling to compete with the dietary norms set by a food system that produces and markets foods that are considered inappropriate for children in schools.

As long as children and families have the option of choosing a school meal or bringing in a packed lunch from home, this competition will be difficult to manage for schools at a commercial level; but even if all children were required to have a school meal there would still be a lot of hidden work taking place to manage the conflicts with parents and to get children to eat the food. The assumption that making food nutritionally balanced and cheap (or even free) will make it an obvious choice, fails to acknowledge the structural power of the food industry that actively encourages a preference for unhealthy food.

Recommendation 1

School food policy makers and researchers should acknowledge the role of the food industry in creating the dietary problems that school food is tasked with addressing. Policy should attempt to

improve the food environment within which school food operates, as well working to improve the quality and uptake of school food at the local level.

Policy makers may feel ill equipped to address these larger systemic powers, but at the current time there is an assumption that schools, parents and children will do this work instead. School food research, and nutritional research more widely, should work to challenge the power of the food industry as the driver of dietary ill health rather than focusing upon how to get people to choose well from a wide range of problematic options.

2 - School food work is not adequately understood, valued, or resourced.

There is hidden work taking place in schools to deliver policy aspirations that is not accounted for or resourced. There is significant additional work involved in getting families to choose school food that is unfamiliar to them or that they think their children won't eat, and there is additional work taking place to manage what children actually eat, even when presented with a wide range of healthy options. School food workers are also managing the expectation that they will prepare and serve a wider range of food option within much smaller spaces, and that they will also support policy targets for increased uptake of school meals within these smaller spaces, with smaller teams of staff, but in the same amount of time.

Recommendation 2

The work of delivering school food work and the resourced needed to do this well should be properly researched and mapped in ways that utilise and respect the accounts and experiences of the people doing school food work. This research project has made a small step towards doing this but more widespread and comprehensive studies need to take place to understand a wider range of experiences in different contexts. Underlying assumptions that current resources are sufficient need to be challenged with robust evidence, and school food workers should not be expected to do additional care work in order to meet resource shortfalls.

3 - Mapping power dynamics requires new ways of working with IE data.

Whilst not an empirical finding, through the development of my research design my work has made a methodological contribution to research into the ways in which power shapes practices. I argue that whilst making power dynamics visible is an important focus of research that speaks to inequalities and injustices, there are limitations to the impact that research findings can have if they rely too heavily upon more traditional methods of communication such as narrative accounts. Institutional Ethnography has the potential to reach a wider audience if there is a continued commitment to expanding the ways in which findings from this research approach are communicated and disseminated.

Recommendation 3

Research that works to reveal and challenge power dynamics should continue to explore and utilise visual methods of communication such as scribing and mapping. My work offers an example of a novel model that I developed to do this by combining IE with critical bifocality and systems thinking. Whilst I offer this as a template to follow, I do not claim to have devised a definitive approach but call for greater experimentation and cross-disciplinarity in the development of new methodological approaches that can yield positive new ways of working with data in order to reach wider audiences.

Where next?

Whilst I have prioritised the production of academic papers in order to complete my PhD, my aspiration has always been to produce more policy focused outputs that will get my findings in front of the people who produce school food policy. In order to do this I have made connections with

colleagues who work in the field of child nutrition and who have access to policy makers. The school food hero paper presented here is my first attempt to speak directly to the school food and nutrition community, but this is an area I would like to develop further.

The findings from this study suggest a number of directions for research, both related specifically to school food and children's health, but also more generally to methods for exploring the application of policy and strategy; especially where there are questions and concern about lack of impact or effectiveness. The problem of poor food choices, whether they relate to children in schools or the wider public should be understood in the context of changes to the food system that promotes overconsumption of unhealthy foods. The battle to get families to choose a school meal for their children, and then to get children to eat a healthy, balanced meal is a battle being fought between the school food system and the wider food system that promotes new norms for processed and unhealthy food. This is a more complicated challenge for policy makers to tackle but doing so, I argue, is essential if policy objectives around dietary change are to be effective.

I strongly advocate for engaging marginalised voices and perspectives when exploring research problems, and in particular engaging the people who are tasked with doing the frontline work of implementation. This is not just a nod to inclusivity and equity, it is where important perspectives on problems can be found. New methodological models will be needed to explore complex issues where power imbalances are at play, and a creative approach taken to the adaptation of existing research methods to make them work in different contexts. The new methodological model that I developed (borrowing elements from Institutional Ethnography, Systems Thinking and Critical Bifocality) is already being applied to new policy problems such as understanding the hidden work of high consuming households, and the barriers that farmers face when trying to interpret and apply nature recovery and sustainable land management policies.

Final thoughts.

The themes that emerged from the research, especially in relation to the hidden work of feeding children well in a highly toxic food environment, resonated powerfully with my experiences as a mother. Whilst I did not anticipate or pre-empt the emergence of this theme as such an important factor shaping meal uptake, once it started to be discussed by research informants, I was committed to exploring this issue and bringing this alternative perspective to the fore.

Completing a part time PhD alongside a full-time job and caring responsibilities presents a number of challenges and is certainly not the 'normal' way of progressing through an academic career. I have now been working as an academic for fifteen years and working on my PhD for half of that time.

Many people who studied for a full time PhD tell me that it was nice to be able to focus upon one thing that really interested them, and that has not been my experience. I have had to squeeze the time in around so many other commitments that I sometimes felt that I wasn't making progress and would never finish. But reflecting back at this point I have learnt a lot about research and have been applying that knowledge along the way, building my expertise as a research supervisor as I incrementally gained more experience as a researcher. I have learnt that I like doing research and I also like supervising and supporting others to do research, especially research that speaks truth to power and works to tell hidden stories about the work that everyday people do to manage unequal and challenging situations, not just so that their voices can be heard (although this is important in itself), but so that their knowledge and expertise can be used to help make things better.

References

- Billo, E., Mountz, A. (2016). For institutional ethnography. *Progress in Human Geography*, 40(2), 199–220.
- Blomkvist, E. A. M., Helland, S. H., Hillesund, E. R., & Øverby, N. C. (2018). A cluster randomized web-based intervention trial to reduce food neophobia and promote healthy diets among one-year-old children in kindergarten: study protocol. *BMC Pediatrics*, 18(1), 232–232.
- Briggs, L., & Lake, A. A. (2011). Exploring school and home food environments: Perceptions of 8-10-year-olds and their parents in Newcastle upon Tyne, UK. *Public Health Nutrition*, 14(12), 2227.
- Burke, C., Cunningham, P. & Grosvenor, I. (2010) Putting education in its place: Space, place and materialities in the history of education, *History of Education*, 39(6), 677–680.
- Cahill, C (2007). The Personal is Political: Developing new subjectivities through participatory action research. *Gender, place & culture*, 14 (3), 267-292.
- Campbell, M. L. & Gregor F. M., *Mapping social relations: A primer in doing institutional ethnography* Toronto: UTP, 2008
- Counihan, C., & Van Esterik, P. (2008). *Food and culture: A reader*. New York; London: Routledge.
- Cullerton, K., Patay, D., Waller, M., Adsett, E., & Lee, A. (2022). Competing public narratives in nutrition policy: insights into the ideational barriers of public support for regulatory nutrition measures. *Health Research Policy and Systems*, 20(1), 1–86.
- D'Angelo, C; Gloinson, ER; Draper, A; Guthrie, S. (2020) Food Consumption in the UK: Trends attitudes and drivers. Cambridge, The Rand Corporation.
- Department for Education, (2014) Area Guidelines for mainstream schools: BB103. available at <https://www.gov.uk/government/publications/area-guidelines-and-net-capacity> (Accessed: 15/4/23)
- Department of Education (2023) School Food: guidance for governors accessed via <https://www.gov.uk/government/publications/school-food-standards-resources-for-schools/school-food-guidance-for-governors> (accessed 20/6/2023)
- Department for Education, (2016). *School food in England: Departmental advice for governing boards*. London: UK Government.
- DeVault, M. L. (1991). *Feeding the family: The social organization of caring as gendered work*. Chicago: Chicago: University of Chicago Press, 1991.
- Dimbleby H & Vincent J (2013) The School Food Plan. Available at: https://www.schoolfoodplan.com/wp-content/uploads/2013/07/School_Food_Plan_2013.pdf (accessed 16/5/22)
- Evans, C. E., & Harper, C. (2009). history and review of school meal standards in the UK. *Journal of Human Nutrition and Dietetics*, 22(2), 89–99.
- Food Foundation (2022) The Superpowers of Free School Meals: an evidence pack. Available via: <https://foodfoundation.org.uk/publication/superpowers-free-school-meals-evidence-pack> (accessed 20/6/2023)
- Harman, V., & Cappellini, B. (2015). Mothers on display: Lunchboxes, social class and moral accountability. *Sociology*, 49(4), 764-781.

