

**An investigation of
the literacy and numeracy requirements and demands
of entry-level supermarket work**

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Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which is to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

Kim Hastwell

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Abstract

The nature and role of workplace literacy and numeracy are the subject of considerable debate (Baker, 1998; Castleton, 2002; Gee & Lankshear, 1997; Hull, 1997; Jackson, 2000; Marr & Hagston, 2007). The debate in New Zealand, (as in many other countries), is taking place amid concerns about the adequacy of the skills of its workforce and the latter's ability to meet future demands of everyday work and life (Tertiary Education Commission, 2008). These concerns have resulted in major investment at a national level in a Skills Strategy (New Zealand Government, 2008) with particular emphasis on improving adult literacy and numeracy levels. However, Castleton (2002) suggests that conceptualising literacy as a skill ignores the reality of workplaces which, she suggests, consist of communities of workers who engage in purposeful communication and who possess and use different skills and knowledge in complementary ways, while Hull (1997) believes that too great an emphasis is placed on literacy, particularly in low skilled work.

I teach on a programme for students with limited English literacy and numeracy proficiency. A common entry point into the workforce for current and past learners from the programme is entry-level supermarket work. However there is limited information available about the literacy and numeracy pre-requisites for this type of work or the literacy and numeracy demands placed on those in employment.

In seeking to contribute to the body of knowledge about low skilled work in general and entry-level supermarket work in particular, research was carried out in a large, busy, suburban supermarket. The study was underpinned by the belief that both literacy and numeracy are social practices which cannot be separated from the contexts in which they occur. It adopted an ethnographic approach and was conducted through semi-structured interviews with supermarket managers and entry-level workers/supermarket assistants; observation of assistants during induction and at work; and analysis of some significant supermarket documentation.

Findings indicate that, while literacy and numeracy are generally not considered to be important pre-requisites for entry-level supermarket work, supermarket assistants are exposed to highly context-specific literacy texts and ‘embedded’ and invisible numeracy demands at induction and during parts of their working day.

The findings have significance for the teaching of literacy and numeracy in vocational training programmes. They indicate that off-site programmes have an important role to play in providing a learning foundation but also point to the importance of, and need for, workplace-specific, on-the-job literacy and numeracy training.

Notes and Glossary

To protect the identity of both the supermarket where the study was carried out and the participants taking part in the research, pseudonyms have been used for the following:

- the name and branch of the supermarket;
- the names of all supermarket assistants;
- the name and title of the person in charge of the supermarket.

Department managers have not been identified by name.

The titles of induction texts have been changed where keeping the original title may lead to the identity of the supermarket or chain.

The names of the video mentioned in the findings and the types of ‘specials’ the supermarket offers have also been changed.

The terms ‘entry-level (supermarket) worker’, ‘supermarket assistant’ and ‘assistant’ have been used interchangeably. They refer either generally to those who are employed at the lowest salary level in the supermarket and who have no line responsibilities in the organisation, or specifically to the participants in the study who were neither managers nor inductees.

The term ‘inductee’ has been used to identify the supermarket assistants who attended the induction that I observed and is used to differentiate them from other supermarket assistant participants.

The following abbreviations have been used:

T/HR Manager = Training and Human Resources Manager

EAL = English as an additional language

ICT = information and computer technology

Chapter 1: Introduction

1.1 Background

The School of Languages and Social Sciences at AUT University, Auckland is a major provider of language, literacy and numeracy education for adults with low levels of English proficiency and low or no formal qualifications. It runs a 90-place Training Opportunities programme, 'ESOL for Work and Education' funded by the Tertiary Education Commission which, in turn, is contracted by the Ministry of Social Development to purchase such training. While the ESOL for Work and Education programme is not run specifically for refugees, the majority of learners attending the programme are from refugee backgrounds. All enter the programme with low or no English proficiency and a significant number have no or limited literacy in first language and limited numeracy skills.

"Training Opportunities (training) focuses on learners acquiring a valuable set of foundation skills that enables them to move effectively into sustainable employment and/or higher levels of tertiary education." (Tertiary Education Commission, 2005, p. 4). A requirement of the training is the provision of workplace learning. The ESOL for Work and Education programme meets this obligation by organising a brief (one day a week for eight weeks) voluntary work placement for students in the top two levels of the programme. At this point, it is expected that "learners can, for example, understand written instructions and statements where there is support from the context ... and write a range of short phrases and simple sentences" (Wylie & Ingram, 1995, p. 3). Most learners are placed in supermarkets and other retail outlets where, almost without exception, they perform well. Frequently a number of learners are offered employment as a direct result of their placements. In addition, some other learners in the programme independently obtain supermarket work while studying or when they leave the course. This suggests that despite learners' relatively low levels of English, literacy and numeracy proficiency, employers consider they have the skills to successfully perform the work or can be taught them.

Any work opportunities such as these are significant for refugee learners, given the widely acknowledged importance of meaningful employment to successful refugee

resettlement and participation in their adopted country (Chile, 2002; European Council on Refugees and Exiles Taskforce on Refugee Integration, 2003; UNHCR, 2002; Valtonen, 2004) and because New Zealand does not offer a job placement service that specifically targets refugees (Parsons, 2005).

There is debate as to both the nature of workplace literacy and its role in today's workforce, in particular the assumed causal relationship between low literacy proficiency and poor work performance. (Castleton, 2002; Gee & Lankshear, 1997; Holland, 1998; Hull, 1997; Jackson, 2004b). Jackson (2004b, p. 2) suggests that being literate in the workplace involves "not just performing tasks, but understanding and participating as a member of a social group", while Hull (1997) argues that too great an emphasis is placed on the role of literacy, particularly in low skilled work.

The debate in New Zealand (as in many countries) is taking place amidst increasing anxiety about the level of skills possessed by the workforce and its adequacy to meet the future demands of everyday life and work. The recently published Literacy, Language and Numeracy Action Plan 2008-2012 (Tertiary Education Commission, 2008, p. 6) typifies this response:

New Zealand's low levels of literacy, language and numeracy have been identified as contributors to our relatively low productivity. Low literacy and numeracy levels can affect employees' level of engagement in the workplace and potential for advancement in the labour market.

Concerns have led to a major investment in the development and ongoing implementation of a Skills Strategy (New Zealand Government, 2008) with high priority given to the improvement of adult literacy and numeracy levels. As yet it is not possible to determine if the strategy has been successful in enabling those with low literacy and numeracy to "make a greater long-term contribution to New Zealand and (to) be better positioned to take advantage of the opportunities created by economic development" (Tertiary Education Commission, 2008, p. 6) .

Given the prominence of the supermarket as an employer of low skilled workers, the high proportion of 'ESOL for Work and Education' learners who undertake voluntary work experience and seek employment in supermarkets, and limited representation of

this workplace in the literature, further research into workplace literacy and numeracy of supermarkets is required.

1.2 Purpose of the study

The purpose of this study is firstly to examine the pre-requisites for entry level employment in a supermarket, and in particular, the literacy and numeracy required. Secondly, the study investigates some of the literacy and numeracy encountered and used by supermarket assistants during their induction into the supermarket, while learning their job, and as they perform their daily duties. It does this by adopting an ethnographic approach to data collection with research being carried out in a large busy suburban supermarket.

It is anticipated that the research will contribute to the understanding of the place of literacy and numeracy in entry-level supermarket work and provide insights into specific workplace literacy and numeracy practices. This in turn could inform and influence what is taught in adult literacy and numeracy programmes, in particular those such as ESOL for Work and Education, with learners from non-English speaking backgrounds. The research may also be useful for supermarket management. For example, it may identify whether job requirements are a true indication of job demands. It may have implications for recruitment practices, the writing of employment documentation and job specifications and training. Finally, it may provide comment about the direction of the New Zealand Skills Strategy.

1.3 Overview of the thesis

The thesis consists of five chapters. Chapter 2, the literature review, examines and evaluates relevant international and national literature related to literacy and numeracy theory. It then considers workplace literacy and numeracy theory and practice, particularly as these relate to low skilled work, low skilled workers and low skilled workplaces. The methodology employed in the study is presented in Chapter 3. The study is a qualitative one adopting an interpretivist paradigm and utilising ethnographic methods including observation, interview and document analysis as instruments for data collection. These tools both enable the comparison and contrast of information gathered from different yet complementary perspectives (Denscombe, 2003) and act as a form of

triangulation. The chapter also describes recruitment of the participants in the study, namely assistants and managers who work at a large suburban supermarket, and the criteria for their selection. Chapter 4 details what are considered to be the most significant findings of the study and from these, the understandings gained about the literacy and numeracy of supermarket assistants' work. In doing this, and consistent with the holistic nature of ethnographic research, findings and discussion have been included in the same chapter. The final chapter draws the data together and presents conclusions and implications for literacy and numeracy training. It also identifies the study's limitations and suggests possible future research.

Chapter 2: Literature Review

2.1 Introduction

The starting point of a literature review for a study such as this, which focuses on literacy and numeracy in a workplace setting, is an examination and appraisal of the notions of ‘literacy’ and ‘numeracy’ themselves. Both are contested terms. This chapter therefore begins with a review of some of the debate surrounding the nature of these concepts and is followed by a similar examination of workplace literacy and workplace numeracy literature. Narrowing in on the prime focus of the study, it then examines some of the more relevant research related to the place of literacy and numeracy associated with: low skilled work; low skilled workers; low skills workplaces; and in particular, entry-level supermarket work.

2.2 Literacy: a contested term

A study of the literature reveals that there is no universally accepted definition of literacy. The word ‘literacy’ according to Gee (1996) “is a socially contested term.. and can be used in any of several different ways ... the subject of literacy has social, political and educational implications ” (p. 22). A 2004 position paper from United Nations Educational, Scientific and Cultural Organisation (UNESCO) describes the “evolving notion of literacy” (p. 8) highlighting the changes and developments in knowledge on the subject.

2.2.1 Autonomous model of literacy

One of the most frequently quoted and influential contributions to the field of literacy study has been from Brian Street (1984; 1993). Street distinguished between what he called ‘autonomous’ and ‘ideological’ models of literacy (1993, p. 5). He used the term ‘autonomous model’ to encompass what are generally considered psychological and individualistic approaches to reading and writing which are exemplified in the work of Goody and Watt (1968), Olson and Ong (as cited in Street, 1993). He suggested that these writers regard literacy as “an autonomous variable whose consequences for society and cognition can be derived from its intrinsic character” (p. 5).

The autonomous model conceptualises literacy as a set of personal, yet neutral, technical skills that is situated within the individual, a cognitive process and an expression of one's intellect: "to be able to read is to be able to decode writing: to be able to write is to be able to code language in visual form" (Gee, 1996, p. 39). A literate person is someone "who can, with understanding, both read and write a short simple statement on his or her everyday life." (UNESCO, 2005, p. 5). Conversely, in this model 'illiteracy' is viewed as a deficit with responsibility for this 'lack' resting largely with the individual. A predominant belief is that becoming literate, or acquiring reading and writing skills, is the key to social enlightenment, economic and political development. The central claims of what is sometimes called the 'literacy thesis' are that:

writing is a technology that transforms human thinking, relations to language and representations of tradition, a technology that also enables a coordination of social action in unprecedented precision and scale, thus enabling the development of unique social and institutional complexity. (Collins & Blot, 2003, p. 17)

Olsen and Torrence (2001), drawing on the earlier work of Goody and Watt (1968), call this a 'causal' concept of literacy, related to the "consequences of literacy ... what literacy does to people" (p. 4).

The basic premise of the autonomous model is that text is autonomous and hence the notion that understanding and meaning can exist independently of the social context in which the reading and writing take place. This implies that reading and writing are generic skills which can be learnt in a 'neutral' setting and applied equally across all contexts, and that the acquisition of literacy is the acquisition of a series of discrete skills in a largely linear fashion or a continuum (Baynham, 1995). These views were prominent until at least the mid-1960s and still inform public debate about literacy policy and education (Lonsdale & McCurry, 2003). They can be seen in the early documentation and policy initiatives of UNESCO (2005) and their literacy programmes: to enhance the economic productivity of the nation" (Lonsdale & McCurry, 2003, p. 7). They also underpin the ESOL for Work and Education course on which I teach. The

course, a Training Opportunities Programme funded by the Tertiary Education Commission here in New Zealand is expected to provide training which “focuses on learners acquiring a valuable set of skills that enable them to move effectively into sustainable employment and/or higher education” (Tertiary Education Commission, 2005, p. 1). There is an expectation that the course, sited in the neutral setting of the classroom, will equip students with generic, transferable language, literacy, numeracy and other skills necessary for obtaining and retaining work. My research will show however that an autonomous model of literacy is neither a suitable basis for equipping learners for the literacy challenges of the supermarket nor for explaining how, once employed there, they establish meaning when they encounter texts as part of their work.

2.2.2 Literacy as social practice

Although it enjoys continued prominence in literacy policy and education fields, the autonomous model has fallen out of favour with many literacy theorists and practitioners. Street, together with researchers and practitioners such as Gee (1996), Barton (1994), Barton and Hamilton (2000) and Baynham (1995), has challenged the skills-acquisition approach to literacy. They and others have contributed to a major body of work which has become known as the New Literacy Studies. Literacy, they suggest, goes beyond an awareness of language and symbols and is not a technical, generic set of skills to be learned in formal education. Rather it is a social practice which cannot be separated from the context in which it occurs. It is influenced by factors such as culture, past experience, knowledge and beliefs, hence meaning is contestable and, they suggest, embedded in relationships of power. Street calls this an ‘ideological’ model of literacy (1993).

There are two basic units of a social theory of literacy. The first, the ‘literacy event’, is an activity where literacy has a role (Heath, 1983). Literacy events are observable. The second, first described by Street (1984) is ‘literacy practices’ which Barton and Hamilton, drawing on Street’s work, define as “the general cultural ways of utilizing written language which people draw upon in their lives” (Barton & Hamilton, 2000, p. 7). Practices are both internal (to the individual) and social processes and not observable as they involve “values, attitudes, feelings and social relationships” (Street, 1993, p.12). It is believed that they provide a useful and powerful way of “conceptualizing the link between the activities of reading and writing and the social structures in which they are

embedded and which they help to shape” (Barton, 2002, p. 1). Literacy practices influence and shape literacy events.

Street took these notions further when he introduced the concept of ‘multiple literacies’ (1993).

2.2.3 Multiple Literacies – Multiliteracies – Multimodal literacy

Street proposed, based on his original work in Iran (1993) that literacy is not the same in all contexts. He suggests there are different forms of literacy, or ‘multiple literacies’ which are defined in terms of the domains in which they are associated, but still relate to written text. That is, they are associated with specific aspects of one’s life. “Domains are structured, patterned contexts within which literacy is used and learned... there are particular configurations of literacy practices and there are regular ways in which people act in many literacy events in particular contexts ” (Barton & Hamilton, 2000, p. 11). This has resonance with me as the domain which is the focus of this research is the supermarket workplace. Workplace literacy has its own body of literature which will be discussed later in this chapter.

While earlier authors such as Heath characterize literacy events as involving writing (1983), it has become clearer that written language is used in an integrated way with many different semiotic systems, for example mathematic symbols, maps and other non-text based images (Barton, 2002). It is necessary to broaden our understanding of what is considered to be ‘a text’. For example, texts I came in contact with during my research in the supermarket include, but were not confined, to ‘traditional’ documentation such as induction material; a wide range of product packaging and identification; pricing labels; barcodes; order forms; a data base for stock control and ordering; quality assurance forms and checklists; payslips and leave forms.

An influential, but somewhat controversial contribution to literacy theory and pedagogy has come from The New London Group. They suggest that a conceptualisation of literacy based on text and language is now inadequate, and that “the multiplicity of communication channels and increasing cultural and linguistic diversity in the world today call for a much broader view of literacy than portrayed by traditional language-based approaches” (1996, p. 60). They believe it is necessary to also consider literacy

in terms of communication modes or channels additional to the linguistic one, known as 'multiliteracies' (The New London Group, 1996). This approach can be seen in the use of terms such as visual literacy, spatial literacy, digital literacy and computer literacy.

Those challenging this view, including Street (1998) and Kell (2004) argue that firstly, The New London Group's use of the term 'literacy' is metaphorical given prior understandings of literacy as involving print. Secondly, while acknowledging the importance of modes or channels of communication, and the ever-expanding range of media for distributing meaning, extending literacy to include modes and means of distribution does not sit comfortably with the underlying tenet of literacy as a social practice, that is, literacy as contextualised, situated activity. Because of my research in the supermarket I feel more comfortable with this latter approach. My findings which are described and discussed in Chapter 4 indicate the critical importance of the supermarket context, the very context-specific nature of many supermarket texts and the influence on meaning of factors such as the supermarket assistants' different cultures, past experiences, knowledge and beliefs. My interest also lies with the written texts and different semiotic systems they are composed of, so my study is confined to this arguably narrower conceptualisation of literacy.

A further notion, 'multimodal' literacy, has also added to both the breadth and the depth of the New Literacy Studies. There is a realisation that texts are rarely isolated entities which alone carry meaning. Rather, meaning is conveyed through an interconnection of a number of different 'modes' or "resources for meaning making, including image, gaze, gesture, movement, music, speech and sound effect. [Furthermore] different aspects of meaning are carried in different ways by each mode" (Jewitt & Kress, 2003, pp. 1, 3). According to Pahl and Rowsell (2006, p. 8) multimodality provides "an analytic tool ... to recognize how literacy sits within a much wider communication landscape" while still acknowledging the significance of context in the establishment of meaning. It follows that consideration of all multimodal 'channels' is required to establish meaning in any communicative event (Jewitt, 2008).

Having considered the different models and approaches to literacy, it is appropriate to now explore the concept of numeracy, a term which, like literacy, is highly contested.

2.3 Numeracy: more than mathematics

Numeracy has been called the “poor cousin” of literacy (Johnston, 2002, p. 3). Street and Baker (2006) comment that for literacy researchers and practitioners, numeracy is often seen as an ‘add on’ but that despite its “Cinderella status ... the field of numeracy also has its own distinctive character” (p. 219). While it is frequently assumed to be included in considerations of literacy, this inclusion is often implicit or mentioned in passing rather than discussed in any real detail; with numeracy sometimes depicted as literacy with numbers, or the mathematical equivalent of literacy (Marr, Hagston, Donohue, & Wymond, 2007).

Certainly a much smaller body of literature exists for numeracy than for literacy and there is an acknowledgement that while the importance of adult numeracy is becoming increasingly recognized, the field is under-researched. For example, in 2002, Tout and Schmitt suggested that research on numeracy was minimal and Coben et al. noted that the field of adult numeracy is “under-researched, under-theorised and underdeveloped” (2003, p. 7). However within the existing body of knowledge, there is rigorous debate as to the nature and practice of numeracy (Coben et al., 2003).

That numeracy has something to do with mathematics is not in question, however the relationship between the two is contested. A persistent view in both educational and vocational settings, according to Coben et al. (2003) equates numeracy with the (a)rithmetic of the 3R’s of Victorian education, that is, basic number skills such as mental calculation and elementary mathematics. Implicit in this notion is a context-free process of skills acquisition and use. In this model numeracy competency is considered to be the product of a sound mathematical education and conversely ‘innumeracy’ is the result of poor schooling. However Street and Baker (2006) cite examples where this is patently not the case. Groups, such as young urban sellers in Brazil, who have not had ‘a sound mathematical education’ use innovative, sometimes complex yet informal numeracy in their daily lives. Baker, borrowing from the New Literacy Studies and in particular Street’s work, describes the model as an autonomous model of numeracy which, like its literacy counterpart, conceptualizes a set of skills that is unrelated to the context in which it may occur or be used and “both culture- and value-free” (Baker, 1998, p. 38).

Baker continues his analogy with Street's models of literacy by proposing an ideological model of numeracy practices and conceptualizing numeracy as a social practice with "its body of knowledge sited within contextual, cultural and ideological circumstances" (p. 39). Similarly he proposes the notion of numeracy 'practices' by which he means "the occasions, content, activities and kinds of numeracy that individuals engage in when they do mathematics" (p. 41).

There is also agreement among other researchers and practitioners such as Coben (2000), Gal (2000), Marr and Hagston (2007) and Tout and Schmitt (2002) that numeracy is much wider than decontextualised mathematical and number skills. Earlier researchers such as Luria in the 1920s (cited in Coburn et al., 2003) and Lave in the 1980s (1988), both became interested in the use of mathematics in everyday life. Lave for example, found that calculation was only one element in multilevel activities of daily living; it was often embedded in the activities, for example shopping, meal preparation. Qualitative reasons also often influenced mathematical decisions as much as quantitative reasons did, with "social relationships, feelings and values provid(ing) the structure and meaning within which the problems were formulated and solved" (Coben et al., 2003, p. 41). That is, "formal knowledge structures are transformed from standardised forms into situationally specific realisations in practice" (Lave, 1988, p. 124). Hence notions of purpose, context, and multiple types of numeracy situations appear to be important in defining the concept of numeracy.

It seems that Coben has encompassed all these notions in her definition:

To be numerate means to be competent, confident, and comfortable with one's judgement on **whether** to use mathematics in a particular situation and if so **what** mathematics to use, **how** to do it, what **degree of accuracy** is appropriate, and what the answer means in relation to the context. (Coben, 2000, p. 35 emphasis in original)

Tout, who is recognized as one of the foremost numeracy practitioners and authors in Australia, concurs with Coben's definition and adds to understanding with the following. Numeracy he says is more than mathematics.

It is about using mathematics in all its guises – space and shape, measurement, data and statistics, algebra, and of course number – to make sense of the real world, and using maths critically and being critical of maths itself. It acknowledges that numeracy is a social activity. (1997, p. 13)

In my view this fits very comfortably with my preferred notion of literacy discussed in 2.2.3 as I believe Tout's definition implies that numeracy too involves the use and integration both of different semiotic systems and different modes for making and conveying numerical concepts. According to Street and Baker (2006), the issue of modality is central to numeracy, and mode switching and interconnection e.g. between linguistic, actional, written and visual modes are as common as they are in literacy according to Jewitt and Kress (2003). Street and Baker (2006) suggest that there is considerable scope for further research in the field of multimodal numeracy practices.

Street writing alone in a paper entitled "Applying the New Literacy Studies to numeracy as a social practice" (2003), has also considered some of the similarities and differences between literacy and numeracy. He suggests that within numeracy practices there is a universal dimension, for example two plus two always equals four (although even this logic may vary in different cultural contexts). This 'maths dimension' to numeracy as a social practice "privileges certain kinds of operation and procedure and certain specialist language and skills" (Street, 2003, ¶ 5). Although there is often a strong written symbolic and literacy dimension to numeracy:

many procedures and practices can be performed without writing them down – they can be done 'in the head' or with the use of images or perhaps mnemonics that are not the same as a fully developed writing system ... there are distinctive features of maths that cannot simply be reduced to those of literacy. (Street, 2003, ¶ 6)

Johnston (as cited in Coben et al., 2003) discusses the existence of 'numeracies' which differ according to the domain in which they occur, rather than just 'numeracy'. This suggests parallels with the concept of multiple literacies introduced by Street (1993) who suggested there are different literacies associated with different aspects of life. Work is an important domain and as my research shows has its own characteristic

literacy and numeracy practices. It is now timely to consider some of the literature of workplace literacy and numeracy which informs my study.

2.4 Workplace literacy and numeracy

While the term ‘workplace literacy’ is commonly used, ‘workplace numeracy’ is less often found in the literature. Marr and Hagston’s research (2007) suggests that “the endeavours to research the mathematics related skills valued and used in the workplace are complicated by the phenomenon of the ‘invisibility’ of numeracy...workers are not conscious of using mathematical skills at work” (p. 6). Like literacy and numeracy, workplace literacy and workplace numeracy are contested terms. This section will discuss some of the important debates surrounding them.

2.4.1 ‘Fast capitalism’ and basic skills

According to Lonsdale and McCurry (2003) it is important that developments in the fields of workplace literacy and numeracy theory and practice are situated within the context of the economic, social, political technological and cultural changes that have occurred in the last sixty or so years. This is because the developments are products of their cultural times.

After World War II, industry was characterized by a shift towards mass production and large workforces, and what have been called Fordist or Taylorist work models. The shift was largely in response to the need to address shortages created by the war. It also provided much needed work for demobilized troops. Features of this work model included hierarchical structures with knowledge and control in the hands of management and repetitive and disempowering work for those on the factory floor (Holland, 1998). “Workers ‘hired from the neck down’ needed only to follow directions and mechanically carry out a rather meaningless piece of a process that they did not need to understand as a whole and certainly did not control” (Gee & Lankshear, 1997, p. 84).

The 1980s however saw a change to post-Fordist forms of work place organization which continue into the present along with the emergence of a strongly competitive global market place, both locally and internationally. This was brought about by the gradual easing of trade tariffs and the subsequent move to more free-market economies,

as well as the introduction of computer technology into most facets of business and communications. The reorganised workplaces became flatter with less hierarchical structures leading to the shedding of staff, particularly at middle and lower management levels, but also of front-line workers. The role of the 'middle' was passed to front-line workers transforming them from 'neck down' operators to employees whose 'mind' was also necessary to the production process (Holland, 1998).

Participatory work teams replaced the earlier chain of command. The concept of organisational culture emerged, accompanied by the idea of workers 'buying into the culture' with resulting high levels of commitment to the organisation. The much heralded outcome of this 'new work order' was that "workers (would) be transformed into committed 'partners' who engage in meaningful work, fully understand and control their jobs, supervise themselves and actively seek to improve their performance through communicating clearly their knowledge and needs" (Gee & Lankshear, 1997, p. 85).

The 'new work order' described above was accompanied by a plethora of what Gee and Lankshear (1997) call 'fast capitalist' texts by authors such as Peter Drucker (1993) and Tom Peters (1994), names that have become synonymous with the organisational changes of the period. However as well as discussing the new organisational structures and changes to the nature of work, they wrote of a 'literacy crisis' or a 'basic skills' deficit. Workers, these 'fast capitalist' writers believed, would require a set of new skills, values and practices in order to function successfully in the new work order which would bring about "the entrepreneurizing of every job" (Peters, 1994, p. 67). Workers' existing skill levels, it was suggested, did not adequately equip them for current and future jobs and this would impact negatively on economic growth.

Conversely, improvement in workplace literacy was considered essential for international competitiveness and participation in the global economy (Black, 2004). This assessment persists today and is frequently acknowledged in government funded and other official reports originating in many parts of the world (Castleton, 2002). For example, the recently published "New Zealand Skills Strategy 2008: Action Plan" (New Zealand Department of Labour, New Zealand Council of Trade Unions, Industry Training Federation of New Zealand, & Business New Zealand, 2008, p. 18) states that:

New Zealand's low levels of literacy, language and numeracy have been identified as contributors to our relatively low productivity. ... Improving literacy and numeracy skills in the workforce will ... ultimately contribute to improved social and economic outcomes for all New Zealanders.

The model has also been highly influential in informing the developers of adult education and training programmes according to Black (2004). I have already given the example, in 2.1.1, of the programme on which I teach.

2.4.2 Workplace literacy and numeracy practices

However just as the prevailing thinking about literacy was challenged, so too the nature of workplace literacy in the new work order and the pessimistic notions of a literacy skills deficit in workplaces were put into perspective by researchers such as Castleton (2002), Gee and Lankshear (1997), Holland (1998), Hull (1997) and Jackson (2004b). They challenged the traditional skills acquisition model which described workplace literacy as a skill. Hull (1997), whose writing in this field is seminal, described workplace literacy as multi-layered in its meaning, never neutral and embedded in, and shaped by, work practices, which were in turn influenced by their cultural, social and historical contexts. Conceptualising literacy as a skill ignored the realities of workplaces which consist of communities of workers who engage in purposeful communication and who possess a range of different skills and knowledge which is used in complementary ways (Castleton, 2002). Jackson (2004b, p. 2) argues that being literate in the workplace involves “not just performing tasks, but understanding and participating as a member of a social group” while the research of Searle (2005), Castleton (2002) and Black (2004) points to strong evidence that that workers engage collaboratively with literacy practices. They stressed the communicative nature of literacy in the workplace.

2.5 Literacy, numeracy and work

The focus of my research is the literacy and numeracy demands and requirements for supermarket assistants. This group of workers are part of what Newton, Miller, Bates, Page, and Akroyd (2006) call the low skilled, low paid workforce and it is this group that ‘fast capitalist’ authors were most concerned about when they identified the existence of a ‘literacy crisis’ or basic skills deficit (discussed earlier in 2.3.1). However

before discussing the characteristics both of this group of workers and their workplaces, it is useful to examine some of the literature that challenges the claims of the ‘fast capitalists’.

2.5.1 Employability

Hull (1997) was one of those who challenged the notion of a literacy crisis or a basic skills crisis. Her research shows that the traditional skills of reading, writing and numeracy make up only one of a wide range of skill groups employers considered ‘basic’ and necessary for employment. Other requirements include interpersonal skills, self esteem, goal setting, problem solving, oral communication and knowing how to learn. These and other desired attributes are now frequently discussed in workplace training literature and are increasingly part of the content of many training programmes. For example, the National Training Quality Council (NTQC), which oversees quality standards for registered training organisations in Australia, has endorsed the incorporation of ‘employability skills’ into all training packages and refers to an ‘employability skills framework’ (National Training Quality Council, 2005). It should be noted however that just what constitutes necessary skills for obtaining, retaining and progressing in employment, variously called basic skills, generic skills, employability skills and essential skills, is contested. Reference to authors such as Curtin (2004), Jackson (2005), McQuaid and Lindsay (2005), Payne (2003) and Taylor (2005) attest to this. A detailed discussion of this area is however beyond the scope of this research.

Atkinson and Williams (2003) while supporting Hull’s (1997) findings that literacy and numeracy are only part of the package of desired skills, suggest they may not be the most important pre-requisites that employers look for when recruiting entry level staff. They report on a large scale UK survey where some 700 recruiters who frequently recruit entry level staff, ranked in importance different selection criteria. Results show that recruiters consider factors such as reliability and motivation to be more important in their assessment of job suitability than basic skills. Education and vocational qualifications both receive a low ranking.

These results are consistent with another comprehensive study, this time in the US. Researchers (Boyle, Sanford, Rude-Parkins, & Boswell, 2001) interviewed recruiters and managers representing every major service industry in the state where it was carried

out, to discover what they considered to be minimum skills necessary to qualify for employment. The study found that:

basic skills such as reading and writing were rarely listed as prerequisites for employment. In contrast managers stated that they wanted workers who would show up for work on time; who had the ability to get on with co-workers.. (and) ...customers...; who were willing to follow company policy... and could meet the legal minimum physical requirements for the job...the organisation would provide the skills for actual job performance though contextualised job training. (Boyle et al., 2001, p. 47)

The researchers found however that even in jobs that managers indicated required no basic skills, further questioning and observation of workers indicated that reading, writing and basic numeracy were necessary to succeed in the contextualised job training. This led them to suggest that either managers are unaware of the basic skills required of their assistants, or they assume that all applicants have the necessary literacy and numeracy to successfully perform their job.

By way of contrast, Bracey (2006) reviewed reasons for non-appointment to jobs paid on an hourly rate, many of which are in the service sector, and found that employers reject applicants mainly because of “inadequate basic employment skills such as attendance, timeliness, attitude (and) work ethic” (p. 27). 69% of employers surveyed identified poor basic employment skills, such as those mentioned above, as being the major factor in the decision not to appoint applicants compared with 32% who cited inadequate reading skills and 21% inadequate math skills.

Despite the above findings that employers of entry level workers do not consider basic skills to be important employment pre-requisites, other literature suggests that perceived literacy requirements and hiring practices for entry-level and other unskilled positions often call for a range of skills and a literacy proficiency that are inappropriately high or unrelated to the actual demands of the job. Tannock (2001), for example, documented an eight stage process that workers had to complete in order to obtain a part-time job bagging groceries. It included three multiple-choice tests and two interviews. Earlier Hull (1997) urged vigilance against the socially irresponsible use of literacy in the

workplace, commenting on the proliferation of literacy-related tests and assessment instruments to determine the skill proficiency of potential or existing workers.

While consideration of the skills and attributes sought by those employing staff is highly relevant to my study, the requisites for advancement once in employment are not its focus. Notwithstanding, it is useful to examine briefly the potential for promotion beyond entry-level work.

2.5.2 Promotion

In addition to determining the minimum skills necessary to obtain employment, Boyle et al. (2001) also sought to discover what skills are considered necessary for promotion out of entry-level positions. They found that, in addition to the prerequisites which would qualify a worker for entry level employment, formal education, strong maths skills and a strong performance record are considered important. They were surprised at the limited upward mobility in many organisations, with most managers believing that few entry-level workers are likely to have the potential for advancement. “Those that were promoted tended to be placed in low-level supervisory positions and remain there for the duration of their careers” (Boyle et al., 2001, p.56). Their findings are supported by those of Newton et al. (2006) and Atkinson and Williams (2003) who found most of those in unskilled jobs receive no training at work, so are unlikely to gain qualifications there. This led them to infer that opportunities for advancement are likely to be limited to “promotion opportunities with the existing employer that do not call for better formal qualifications, (and) ... similar jobs with ‘better’ employers elsewhere in the local labour market (p.11). It appears from the above studies that once one is in an entry-level position, prospects of being promoted from it are restricted, with manager perceptions and limited opportunities for training contributing factors. In addition, according to the above writers, having low literacy and numeracy may not be a barrier to qualifying for entry level employment, but can and often does hamper advancement.

2.5.3 Work performance

Hull (1997), who showed that the traditional skills of reading, writing and numeracy make up only one of a wide range of skill groups considered necessary for employment, was also instrumental in challenging the assumed causal relationship between low literacy skills and poor work performance. She argued that too great an emphasis is

placed on the role of literacy given the wide ranging 'basic' skills that workers require, and conversely, too little acknowledgement is given to people's abilities, particularly those of individuals traditionally employed in low skilled work. Human potential, she contends, is undervalued, citing research demonstrating that people tended to be able to carry out more complex work than would be expected given generally held assumptions about the relationship between literacy and work performance (Hull, 1997).

Hunter's (2007) research with 'back of house' workers in an urban Canadian hotel supports Hull's contention. She found that although their work is generally considered to be of low status and 'low skilled' in nature, many 'back of house' workers find ways to "work more efficiently through creative literacy practices, problem solving and collaborative knowledge sharing" (Hunter, 2007, pp. 243,244). She cites the case of workers who either singularly or collaboratively have created or modified documents to improve their work efficiency. Their documents are not part of the official hotel documentation or generally recognized as important. However, workers' intimate knowledge of their job and their relative independence in performing their job tasks has enabled them to identify problems and solve them creatively. For example, one worker, when compiling his list, uses his extensive knowledge of the kinds of items guests in the hotel generally request. Hunter's work is relevant to my findings as a number of the Food-World assistants create informal lists to enable them to accurately re-stock displays or re-order products.

Two Australian studies also explore the relationship between literacy and work performance. The first, by Black (2004), is a study of two groups of people. The first group were unemployed and had been referred to a literacy programme. He concluded that some of these people would have little chance of gaining employment, regardless of their level of literacy, due to other unrelated factors such as a back injury, a dust allergy and proximity to retirement. This indicates to me that there are many factors other than literacy that affect one's employability. Black's second group consisted of council workers who were in the process of being restructured from traditional work gangs to competitive teams. Although management suggested starting literacy training to facilitate the restructuring, Black had difficulty demonstrating that a lack of literacy or numeracy skills affected their work performance.