- Hawe, P., & Ghali, L. (2008). Use of social network analysis to map the social relationships of staff and teachers at school. *Health Education Research*, 23(1), 62-69.
- Hawe, P., Shiell, A., & Riley, T. (2009). Theorising interventions as events in systems. *American Journal of Community Psychology*, 43(3-4), 267-276.
- Hawkes, C. (2005). The role of foreign direct investment in the nutrition transition. *Public Health Nutrition; Public Health Nutr.*, 8(4), 357-365.
- Illøkken, Johannessen, B., Barker, M. E., Hardy-Johnson, P., Øverby, N. C., & Vik, F. N. (2021). Free school meals as an opportunity to target social equality, healthy eating, and school functioning: experiences from students and teachers in Norway. *Food & Nutrition Research*, 65, 1–13.
- Impact on Urban Health (2022) *Investing in Children's Future: A Cost Benefit Analysis of Free School Meal Provision Expansion*. London: Impact on Urban Health. Accessed at [https://urbanhealth.org.uk/insights/reports/expanding-free-school-meals-a-cost-benefit-analysis#:~:text=The%20breakdown%20of%20total%20discounted,%3A%20%C2%A312m%20\(0.03%25\)](https://urbanhealth.org.uk/insights/reports/expanding-free-school-meals-a-cost-benefit-analysis#:~:text=The%20breakdown%20of%20total%20discounted,%3A%20%C2%A312m%20(0.03%25)) (last accessed 27/11/23)
- Jaime, P. C., and Lock, K. (2009). Do school-based food and nutrition policies improve diet and reduce obesity? *Preventive Medicine*, 48(1), 45-53.
- Kelly M and Barker M (2016). Why is changing health-related behaviour so difficult? *Public Health* 136: 109–116.
- Lang, T., & Heasman, M., (2015). *Food wars: The global battle for mouths, minds and markets* (Second edition. ed.) Routledge.
- Lund, R. (2012). Publishing to become an “ideal academic”: An institutional ethnography and a feminist critique. *Scandinavian Journal of Management*, 28(3), 218-228.
- Mahony, P., Hextall, I., & Richardson, M. (2011). “Building Schools for the Future”: reflections on a new social architecture. *Journal of Education Policy*, 26(3), 341–360.
- Mazarello Paes V, Ong KK, Lakshman R (2015) Factors influencing obesogenic dietary intake in young children (0–6 years): systematic review of qualitative evidence *BMJ Open*; 5: e007396. doi: 10.1136/bmjopen-2014-007396
- Mingay E, Hart M, Yoong S, Hure A. (2021) Why We Eat the Way We Do: A Call to Consider Food Culture in Public Health Initiatives. *Int J Environ Res Public Health*. Nov 15;18(22):11967
- Morrison, M. (1996). Sharing food at home and school: Perspectives on commensality. *The Sociological Review*, 44(4), 648-674.
- Murray, O. M., (2022) Text, process, discourse: doing feminist text analysis in institutional ethnography, *International Journal of Social Research Methodology*, 25:1, 45-57.
- Nelson, M., Nicholas, J., Suleiman, S., Davies, O., Prior, G., Hall, L., . . . Poulter, J. (2006). *School meals in primary schools in England*. (Research Report No. RR753). Nottingham: DfES Publications.
- Parnham, Chang, K., Rauber, F., Levy, R. B., Millett, C., Laverty, A. A., Stephanie von Hinke, & Vamos, E. P. (2022). The Ultra-Processed Food Content of School Meals and Packed Lunches in the United Kingdom. *Nutrients*, 14(14), 2961.
- Petersen, A., Tanner, C. & Fraser, S. (2014). Practicing food anxiety: Making Australian mothers responsible for their families’ dietary decisions. *Food and Foodways; Explorations in the History and Culture of Human Nourishment*, 22, 175-197.

- Ravikumar, D., Spyreli, E., Woodside, J., McKinley, M., & Kelly, C. (2022). Parental perceptions of the food environment and their influence on food decisions among low-income families: a rapid review of qualitative evidence. *BMC Public Health*, 22(1), 9–9.
- Rose, K., Lake, A. A., Ells, L. J., & Brown, L. (2019). School food provision in England: A historical journey. *Nutrition Bulletin*, 44(3), 283–291.
- Shove, E., Pantzar, M., & Watson, M. (2012). *The dynamics of social practice everyday life and how it changes*. London: SAGE.
- Smith, D. (2005). *Institutional Ethnography: A Sociology for People*. Lanham, AltaMira Press.
- Stevens L, Nicholas J, Wood L, et al. (2013) School lunches v. packed lunches: a comparison of secondary schools in England following the introduction of compulsory school food standards. *Public Health Nutr* 16, 1037 -1042.
- Stuckler, D., McKee, M., Ebrahim, S., & Basu, S. (2012). Manufacturing epidemics: The role of global producers in increased consumption of unhealthy commodities including processed foods, alcohol, and tobacco. *PLoS Medicine*, 9(6), e1001235.
- Van Cauwenberghe, E., Maes, L., Spittaels, H., van Lenthe, F., J., Brug, J., Oppert, J., & De Bourdeaudhuij, I. (2010). Effectiveness of school-based interventions in Europe to promote healthy nutrition in children and adolescents: Systematic review of published and 'grey' literature. *British Journal of Nutrition; Br J Nutr*, 103(6), 781-797.
- Vihalemm, T., Keller, M., & Kiisel, M. (2015). Social practices as sites of social change. In *From Intervention to Social Change* (pp. 39–60). Routledge.
- Walley, JE., TECHNICAL SECTION: 10 DESIGN: BUILDING TYPES design of school kitchens. (1955). *Architects' Journal (London)*, 121(3140), 615–618.
- Weis, L. and Fine, M. (2012). Critical bifocality and circuits of privilege: expanding critical ethnographic theory and design. (Report). *Harvard educational review*, 82 (2), 173-201
- Weis, L., & Fine, M. (2018). Critical Bifocality. In *The Wiley Handbook of Ethnography of Education* (pp. 91–111). John Wiley & Sons, Inc.
- Winston, A. (2014). *The industrial diet: The degradation of food and the struggle for healthy eating*. New York: New York University Press.
- World Health Organisation (2021) Implementing School Food and Nutrition Policies; a review of contextual factors. WHO, Geneva available at: <https://www.who.int/publications/i/item/9789240035072> (accessed 27/6/23)
- Yates-Doerr, E., & Carney, M. A. (2015). Demedicalizing health: The kitchen as a site of care. *Medical Anthropology*, 1-19. doi:10.1080/01459740.2015.1030402

Appendices

Appendix 1 - Interview schedule

Anna Hawkins

PhD IE Fieldwork: Interview Schedule / notes guide

Informant code:

Role:
How long have you been doing the work?
What are your main responsibilities?
How does the work happen here?
Does informant mention any adaptations they make to respond to local needs?

Who is involved in the day-to-day delivery of food in this school, and what do they do?

- What problems and tensions are experienced by the different actors involved in school food delivery?
- How are these navigated and how does this deviate from the 'ideological account'?

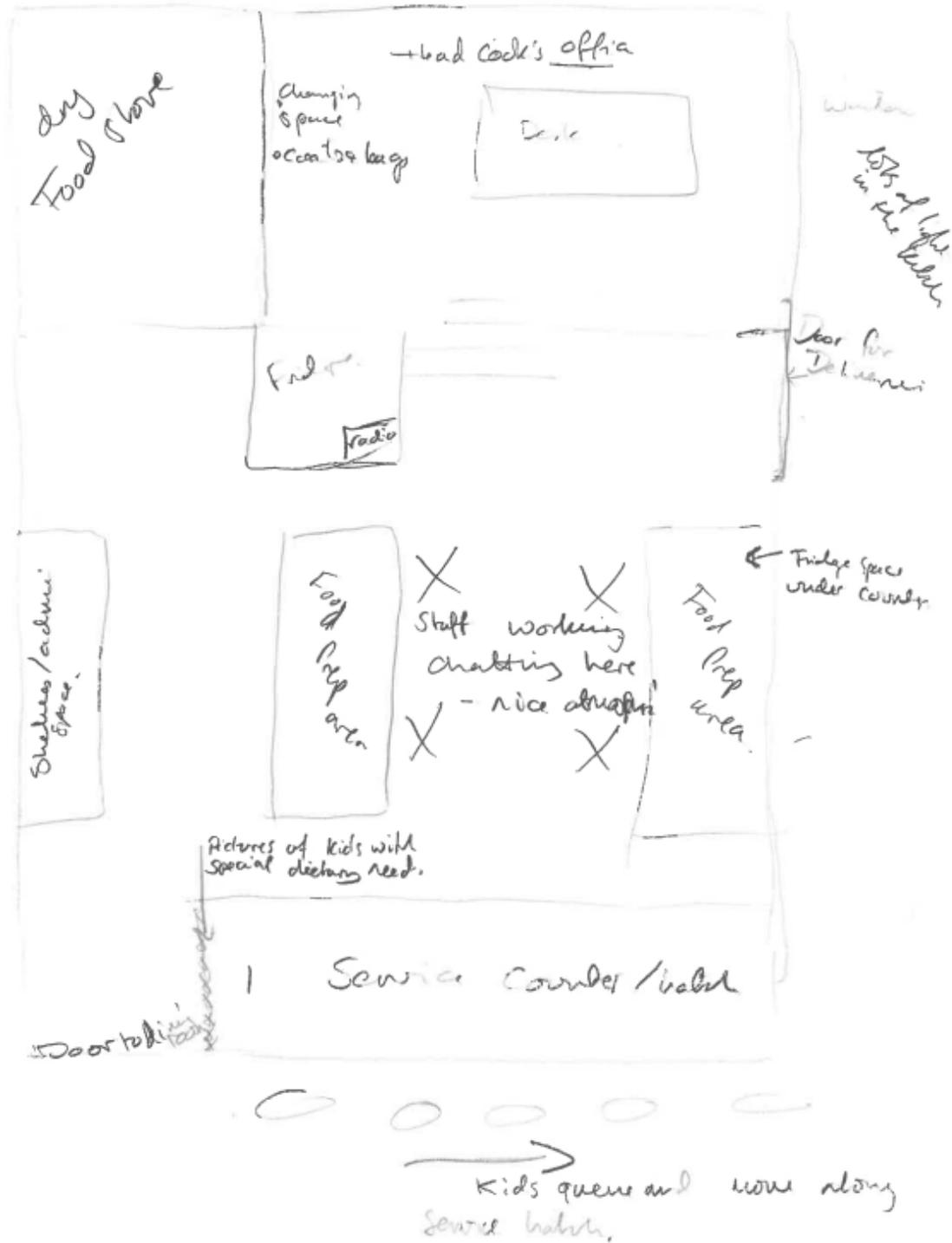
Activated texts.