In the second study, Waterhouse and Virgona (2005) undertook case studies of ten individuals whom they considered 'successful' despite acknowledged literacy difficulties. For a high proportion of research participants, success was characterised by "economic independence ...continuous employment...attainment in business and wealth generation" (and was due to)... "perseverance, networks, technologies" and a range of other strategies rather than mastery of reading and writing (p. 5).

The above studies are, however, contradicted by detailed longitudinal cohort research in the UK reported by Bynner (2004). Participants' functional literacy and numeracy were assessed and they were interviewed on a range of topics including employment and education. Results showed that literacy and numeracy skills were significant in gaining employment on leaving school, in retaining it and progressing in the labour market. It was further noted that poor numeracy appeared to be more detrimental to one's employment potential, retention and advancement than poor literacy. This is supported by literature reviewed by Marr et al. (2007) showing that those with poor basic skills and in particular, poor numeracy skills "are more likely to be unemployed or employed in manual occupations, to receive low wages, have lower promotion prospects and to have relatively low positions at work" (p.4). It is also consistent with the findings regarding the skills required and potential for advancement beyond entry-level employment, (Atkinson & Williams, 2003; Boyle et al., 2001) discussed in the section above.

It is interesting to reflect on the differing and apparently contradictory findings between the above studies. Those reported by Bynner (2004) and Marr et al. (2007) contained large participant groups (over 3000 people in the case of the former) enabling quantitative analysis of data and determining of trends. They indicate that having low levels of literacy and / or numeracy negatively impact an individual's ability to obtain, retain and progress in employment. The studies do not however show the 'human face' that is central to work by Black (2004), Hunter (2007), Hull (1997), Waterhouse and Virgona (2005). These authors who carried out qualitative research reveal examples of individuals who appear to be exceptions to the general trend as they do not conform to statistical findings or widely held beliefs about the relationship between literacy, numeracy and performance. They confirm Hull's contention that the assumed causal relationship between low literacy skills and poor work performance should be

challenged. However in my opinion they do not invalidate findings from large scale quantitative research that show that low literacy and numeracy can limit workplace opportunities.

2.6 'Low skilled': a contested term

Having discussed literacy and numeracy in relation to the employability and work performance in low skilled work, it is now appropriate to provide a context and briefly examine what characterises low skilled work, who does low skilled work and where they are employed. My interpretation of the literature is that the terms: low skilled work, low skilled worker and low skilled workplace, firstly are contestable and secondly, are often linked, both appropriately and inappropriately with low status and low pay. Thirdly it is sometimes assumed that those in so-called low skilled work have low skills. These issues will be briefly addressed in relation to their relevance to my research.

2.6.1 Low skilled work

One common conceptualisation of low skilled work is based on the prerequisite skills it requires. This standpoint, discussed earlier in 2.5.1, argues that work requires employees to have a range of 'employability skills', many of which are arguably personal attributes, as well as literacy and numeracy. Frequently however, literacy and numeracy are down-played or not made explicit. Educational or vocational qualifications are either considered to be unnecessary or of low priority as it is believed skills required to perform the work can be easily taught on the job (Boyle et al., 2001). As I have earlier indicated, and will discuss in greater detail in Chapter 4, this is very much the viewpoint of those employing supermarket assistants at Food-World.

Low skilled work is also often defined by its features. According to Newton et al. (2006) it is characterised by routine, monotony and repetition of a relatively small range of tasks which are generally unproblematic and low in complexity. It is designed to have little discretion and is often performed 'solo' with little reference to or contact with others. This last point is interesting given the underlying premise of this study that literacy is a social practice and the previously cited work of authors such as Black (2004), Jackson (2004b), Castleton (2002) and Searle (2002) who stress the notion of

communities of practice, the communicative nature of literacy in the workplace and that being literate in the workplace involves“ not just performing tasks, but understanding and participating as a member of a social group” (Jackson, 2004b, p. 2). If workers are performing ‘solo’ as Newton et al. (2006) argue, in my opinion this implies they may have difficulty becoming workplace literate given the context-specific and embedded nature of most workplace literacies (and numeracies), and because workplace communication is important in the dissemination of these literacy and numeracy practices and knowledge (Searle, 2005). This in turn has the potential to adversely affect their work performance.

According to Newton et al. (2006), the characteristics of low skilled work often mean that induction and training include little more than a brief explanation by a supervisor. Their findings are slightly at odds with those of Hughes (1999) who carried out research in a large US supermarket and reported that new staff received a half-day orientation and Price (2004) researching an Australian supermarket where new employees were given a one day induction with those on checkout receiving an extra day. However both studies found that induction played a minor role in a new staff’s training and they learnt most on the job, by working with experienced workers. I will examine Food-World’s induction and the part it plays in new employees’ training in Chapter 4.

Finally it has been noted earlier and also reported in Newton et al.’s study that low skilled work is often associated with poor job progression prospects, although there is more opportunity for internal than external promotion (Asplund & Salverda, 2004).

I began this section by suggesting that the term low skilled work was a contestable term. In Chapter 4, I hope to show from my findings that although considered low skilled, the work of the supermarket assistant requires a range of literacy and numeracy skills that those employing the assistants (and the assistants themselves) may be unaware of.

2.6.2 Low skilled workers

The term low skilled worker is similarly contestable. For example, Steedman and McIntosh (2001) reviewed a range of studies that attempt to define a low skilled worker. They found that skills are often proxied by one of two measures; years of education and educational attainment, but the authors consider these proxies unsatisfactory as they do

not include skills attained outside an education system. Similarly they believe the definitions in the International Adult Literacy Survey (IALS) are deficient as they do not measure change over time. Their research leads them to conclude that the International Standard Classification of Education (ISCED) is a useful measure as individuals categorised less than ISCED3 include most of those who are likely to be considered low skilled by more objective means. They believe the ISCED therefore constitutes a respectable proxy for low skills, at least in the EU countries they studied.

The meaningfulness of such theoretical definitions is however called into question when one considers studies such as Hunter's (2007). Her work in an urban Canadian hotel (described in 2.5.3) shows that despite 'back of house' workers' being considered low skilled and their job also classed as low skilled and low status, they are examples of "employees with 'low level' English and literacy skills not just customizing their literacy practices, but modifying them in self-directed, competent and innovative ways for the job" (Hunter, 2007, p. 252). Similarly, Searle (2005) reports on the problem-solving strategies adopted by the supermarket checkout and motel staff she studied. These studies help to reinforce Hull's claim that too little acknowledgement is given to people's abilities, particularly those of individuals traditionally employed in low skilled work (Hull, 1997).

It is also sometimes a misconception that jobs that are considered low skilled are filled only by people who have low or no qualifications and / or low levels of literacy and numeracy. Although a proportion of people in low skilled work could be considered 'low skilled', not everyone falls into this category. Newton et al. (2006) report that many women, while capable of more highly skilled work are employed either fulltime or part-time as the second earner in the family, their work often fitted around family responsibilities; significant numbers of students take on this type of work on a part-time basis while obtaining secondary or tertiary qualifications; and those whose occupational choices are limited due to low English proficiency find low skilled work on a permanent basis or until their language proficiency allows them to move to more skilled work. This issue is discussed further in Chapter 5.

2.6.3 Low skilled work places

Newton et al. (2006) as part of their literature review of literacy, language, numeracy and IT skills development in low-paid, low-skilled workplaces in south-east England looked at the characteristics of work places providing low skilled work. While these workplaces are located in all parts of the economy, and not all work in a given workplace may be considered low skilled, they found a range of different quantitative studies confirmed that the highest proportion of low skilled work is in the retail and wholesale, hotel and catering, health and social welfare, transport, financial, and manufacturing sectors. In New Zealand, Department of Labour statistics indicate that about half of those workers who are earning the adult minimum wage work in the retail or hospitality sectors (Cheng, 1997). (It should be noted that together these two studies suggest that low skilled workers are also those who are lowest paid. A discussion of the correlation between these two factors, generally accepted as strong, is beyond the scope of this study.)

The review by Newton et al. is significant to my research for at least two reasons. Firstly, it confirms quantitatively what is generally taken for granted, that basic level supermarket work is likely to be ‘low skilled’; the supermarket being a significant part of the retail sector. Secondly, the wide range of sectors and large numbers of different types of workplaces providing ‘low skilled’ work suggests that, contrary to those such as Drucker (1993) and Peters (1994), (who predicted that the advent of the new work order would result in workplaces requiring high skill levels and workers inadequately equipped for current and future jobs), the role of literacy and numeracy may be overstated for many workers.

Furthermore, research seems to indicate that there will be a continuing role for workers who are generally considered unskilled or low skilled. For example, Felstead, Gallie, and Green (2002) undertook the 2001 Skills Survey, a comprehensive survey of work skills in Britain. Fieldwork was through computer aided personal interviews involving almost 4,500 randomised and statistically representative respondents between the ages of 20 and 60 and currently in work. The survey found that basic skills of the population had increased since the previous survey four years before, and “whereas there are now only 2.9 million economically active people aged 20-60 who possess no qualifications,

there remain 6.5 million jobs for which no qualification would be required to obtain them” (p. 11). Also:

the ‘Hotels and Restaurant’ industry has very low skill demands indeed – 50 percent of jobs in this industry require no qualifications for entry, 64 percent need no training whatsoever and 48 percent can be learnt to do well in less than one month. The skill level of jobs in ‘Wholesale and Retail’ and ‘Transport and Storage’ are similarly low. (Felstead et al., 2002, p. 30)

Also in the UK, Munro and Rainbird (2002) examined the significance of restructuring, and in particular the introduction of new technology, for unskilled workers in the public sector. They found that while there was resultant job expansion for some workers, others experienced job contraction and deskilling. In addition there were a large group of people, such as cleaners, gardeners, porters and semi-skilled caregivers, in low-paid, generally repetitive work, who remained largely unaffected by change. A number had little potential for job enrichment or advancement within the sector. In Australia, Black, whose work on literacy and work performance has been reported earlier in 2.5.3, when discussing his findings, makes the comment that despite the rapid changes in the nature of work, not all jobs require what he calls meta-level knowledge. “On the contrary, most jobs in Australia and in overseas developed nations are predicted to be in the low paid retail, trade and service sectors... and many of these jobs will involve repetitive and deskilled textual competence” (Black, 2004, p. 14).

There is general agreement in the studies discussed in this section that supermarkets, part of the retail industry, provide low skilled work and in turn, do not expect applicants for the work to be highly skilled. In the next section, relevant literature specific to the supermarket sector will be examined.

2.7 Supermarket work

Shittu and Omar’s (2006) research, evaluating supermarket part-time work in London, reveals that not only is the supermarket and grocery retail sector the largest sector and the biggest employer of both full-time and part-time staff in the UK retail business, (representing some 60% of total retail employment in 2004), but that this dominance is likely to continue. The authors also importantly emphasize that recruitment strategies in

the sector are directed towards the low and unskilled labour market. Here in New Zealand a recent report by the New Zealand Retailers Association (Albertson, 2008) indicates that like the UK, supermarkets and grocery stores are the largest retail employers, although they employ a significantly lower percentage (22.7%) of total retail employees than those in the UK. The reason for this difference is unknown. The report also notes that the New Zealand supermarket and grocery sector is dominated by two 'major players', Foodstuffs and Progressive Enterprises (p25). The supermarket where my research was carried out belongs to one of these organisations.

Carré, Tilly and Holgate (2008), in a recently published report on low wage work in US retail trade, interviewed managers, union representatives and front line workers from ten food retailers (variously called grocery stores and supermarkets throughout the report) to explore the impact of changes in the retail sector in terms of turnover, skill levels, and other key workforce variables. They concluded that the majority of jobs in grocery stores are relatively unskilled. "This is reflected in managers' descriptions of what they seek in new hires. One laughingly answered that question with *"a pulse."* Another said: *"Positive attitude and friendliness is more important than prior skills or experience."* (Carré et al., 2008, p. 8. Italics in original). The researchers found what they called 'multi-functionality' (p.8), that is workers moving from task to task, is common in grocery stores although this is less due to particular jobs being varied in nature but rather because workers get re-located to other jobs as and when the need arises. They describe the labour process as "directed autonomy," (p.8), which I interpret as a worker being directed what to do and then being left to 'get on with it'.

This last finding is consistent with an earlier case study in a large US supermarket (Hughes, 1999), which found that the growth of larger stores with increased numbers of service departments has resulted in those on the shop floor having more autonomy during their working day. Managers realise that those working with products and customers daily know the customers' tastes and are able to explain products in their department to customers better than managers who are less familiar with them. In my opinion this acknowledges the importance to the effective functioning of the supermarket, of customer service and product knowledge, two prominent themes in my findings. It also suggests something of a dichotomy in regard to the supermarket worker. On the one hand, there is almost general agreement that supermarket work is

low skilled. Price, who examined labour usage in a food retail firm in Australia, called the work, (somewhat judgementally I believe), “tedious and regarded as requiring few skills” (Price, 2004, p. 74). On the other hand, front line workers are given autonomy and are recognized as having both important product knowledge and skills in explaining about their products to customers. Price acknowledges that “any interaction with customers required significant interpersonal skills especially if the interaction was to prove profitable for the organisation” (p.74).

Searle (2005,1991), whose work is highly relevant and influential to my research, investigated supermarket checkout operators’ workplace communication, that is “facility with spoken and written language, and other sign systems” (Searle, 1991, p. 28), of supermarket checkout workers using an ethnographic approach. Her findings lend weight to the importance of oral communication in dealing effectively with customers and positively projecting the company’s image, although much of it is brief and almost ritualised. This is consistent with Newton et al.’s (2006) findings that in low skilled jobs interactions with customers may be scripted. Searle however believes that success in communication, both oral and written, is “dependent on the ability of staff to make predictions or inferences based on the underlying rules of the workplace known only to participants within the specific social situation” (Searle, 2005, pp. 6,7). In other words spoken and written language within the supermarket is highly contextualised.

This brings this literature review back to where it began. Searle challenges, like others such as Street (1984; 1993), Gee (1996), Barton (1994), Barton and Hamilton (2000) and Baynham (1995), the notion that literacy is a generic skill that can be transferred without difficulty to different contexts. Instead, she argues, literacy is a social practice which cannot be separated from the context in which it occurs. She also stresses the significance of communities of practice which enable social meanings to be conveyed and through which literacy knowledge and practices are distributed (Searle, 2005).

The final section in this chapter provides a very brief summary of the preceding literature review and identifies the research gap that this study attempts to address.

2.8 Summary and Conclusions

Literacy and numeracy are contested terms, both generally and as they relate to the workplace. There is also debate over the assumed causal relationship between low literacy proficiency and poor work performance (Castleton, 2002; Gee & Lankshear, 1997; Holland, 1998; Hull, 1997; Jackson, 2004b) although Hull (1997) argues that too great an emphasis is placed on the role of literacy, particularly in low skilled work.

In spite of predictions of new and increased literacy demands for all workers, there are still many jobs, including basic level supermarket work, that do not require workers to have high literacy and numeracy proficiency or qualifications. Furthermore, it appears this situation is likely to continue into the future. Although Hull reported that “judgements on skills that workers need, but do not possess, ... are almost never informed by observation of work, particularly observations which include the understanding of workers” (Hull, 1997, p. 17), there is some evidence of efforts to more accurately define the skills and literacy demands of different work. Workbase New Zealand, for example, has compiled an “overview of tasks” and a “literacy profile” for each of a number of jobs. (Workbase, n.d.). The profile includes skills likely to be required under the headings of Reading; Writing; Speaking and Listening; Numeracy; Critical Thinking; and Technology. However supermarket assistant is not one of the jobs profiled.

It is my belief, therefore, that there is a need for more information on both the literacy and numeracy demands of entry level supermarket work and the perceived literacy and numeracy requirements and hiring priorities for this work. In particular it is important that research is “informed by observation of work ... which include the understanding of workers” (Hull, 1997, p. 17). It is needed because of the prominence of the supermarket and retail grocery sector as an employer of low skilled workers; the high proportion of ESOL for Work and Education learners who undertake voluntary work experience and seek employment in supermarkets; and notwithstanding Searle’s important work in this field (2005, 1991), an apparent under-representation in workplace literature. It is hoped my study will contribute to local AUT University knowledge, to the wider body of workplace literacy and numeracy study and will also be of some use to supermarket management.

Burnaby and Hart (2001, p. 208) summarise this concern eloquently:

Whether an individual... meets literacy demands, has literacy deficits or reserves, can only be determined by stacking their skills against the specific requirements they will face at work. Thus the match between employees' literacy skills and the job requirements is the nub of the literacy issue for employers and for work groups alike.

Chapter 3: Methodology

3.1 Introduction

The need for further information on the literacy and numeracy demands and requirements of entry level supermarket work has been identified in the previous chapter. This followed a review of the literacy and numeracy theory; and the role of workplace literacy and numeracy, particularly in so called ‘low skilled’ work. The importance of undertaking research which is informed by the observation and understandings of workers themselves was also highlighted (Hull, 1997). As a result of the understandings gained from reviewing the literature described above, it was decided that my research into the literacy and numeracy of entry level supermarket work should be underpinned by an interpretivist paradigm and employ an ethnographic approach to data collection. The justification for my choice is discussed in this chapter as well as details of the data collection instruments used. The positioning of the researcher and the research’s ethical considerations are explained, and recruitment of the supermarket and the research participants is explained.

3.2 Research paradigm: An interpretivist perspective

My research, which has as its theoretical basis, an understanding of literacy and numeracy as social practice, is underpinned by an interpretivist paradigm (Gephart, 1999). The belief that “knowledge and meaning are acts of interpretation hence there is no objective knowledge which is independent of thinking, reasoning humans” (Gephart, 1999, p. 5) is fundamental to an interpretivist perspective. This orientation is fitting, given the importance of context and one’s background, experiences, learning and beliefs in the understanding of literacy and numeracy practices, and the “social construction of reality” and “situated nature” of interpretivism. (LeCompte & Schensul, 1999, pp. 48,49) . The key focus of an interpretive approach is the search for meaning and an understanding of how others see the world in which they live or “the systematic analysis of socially meaningful action through direct detailed observation of people in natural settings in order to arrive at understandings and interpretations of how people create and maintain their social world.” (Neuman, 1997, p. 68). While those writing about literacy and numeracy use the word ‘context’ and interpretivists speak of ‘natural setting’, to my

mind they are similar. Neuman's definition also alludes to the participatory nature of the approach, the belief that meaning is only created through interaction and the subsequent requirement for the researcher to participate in the lives of those she is researching (LeCompte & Schensul, 1999).

As a researcher of the literacy and numeracy of entry level supermarket work, I have sought to understand the literacy and numeracy practices and events of supermarket assistants in their work setting / context and look for patterns of meaning. To do this it was necessary to talk to them about their work, watch them at work and take cognisance of their literacy and numeracy participation.

3.2.1 Positioning of researcher

Throughout the course of my research it was important to be aware that the meanings and "social construction of reality" (LeCompte & Schensul, 1999, p. 48) that I attached to the things I heard, observed and read in the course of my research were influenced by my own cultural and social background, personal experiences, beliefs and values.

Denscombe, discussing the issue of reflexivity, suggests

We have no way of standing outside ... (our own culture, social background and experiences)... to reach some objective and neutral vantage point from which to view things 'as they really are'. To an extent, we can describe them only 'as we see them', and this is shaped by our culture, not theirs. (2003, p. 88)

Maxwell (2005, p. 79) explains the reasons for potential bias in a different way "(Y)ou *are* (author's italics) the research instrument in a qualitative study, and your eyes and ears are the tools you use to make sense of what is going on". He implies that the researcher's knowledge and experience will have an effect and shape the way findings are interpreted.

I have many years experience as a supermarket shopper, although not in the store where the research was carried out; watched supermarket assistants at work; participated in transactions with them and queried the location and availability of products. I have worked in retail in the past, but not in a supermarket. My background, that of an experienced supermarket 'outsider' (customer) but never an 'insider', has undoubtedly had some bearing on my understanding of interviews and observations of participants

and interpretation of the texts they encounter. Similarly my work as an English, literacy and numeracy teacher working with learners with low levels of proficiency in one or more of these areas, has unquestionably shaped my understanding of findings and constrained me from adopting “a neutral vantage point” (Denscombe, 2003, p.88).

I have however tried not to influence answers to interview questions or participant observations and to gain the trust of participants by showing interest and respect for their opinions and work. In addition, as discussed in the section below, three different data collection methods have been employed in order to reduce the effect of bias and improve the reliability of information gathered.

3.3 Research method: An ethnographic approach

A common research method employed by interpretivists is an ethnographic study. Brewer (2000, p. 10) has defined ethnography as

the study of people in naturally occurring settings or ‘fields’ by means of methods which captures their social meanings and ordinary activities, involving the researcher participating directly in the setting if not also the activities, in order to collect data in a systematic manner but without meaning being imposed on them externally.

Punch suggested that it is an appropriate research method when there is a need to understand “the cultural context of behaviour and the symbolic meaning and significance of the behaviour in that context” (2005, p. 154). Put more pragmatically, Jackson (2004a), discussing the ethnographic research methods she and her fellow researchers and co-authors used in their workplace research, describes ethnography as “a way to investigate a chosen topic by spending a period of time in a suitable setting and asking “What is happening here?” and “How do things work?”” (p.278). This describes the intention of my research exactly. However, in reality, the research has an ethnographic perspective rather than being ‘ethnography’ per se as it is neither sufficiently long-term nor detailed to be considered that.

There have been a number of researchers, in addition to Jackson and her colleagues, who have found this approach useful when studying workplace literacy and/or numeracy including Gibson (1996), Hull (1999), Hunter (2007) and Searle (2005,1991).

Searle, who took an ethnographic approach when studying the workplace literacy of supermarket checkout operators, states that

Through undertaking ethnographic research detailing how people use a range of literacies in various settings, the researcher is able to gather evidence with which to argue that literacies cannot be separated from the social practices and contexts in which they occur. (Searle, 2005, p. 8)

Her research adhered to what she considers are the four principles of ethnography: “being conducted in real-world settings; being holistic; being multi-method...; and...being interpretive, aimed at presenting participants’ perspectives through the use of their own words” (p. 4). My research followed similar principles.

Firstly my ‘real world setting’ was a large, busy, suburban supermarket. It became the focus of my research because as mentioned in Chapters One and Two, supermarkets are or become employers of a significant proportion of the students who pass through the work-focused English language programme on which I teach. It seemed to me that gaining some understanding of the setting and the people in it would give me valuable insights, which in turn, could positively influence my teaching.

Secondly, I adopted a holistic approach considering “process, relationships, connections and interdependency among the component parts” (Denscombe, 2003, p. 85). It became evident early in the study that the successful operation of the supermarket was possible only because of the participation, organisation and co-ordination of the staff and operating systems. While I interviewed staff from different levels in the organisation, it was necessary to consider them as part of a whole connected structure.

A feature not only common to an ethnographic approach, but to much of the field of social research, is the employment of a number of methods to collect data on the same topic. Searle calls it “multi-method” (2005, p. 4), and it is the third principle she adheres to; it is also known as triangulation. Each instrument can consider the topic from a slightly different perspective, enabling a more rounded understanding. Equally important, triangulation allows data to be corroborated, questioned or compared, enhancing its validity (Denscombe, 2003). For these reasons, individual interviews were carried out both with entry level workers, (also known as assistants) and departmental

managers; assistants were observed on the job; an induction of new staff (inductees) run by the Training/Human Resources Manager (T/HR Manager) was observed; and situation vacant advertisements, induction documents and other work-place texts were analysed.

Lastly, my interviews and observations of assistants enabled me to obtain their perspective of their work, that is “the understandings of workers” which Hull (1997) suggests is absent in much workplace research. These will be discussed in detail in the next chapter.

3.3.1 Data collection

As mentioned in 3.2, data were collected in three different ways: interviews; observations; and text analysis which enabled me to look at the research questions from different yet complementary perspectives, making possible the comparison and contrast of information gathered (Denscombe, 2003). Multiple collection methods also acted as a form of triangulation thus reducing the risk that my conclusions “reflect only the systematic biases or limitation of a specific source or method” (Maxwell, 2005, p. 93).

Semi-structured interviews with assistants and managers

Face-to-face interviews were held with both assistants and managers. Much has been written on the topic of the interview as it is one of the main tools for data collection in qualitative research (Punch, 2005). As Punch suggests “It is a very good way of accessing people’s perceptions, meanings, definitions or situations and constructions of reality. It is one of the most powerful ways we have of understanding others” (p. 168). My aim was to obtain an insight into the operation of supermarkets as a workplace and in particular, some of the procedures and priorities of Food-World. More specifically, I wanted to gain an understanding of the assistants’ working day and the place of literacy and numeracy in it. I also hoped to be able to compare and contrast the work of assistants in different departments throughout the supermarket.

I chose to use a semi-structured interview format both for assistants and managers because it was necessary, on the one hand, that my question formats followed a logical sequence and were similar for all members of each interviewee group (O’Leary, 2004). However it was also important that there was sufficient flexibility within the individual

interviews to allow for the differing English competencies of the interviewees (in the case of the assistants), to reflect the different work responsibilities of interviewees, to follow up pertinent issues raised during individual responses, to allow for clarification and to omit questions that were not relevant (Robson, 2002). Marshall and Rossman (2006) see the ability to immediately follow up and clarify data and modify questioning as major strengths of the interview although conversely, this flexibility can potentially lead to concerns about reliability due to the lack of standardization it can result in (Robson, 2002).

I hoped to elicit views and opinions (Creswell, 2003), consistent with my aim to understand the meaning assistants and their managers attach to the former's work, so questions were generally open-ended so as not to limit responses. This actually enabled me to gain additional useful information which was beyond the scope of my original question format. I also wished to create an atmosphere that was "less artificial, more natural than a structured interview and more...(like) a conversation" (Sapsford & Jupp, 2006, p. 95). For this reason, I chose not to tape record assistants' interviews in an attempt to 'normalise', as much as possible, what was probably a rather unfamiliar and possibly uncomfortable situation for them. When writing my ethics application, I had been alerted to the potential status difference between myself as a university staff member and the assistants, who were talking to me because of their organisationally-low position in the supermarket. In addition, as all but one of the assistants did not have English as their first language, I felt uncomfortable recording their very genuine efforts to answer my questions and provide me with the information I wanted. According to Marshall and Rossman (2006), these are the sorts of possible ethical dilemmas that the interview can pose and a potential weakness of the tool. While useful information may have been lost by not recording the interviews, I did however take detailed notes during the interview, often telling the assistants what I was writing.

Interviews with all departmental managers were recorded, but my discussions with the T/HR Manager (at least three short interviews and a number of more informal conversations), were not, due to their brevity and relative informality. The choice to record interviews with managers was made to maximise the accuracy of the information I collected and because the issue of potential status differences did not appear to be significant. As Tracy Defoe found with her workplace interviews (Jackson, 2004a),

participants appeared to enjoy talking about their work (and that of their assistants, in the case of my research) and did not seem to mind having their interview taped.

All interviews with assistants and departmental managers were held in the supermarket's training room or a small interview room directly off it. The T/HR Manager's office was accessed through the training room. When interviewing during day shift hours (five interviews), I attempted to limit distractions by seating the interviewee with his/her back to the frequent movement of staff to and from the office and the interview room. However at times it was quite noisy, on two occasions someone needed to step over the cord to my tape recorder to access the interview room. Once I felt slightly constrained with my questioning when the T/HR Manager spent a short time working in the training room.

While the success of the interview as a data gathering method is dependent on the cooperation, openness and honesty of the interviewees (Marshall & Rossman, 2006), all participants, after an initial period to 'settle in', appeared to relax and seemed happy to share their knowledge, views and opinions (Creswell, 2003) with me. As Robson (2002) warns the process was however time consuming.

Observations of assistants and the induction

Robson similarly warns of the potentially time consuming nature of observation and that it can be an exacting process while Marshall and Rossman (2006, p. 98) suggest it involves the "systematic noting and recording of events, behaviours and artefacts...(with) detailed, non-judgemental, concrete descriptions of what has been observed". Searle, for example, in her study of supermarket checkout operators, found observation enabled her to describe: "the physical context,... the social context..(staff and customers),... the activities or events which make up the organised routines; and patterns of communication on the job" (Searle, 1991, p. 32).

I observed what different assistants did as part of their working day. This complemented and gave clarity and richness to the information gained during interviews (Robson, 2002). It allowed collection of information about features of the assistants' work contexts that could only be imagined from their interviews. As the role of literacy and numeracy in the context of entry level supermarket work does not appear to be well

understood and some of the interviewees might not have been able to articulate their thoughts well, my observations also brought to light “activities and events which make up the organised routines” (Searle, 1991, p. 32) that interviewees had overlooked or thought not important enough to discuss at the time of their interview.

The role I would take in the observation process was the subject of much thought and discussion. Jackson (2004a) describes different observation styles and strategies she and her four fellow researchers adopted in their workplace research, recognizing that “all are legitimate means of gathering data, and any of them must be adapted in the moment to fit the particular circumstances of the setting” (p. 282) I eventually chose, as most appropriate for my ‘particular circumstances’, the ‘observer as participant’ role, someone who “interacts but does not take an established role in the group... (and whose)...role is one of researcher” (Foster, 2006, p. 76). I assumed this role because observations of assistants took place after their interviews so I had some familiarity with them and my position as a researcher was established, therefore neither the role of ‘complete observer’, remaining completely detached from the participants, nor that of ‘complete participant’, becoming embedded into a particular department were appropriate. Similarly it was impractical, given my other commitments and the nature of the setting, a busy supermarket with its accompanying health and safety and employment regulations to assume a ‘participant as observer’ role. (Robson, 2002). As an ‘observer as participant’ I was able to maintain a friendly but somewhat detached position and had the freedom to move within and between departments.

Following Punch’s suggestion (2005), the observations were not carried out using predetermined observation categories or classifications. These, he believes, may limit a researcher’s focus and should emerge at the time of data analysis. I did however note items from the interview which required particular attention or further explanation during the observation. At times I asked questions to clarify my observations.

I was aware of the possibility of the assistants being affected by my presence and changing their behaviour accordingly (Robson, 2002). I stressed that I was there to learn about their job and not to critique their performance. In all cases assistants, while initially a little nervous, appeared to relax as the observation proceeded and in some cases almost took on a teacher role, instructing me on aspects of their job. One

participant, for example, kept up an ongoing description of what she was doing, making questions of clarification almost unnecessary.

The value of my observations was dependent on my skills as an observer. Observations reflected my understanding and interpretation of what I saw, one of the limitations of this research instrument (Foster, 2006). There are also limitations to my understanding of the ongoing demands of assistants' jobs as I did not follow them throughout an extended period of their work. This was due to the need to fit observations around my teaching commitments and to some access limitations imposed by the supermarket. Observation periods therefore ranged from one and a half to three hours.

My role during the observation of the induction session run by the T/HR Manager was closer to that of complete observer. The purpose of my presence was known; I sat slightly to one side of the group of inductees and took no active part in the induction, although I was given induction documents at the same time as the inductees. I spoke informally to inductees during 'down-times' and a tea break. My observation appeared to be far less intrusive than those with the assistants and because the inductees were a group of nine people, it may be reasonable to assume that their behaviour was less influenced by my presence than that of the assistants who were observed individually.

Text Analysis

A further perspective on the research questions was gained with the analysis of some of the texts that assistants encounter at work. Unlike interview and observation, this method of data collection is unobtrusive and non-reactive. With one exception, discussed below, I needed no contact with the writer(s) of the texts, I did not influence their creation and was able to collect data without disturbing or influencing my research setting in any way (Robson, 2002). Marshall and Rossman (2006) see these factors, together with the relative permanence of the data which permits reliability studies and replication, as the main advantages of this method.

Robson, and Marshall and Rossman both however caution that as the meaning of a text varies according to the setting, careful consideration of not only its content, but the context including "*purpose* as well as institutional, social and cultural aspects. ..(and)... intention of writers" (Robson, 2002, p. 351) is necessary. Neuman similarly suggests

that texts should not only be reviewed at a ‘micro’ level – considering the words, meanings, pictures, symbols, ideas, themes and messages but “within the larger context of their creation, distribution and reception”(Neuman, 2006, p. 230) The data collection instruments used by Jackson and her colleagues in their respective workplace research included text analysis. She describes the importance of the researchers’ reading of the workplace texts encountered by their participants thus:

These texts were absolutely central to our attention because they are our topic: workplace literacies. But they are included in this discussion of methods for a different reason. That is, regardless of the topic, researchers can learn a lot of crucial information about the research setting by examining work-related texts to help them understand what is going (on) and what meanings may be shared and taken for granted by insiders to the setting. (Jackson, 2004a, p. 284)

To me, Jackson’s last point relates to the notion of ‘communities of practice’ discussed in Chapter 2 (Castleton, 2002; Jackson, 2004b; Searle, 2005) and shows the importance of the text analysis as a tool to gain an understanding of workplace literacy practices. As with the workplace researchers described above by Jackson, while I was interested in the literacy and numeracy content of the texts, their multimodality and general ‘readability’, I was similarly keen to gain a greater appreciation of the texts’ production, distribution and use in order to further understand “the link between the activities of reading and writing and the social structures in which they are embedded and which they help to shape” (Barton, 2002, p. 1), that is, workplace literacy practices.

I collected a range of texts including: induction material, employment and training documents that inductees are given as part of their half-day induction session; a sample of ‘on the job’ quality assurance documentation that assistants working with fresh foods need to complete; examples of pricing and ‘specials’ labels that all assistants are required to be familiar with; and a freezer restocking list written by the seafood assistant. I also observed the general merchandising assistant creating and using two shelf-restocking lists. One, she used to re-order stock on the store’s computerised ordering system and the other to collect magazines from the stock room. It can be argued that my observation and documenting of her creating the lists was not “unobtrusive and non-reactive” as she described to me the process she used to

determine restocking requirements and showed me the notations she used to document these. It is not possible to say whether or how my presence influenced her documentation.

The restocking list is significant as it is one of few text types, that I observed, that is completely generated by an assistant. Gowen (1992) found that entry level employees are more often than not the recipients of texts rather than their producers. This proved to be the case with the assistants in my research, a finding that will be discussed in greater detail in Chapter 4.

A complete list of documents I obtained as part of my observation of the induction can be found in Appendix A. From these, I chose to analyse two texts in detail. Firstly, *Welcome to Gee Street Food-World* was selected because it appears to illustrate more than any other document, the supermarket's emphasis on and commitment to 'customer service', a concept that I learnt during my data gathering, is fundamental to the operation of the supermarket. The second document selected *Food Safety Multi Choice* was chosen because its subject matter, food safety and personal hygiene, is critical to the functioning of the supermarket and especially important to staff working with fresh, frozen, chilled or cooked products. *Gee Street Food-World Deli Kitchen Traceability* is an example of the documentation required to ensure quality assurance procedures are carried out correctly and perhaps the most complex text that assistants are required to engage with throughout the course of their day. The seafood assistant's restocking list was also reviewed because, as mentioned earlier, it was totally generated by the assistant, an uncommon occurrence in the supermarket. The *Food-World Job Description* was reviewed in order to determine skills and attributes required for entry level supermarket work. Finally ten on-line advertisements for supermarket assistants were reviewed to determine the pre-requisites required to fill these positions. All or part of each document mentioned above has been reproduced in Chapter 4.