General notes and observations

Who else do I need to speak to?

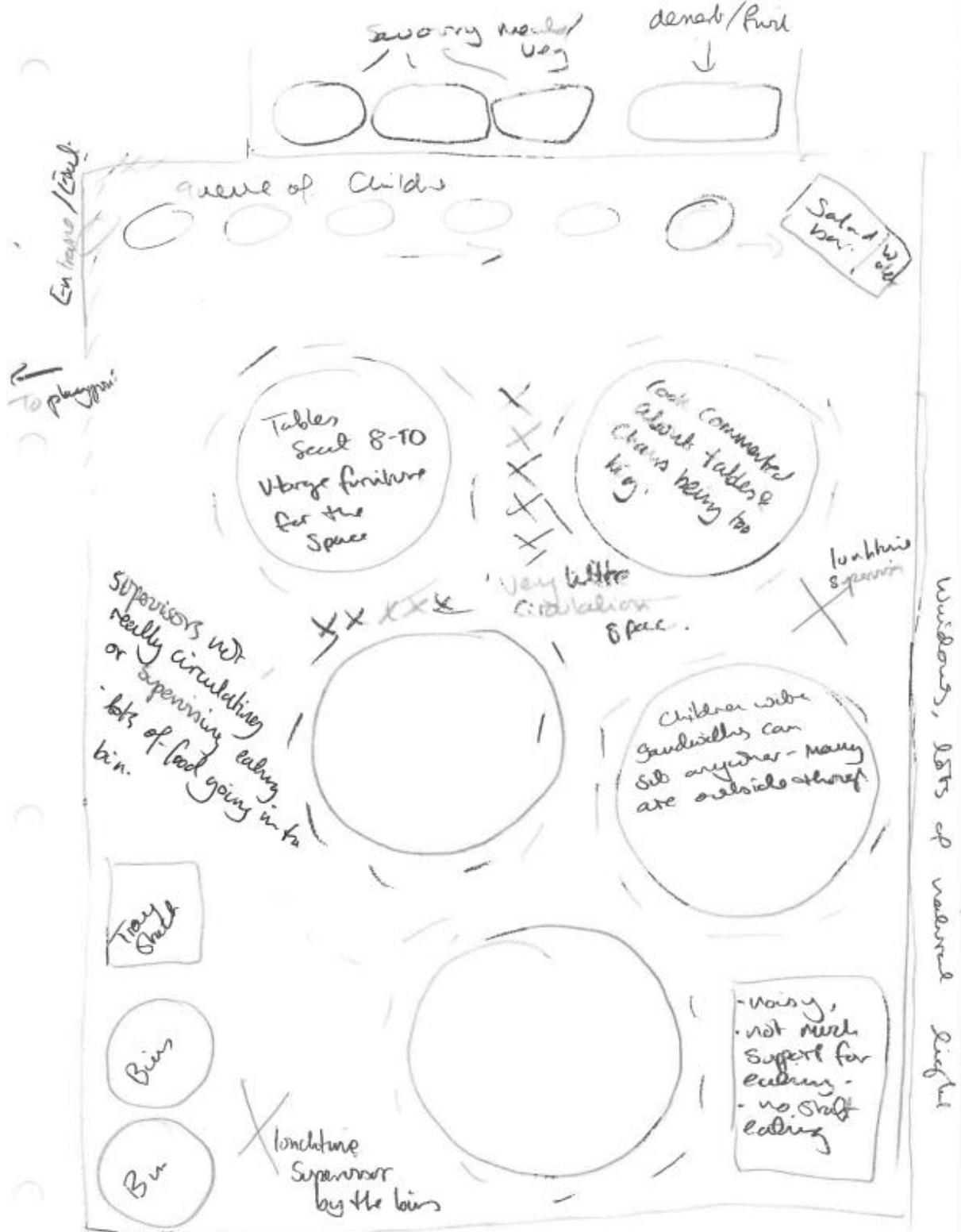
Appendix 2 - Examples of field sketches and notes.

School 1. Built 1940s as part of estate. 24.1.15
 large kitchen but quite small dining space, w/sof.
 'sittings' #
 Kitchen staff like the space, head cook thinks she's
 'welly' to have such a big office space.

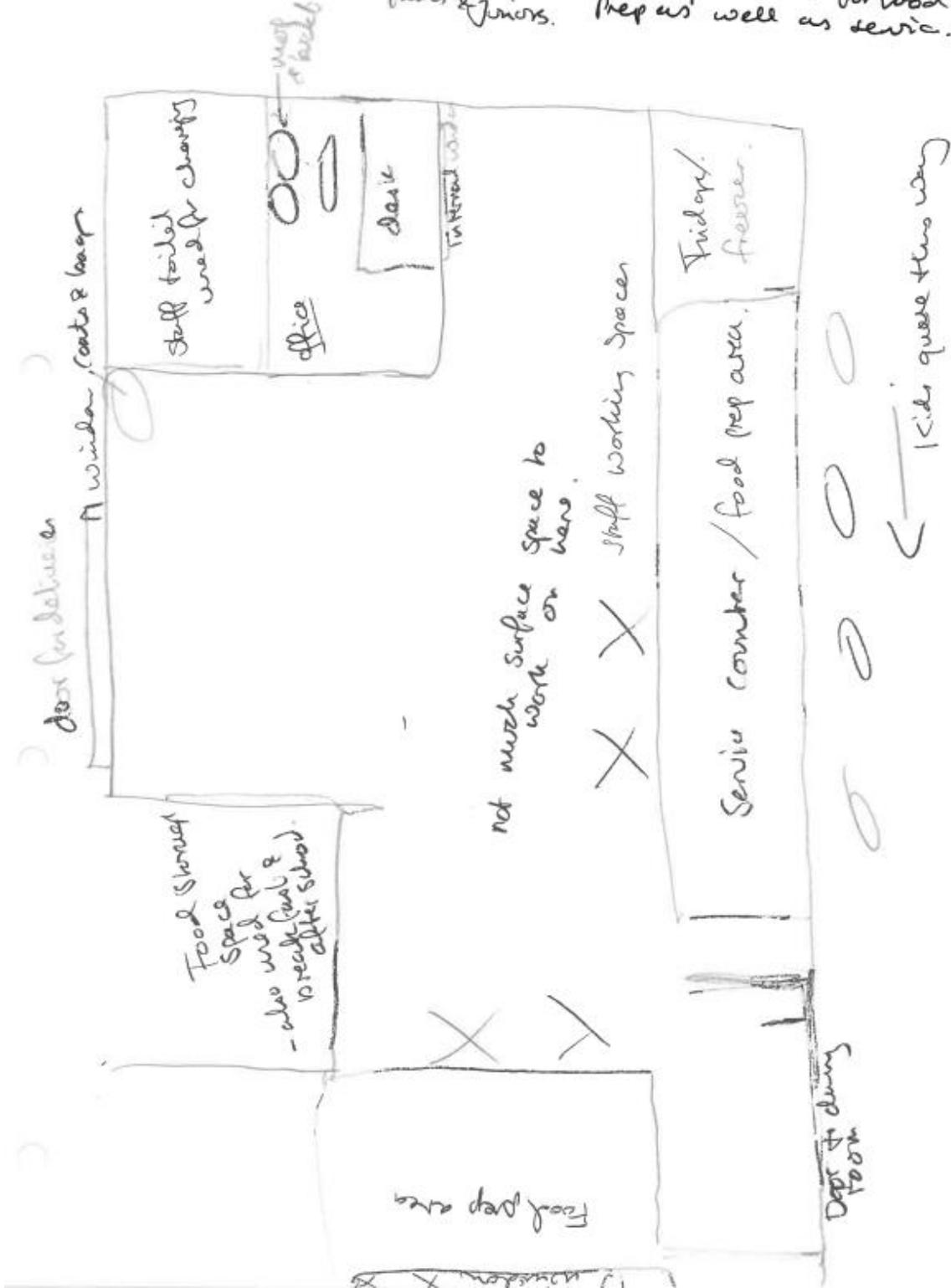


school 1 din

24.1.18



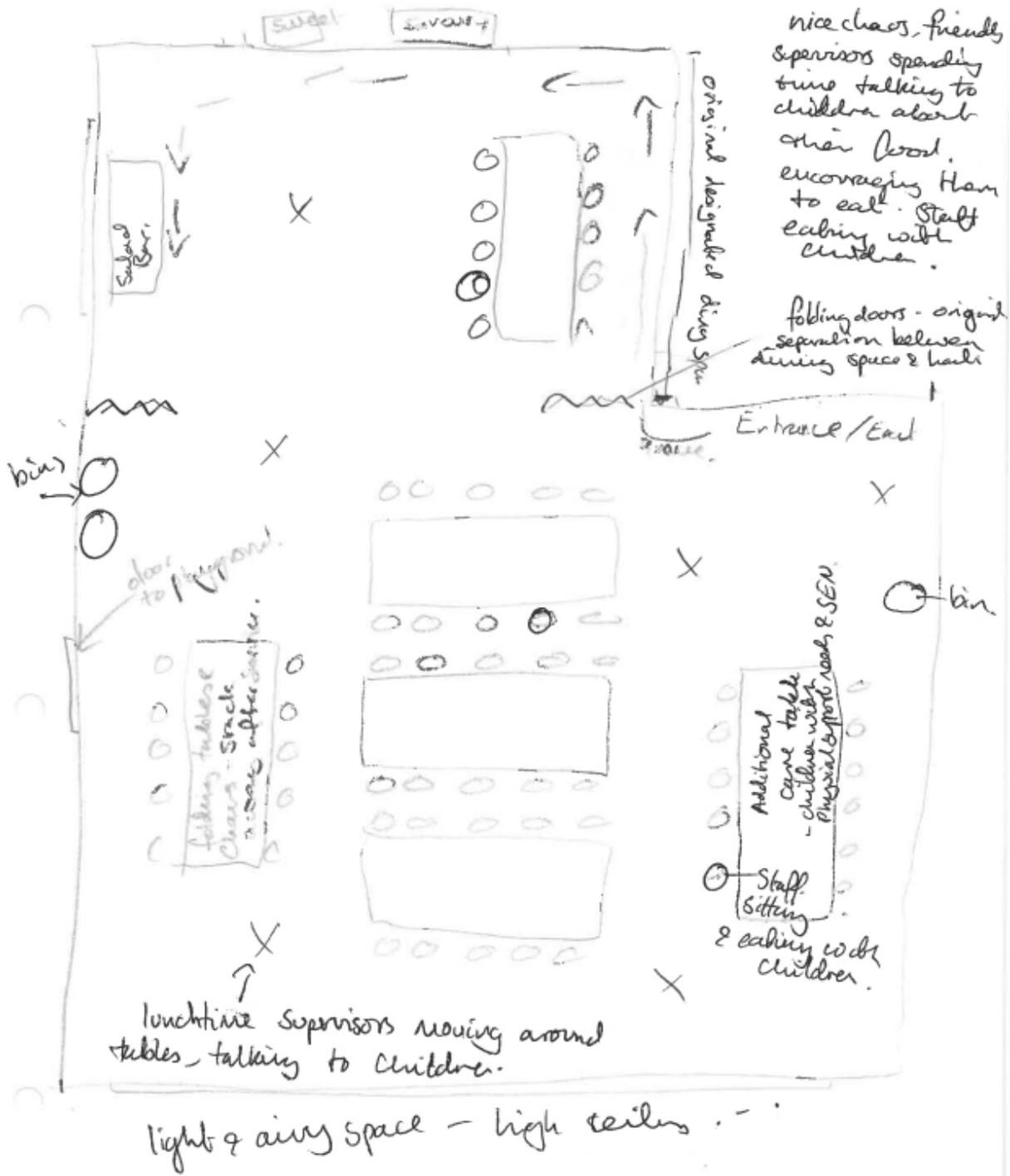
School 2 Kitchen - much less space than
 building around 10yrs old
 - brought together separate - counter space used for food
 infants & juniors. Prep as well as service.
 Sch. 1. office tiny cupboard
 used to store cleaning equip.
 Prep as well as service.



School 2 dining

8-3-18

- was originally a small space but persuaded architect to support opening up doors & using the hall, was resisted at first.



nice chaos, friendly supervisors spending time talking to children about their food, encouraging them to eat. Staff eating with children.

folding doors - original separation between dining space & hall

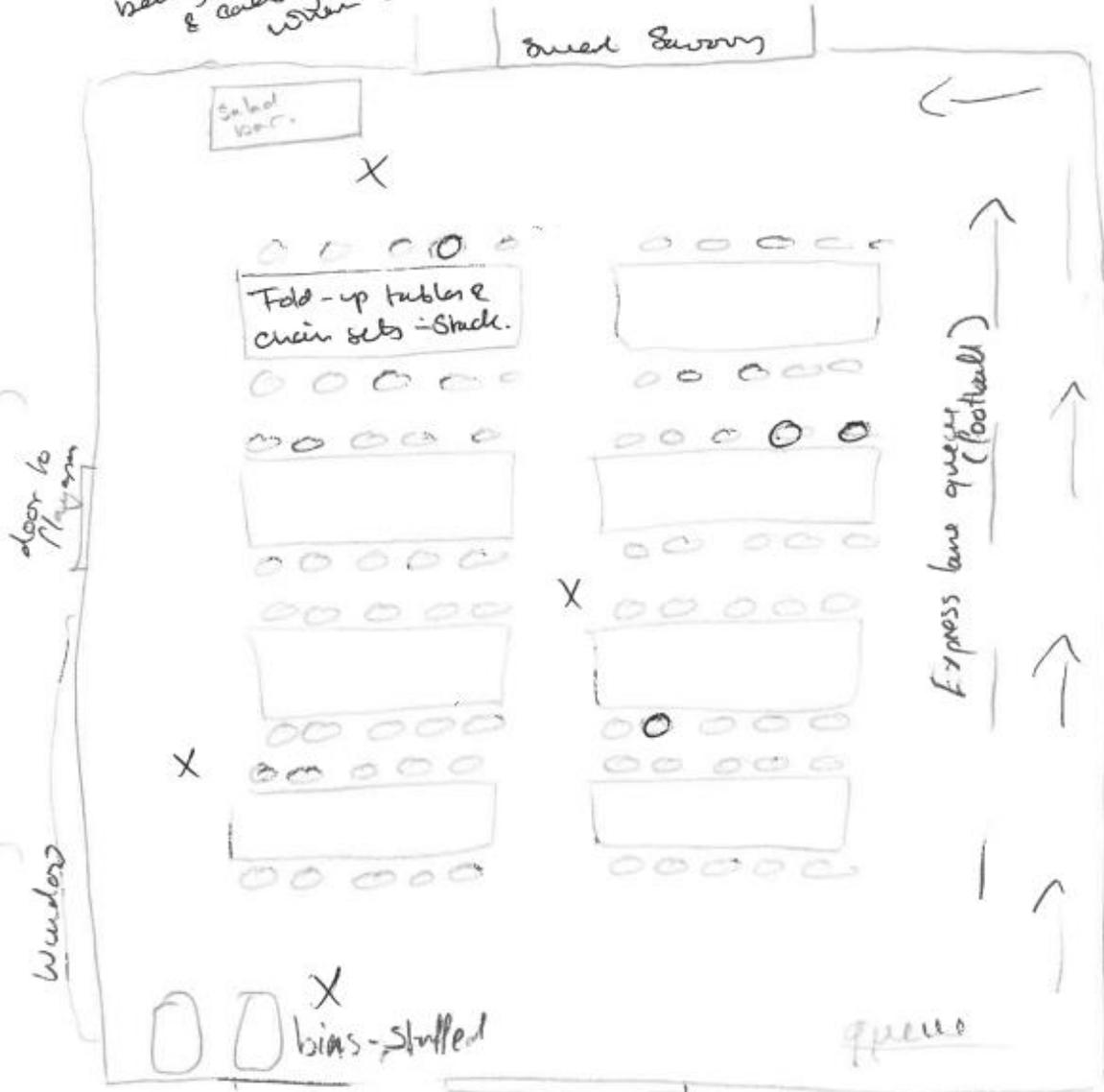
lunchtime supervisors moving around tables, talking to children.

light & airy space - high ceilings

School 3 Dining

27.6.2018

There are from memory as way being served food & eating with children when in the dining hall



main hall doubles as dining dining hall, high ceiling & bright room, staff eating lunch with children, including head & deputy. lots of supervisors supporting children to eat, sending them back if they try to throw away too much

Appendix 3 - Sample school menu

PARTNERING SHEFFIELD SCHOOLS		MENU - FROM APRIL 2017					
WEEK ONE		MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	
		Salmon Fishcake with Half Jacket Potato	Beef Chilli Con Carne with Wholegrain Rice	Roast Pork with Mashed Potatoes, Stuffing and Gravy	Minced Beef Pie with Mashed Potatoes and Gravy	Fish Fingers with Chips and Tomato Ketchup	
		Cheese & Tomato Pizza with Half Jacket Potato	Roasted Vegetable & Basil Pitta Pocket	Quorn Roast with New Potatoes, Stuffing and Gravy	Macaroni Cheese with Homemade Tomato and Herb Bread	Bean Bake with Chips and Tomato Ketchup	
Sandwich on a Plate: Tuna Mayo		Sandwich on a Plate: Ham		Sandwich on a Plate: Hot Roast Pork		Sandwich on a Plate: Turkey	
Jacket Potato with (v) Cheese, (v) Baked Beans or Tuna Mayo		Jacket Potato with (v) Cheese, (v) Baked Beans, Tuna Mayo or Beef Chilli		Jacket Potato with (v) Cheese, (v) Baked Beans or Tuna Mayo		Jacket Potato with (v) Cheese, (v) Baked Beans or Tuna Mayo	
Sweetcorn and Baked Beans		Cauliflower and Carrots		Peas and Mixed Vegetables		Peas and Baked Beans	
(v) Frozen Yoghurt with Peaches		 Treacle Bites with Custard		 Apple Sponge with Custard		 Lime Crunch Pie	
Fresh Fruit/Yoghurt		Fresh Fruit/Yoghurt		Fresh Fruit/Yoghurt		Fresh Fruit/Yoghurt	
<i>Seasonal salad selection, bread and drinking water will be available daily</i>							
						 = HOMEMADE	