Absent from the document list and reproductions however are the labels, names, codes, identifying pictures, marks and symbols on the tens of thousands of products that the supermarket sells, and the boxes, cartons, bags and other packaging that they are delivered to the supermarket in. These represent a significant proportion of the texts

encountered by the assistants and will be discussed in subsequent sections in the context of the assistants' work.

3.3.2 The participants

Contact was made with the chief executive officer of one of the two major supermarket chains in the Auckland area. The proposed research was described and a request made that supermarkets in the chain be approached and asked if they were prepared to allow research to be carried out in their supermarket. A reply was received with the necessary contact details. Following an interview with the store's owner-manager, my contact became its Training/Human Resources Manager (T/HR Manager).

The identification and recruitment of participants, with the exception of one manager with whom I had an informal conversation and later contacted to arrange an interview, and with the owner/operator, was through the supermarket's T/HR Manager. She approached staff who met the selection criteria that had been developed (see below). I have some doubts that the T/HR Manager gave several of the staff the choice of participating or fully explained the nature of my research to them. Although this was of some concern, there was little I could do without undermining her authority. I therefore discussed the research and gave a copy of the Participant Information Sheet to all prospective participants, explaining the voluntary nature of participation and the possibility of withdrawing from the research at any time. Because of the 'gate keeping' role of the T/HR Manager, both the number of participants and range of departments they came from are fewer than I would have ideally liked. For example, none of the participants work in either the checkout or the stores departments. This issue is addressed in greater detail in the 'Limitations' section, 5.5.

Criteria for selecting participants

Participants fell into three distinct groups. Groups One and Two were both comprised of supermarket assistants and Group Three were managers. Group One I have called the 'inductees'. These were the nine people who were present at the induction I attended, my first observation period of the study. The criteria for their participation were simply that they were supermarket assistants who were about to begin work at the supermarket and were to be inducted. My contact with them was limited to the induction session run

by the T/HR Manager, and a morning tea break during the session. Although I saw, from a distance, a number of them working during my numerous visits to the supermarket, I made no further contact with them. I had hoped to be able to follow up, interview and observe at least two inductees, one who appeared to have quite some difficulty reading the induction material, and another who appeared less confident with communication skills, but this was not possible. The former left the job after only two days and the latter, it transpired, had Asperger's Syndrome. As participation could have been too stressful for him, I was not given permission to involve him further in my research.

Group Two were the 'assistants' that I interviewed and observed. The criteria for participation required participants to be employed at the store on the entry level or 'assistant' pay scale, that is, their job descriptions contained no supervisory or management responsibilities. They were to have English as an additional language (EAL). These two criteria were chosen because it was thought that participants meeting the criteria would have faced similar occupational, linguistic, literacy and numeracy challenges to the students in the programme I teach on. Initially four participants, fitting these criteria, were identified by the T/HR Manager. All except one, it transpired, had worked at the supermarket for two or more years and all were thoroughly familiar with their jobs. A further criterion, 'new to the job', was subsequently added. This was in order to include participants who were hopefully still in the process of learning their job and hence to provide some contrast to the longer standing employees. Three further staff, all who were in their second week of work at the store, were identified by the T/HR Manager. One however was from a New Zealand English speaking background. While it was not a specified criterion, all assistants were employed on a full-time basis. Group Two therefore fell naturally into two sub-groups, which I called 'long-standing' assistants and 'new' assistants.

The criterion for the selection of Group Three, 'managers', was that they manage one or more of the assistant participants. This was so I could obtain information from two different perspectives and organisation levels, giving a broader, more complete picture of worker's roles. It also served as a form of triangulation. All but one of the relevant managers were approached by the T/HR Manager and asked to participate. I was not

informed why all relevant managers were not approached. The T/HR Manager and the owner/operator were included in this group.

Tables 1, 2 and 3 are summaries of the three participant groups.

Table 1. Participants: Group 1, Inductees.

	Department	Full-time (F/T) or part-time (P/T)	Gender	Approximate age	Ethnicity and first languages	Previous experience
Inductee 1	Checkout	F/T	F	40s	Macedonian: Macedonian	Checkout experience some years ago.
Inductee 2	Butchery	F/T	M	Late teens	New Zealand European: English	No previous work experience.
Inductee 3	Seafood	F/T	M	50s	Indian: Hindi, fluent English	No previous supermarket experience although long work history.
Inductee 4	Grocery and Trolleys	P/T	M	Mid 20s	Zimbabwean: English and Tsonga	No previous supermarket experience. University student.
Inductee 5	Grocery	F/T	M	Mid 20s	Nuiean: Nuiean	No previous supermarket experience. Previously worked in a food court.
Inductee 6	Checkout	P/T	M	Early 20s	New Zealand Indian: English	No previous work experience. Tertiary student.
Inductee 7	Checkout	P/T	M	Mid 20s	Indian: Hindi and English	No previous work experience. University student in NZ on international student visa.
Inductee 8	Grocery	P/T	M	Mid 20s	Indian: Hindi and English	No previous work experience. University student in NZ on international student visa.
Inductee 9	Grocery	P/T	M	Mid 20s	Indian: Hindi and English	No previous work experience University student in NZ on international student visa.

Table 2. Participants: Group 2, Assistants.

	Department	Approximate length of employment at time of interview	Gender	Approximate Age	Ethnicity	First language
Assistant 1 (Haille)	Grocery	9 years	M	50s	Ethiopian	Amharic
Assistant 2 (Millie)	Bakery	4 years	F	40s	Samoan	Samoan
Assistant 3 (Rula)	General merchandise	2 ½ years	F	Early 30s	Burundian	Kirundi
Assistant 4 (Lena)	Deli Kitchen	7 months	F	50s	Fijian	Fijian
Assistant 5 (Rebecca)	Bakery	Less than 2 weeks	F	Early 20s	New Zealand European	English
Assistant 6 (Yanming)	Seafood	Less than 2 weeks	F	Late 20s	Chinese	Mandarin
Assistant 7 (San Lee)	Produce	Less than 2 weeks	M	Early 20s	Chinese	Mandarin

Notes:

Pseudonyms have been used for all assistants.

Assistants 1 - 4 (inclusive) fall into the 'long standing' assistant sub-group.

Assistants 5 – 7 (inclusive) fall into the 'new' assistant sub-group.

Table 3. Participants: Group 3, Managers.

	Department or Area of Responsibility	Approximate length of employment at time of interview
Manager 1	Training / Human resources Manager	6 months in this position (previously Bakery, Butchery and Deli Kitchen Manager – not contemporaneously)
Manager 2	General Merchandise Manager	8 months
Manager 3	Seafood Manager	8 years
Manager 4	Deli kitchen	
Manager 5	Grocery / Duty Manager	6 years in total (previously in charge of cleaning and laundry)
Manager 6	Bakery Manager	2 months
Manager 7	Owner-Manager	9 years

Note: Managers were not asked to specify their ethnicity or first language. It is believed however, that all but two have English as their first language.

3.4 Summary

In order to better understand the literacy and numeracy associated with the employment and work of the supermarket assistant, I have chosen to take an ethnographic approach to data collection. This approach, where research is conducted in real world settings, is holistic, uses a range of data collection tools, and is interpretive (Searle, 2005), is favoured by many workplace researchers, and, in my opinion, sits comfortably with the notion of literacy and numeracy as social practices.

Semi-structured interviews, both with managers and assistants, observation of an induction session, and of assistants at work in the ‘real world’ setting of a busy suburban supermarket, and analysis of a range of texts encountered by assistants has enabled me to obtain data from different yet complementary perspectives. In particular it has made possible the collection of data which is informed by the observation and understandings of workers themselves, considered imperative by Hull (1997).

The data I collected yielded a large and, at times, overwhelming amount of interesting and useful information. The next chapter presents, what I believe, are the most significant of the findings. It also reflects on the understanding I have gained from what I have seen, heard and read (Jackson, 2004a) both about the role of literacy and numeracy in the employment of entry-level supermarket workers, and their literacy and numeracy practices.

Chapter 4: Findings and Discussion

4.1 Introduction

In her ethnographic study of a high-tech manufacturing plant Defoe (2004, p. 152) reports that she has tried to show:

the place of documentation at work from the point of view of different groups of people, what we call “the local meanings.” Through stories and comments from working life as I observed it, from how people interact with print and with each other, we will see how culture and context created local meanings for literacy.

The study undertaken in Gee Street Food-World does not claim to be as detailed or as long in duration as Defoe’s; however her comments reflect the nature of this chapter. It details some of the ‘stories’ of the work of supermarket assistants at Food-World and from these, the understandings I have gained about their workplace literacy and numeracy practices. It begins with a brief introduction to Food-World. This is followed by five main sections, namely:

- Skills and attributes required for employment
- The induction
- Learning about the job
- All in a day’s work
- Quality Assurance.

These, in my opinion, cover the most significant aspects of my findings. The ordering of sections reflects the transition from prospective employee, inductee, new worker to experienced supermarket assistant.

In keeping with the holistic nature of ethnographic research, I have chosen to consider “process, relationships, connections and interdependency among the component parts” (Denscombe, 2003, p. 85) ; that is, I have included findings and discussion in the same

chapter. To divide the material into two chapters, would I believe, make for a somewhat disjointed and less logical analysis of my findings.

4.2 Gee Street Food-World: a view from the top

As mentioned in 3.3.2 my first contact with Gee Street Food-World was an interview with Greg, its owner-manager. His office, which is upstairs, has a large window giving a panoramic view of the whole supermarket. Images of the store's produce department provide the wallpaper for his desktop computer. Autographed sports shirts and jerseys line the passage outside the office. He explained that the supermarket has been involved with sponsorship of a number of different sports teams. Throughout our interview, he displayed warmth and respect when discussing his staff and seemed genuinely appreciative of their contributions. All staff, including Greg, are called by their given names. (During an interview with a long-standing assistant, I referred to Greg by his surname and she did not know who I was talking about.) It appears that his leadership has been influential in establishing an organisational culture of mutual respect, trust and pride in one's job. He referred to an annual survey carried out in the supermarket where, "at the top of the list", staff said they were proud to work at Food-World and proud of the work they do. In my subsequent contacts with the different participants in my research, the sense of respect and loyalty for him was often apparent and many staff appeared to take genuine pride in their work: "I don't expect staff to do nothing. That's not what Greg pays them for" (Seafood Manager); "It's always good to be helpful" (Rebecca, Bakery Assistant); "I take care of my products because I know it is money" (Haille, Grocery Assistant).

A high proportion of the supermarket staff, managers and assistants alike, does not have English as their first language. According to the owner-manager, supermarket statistics show that its workforce has at times been made up of over 60 different national or cultural groups, the majority of which do not have English as their first language. The 23 participants in my research (9 inductees, 7 assistants and 7 managers) reflected the multicultural diversity of the store as they came from 12 different national or cultural groups. Only two of the nine inductees were New Zealand born – one a pakeha and the other, of Indian descent; one of the seven assistants had English as a first language.

Although employed in what is regarded as low skilled work; in keeping with Newton et al.'s (2006) findings, most participant assistants could not be considered 'low skilled'. These authors suggest (see 2.6.2) that many of those in low skilled employment may be capable of more highly skilled work, but take on their jobs to fit around study or family responsibilities. Alternatively, they may find their occupational choices are limited, temporarily or permanently, due to low English proficiency. I discovered that all participants who were part-time were tertiary students and had taken up the work to supplement their student allowance or money sent from their home country. San Lee, a full-time Produce Assistant, originally from China, was intending to take up tertiary study in the next semester, but hoped to continue working part-time. Yanming, who has a Masters level qualification from China, had recently moved from a cleaning job to Food-World's seafood department in order to improve her English. She did not see herself staying at the supermarket for more than six months or so. Rula, working fulltime in General Merchandise, and from Burundi, is a former primary school teacher; Lena, fulltime in Deli-Kitchen was a medical records officer in a Fijian hospital; and Haille, a fulltime Grocery Assistant had worked in an office in Ethiopia, his country of birth. Rula and Haille had been working at Food-World for two and a half and nine years respectively when I met them, but it was not my place to canvass either their aspirations or potential for promotion.

4.3 Skills and attributes required for employment

My plan was to first determine the prerequisites for a supermarket assistant's job and the importance of literacy and numeracy in determining suitability for employment. My information came from both verbal and written sources. Firstly, as part of my interview with each of the managers, I asked what skills and qualities they look for when appointing staff and the importance of an applicant's literacy and numeracy competency. Secondly, I studied the 'Education and Experience (required)' section of a Food-World grocery assistant's job description and lastly, I reviewed ten on-line job advertisements for supermarket assistants. These were not advertising vacancies in Food-World but from five geographically diverse stores in the same chain.

4.3.1 Managers' perspectives

All managers, when asked to list what they look for when employing new staff, mentioned communication skills as either their first or second priority. They see communications skills as essential for good customer service. Customer service, in turn, embraces a wide range of attributes, skills, and behaviours including competency with oral English - understanding customer requests and queries; responding to them knowledgeably and with easily understandable English; and interacting with customers in a friendly, helpful and courteous manner. It also encompasses personal presentation and the professionalism and pride with which one approaches work. The induction text *Welcome to Gee Street Food-World* (reproduced later in this chapter) makes this explicit: “Your position here at Food-World is more than just replenishing stock. It is **CUSTOMER SERVICE**” (upper case and bold in original). It is interesting to note that literacy and numeracy do not appear to be considered communication skills or prerequisites for good customer service.

The managers also consider reliability, flexibility and honesty as necessary traits. One said she wanted people of ‘good character’. The supermarket is open to the public 15 hours a day, seven days a week with staff also working outside these hours in many departments. Staffing rosters can be complex, absenteeism is sometimes difficult to cover and department managers cannot be there at all times. It is important they feel reassured that staff are present and working to a high standard.

Other necessary skills or attributes mentioned by one or more managers include: being able to work both as part of a team and unsupervised; being well-presented; displaying motivation and a willingness to learn. None of the managers consider that previous experience working in a supermarket or retail is essential although two think it is useful. As the T/HR manager said, “They can be taught everything they need to know”.

None of the managers mentioned the need for literacy or numeracy skills although when asked about their importance reflected that there are parts of assistants' jobs that do require some literacy and numeracy. Tasks they identified included the checking of incoming stock; counting products; product recognition and knowledge; ordering; traceability (this is explained in detail in 4.6.1); completing temperature, cleaning and

other quality assurance checklists; ordering; weighing items; and the reading of recipes. Not all staff do all of these tasks however.

The T/HR Manager initially vets all applicants for assistant positions. When a vacancy occurs, the details of the applicant(s) she has previously judged suitable for employment (see below) and who are available to work the hours required are then passed on to the relevant department manager. The manager interviews the applicant(s) and makes the final decision about his or her suitability for employment in the department. It is interesting to note that availability appears to be a major criterion for placement in a particular department and that the T/HR Manager made no mention of reviewing and exploiting any skills an applicant could bring to the job. This issue is addressed further in Chapter 5.

The managers were asked how they assess an applicant's suitability for employment. The T/HR manager says she assesses applicants' potential customer services skills by their ability to converse with her. She judges their English level informally at interview time, maintaining that if they can understand and converse with her (she says she does not simplify or slow down her conversation), they will have sufficient English for the job. A poor command of spoken English (listening and speaking) is the most common reason that she finds an applicant unsuitable for appointment. Literacy and numeracy are not assessed formerly at interview as "there is not a lot of reading and writing in their jobs" according to the T/HR Manager. One department manager commented that at interview "...the thing that I will look for is the English language, customer service and I want them to be well presented, clean and tidy. I want to get a fair idea of a person's character". Below is part of the transcript with another manager describing the interview process she adopts.

Interviewer: And how do you assess that an applicant's got those skills and qualities that you want?

Manager: It's funny. I've just interviewed a person this morning and basically I sort of like asked them questions about themselves, their background, what their upbringing was like, where did they do their schooling ... If they're from overseas, how long they've been here and what are the other positions that they worked in and why did they

leave. Just general stuff like that. That basically gives me a fair idea of the person's character.

Int: And their English level?

Man: And their English level as well.

Int: Do you look at their application form, is that important?

Man: It's not so important to me because it's not what they used to do – it's what they can do.

Int: You said that reading and writing is reasonably important; do you assess that formally or you just ...?

Man: When they fill in the application form I look at how they do word, the way they do word stuff. Basically, I'd say I just hope they do have it. If they can speak proper English, I just assume that they can write English and read English.

It's possible to conclude that both the T/HR manager as the initial 'gate keeper' to employment and the departmental managers, who make the final decision about an applicant's suitability for appointment to their departments, place little importance on literacy and numeracy. Furthermore there seems to be an assumption, stated by one manager but implicit with others, that if an applicant has an acceptable level of oral communication, their literacy and numeracy will also be adequate for the job. Good oral communication skills, a prerequisite for customer service, and personal characteristics such as reliability, dependability, honesty, flexibility and motivation are however considered essential prerequisites. While oral communication skills can be judged at interview and may provide an indication of potential customer services skills, many of the desired personal characteristics are difficult to assess during the interview process.

4.3.2 Job Description

In order to find further information about requirements for employment as a supermarket assistant, I next reviewed the supermarket's Grocery Assistant Job Description given to me by the T/HR Manager. I was told by her that the education and experience requirements were identical for all assistant positions although duties varied

somewhat from department to department. Table 4 has been copied directly from the job description. The capitalisation of words is in the original.

Table 4. Food-World: Grocery Assistant Job Description.