WEEK TWO

MENU - FROM APRIL 2017

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Sausage with Mashed Potatoes and Gravy	Beef Spaghetti Bolognese with Homemade Garlic Bread	Roast Chicken with Stuffing, Roast Potatoes and Gravy	Beef Goulash with Wholegrain Rice	Fish Fingers with Chips and Tomato Ketchup
(v) Quorn Sausage with Mashed Potatoes and Gravy	(v) Vegetarian Spaghetti Bolognese with Homemade Garlic Bread	(v) Quorn Roast with Stuffing, Roast Potatoes and Gravy	(v) Cheese & Tomato Pizza with Half Jacket Potato	(v) Cheese Flan with Chips
Sandwich on a Plate: (v) Cheese	Sandwich on a Plate: Tuna	Sandwich on a Plate: Hot Roast Chicken	Sandwich on a Plate: Tuna Mayo	Sandwich on a Plate: Turkey
Jacket Potato with (v) Cheese, (v) Baked Beans or Tuna Mayo	Jacket Potato with (v) Cheese, (v) Baked Beans, Tuna Mayo or Beef/Vegetable Bolognese	Jacket Potato with (v) Cheese, (v) Baked Beans or Tuna Mayo	Jacket Potato with (v) Cheese, (v) Baked Beans, Tuna Mayo or Beef Goulash	Jacket Potato with (v) Cheese, (v) Baked Beans or Tuna Mayo
Peas and Mixed Vegetables	Sweetcorn and Cauliflower	Peas and Mixed Vegetables	Broccoli and Sweetcorn	Peas and Baked Beans
(v) Chocolate Crispy	(v) Chocolate Muffin	(v) Oaty Fruit Crunch with Custard	(v) Fruit with Jelly	(v) Strawberry Ice Cream with Shortbread Finger
Fresh Fruit/Yoghurt	Fresh Fruit/Yoghurt	Fresh Fruit/Yoghurt	Fresh Fruit/Yoghurt	Fresh Fruit/Yoghurt

Seasonal salad selection, bread and drinking water will be available daily

 = **HOMEMADE**

Quorn Foods



WEEK THREE

MENU - FROM APRIL 2017

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Posh Hot Dog with Onions, Jacket Wedges and Tomato Sauce	Chicken Curry with Wholegrain Rice and Cucumber Raita	Bacon Loin Chop with Mashed Potatoes, Yorkshire Pudding and Gravy	Beef Lasagne with Garlic Bread	Fish Fingers with Chips and Tomato Ketchup
(v) Posh Quorn Hot Dog with Onions, Jacket Wedges and Tomato Sauce	(v) Mexican Bean Stew with Wholegrain Rice	(v) Quorn Roast with Mashed Potatoes, Yorkshire Pudding and Gravy	(v) Baked Bean Lasagne with Garlic Bread	(v) Cheese Flan with Chips
Sandwich on a Plate: Tuna Mayo	Sandwich on a Plate: (v) Cheese	Sandwich on a Plate: Hot Roast Bacon	Sandwich on a Plate: Ham	Sandwich on a Plate: Turkey
Jacket Potato with (v) Cheese, (v) Baked Beans or Tuna Mayo	Jacket Potato with (v) Cheese, (v) Baked Beans, Tuna Mayo, (v) Bean Stew or Chicken Curry	Jacket Potato with (v) Cheese, (v) Baked Beans or Tuna Mayo	Jacket Potato with (v) Cheese, (v) Baked Beans or Tuna Mayo	Jacket Potato with (v) Cheese, (v) Baked Beans or Tuna Mayo
Baked Beans and Sweetcorn	Cauliflower and Carrots	Peas and Mixed Vegetables	Carrots and Peas	Peas and Baked Beans
(v) Pear and Chocolate Sponge with Chocolate Sauce	(v) Cornflake Crispy Slice	(v) Apple Crumble with Ice Cream	(v) Lemon Drizzle Cake	(v) Jelly with Ice Cream
Fresh Fruit/Yoghurt	Fresh Fruit/Yoghurt	Fresh Fruit/Yoghurt	Fresh Fruit/Yoghurt	Fresh Fruit/Yoghurt



Seasonal salad selection, bread and drinking water will be available daily

Quorn
= **HOMEMADE**

Appendix 4 - Sample meal uptake report

School Meal Uptake Data 2016 - 2017

Select your school here

Figures will be updated each month

	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Average uptake 2016 - 2017
Total Pupil Meal Numbers %	57%	59%	58%	62%	60%	60%	59%	59%				
Total Average Daily Meal Numbers	204.7	225.9	230.6	245	239	238	237	238				
Percentage meal numbers, newly qualified infants (DFE target 87% for this group of children)	65%	71%	64%	65%	63%	67%	61%	61%				
Average Daily Meal numbers - newly qualified infants	58	63	57	58	54	57	57	60				
Income based means tested free school meals %	59%	64%	70%	73%	71%	71%	80%	78%				

- records number of meals to be provided
 - gets figures daily in morning of production.

Appendix 5 - Meal evaluation sheet.

12/6/17 Roll NUMBER N = 101 (I = 175 J = 202) = 377
 2011 OCT = 287
School: ██████████ Primary

Lunchtime Service Assessment - Date 12th June 2017

Daily Meals Served: 213
 Dish 1 135
 Dish 2 -
 Jacket Potato Meal 36
 Sandwich Meal 36
 Additional Meals 18

Area	Guidance	Responsibility	Observation	Action
First Impressions				
Service Times	1] To commence on time. 2] To finish on time ensuring pupils have sufficient time to eat 3] Staff ready to serve. 4] Servery set up ready 5] Adequate service staff on duty throughout service	Cook Supervisor		
Servery	All all counters, trolleys and surfaces clean	Cook Supervisor		
Presentation				
Service Presentation	Ensure food is well presented across the servery reflecting the customers requirements	Cook Supervisor		
Menu	Does meal offer reflect the display menu	Cook Supervisor		
Garnish	All display and served food to be garnished	Cook Supervisor		

Light Equipment	1] Ensure all equipment is clean and fit for purpose 2] Is sufficient light equipment available	Team		
Food Offer				
Water	1] Access to water promoted and available to all pupils. 2]Beakers available to all	Cook Supervisor		
Bread	1] To be provided daily 2] Available until end of Service 3] mix of white and brown 4] Portioned in triangles 5] Bread visible and assessable from servery 6] Sufficient quantity was prepared to meet demand	Cook Supervisor		
Portion Control	In accordance with the 'School Food Standards' Portion Guide	Team		
Salad Bar	1] To provide 4 core choices and 1 guest salad daily, <i>ref. salad recipe book.</i> 2] Top up salad bar if offer becomes depleted. 3] Ensure salad area is clean and fit for purpose	Cook Supervisor		
Fruit Pots (Portioned)	1] To provide 3 different fruits served in coupe/bowl/ dishes daily 2] Sufficient provision to meet demand	Cook Supervisor		
Fruit (Whole)	Variety of fruit to also include whole fruit presented in fruit bowl	Cook Supervisor		
Yogurt	1] Minimum of 2 flavours to be offered across the week 2] Tent sign indicating flavour utilised	Cook Supervisor		

Sandwich offer	As per sandwich specification document	Cook Supervisor		
Jacket Potato Provision	Potatoes to be quarter scored and plumped	Cook Supervisor		
End of service	1] Where pupils are late for lunch plate up full meal offer and store within hot cupboard 2] Offer second helpings if food remains - has school approval for this action been agreed.	Team		
Food Quality	1] What does the food look like at the end of service - do any foods appear to look too dry, too soggy, over cooked, burnt or under cooked. 2] Is the colour of the food appropriate. 3] What does the food taste like at the end of service, if appropriate taste or ask someone else to taste the meal. 4] Has the recipe been followed, are there any ingredients missing.	Team		
Customer Service				
Partnership working	Positive communication with all school staff, Weekly/daily engagement with Head of Supervisors	Team		
Leadership	Is the cook supervisor demonstrating leadership, are duties allocated across the team appropriately	Cook Supervisor		
Smile Zone	Demonstrating positive and considered approach, helpful, welcoming and encouraging	Team		

Engagement with pupils	1] Comment cards to be available from the servery daily. 2] Staff to encourage pupils to take full components of the meal	Team		
Dining Room				
Signage	Display at each service point: Weekly Menu, Allergen Notice	Cook Supervisor		
Food Transportation (External to a CMP or internally within the same site)	Packing Sheet Medical diet information Allergen Signage Menu Board LSA bucket with warm soapy water and cloths Dust Pan and brush Mop and bucket Floor Signage Cutlery trolley Refuse receptacle/Trolley Salad provision	Cook Supervisor		
Dining room	1] Dust pan and brush, mop and bucket and 'Wet floor' sign available at each dining area. 2] Is dining room capacity sufficient to meet demand	Team		
Clearing area	1] Ensure clearing area management is demonstrated and area easily accessible to pupils 2] Is wall behind clearing area clean	Cook Supervisor		

Waste Analysis	1] Visual check noting level of waste and which food items constitute the greatest volume. 2] Visual check for cutlery and light equipment	Team	
Pupil Feedback	• • • • • •		
School Feedback			
General Observations			

Appendix 6 - Ethics approval letter



Downloaded: 27/03/2017

Approved: 10/03/2017

Anna Hawkins
Registration number: 150109949
Geography
Programme: Geography PGR

Dear Anna

PROJECT TITLE: An Institutional Ethnography of School Food Provision in Sheffield
APPLICATION: Reference Number 012330

On behalf of the University ethics reviewers who reviewed your project, I am pleased to inform you that on 10/03/2017 the above-named project was **approved** on ethics grounds, on the basis that you will adhere to the following documentation that you submitted for ethics review:

- University research ethics application form 012330 (dated 23/02/2017).
- Participant information sheet 1027565 version 1 (23/02/2017).
- Participant consent form 1027566 version 1 (23/02/2017).

The following optional amendments were suggested:

Approved with suggested amendments Anna Krzywoszynska My only comment is about the information sheet, which indicates that participants can review interview transcripts if they wish to - however it is not made clear whether they can then ask for the researcher to remove sections of the interview, or whether this is just proposed as a way of eliciting further information/clarification from interviewees. Approved with suggested amendments Peter Jackson See previous comments Approved with suggested amendments Matthew Watson Information to parents should inform them of how to exercise their right to withdraw their child from the project at any time. Also, consider appropriate (simple, verbal) informed consent processes directly with children engaged with the research

If during the course of the project you need to [deviate significantly from the above-approved documentation](#) please inform me since written approval will be required.