Food-World: Grocery Assistant Job Description: Education, Experience and Skills		
	Essential	Preferred
Education	Nil	<ul style="list-style-type: none"> • Good Command of written/spoken English / Good Basic Maths Skills • 1-2 years secondary education • Unit standards 497, 167, 168
Experience	Nil	<ul style="list-style-type: none"> • Customer Services Experience
Specific Skills / Attributes	<ul style="list-style-type: none"> • Flexibility to work all days of the week • Customer and results focused • Proven ability to deal with people from all cultures / races • Strong Team Player and Problem Solver • Strong verbal communications skills • Planning and organising and Time Management skills • Maintaining Standards and Eye for Detail • Physically fit and healthy 	<ul style="list-style-type: none"> • Productivity and personal effectiveness – Ability to self manage / work autonomously

The job description identifies ‘essential’ and ‘preferred’ requirements. These are generally consistent with the priorities of the managers. It is interesting to note that, as the managers suggested, prior customer service experience is not essential but many of the skills and attributes that contribute to good customer service are. Also of interest is

that while a “Good Command of ... spoken English” is preferred, “Strong verbal communication skills” are essential. This may be an inconsistency in the job description. Alternatively and more likely to my mind, the notion of ‘communication’ and its importance to customer service and team work is of greater priority than a ‘command’ of spoken English. The prerequisite that assistants are fit and healthy reflects the amount of standing, lifting and in some cases working in the cold (e.g. chillers and fridges) or hot (e.g. bakery ovens) environments required of them. An ability to deal with people from all culture/ races acknowledges the multi-cultural nature of both the supermarket’s workforce and its customers. A number of the skills included in the job description such as problem solving, time management, an eye for detail, planning and organization were not specifically mentioned by managers.

The location of “Good Command of ... written English” and “Good Basic Maths Skills” in the ‘preferred’ column is consistent with the lower priority given to them by managers which, in turn, reflects the findings in the literature in particular, Atkinson & Williams (2003), Boyle et al. (2001) and Bracey (2006). Education level preferred, 1-2 years of secondary school, is relatively low and implies that applicants do not need to have reached New Zealand’s lowest formal education qualification, NCEA Level 1, normally sat in the third year of secondary school.

4.3.3 Job Advertisements

My third and final means of establishing the required attributes and skills of supermarket assistants was to review a range of job advertisements for them. The content of ten advertisements for supermarket assistants, found in the Jobs section of a popular New Zealand website, <http://www.trademe.co.nz> (2008) and first listed on six different days, was analysed to identify the attributes and skills required for each of the jobs advertised. A summary of the result of the analysis is shown in Table 5. The advertisements are not for positions in Gee Street Food-World. The latter has not advertised in the media in recent times, so did not have a suitable advertisement I could review. However, the selection of advertisements from a range of supermarkets located in different parts of New Zealand enabled me to determine if requirements were consistent throughout the country. (A sample of the advertisements appears in Appendix B.)

Table 5. On-line advertisements for Supermarket Assistants.

Summary of on-line advertisements for Supermarket Assistants:										
Necessary Skills and Attributes										
Skills and Attributes in order of frequency in job advertisements.	Meat packer	Produce Assistant	Checkout, Grocery and Deli Assistants (3 different jobs)	Seafood assistant	Dairy Deli Assistant	Store person /Grocery Assistant	Butchery Assistant	Grocery Assistant	Deli Assistant	Bakery Assistant
Ability to work in a team		✓	✓	✓	✓	✓	✓	✓	✓	✓
Honest, reliable , high integrity and punctual, conscientious	✓	✓		✓	✓	✓	✓			✓
Positive attitude to customer service, likes working with people	✓		✓	✓	✓		✓		✓	✓
Physically fit and healthy, energetic, ability to lift heavy boxes, don't mind working in the cold		✓	✓		✓	✓		✓	✓	
Good organisational skills, ability to prioritise work			✓			✓		✓	✓	
Previous experience advantage but not essential (as full training given)	✓						✓		✓	✓
Friendly		✓		✓	✓					
Good, clear communication skills			✓			✓				
Likes being in a busy environment				✓	✓					
High standard of personal presentation								✓	✓	
Likes fish, a keen interest in food				✓					✓	
Motivation, enthusiasm			✓					✓		
Ability to work unsupervised, initiative						✓		✓		
Creative flair an advantage				✓					✓	
Shows attention to detail			✓							
Flexibility								✓		
Follow through on Health and Safety and Food Safety requirements	✓									
Strong commitment to growth	✓									

The requirements listed in the advertisement show a slightly different emphasis to that gained from either the interviews with managers or the Food-World grocery assistant's job description. All but one advertisement, that for a meat packer, specifically call for applicants to be able to work as part of a team – variously requiring “a team player”, “a strong focus on teamwork”, “flexibility in a team environment”, someone who “loves working as part of a team”. The need for good communication skills is explicit in two advertisements only, but is likely to be implicit in attributes such as being a team player, having a positive attitude to customer service (mentioned in seven of the advertisements) and being friendly.

Personal qualities such as honesty, reliability, integrity, punctuality and being conscientious are ranked highly and are mentioned in seven of the ten advertisements. This is consistent with the importance placed on them by the managers. The advertisements tend to stress the physical requirements of the job. These were not mentioned by any of the managers although the Food-World job description states it is essential that an assistant is “physically fit and healthy”. Only four of the advertisements mention that previous experience is an advantage or preferred. In all cases however it is not considered to be essential.

None of the advertisements mentioned either literacy or numeracy requirements. To my mind it is also not possible to construe implicit literacy or numeracy requirements in any of the skills and attributes that are mentioned. It is suggested, although unable to be confirmed, that the “good communication skills” mentioned in two advertisements refer to oral and not written communication.

4.3.4 The role of literacy and numeracy

My findings from the interviews with managers, the job description and the job advertisements have led me to conclude that attitude, interpersonal skills and to a lesser extent, fitness and health are the skills and attributes considered most necessary for work as a supermarket assistant. These findings are consistent with a number of the studies I have cited in Chapter Two, in particular Atkinson & Williams (2003), Boyle et al. (2001) and Bracey (2006).

Boyle et al. (2001) for example found that “the ability/willingness to show up for work, and on time; the ability to get along with co-workers; the ability to work effectively with customers (if required); and the willingness to follow company policies (dress code, honesty, truthfulness etc)” (p.47) were considered the minimum pre-requisites necessary to qualify for employment. This, in my opinion, is consistent with the stated priorities of the Food-World manager who says at interview time she looks for “...English language, customer service and I want them to be well presented, clean and tidy. I want to get a fair idea of a person’s character”. Her requirement for an ability to communicate in English is explicit but is not mentioned in Boyle et al.’s study. However I believe it is implied in Boyle et al.’s concepts “to get along with co-workers” and “to work effectively with customers” (2001, p. 47), which the study identified as important pre-requisites.

These researchers also found that employers believe that if an applicant has the minimum pre-requisite skills and qualities, the organisation can then “provide the skills for actual job performance through contextualised job skills training” (p9). This equates closely with the T/HR Manager’s “They can be taught everything they need to know”. Boyle et al. were surprised that only a small percentage of respondents indicated reading, writing, math and computer skills were required, and these for only certain jobs. This is also consistent with the T/HR Manager’s assessment that “there is not a lot of reading and writing in their jobs”, and with other managers not mentioning literacy and numeracy when asked to identify the skills and qualities they look for when employing an assistant.

Like these researchers, I found that firstly when questioned further, managers, who had not mentioned assistants’ need for literacy and numeracy skills, were able to cite incidences and specific tasks when these are necessary. Secondly my observations of assistants at work, discussed in later sections, found reading, writing and numeracy were required to varying degrees by most assistants. Boyle et al. (2001) suggest managers are unaware of the basic skills required of their assistants. This appears to not really be the case at Food-World as managers could, with some prompting, identify tasks requiring literacy and numeracy; however in all likelihood they do not consciously consider literacy and numeracy skills per se. Perhaps as Marr and Hagston (2007, p.6) suggest in the case of numeracy, this may be because of its “invisibility”. Workers (and

their managers) they believe, are not conscious of doing mathematics at work as it is generally highly contextualised and embedded within an established task or routine. Often it is also considered ‘common sense’ and not recognized as mathematics. Boyle et al. (2001) also wondered if managers assume that all applicants who have pre-requisite oral communication skills also have the necessary literacy and numeracy to successfully perform their job. This was certainly the assumption of the Food-World manager, quoted earlier, who said: “If they can speak proper English, I just assume that they can write English and read English” (see 4.3.1).

My findings and the studies cited above and in Chapter Two also support Hull’s (1997) argument that the traditional 3 R’s (reading, writing and arithmetic / literacy and numeracy) make up just one of a range of skill-groups considered necessary for employment. The following sections in this chapter will describe and explore the findings related to the actual demands of the job. In particular, they will examine whether there are discrepancies or gaps between the skills and attributes that are claimed to be required and those demanded of assistants once they are employed.

4.4 The Induction

The induction process is the first formal introduction to the supermarket once a person’s application is successful. All assistants undergo a formal induction before beginning work in their allotted departments. This takes most of a morning. For some it is part of their first day of work; others who are not rostered to work that day come in especially for the induction. Inductions may be carried out for individuals or in small groups. According to the T/HR Manager, they all follow a similar programme; however the particular session I attended ran over time and was apparently slightly rushed towards the end because of the large number of inductees, nine in total.

The formal instruction and the administration sections of the induction are held in the supermarket’s training room, a large internal room located in an upstairs area above the shop floor. The area also houses the ‘clock-in’ machine, staff toilets, lockers and change areas, staff tearoom, a number of management offices and the uniform store. The T/HR Manager’s office and a small interview room are accessed through the training room.

The walls of the training room are almost completely covered. A huge map of the world and a sizeable map of New Zealand nearly fill one wall and a range of hand written posters with ‘motivational’ messages such as: “Learning is not a spectator sport”; “He who begins much finishes little”; “A dream is just a dream: A goal is a dream with a deadline and a plan” and “Six ways to make people like you....” are pinned to the other walls. A free-standing pinboard has photographs of most of the supermarket’s managers. The room is furnished with chairs and long tables, laid out as for three sides of a square. There is a large white board on the wall adjacent to the ‘fourth’ side. The layout was the same on every occasion that I used or passed through the room.

4.4.1 The ‘order of the day’

When I arrived at the induction, unfortunately a little late, the nine inductees were sitting at the tables and the T/HR Manager standing by the white board. The morning’s programme was written on the board thus:

Introduction

Photos (IRD and Next of Kin Forms)

Customer service

Food safety

Orientation 9.30

Health and Safety

Tea 10.00

Liquor/tobacco laws

Back 10.20

Employment Booklet

To departments 11.30

Kiwi Saver

Down to your departments

I had clearly missed the introduction, the first item on the programme, as inductees were filling in their Inland Revenue Tax Code Declaration and Food-World’s Next of Kin

Details form. Throughout the course of the morning, the T/HR Manager worked through the other items listed on the programme and some additional activities that did not take place in the training room and were not listed. These included: registration on the clocking-in machine and receipt of a unique 4-digit number enabling assistants to clock-in and clock-out and to access a number of doors throughout the store that have keypad access; the issue of uniforms; receipt of name badges; showing of lockers; and immediately before morning tea, a short tour of part of the supermarket with a stop off in the Bakery Department to “choose any one bakery product from the bakery cabinet ... as a token of our appreciation for attending the induction day” (GS9 Gee Street: Employment Booklet).

I noted that the T/HR Manager spoke quite quickly and used significant amounts of ‘supermarket language’ and colloquial speech. At no time did she seek clarification from the inductees that she had been understood. However neither was she asked to repeat or rephrase anything, although it became apparent to me that she was not understood at all times. For example, once when she left the room, one inductee, from Niue, asked the others what they were meant to do now. At least two others were unclear, although an instruction to read a handout while she was out had been given.

4.4.2 Induction texts

Throughout the course of the induction, inductees were given a total of seven different texts. (See Appendix A for a list of induction texts.) Some like the Inland Revenue Tax Code Declaration (Inland Revenue, 2005), Next of Kin Details form and small sections of the Employment Booklet needed to be filled in and returned to the T/HR Manager. The Employment Booklet, an 85-page A5-sized, spiral bound document contained each inductee’s Individual Employment Agreement, the supermarket’s Business Rules, and general information about the supermarket and its management staff. The T/HR Manager referred the inductees to sections pertaining to their individual contract, photographs of managers and clocking-in details but suggested they should read the rest of the document outside of the induction. This was not unreasonable, given the length of the document and the low relevance of some of what it contained to the induction process.

It is not necessary for this study to analyse all the induction texts. As indicated in section 3.3.1, I have selected two texts. Figures 1 and 2 are a reproduction of the first page of each of the texts. *Welcome to Gee Street Food-World*, because it appears to illustrate more than any other document, the supermarket's emphasis on, and commitment to, 'customer service', a concept that I learnt during my data gathering is fundamental to the operation of the supermarket; and *Food Safety Multi Choice* because of the critical importance of personal hygiene and food safety.

Customer service: "A six teeth smile"

Introduction to Food-World's strong organisational culture of 'customer service' and the importance of assistants' role in achieving it occurs early in the assistants' induction with the presentation of the document *Welcome to Gee Street Food-World* (figure 1). The concept is referred to frequently throughout the morning. The document consists of three A4 pages. The first provides an introduction to the notion of customer service and more specifically customer service at the Gee Street branch of Food-World. The document is therefore very context-specific and would not be used in any other setting. Pages two and three contain a series of twelve questions, the answers to which are in a video entitled *Customer Service* which inductees watch. Questions are expected to be answered during its viewing. According to the T/HR Manager, page 1 of the document was written by one of her predecessors as a stand-alone text. When the video *Customer Service*, which was produced for use throughout the supermarket chain, became available, questions that 'came with the video' were added to the document.

Welcome to Gee Street Food-World is aimed directly at inductees/assistants, highlighting their vital role and importance in the operation of the store and implicitly with its success. It does this by conceptualizing the assistant's position as "more than just replenishing stock. It is **CUSTOMER SERVICE**" (capitalization and highlighting in original). Examples of what customer service means are given. They include the rather interesting "a six teeth smile", which was demonstrated by the T/HR Manager smiling broadly. The document also refers to Greg, the owner-manager of the store: "Greg's Choice – if Greg were to pick any five items in the store, is the quality at the standard that he would purchase it?" This appears to reinforce that the requirement for customer service comes 'right from the top', although the use of the owner-manager's

given name and the idea of him choosing items to purchase portrays a somewhat egalitarian image.

Figure 1. Induction Text: Welcome to Gee Street Food-World.

Welcome to _____

Imagine in your minds eye a **stage**...

You are the **main actor** on this stage and it is up to you to present to the audience... (Customers) with an experience they have never had in this environment before...

It is called SERVICE.

CUSTOMER SERVICE

What is customer service at _____?

Customer service at _____ is:

Meet and Greet with a SMILE. A 6 teeth smile

Personal and Professional Presentation. Product knowledge - Location

See it - Clean it

Choice - If _____ were to pick up any 5 items in the store, is the quality at the standard that he would purchase it?

Farewell - Thank you for shopping at _____

Your position here at _____ is more than just replenishing stock. It is **CUSTOMER SERVICE**.

This skill once you have mastered it will stay with you as a tool you can use for future references.

Good luck with your performance on a daily basis.

1

While the purpose of the document is understandable and its effect apparently positive, I believe that the ease with which it can be read and understood is in question. The title of the document, *Welcome to Gee Street Food-World*) is at the top of Page 1 in a shaded

text box. It does not indicate the purpose of the document. The document's first paragraph may well be incomprehensible to some readers because of the idiom ("mind's eye") and homonym ("stage"); the rather tenuous connection between being on the stage and working in a supermarket; and the assumption that the reader is familiar with its 'theatrical' context. Limited and incorrect punctuation, confusing layout, incorrect grammar - "... it is up to you to present to the audience... (Customers) with an experience they have never had before in this environment before" and the questionable truth of this statement may all contribute to problems of comprehension. The paragraph adds nothing to the understanding of the document.

The second section, centred and double-spaced, marks the beginning of information that indicates to the reader just what customer service is. However this section of the document, like the one that precedes it, is made unnecessarily more difficult to read by its layout and punctuation. Words in a two-lined sentence do not naturally continue from the first to the second line because of central justification. As most of the examples of customer service are not written as complete sentences, a left justified list and the addition of bullet points could both make the section clearer and highlight its importance. This section also contains, what appears to be, the apparently unrelated sentence: "Farewell – Thank you for shopping at Gee Street Food-World". The document returns to the theatrical theme with a final "Good luck with your performance on a daily basis" at the bottom of page 1.

The title of the second section of the document, *Customer Service*, like the title on page one, is in a shaded text box. There is no clue that it refers to a video. The layout of the section is however clear and its purpose, a place to write the answers to questions, is self-evident. There are no instructions preceding the questions, so inductees must rely on any verbal instructions from the T/HR Manager.

It is my opinion that problems of understanding could also arise from both sections of the document because of the use of idioms – e.g. *mind's eye*, *eye contact*; 'supermarket' jargon and collocations – e.g. *future references*, *customer service*, *personal and professional presentation*, *a 6 teeth smile*, *product knowledge*, *replenishing stock*, *meet and greet*, *customer complaint*, *internal customer*, *first impression*; and 'complicated' words where simpler language would do – e.g. *mastered(a skill)*, *empathised*, *irate*,

replenishing, exceptional service. While some of the terms such as “6 teeth smile”, and “personal and professional presentation” which appear on page 1 were explained as the page was discussed, terms such as “internal customer”, “irate customer” and “empathy” remained unexplained until after the viewing of the video and the inductees’ attempts at answering the questions.

The second document analysed, *Food Safety Training Multi Choice*, similarly contained potential challenges for inductees.

Food Safety

Food safety and personal hygiene, the subjects of *Food Safety Training Multi Choice* (figure 2) are also critical to the successful functioning of the supermarket. While not all assistants work in departments with fresh, frozen, chilled or cooked products, both knowledge of the principles of personal hygiene and an awareness of the critical nature of food safety are important for all staff. The inclusion of the topic in the induction programme is therefore totally appropriate and serves as an introduction to more detailed and department-specific training once staff commence work. However, there is some doubt in my mind whether *Food Safety Training Multi Choice* adequately serves the purpose for which it was written.

Figure 2. Induction Text: Food Safety Training Multi Choice.

Food Safety Training Multi Choice				
General				
1. You can see a micro-organism with the naked eye (circle one).				
True		False		
2. Circle the conditions influencing the growth of bacteria.				
Food	Time	Warmth	Water	pH
3. Our customers expect safe food.				
Sometimes	Most times	Every time	Occasionally	In summer
4. Circle three things you need to do at work to ensure safe food.				
Be punctual	Wear the correct uniform	Work hard	Wash hands	Shower daily
5. Circle the things that could occur if you produced unsafe food.				
Store closure	Death	Illness	Loss of employment	Jail
6. Given the right conditions how many bacteria could lead to food borne illness?				
1	10	1000	10000	
Personal Hygiene				
1. Which staff need good personal hygiene to produce food safely? (Circle one)				
Checkouts	Fresh foods	Checkouts and Fresh foods	Grocery	All staff
8. Aprons and uniforms are important because they				
Keep our clothes clean	Are in the business rules	Act as a barrier to contamination	Stop bacteria on our clothes from getting on the food	
9. People lose approximately how many hairs each day?				
None	10	50	1000	
10. Circle the times when you should wash your hands.				
After handling rubbish	Before work	When entering our department	After touching packaging	
After touching your face	After going to the toilet	After blowing your nose	Between handling food types	
Training worksheets Food safety training multichoice Page 3 of 4				

The document, a two-sided A4 sheet, consists of 20 multi-choice questions which test workers' general knowledge of the causes and consequences of unsafe food and of preventative measures to ensure safe food handling. Questions are grouped under the

headings of *General* (Q1-6); *Personal Hygiene* (Q7-14) and *Food Handling/Inwards Goods and Storage* (Q15-20). Each question consists of a statement or question and under it, a number of boxes (ranging from 2 to 8 in number) containing alternative answers. Workers are required to circle correct answers – although ticking the correct box may have been easier and neater given the length of some answers. The document must be part of a larger one as its footer indicates it is pages 3 and 4 of *Training worksheets Food safety training multichoice*. I did not ask about the larger document.

The title and purpose of the document may be clearer with the shortened heading: *Food Safety* with reference to its purpose, that is, to assess the workers' knowledge or learning on a separate line. The term, *Multi Choice*, may be unfamiliar to some speakers with EAL. The document contains no initial instructions although its layout is likely to indicate, to those familiar with a multi-choice answer format, what is required.

As with the document discussed above, *Food Safety Training Multi Choice* contains a significant amount of language that is potentially unfamiliar to inductees. For example: technical language e.g. *micro-organism, contamination, cross contaminate, bacteria, food-borne; pH*; idioms e.g. *the naked eye, danger zone* (related to food temperature), *blowing your nose, stands for*; or jargon - *food safety; Fresh foods* (the name of a supermarket department), *first in - first out, handling, multi choice*. In addition the use of simpler terms rather than the present complex language such as *All of the choices, loss of employment, store closure, (wash) between handling food types* would result in a more readily understood document. Reading of the document could also be simplified with consistency between question formats as questions are either written as statements, questions, or sentences to complete. Two questions in particular may be problematic for those with EAL who are used to question words at the beginning of a sentence. *People lose approximately how many hairs each day?* and *Given the right conditions how many bacteria could lead to food borne illnesses?* Finally while some questions provide the instruction: *circle one* or *circle three things you need.....*, others have no instruction and it is unclear how many answers are correct.

Unlike *Welcome to Gee Street Food-World*, *Food Safety Training Multi Choice* contains information which require some, if basic, knowledge of numeracy. Three questions have numbers in their answers. Knowledge of the value of numbers 1-1000

and 1-10000 (written without a comma) is necessary for two questions. Answers are very context-specific e.g. *Given the right conditions how many bacteria could lead to food borne illnesses?* and *People lose how many hairs each day?* and require some technical knowledge or a good guess to answer correctly. One question requires an knowledge of the value and relative ‘hotness’ of temperatures from -18° C to 75° C and the significance of 0°C. As the answer is related to ...*the danger zone for food...*, it requires both an understanding of what ‘danger zone’ means for food and the relationship between temperature and bacteria growth.

The text in its present form, that is pages 3 and 4 of a four-page document, is primarily a test rather than a teaching tool. It is not possible to determine the answers for most questions from reading the text alone. Furthermore, I conclude that some background knowledge and understanding of basic physiology and biology (food science) and their associated ‘languages’ are required to answer some questions. Other questions may be difficult to answer for those who are unfamiliar with New Zealand supermarket procedures. In short, knowledge of the context of the document is necessary to establish its meaning. It is probable that pages 1 and 2 of the document could provide readers with information that would assist them to answer questions, however given the complexity of *Food Safety Training Multi Choice*, it is likely pages 1 and 2 contain similar potentially difficult language and unfamiliar concepts. Unless it is to be used to assess new assistants’ base-line knowledge of food safety in a supermarket and the specific language associated with this topic, in my opinion, *Food Safety Training Multi Choice* is not an appropriate induction text. The inclusion of the document suggests that there has been limited reflection on the food safety information that could or should be part of the induction and how best this can be presented in a meaningful, readily understood way.

Vocabulary profiler

In the previous sections I have discussed the literacy and numeracy skills considered necessary for employment as a supermarket assistant, and the literacy and numeracy required to successfully grasp the meaning of the induction texts and work with them in the required way. I consider that there is significant disparity between the two.

My findings which are consistent with the literature, have led me to conclude that literacy and numeracy receive little consideration when determining the pre-requisites for employment as a supermarket assistant. However earlier I described two texts from the assistants' induction that contain literacy and numeracy-rich, context-specific language that is interspersed with idiomatic terms and jargon, and which I have concluded, requires considerable literacy and numeracy proficiency.

In order to assess my conclusions more objectively, the two texts I studied were analysed for their vocabulary content using the University of Hong Kong's Vocabulary Profiler (2001). The profiler identifies words in the text sample as follows:

1. the list of the most frequent 1000 words,
2. the list of the most frequent 1001 - 2000 words,
3. the Academic Word List (AWL), (Coxhead, 1998).
4. the remaining words in Xue and Nation's (1984) University Word List not included in the AWL, and
5. the words that do not appear in any of the preceding lists.

A detailed discussion of either the profiler or profiling in general is beyond the scope of the thesis. Suffice to say that words in categories 1 and 2 represent the most frequent 2000 words used in the English language; those in categories 3 and 4 are words commonly used in academic literature and category 5 contains less common words not found in other categories. It is reasonable to expect that induction texts for supermarket assistants contain mainly words from categories 1 and 2, given the preferred education pre-requisite of 1-2 years secondary education in the Food-World grocery assistant's job description.

By way of contrast, I have compared the profiles of the induction texts I studied with one of a lecture to first year nursing students (Grant, 2008) and one which I carried out using the abstract to Boyle et al.'s (2001) article which I have cited in this and earlier sections. The results are shown in Table 6 below.

Table 6. Text profiles.

Summary of text profiles using Vocabulary Profiler. (University of Hong Kong 2001)

Text name	% of 1-2000 words (Categories 1 and 2)	% Academic and non- list words (Categories 3,4 and 5)
<i>Gee Street Food-World</i> a. Page 1, Customer Service	93.4959	6.5041
<i>Gee Street Food-World</i> b. Pages 2 & 3, questions for video, <i>Customer Service</i>	92.1985	7.8015
<i>Food Safety Training Multi Choice</i>	88.5714	11. 4286
First year nursing lecture (Grant 2008)	93.5984	6.4016
Abstract of journal article (Boyle et al., 2001)	87.5648	12.4352

The vocabulary profiler profiles only the actual words contained in the text and not the way in which they are used, so does not reflect, for example, if words are used idiomatically or as jargon and the context in which they occur. However, from the table it is possible to conclude that the text of both parts of *Gee Street Food-World* contains a similar percentage of academic and non-list words as the first year nursing lecture. The text of the *Food Safety Training Multi Choice* contains a greater percentage of academic and non-list words than the first year nursing lecture and a similar percentage to the journal abstract. It must be stressed that there is no suggestion that a comprehensive comparison of the relative difficulty of the texts has been made. However using only the vocabulary profiler, it is not unreasonable to suggest that the language in the induction texts is more complex and requires greater literacy proficiency than that considered necessary for employment as a supermarket assistant. In 4.3.2 it was noted that an education level of one to two years high school is preferred but not essential for

employment as an assistant. However the vocabulary profiler suggests that some of the language in the supermarket texts is similar in complexity to that found in documents used at a tertiary education level.

My study of the content of the documents has provided useful understandings which will be discussed further in Chapter 5. However it is of limited use unless viewed alongside consideration of the documents' context which follows.

4.4.3 Creation, distribution and reception of induction documents

While I was interested in the literacy and numeracy content of texts and their general 'readability', it was also useful to view them "within the larger context of (their) creation, distribution and reception"(Neuman, 2006, p. 230). These concepts are compatible with the social practices approach to literacy and numeracy that this study has adopted as they require examination of the nature of what 'surrounds' the text, rather than just consideration of the text itself. They also highlight the importance of participation in meaning making. The following sections therefore discuss the texts under Neuman's headings: creation, distribution and reception.

Text creation: purpose

I am unable to comment with any authority on the origins of the two documents I have analysed. However it is evident from the text itself that the first page of *Welcome to Gee Street Food-World* was written specifically for the supermarket's induction. It is uniquely contextualised and personalised using the supermarket's and the owner-manager's names, and following the store-wide practice of using the latter's given name only. It welcomes new staff with its title and proceeds to outline one of the store's underpinning tenets, that is, customer service. It also stresses the importance of the assistants' role in the provision of customer service. In my judgement, and notwithstanding the earlier comments about its literacy content, its purpose is clear and appears to be well thought out.

Pages two and three of *Welcome to Gee Street Food-World*, contain questions taken directly from questions appearing in the video *Customer Service* and so are written for all supermarkets within the same chain as *Food-World*.

It is doubtful that, in its present form, the multi-choice questionnaire *Food Safety Training Multi Choice* was created specifically for the induction, as according to its footer, it is the latter part of a larger document. However the complete document, which is likely to have included information to which the multi-choice questions relate, may well have been.

Text distribution: the induction process

It is perhaps a little disingenuous to analyse (somewhat critically it transpires) the way the induction was run, given that I was so readily given permission to attend it. However it is apparent to me that the delivery of the texts is an important component of their analysis. In addition, because of my background as a literacy and language teacher, it was difficult not to see the induction through ‘teacher’s eyes’. It must however be said that I observed one induction only and while I was told by the T/HR Manager that she keeps the content of the induction constant, it is possible that her presentation may differ according to factors such the number, language proficiency and past experience of inductees.

It is reasonable to assume that much of the content of the induction was unfamiliar to this particular group of inductees as at least five of the nine of them had no previous New Zealand work experience; only one inductee had worked in a supermarket before and only two had English as their first language. Those with EAL had varying degrees of English proficiency. However most topics were introduced in a relatively cursory manner with little or no ‘lead-in’ to ascertain inductees’ knowledge of the particular topic. There was an expectation that documents would be understood by inductees. On a number of occasions they were left alone to read texts and sometimes complete question and answer or multi-choice tasks when the T/HR manager left the room to do things such as make name badges. Her presence and input could have been helpful however, as the language and layout of the texts that I analysed are overly complex and potentially difficult for those with low literacy and numeracy proficiency, limited knowledge of the contexts food science and supermarket operations and those who have EAL. Most of the documents that are part of the induction share these characteristics in my judgement.

In the case of the second part of *Welcome to Gee Street Food-World*, the difficulty is further increased as inductees are expected to watch a video to find the answers to the twelve questions in the text. Questions must be read and answers written while the video remains running. This is despite the fact that the video is divided into sections and it is suggested that it is paused after each section to allow completion of questions pertaining to that section. Feedback consisted of the T/HR Manager asking inductees if anyone had missed any answers, a technique that has the potential to ‘show up’ the less able. Most of the inductees had not completed the questions. The Niuean inductee, for example, apparently did not know the word ‘irate’ which was in one question, so was unable to understand and hence answer that question. He asked the T/HR Manager its meaning and nodded when she replied “very angry”, indicating understanding. As the answers to questions that everyone had answered were not checked, neither the T/HR Manager nor the inductees knew whether the latter had answered these questions correctly or not.

It is also questionable how much the inductees learnt from their exposure to *Food Safety Training Multi Choice* which is primarily a test rather than a teaching text as it consists of questions with from between two to eight alternative answers. Inductees received no teaching or introduction to the text so their ability to answer the questions was dependent on their past knowledge and common sense about food safety. They were expected to answer questions orally, as a group, after each question and its alternative answers had been read by the T/HR manager. However, because of the large number of alternative answers for some questions, they were difficult to remember and it was generally necessary for inductees to read the alternatives as well as listen to the T/HR Manager. This in itself is not necessarily a problem, but as mentioned before, the language of the text was unnecessarily complex in parts and the format inconsistent. Once again, I observed that the Niuean inductee had difficulty answering questions. He called out two of the answers, both of which were wrong. It was difficult to tell whether he had been unable to read all the answers, whether he read too slowly to ‘keep up’ or whether his background knowledge about food safety was limited. I suspect all three.

Text reception: taking the message 'on board'.

Throughout my research, the relevance of the customer service message of *Welcome to Gee Street Food-World* to the assistants' ongoing job was demonstrated repeatedly. An understanding of what customer service is and its practice underpins the work of all supermarket employees and from a theoretical perspective is a major social practice within the supermarket. The concept is promoted and encouraged at all levels in the organisation. For example, the Deli-kitchen manager told me she always tells new staff the story of the cleaner who worked for NASA, who when asked what he did for a living replied that he helped to put men on the moon. This she explained showed how important everyone's role was in the successful operation of the supermarket. When I asked Lena, the Deli-kitchen Assistant what she thought the most important part of her job is, she replied, "Attend to the customer, customers come first." Rebecca, the bakery assistant who was in her second week at the store volunteered "It's always good to be helpful... When I do my little shop, I look at things to get knowledge of the store," and Haille, the grocery assistant stated "My shelf must be attractive. Why should the customer have to look (for the product)?" The effectiveness of the concept of 'a six teeth smile', with accompanying demonstration, was highlighted to me as it came up in conversations with two of the participant assistants. This seems to indicate that the term is memorable and other examples mentioned suggest that the concept of customer service has been 'taken on board'. It appears they are both part of the general discourse of the supermarket and it is reasonable to suggest that the text plays a role in 'fixing' and promoting it. The practice also gives weight to Jackson's assertion that being literate in the workplace involves "not just performing tasks, but understanding and participating as a member of a social group" (Jackson, 2004b, p. 2).

The importance of *Food Safety Training Multi Choice* to assistants' work is dependent on the department in which they work. For example, Rula, who works in a 'non-food' department, has little direct need for information about the storage of fresh foods, whereas it is critically important to Lena in Deli-Kitchen. My assessment of the impact of *Food Safety Training Multi Choice* is that it probably serves to raise inductees' awareness of the importance of food safety, but that more detailed, department-specific training is necessary to enable assistants to incorporate food safety practices into their work.

4.4.4 The place of the induction

The literature suggests that the induction plays a relatively minor role in the learning of those employed in low skilled jobs and that most of the training for low skilled work is done on-the-job (Atkinson & Williams, 2003; Hughes, 1999; Newton et al., 2006; Price, 2004). For example, Hughes (1999), who carried out research in a large US supermarket, reported that new staff received a half-day orientation before working alongside a more experienced worker. FoodCorp, the large Australian supermarket where Price (2004) did her research gave new employees a one day induction. This covered “the basics of working for the organisation, what it means to be an employee of FoodCorp, occupational health and safety, customer care, company policies, company compliances issues, as well as benefits and conditions” (p.114), similar to those topics covered in Food-World’s induction (section 4.4.1).

Despite the relative brevity of the induction process and its apparently limited role in training workers to actually do their jobs, my observation of Food-World’s induction has led me to conclude that it is an effective way of providing an introduction and overview to employment: introducing a group of new employees to the ‘culture’ of the supermarket, the concept of customer service and the importance of the assistants’ role in this process. It also begins the education about the critical importance of health and safety (in particular food safety), which serves as an introduction to later, more detailed and department-specific training. In doing this, the induction provides the necessary framework for the assistants’ development of an understanding of the context of the supermarket. It is also an introduction to the supermarket’s ‘communities of practice’ and is consistent with the notion that being literate in the workplace involves “not just performing tasks, but understanding and participating as a member of a social group” (Jackson, 2004b, p. 2). The induction process also importantly provides a cost-effective means of completing necessary administrative formalities and other ‘paper work’.

The subject matter covered in the Food-World induction, in my opinion, is for the most part, appropriate and relevant to inductees as it covers areas such as customer service, health and safety, conditions of services, and rules and regulations of the supermarket. However, most of the written documentation used is unnecessarily complex and requires a higher level of literacy and numeracy than that generally accepted as a pre-requisite for employment as a supermarket assistant. Furthermore many of the texts

contain context-specific language and information which may be unfamiliar to inductees, many of whom do not have New Zealand retail and/or supermarket experience, this not being a pre-requisite for employment.

Conversely I believe the video, *Customer Service*, is pitched at an appropriate level for assistants. It has authentic demonstrations of both good and bad customer service in a supermarket and contains some humour which appears to actively engage viewers. Important points are re-iterated in simple language and written point form. From a theoretical perspective, a learning tool such as this demonstrates the interconnection of the different modes for making meaning (for example image, print, speech, gesture) and shows how ‘literacy sits within a much wider communication landscape’ (Pahl & Rowsell, 2006, p. 8) while still acknowledging the significance of context in the establishment of meaning. In practice, *Customer Service* appears to be meaningful to inductees and reflects more realistically the multimodal nature of the literacy and numeracy supermarket assistants encounter as part of their work.