Yours sincerely

Thomas Sullivan
Ethics Administrator
Geography

Appendix 7 - Participant information sheet



Department
Of
Geography.

SCHOOL FOOD PROJECT PARTICIPANT INFORMATION SHEET

Project Title: Serving up standards: a study of the delivery of school food policy in English primary schools.

About me and the project

My name is Anna Hawkins and I am a part-time PhD student at the University of Sheffield and a Geography lecturer at Sheffield Hallam University. For my PhD, I am interested in understanding the challenges that people face when trying to deliver school food policy on a day to day basis. I am hoping that you will be willing to participate in the research I am undertaking in order to share your knowledge and perspective with me.

I am a parent of 2 children who have been, or are still at school in Sheffield, and before I worked at Sheffield Hallam I was a Sheffield City Council officer in the Planning and Neighbourhoods teams. So whilst I haven't worked in schools or in school food before, I have been involved in Sheffield schools as a parent and I also have some experience of the challenges of trying to get policy to work in practice.

Why am I being asked to participate in the research and what does it involve?

I am interested in talking to and working alongside people who are involved in any day to day aspect of school food delivery. That could include school kitchen staff, contractors, teachers, school support staff, council officers, and school pupils and their families.

If you agree to participate in the research you would be asked to take part in an interview and, depending upon the nature of your work, allow me to shadow you while you carry out your job so that I could see the work that you did first hand. An interview would be recorded so that I had an accurate record of the discussion. And if I did any work shadowing I would be taking notes about what I was observing. The research will take place mainly in schools and school food kitchens (if these are not on-site) but also in council offices where necessary.

If you agree to an interview then it would last, usually, around 40 minutes to an hour. You would have an opportunity to review the recording of the interview if you wished and you could request the removal of anything you didn't want to be included in the research. There may be an opportunity for a follow up interview if this is something that we felt was beneficial. If you agreed to work-shadowing, this could be anything between a few hours and a day, and would depend upon the nature of your work. We would agree a time that suited you.

What will happen to the information gathered and will I be named in the research?

It is very important that people who participate in research feel safe doing so and that there is good trust between researcher and research participants. If you choose to participate in this research project your identity will not be revealed as part of the research write up. I will ensure that you cannot be identified by anything that is recorded or reported. We will do this by ensuring that:

- All participants remain anonymous and any direct quotes used will be anonymised.
- In the event of publication interviewees will be given a pseudonym or identified by using a code such as A1 female (age) etc.
- Any personal identifiers will be removed from the transcripts.
- Personal data (such as consent forms) will be stored securely in a separate place to transcript data.

If information that relates to the safety of a child or a breach of health and safety is disclosed during an interview or observation then I will have to report it to the relevant authorities and in this situation your identity would be disclosed - but if that is the case you will be informed and the interview or work shadowing will be stopped and I will not use any of the information gathered from you in my research.

You are free to discuss your participation in the research with anyone, providing you are careful not to name other people who may wish to remain anonymous.

The research will **not** be covering sensitive subjects but, if after an interview or work-shadowing, there is something that you are worried about you will have an opportunity to talk this through with me and I will only include data that you are happy for me to use.

After the research is completed only I (as the lead researcher) will have access to your personal details (such as your consent form) and these will be destroyed after the completion of my PhD. Findings of the study will be published in my PhD thesis and may be used in other academic publications, but only anonymised information will be included and you will not be identified.

According to data protection legislation, we are required to inform you that the legal basis we are applying in order to process your personal data is that 'processing is necessary for the performance of a task carried out in the public interest' (Article 6(1)(e)). Further information can be found in the University's Privacy Notice <https://www.sheffield.ac.uk/govern/data-protection/privacy/general>.'

The study is likely to last around 3 weeks and then there will be an additional 2 months for the processing of the data and writing up the work.

You can request a copy of the research findings by emailing me. My contact details are provided below.

What if I don't want to take part or I change my mind?

Participation in the study is voluntary; you are not required to participate if you do not wish to do so. You are free to withdraw from the study at any time before and during the interview or

work-shadowing, and you do not have to answer any questions you do not wish to. You have ten days following the completion of the interview or work-shadowing to withdraw from the study simply by contacting me by email, you do not have to give a reason in your email.

Children whose parents give permission for them to participate in the study may be withdrawn from the study at any time before they participate actively, and their data may be removed within 10 days of the research activity taking place. After this time their data will have been anonymised and it will not be possible to remove data generated by them. To request the withdrawal of a child from the study, the parent or guardian of the child should email or call me using the contact information below.

If you have any further questions please email me or call me using the information provided below.

Anna Hawkins,

Department of Geography
University of Sheffield

amhawkins1@sheffield.ac.uk

Appendix 8 - Consent form



Department
Of
Geography.

PARTICIPANT CONSENT FORM

TITLE OF RESEARCH STUDY: Serving up standards: a study of the delivery of school food policy in Sheffield primary schools.

LEAD RESEARCHER: Anna Hawkins, PhD Candidate, University of Sheffield Geography Department

According to data protection legislation, we are required to inform you that the legal basis we are applying in order to process your personal data is that 'processing is necessary for the performance of a task carried out in the public interest' (Article 6(1)(e)). Further information can be found in the University's Privacy Notice <https://www.sheffield.ac.uk/govern/data-protection/privacy/general>.'

Please answer the following questions by ticking the response that applies

- | | YES | NO |
|--|--------------------------|--------------------------|
| 1. I have read the Information Sheet for this study and have had details of the study explained to me including the limits to confidentiality (disclosure of information relating to the safety of a child or breaches of health and safety) | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. My questions about the study have been answered to my satisfaction and I understand that I may ask further questions at any point. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. I understand that I am free to withdraw from the study within the time limits outlined in the Information Sheet, without giving a reason for my withdrawal or to decline to answer any particular questions in the study without any consequences to my future treatment by the researcher. | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. I agree to provide information to the researcher under the conditions of confidentiality set out in the Information Sheet. | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. I wish to participate in the study under the conditions set out in the Information Sheet. | <input type="checkbox"/> | <input type="checkbox"/> |

6. I consent to the information collected for the purposes of this research study, once anonymised (so that I cannot be identified), to be used for other research purposes such as conference papers and publications by the researcher.

Participant's Signature: _____ Date: _____

Participant's Name (Printed): _____

Contact details: _____

Researcher's Name (Printed): _____

Researcher's Signature: _____

Researcher's contact details:

Anna Hawkins, PhD Candidate
Department of Geography
University of Sheffield
amhawkins1@sheffield.ac.uk

Please keep your copy of the consent form and the information sheet together.

Appendix 9 - Development of the systems diagrams.

Both Alexandra (the scribe) and I attended a systems scribing online workshop, and then we followed up by using the workshop processes and materials to start to capture the school food system that had been discussed by research informants.

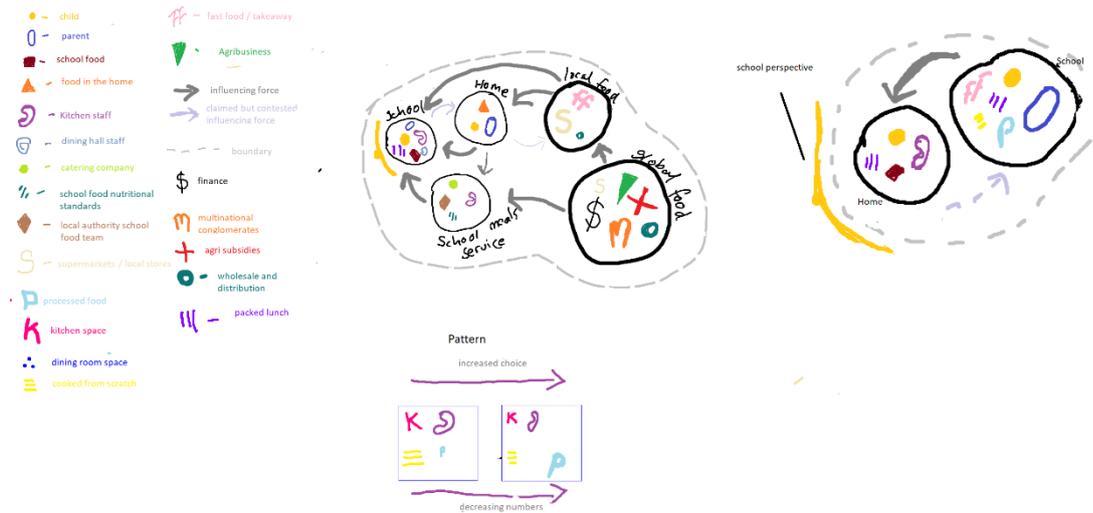
This first image is the table that I created using the templates provided by the workshop (Riehl & Bird, 2019)

SYSTEMS SCRIBING CANVAS		What system are you thinking about?
DATE:		
VERSION:		
<p>PARTS What parts are present in the system?</p> <p>children dining room staff Parents school dinner staff (often also parents) School food regulations School food Food outside school food budgets Dining space Local authority school food team Kitchen space processed food School food company</p>	<p>WHOLES What wholes are present in the system?</p> <p>The school The home 'neighbourhood' food nutritional regulatory framework School food digital management system</p>	<p>RELATIONSHIPS What interactions between the parts and wholes are present in the system?</p> <p>Home food norms influence school food acceptance Availability and cost of 'neighbourhood' food sets food norms neighbourhood food availability is determined by market forces and socio-economic profile of the area There is an assumption that school food will influence home food norms, or at least mitigate them the social rules for dining shape school food acceptance</p>
<p>BOUNDARIES What boundaries are present in the system?</p> <p>what is the boundary of forces that shape food norms and acceptance? what is the boundary of the social rules of dining? what is the boundary of school kitchen norms and practices?</p>	<p>PERSPECTIVE What perspectives are in the system? What is your perspective in the system?</p> <p>That school food is a logical and ideal choice That parents should prioritise healthy food over food that their children want to eat That parents prioritise their children eating food they want over going hungry That children prioritise who they sit with over what they eat</p>	<p>PATTERNS What patterns are present in the system? What do you hear/ see repeatedly?</p> <p>kitchen staff numbers have gone down as prevalence of processed food components made school food work more efficient and convenient Kitchen space has shrunk in line with fewer staff and more processed food / mechanisation / reduced uptake</p>

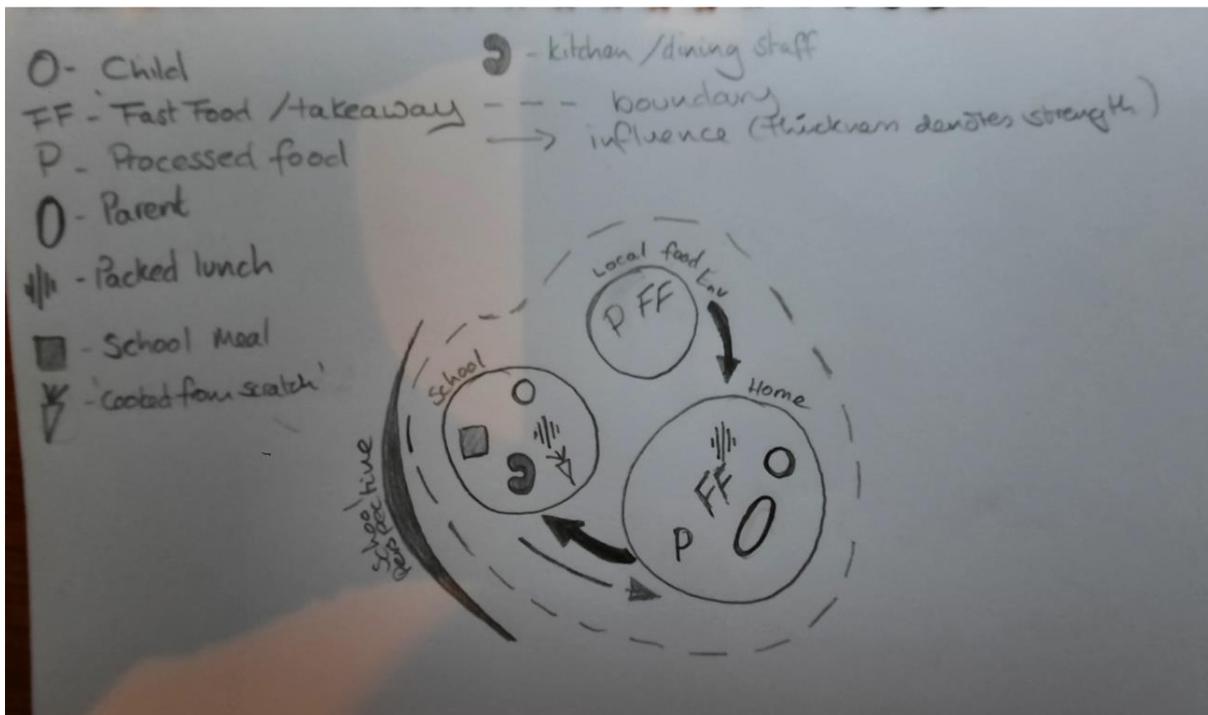
Creative Commons 2019 Jessica Riehl and Kelly Bird

Created for the participants of the Visual Practice Systems Scribing Lab
Version 2.0 | January 2022

From this I attempted to create some draft systems diagrams and shared them with Alexandra. We discussed the findings from my Institutional Ethnography and I told her the 'story' as it would be captured in a more traditional narrative write up and how this had shaped the images I had created.

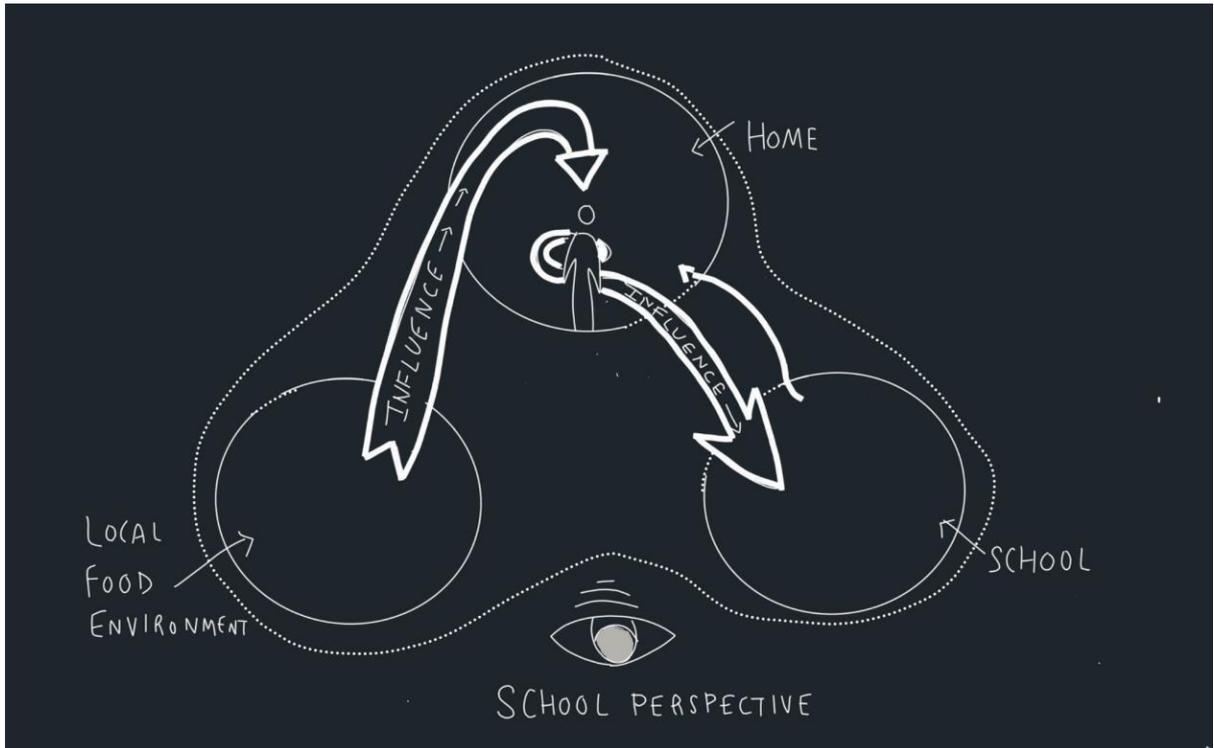


We then identified the first part of the story that we wanted to work with, this was the school food worker's perspective on why meal uptake was so low.

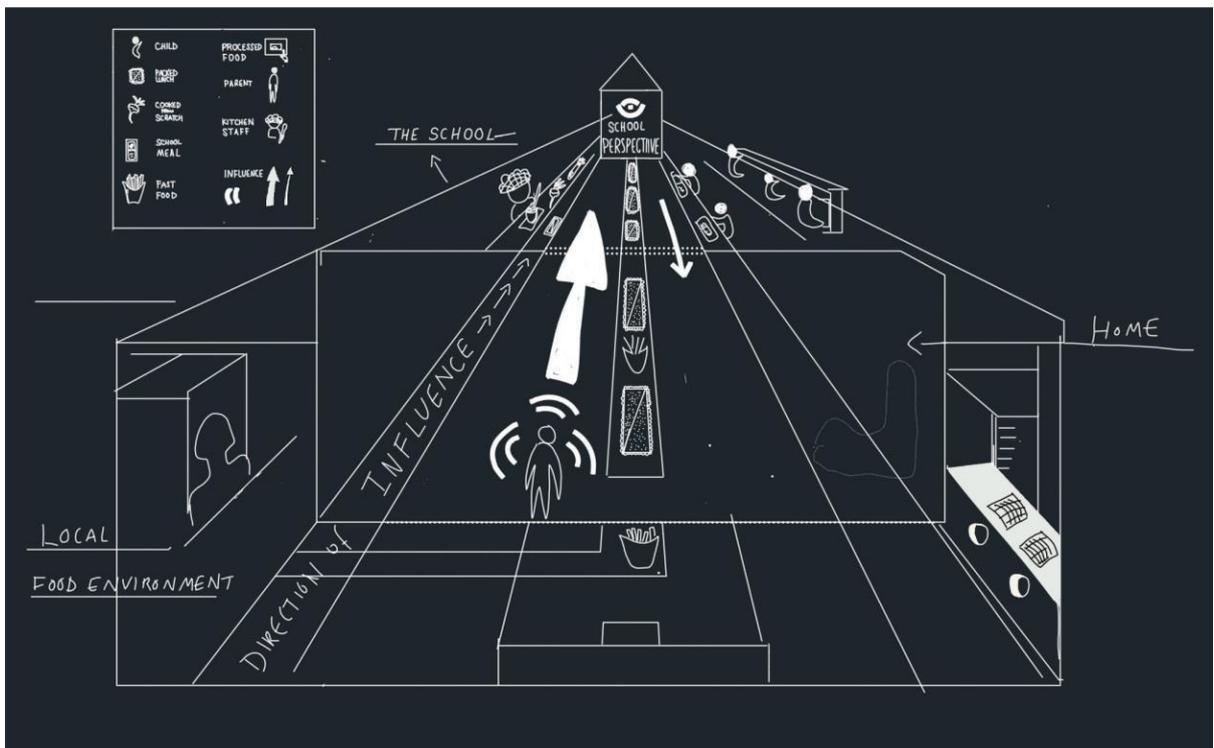


This was the draft that I sent Alexandra.

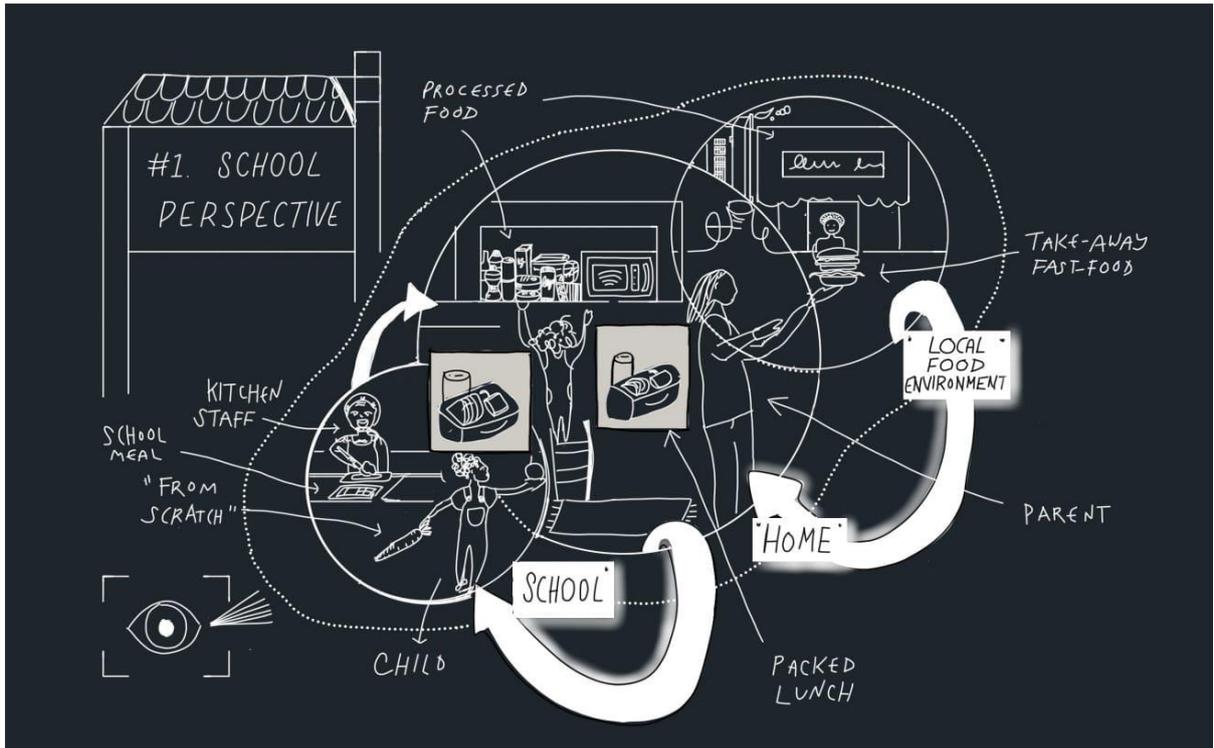
From this she sent me these three initial versions of diagrams / images.



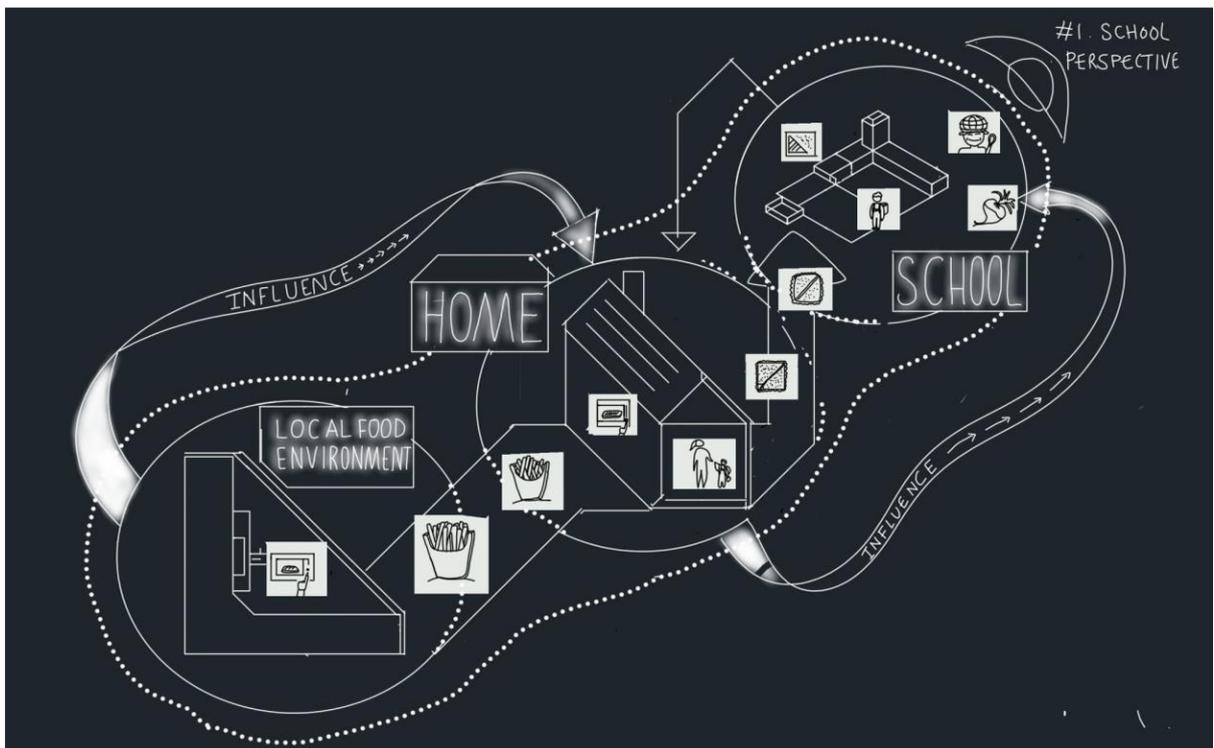
I liked the simplicity of this first one but didn't think it captured the complexity of the different elements, and the school perspective didn't align with the positioning of the school in the diagram.



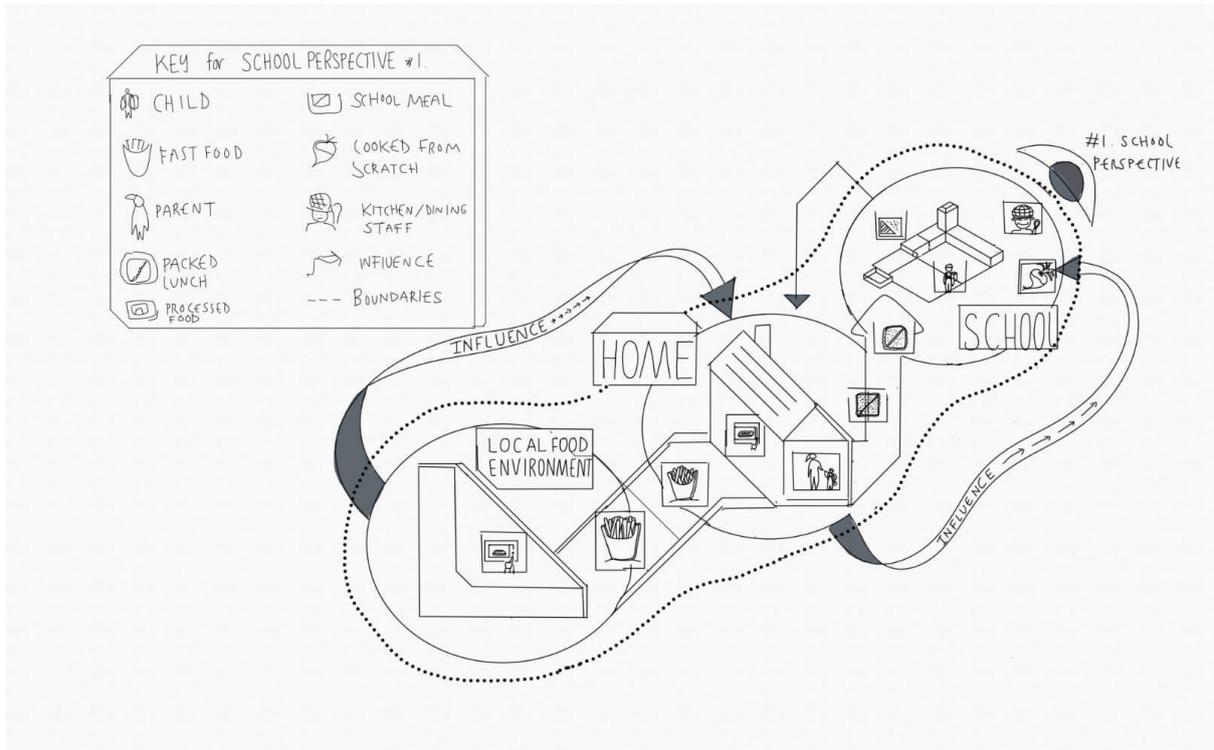
This took the idea of perspective quite literally, but to me it lost the system element and started to look quite linear. I also thought it would be hard to interpret, although it was visually interesting.



This third version came closest to the idea of a complex system visualisation, but I felt that the imagery was a little cluttered and that it was hard to see how the system was flowing because of all this additional detail. I asked Alexandra to simplify this version.



This draft version was then further refined as I asked for the inclusion of a key, which allowed for a further simplification of the different images and symbols used, as they would not now have to be interpreted by readers.



This was the final version that was refined for inclusion in the Thesis.