When presenting the majority of the induction texts, the T/HR manager did not provide a context, nor did she determine inductees’ background knowledge or in any way establish a bridge between their existing knowledge and that contained in the text. She was not present at times when her input could have been useful, for example when inductees were required to read and answer questions during the screening of the video *Customer Service*.

In my opinion the learning opportunities that the induction offers could have been better exploited and been more meaningful and useful for workers as well as providing better ‘value for money’ for the store’s owner-manager. I return to the subject of the induction in the final chapter of this study.

4.5 Learning about the job

Following the completion of their induction, Food-World’s new employees are taken to the department they will work in order to meet its manager and staff and to begin their ‘on-the-job’ training. This section outlines my findings as regards the latter.

It appears the amount of initial ‘on-the-job’ training given to Food-World assistants varies both within and between departments because of differences in work complexity

and the existence of food safety compliance requirements in some departments. The grocery manager also noted that those who come from non-English speaking backgrounds can require additional time, patience and oversight to train.

Unsurprisingly my research found that due to their varying degrees of language proficiency and their assignment to different departments, assistants' reports of their learning challenges and training experiences vary.

Observation plays an important role in assistants' initial learning, but very soon 'learning by doing' takes precedence over observation. Hager (2003) writing on workplace learning, argues:

There are considerable advantages in viewing it primarily as a process that has important social, cultural, and political dimensions. Both work practices and the learning that accompanies them are processes. We might almost view practice as a process that coincides with learning. (p. 6)

While not a prime focus of my study, the notion of workplace learning put forward by Hager, emphasises its contextuality and the importance of 'doing' and practice for learning.

The first and most significant thing an assistant learns is customer service, not surprising given its importance to the successful operation of the supermarket and the prominence given to it during the induction. Two aspects of customer service; (a) interaction with the customer and (b) product knowledge, seem most critical to me, so it is these tasks that I have chosen to describe. This section will necessarily only discuss a small part of what a new assistant must learn and how the learning takes place, as a detailed study of all aspects of either their initial training or ongoing learning is beyond the scope of this research.

4.5.1 Observation and then 'getting on with it'

Managers and assistants alike commented that much of assistants' very early learning on the job comes through observing others at work. The duration of the observation and the formality with which it is organised appears however to vary between departments. The managers of Bakery, General Merchandise and Deli-kitchen assign an experienced staff member to work with or 'buddy' a new assistant. The latter observes, works

alongside and assists the co-worker until comfortable with doing the task independently. For Rebecca from Bakery, whom I first saw in her second week of employment but observed at work almost five weeks later, this was still an ongoing process. Her role involves such tasks as the making of products such as muffins from basic ingredients, assembly of quiches and ‘traying’ of pre-prepared items for baking. I observed her assisting an experienced worker with the making of muffins, (“I’m talking her through it”) sometimes working with him on the same task, at other times working in parallel on complementary tasks, sometimes stopping to observe, once asking if she could take over a particular process, asking questions and incidentally learning a few ‘short cuts’ and informal methods of preparation. She told me however that she had made quiches totally by herself for the first time the day before and had been doing other tasks such as serving from almost the beginning of her employment.

Conversely, San Lee from Produce, who was also in his second week of work when I first interviewed him, clearly required, so had been given, much less observation time in order to learn his basic role. He had not been assigned a ‘buddy’ to work with when he first started. On his first day he said he had received some instruction and demonstration of what he needed to do, but he soon ‘got on with the job’. During my observation, he worked alone and said this was his usual pattern of work. He commented that there was not a lot that was very difficult to learn and seemed to find it somewhat problematic to think of what he had been shown as training: “...it’s not training, it’s not skilled stuff”. Two weeks on, he felt reasonably confident he knew most of what he needed to, but felt comfortable asking for help if in doubt: “Other workmates will tell you.”

My findings are consistent with those in Carré et al.’s review of low-wage work in U.S. retail trade (2008). They found that entry-level training in most retail food companies in their sample, is “fairly cursory” (p. 9), but varies both within and between companies from around one hour to two to four days. More skilled jobs (perhaps like Rebecca’s in Bakery) take longer to learn.

It appears however that ‘learning by doing’ rapidly becomes the main way assistants learn many tasks and soon takes precedence over observation. For example, Rula from General Merchandise, said that the manager who trained her (the predecessor of the present departmental manager) had said “Today I show you where to go. Go yourself.

Do it. I'll come back after to check". Notable exceptions to 'learning by doing' however include the mastering of a range of quality assurance procedures and documentation; writing restocking lists; ordering; and following recipes. Some of these more literacy and numeracy-rich tasks will be discussed in some detail in later sections.

4.5.2 Customer service – interaction with the customer

Customer service is one of the first things assistants learn on the job. This is unsurprising, given it is a major social practice within the supermarket; is essential to its successful operation and was repeatedly emphasised at the induction. "Everyone starts with customer service and you cannot move onto the next one (i.e. learning other duties) before you do that one" (Deli-kitchen Manager). "I normally get them to stand out the front in the servery and serve our customers and that's it for a couple of days..... they get to know how to serve our customers – and that's all I get them to do, nothing else" (Seafood Manager).

Searle (1991, p.35) found checkout operators in her study used "spoken language (that) is usually context-specific, polite but brief, almost ritualised", which also describes Food-World assistants' interactions with customers. These vary according to an assistant's department. From my observations those working in departments such as Deli-kitchen, Seafood, and Bakery with products that are sold 'over the counter' use spoken language to initiate, carry out and conclude a product transaction. There may or may not be an exchange about the product. Those in 'self-service' departments such as Produce, General Merchandise and Grocery, interact with customers less frequently and customer service, while no less important, has a slightly different emphasis. Exchanges generally relate to information about a product, its availability or location. During my observation of Produce Assistant San Lee, he spontaneously said "Customers will ask you where things are. Do not point, lead them to it". When asked how he had learnt this, he replied that the manager had told him, but reminded me that it was also in the induction video. More informal 'social' conversations with customers appear to be limited. During my observation, Haille from Grocery politely acknowledged the greeting of a customer known to him, but did not make further conversation.

In 4.1.2 I noted that "good communication skills" were written in the "Essential" column of Food-World's supermarket assistant's job description whereas "a good

command of ...spoken English” was in the “Preferred” column (Table 4). I commented there that perhaps the former was more important to customer service than the latter. This was borne out in a transaction between Yanming, the Seafood Assistant and a customer. During my interview with Yanming, a migrant from China, I had noted that she had not always initially understood my questions and that sometimes rephrasing of them was necessary. However she was warm and friendly, smiled and laughed a lot and her answers, while accented and not always grammatically correct, were thoughtful and delivered pleasantly and sincerely. During my observation, the following interaction took place at the seafood counter:

Customer: How long will the prawns take to defrost?

Yanming: They just came in this morning.

Customer: If I wanted to eat the prawns tonight, how long would it be before I could eat them, how long would they take to defrost?

Yanming: Only about half an hour.

I concluded that Yanming’s communication skills; the friendly yet professional way she approached the customer and her obvious attempts to be helpful, meant that the transaction was completed successfully. In this case her ‘command of English’ was less important.

To my knowledge new assistants, while able to observe experienced workers interacting with customers and having seen the video ‘*Customer Service*’ at their induction, do not receive specific training in customer interactions, for example simulations and role plays. Further discussion of this issue is found in the Chapter 5.

However ‘good (oral) communication skills’ alone, may be insufficient. For interactions with customers to be meaningful and truly represent good customer service, assistants must have knowledge of ‘their’ products and eventually, the whole store. Product knowledge provides the context for communication with customers and is a major part of their assistants’ early learning on the job.

4.5.3 Customer service - product knowledge

From a theoretical perspective, product knowledge can be viewed as a literacy event within the wider social practice of customer service. It is possible to have product knowledge on a number of different levels, for example in one's own department: the name of a product; how to distinguish it from similar products; a knowledge of the range of the particular product stocked by the supermarket, including different brands and products within each brand; location of the product both in the supermarket proper and in the storeroom; knowledge of the characteristics of an individual product which may include having tried or used it; what is on special; and how quickly and when it sells (particularly important for maintaining displays and ordering, see below). Product knowledge also extends to knowing the layout of the whole supermarket and the location of 'other' departments' products. Learning about products appears to differ according to many factors including but not confined to: the product itself, the assistant's language, cultural background, experiences, interest and familiarity with the product, and the initial training he/she is given.

The Seafood Manager who was quoted in the previous section, saying that she gets her new assistants to serve customers for the first couple of days, does this not only to get them familiar with serving customers, but also to ensure they learn about the products they are working with. Her assistant, Yanming, was in her second week at the store when I first met her, had done just this. When asked her how she remembers the names of all the different fish, Yanming laughed and replied that "there are not too many fish in Beijing" and "many fish have difficult names" and although she was familiar with products like scallops and prawns; local fish such as terakihi, trevally and kahwai were new to her. She had however quickly learnt the names of those fish that were 'on special' as they sell well and many people ask for them so their names are repeated frequently: "After the special I remember the name and the code" (the four-digit number that gets put into the scales/label printer.) She said that with familiarity she is also increasingly able to distinguish between different fish by their colour and shape, rather than by reading their names on the tickets.

Rula, a Burundian woman with EAL, who had worked in General Merchandise for 2½ years when I first interviewed her, recalled her first days at the store: "Oooh I took Panadols every day. My head ache (sic)." Rula learnt her job by initially working

alongside other experienced staff, but now works alone for most of the day. General Merchandise is a small department so there are days that she is the only member of it working. This necessitates her taking on extra responsibilities on these days, for example ordering (described in 4.6.2), and carrying the departmental phone. Rula's responsibilities include maintaining a display of over 100 different magazines and a wide range of non-food items such as gardening products, stationery, items for babies and disposable plates, cutlery and napkins. A number of the magazines have similar titles, such as 'Bride', 'Bride to Be' and 'Bride and Groom' and frequently a magazine's title is partially obscured by its cover picture. Rula remembered that when confused by this, she looked up the distributor's printed list to find the complete title and compared it with the magazine itself. She now appears to have a comprehensive knowledge of all magazines, writing down the names of those that require collecting from the storeroom confidently and without need to check titles or their spelling. Rula has learnt the names of most magazines 'by heart'. She appears to distinguish between different titles not only by looking at their names, but also by their 'look' and the use of different semiotic systems and non-text-based images (Barton, 2002) – their size, type of cover picture(s) and the quality of their paper, as well as the section in which they are located in the display. This displays the use of quite sophisticated use of literacy in my opinion. When it was suggested to Rula that learning the titles must have been difficult she replied "If I need a job, I work hard."

Rula said she found it necessary to learn many new words, some oral and some written for re-ordering purposes, such as *assorted*, *stationery*, *merchandise* and *distributor*, numerous abbreviations, most of which appear to be highly context-specific, as well as many product names. She says that when confronted by a new word, she tries to work out its meaning from French which she learnt at school. Kirundi, her first language is of no help. However she is now familiar with the products she works with, and says she often doesn't need to read product names and labels as she distinguishes them from their 'look'. I took this to mean packaging size, shape and colour and as well as their location on the shelves. Her knowledge of product location was demonstrated by the ease with which she found replacement magazines on the stockroom shelves, going immediately to the correct stack. When I remarked on this she commented, "It's like

home. If you want sugar, you know where to go. You don't go to the living room. I tidy every day so I learn."

Haille, an Ethiopian man, possibly in his fifties and whose first language is Amharic, has been working at Food –World for nine years and takes particular pride in the neatness of his displays and his knowledge of the products he is responsible for in the Grocery Department. "My shelf must be attractive. Why should the customer have to look?" He recalled that when he started at the store, one of his responsibilities was to shelve the packets of dried pastas: "I put them everywhere." He recounted that a younger Ethiopian man who "spoke good English", addressed him in Amharic, using respectful terms reserved for those who are older and told him he had put things in the wrong place. Haille had replied: "But pasta is pasta" but the young man had explained: "No they are not the same, they have different names". Haille then showed me thick, thin, and tubular spaghetti and fettuccini, all of which look very similar: "And this is just one brand!" He said he has generally learnt the company or brand name of the product first and then the product details e.g. one brand of peanut butter comes in crunchy, light crunchy, smooth and light smooth. Sometimes it is easy to distinguish between similar products from packaging alone e.g. colour, size, illustration, but at other times he must check the product name more carefully. This indicates he uses a combination of text and non-text cues to establish a product's identity. He is very familiar with 'his' products and to demonstrate this, recalled without hesitation and with considerable pride, 12-14 varieties of a particular brand of jam.

San Lee, in his second week in the Produce Department when I met him, has nowhere near the number of very similarly packaged products or the range of different brands of the same product to work with as Haille. A native Mandarin speaker in his early twenties, San Lee has been in New Zealand for six years and says that although reading and writing in English is not a problem, he still has some difficulty listening and speaking. He believes that learning the products in his department has been relatively easy for him as, with the exception of some of the more unusual tropical fruits, he was familiar with most of them prior to commencing work, although not necessarily their English names. He asks a work mate or looks at the display ticket for assistance with names.

Items in the produce department's bulk store are often easy to identify as many are stored in open crates or mesh bags and in addition are usually labelled. "I know it's a kiwifruit because it looks like a kiwifruit." When collecting Agria potatoes from the bulk store, he commented he now 'just knows' that they are the ones in the black plastic sacks so he does not need to look at their label to identify them; other varieties of potatoes come in paper sacks.

He said that it has been necessary to learn the names of the different types of apples as he had never really paid much attention to them in the past. However, after two weeks he can recognize most of them by their 'look' rather than by reading the small sticker on the fruit or the display ticket. This was illustrated graphically when, during my observation, he suddenly went over to an apple display. "I just seen an apple I don't know". He first picked up the apple and looked at it carefully before reading the sticker on it and the price ticket above the display and then comparing the two: "You know this Jazz apple?"

Lena, a Fijian woman, probably in her fifties, was in her seventh month in the Deli-kitchen when I interviewed her. It was difficult when she first started she said, as there were so many different products. She would read a label and try to connect it with what the product looked like. She didn't like having to look for the product in the display cabinet (and be considered slow) when the customer asked for it. "When I came, I thought they were all the same. Sliced - I know sliced, what is shaved?" She laughed about shaved being what a man did to the hair on his face. Lena said that the salami was difficult "I tried hard, I tried to see the look and I saw the name, I have to try and find ways to know ." Product knowledge came with constantly working with the products and now she says that she looks at the salami and knows the different varieties.

Rebecca, the Bakery Assistant provides a good example of customer service and a motivated learner who understands the importance of both interaction with customers and product knowledge. She volunteered that she is trying to learn more about the products made in Bakery so she can help the customers. She has been studying the ingredients listed on the price labels that are stuck to the packaging of most bakery products. This is in order to learn what each product contains and if it has gluten or nuts,

because “some people can’t eat these”. When asked if someone in the Bakery had warned her about these ingredients, she said “No, I know people with that problem.”

Rebecca also told me that it is important for her to know about the rest of the store, because a customer buying something at the bakery may ask her where another item elsewhere in the store is. “When I do my little shop, I look... to get knowledge of the store.”

It became evident that the difficulty in learning about products varies considerably between departments. The produce department for example, has both a much smaller range of products than many other departments, and a greater number of easily distinguishable products due to people’s general familiarity with fruit and vegetables, and to the absence of packaging which can hide the nature of the product inside. While the names of some of the more unfamiliar produce must be learnt, and there is a need to distinguish between varieties of the same types of produce, I suggest that this can be done quite quickly and that literacy and numeracy is unlikely to play a major part in this process. After less than two weeks in the job, Produce Assistant San Lee identified that a display of apples was a variety he was unfamiliar with by their appearance alone rather than by reading their identifying label. Arguably knowing the English names for produce is less important than products in other departments, because produce is generally recognisable by its ‘look’ so reading labels and packaging is usually unnecessary. Knowledge of English names only becomes important when communicating information about products to other staff and customers. The latter is also a less common occurrence than in departments such as Deli-kitchen and Seafood where the customer is served.

However, there are other departments whose ‘context’ is far less familiar than that of Produce. It must be remembered that all but one of the assistants in my study did not have English as their first language. It is possible that a number were unaccustomed to a large supermarket: its style of product presentation, and availability of a huge range of products, brands and varieties within brands. The supermarket was certainly an unfamiliar workplace context. It appears that Haille for example was initially unaware that there were differences between the pastas he was shelving. It is interesting to speculate whether his problem was one of reading, attention to detail or whether he even

considered that products with seemingly identical or very similar packaging could be different. Given what I know of Haille, I would think in his case it would be the last mentioned reason together with his general unfamiliarity with products.

Many assistants report that learning product names and distinguishing between products is initially difficult. Product knowledge however comes with growing familiarity with the supermarket context. Names, codes (if applicable) and the 'look' of high turnover products, such as those on special are learnt the most quickly. Learning of product names, particularly those unfamiliar to assistants who have EAL comes with repetition and from hearing, seeing and needing to use the name and associating it with the relevant product.

However, as with the checkout operators in Searle's (2005) study, the on-the-job literacy practices of the supermarket assistants of Food-World "required the use of a repertoire of strategies rather than extended reading" (p.7). For example, Rula, uses her French to help decipher unfamiliar words and Yanming identifies frozen seafood from China by their Mandarin rather than their English name. Rula also identified magazine titles she could not read because the cover illustration obscured the title, by checking them against lists in the storeroom. Lena initially wrote the names and codes of deli-kitchen products she did not know in a notebook to help herself learn them. San Lee told me of another produce assistant, originally from Russia, who after work uses a dictionary to learn words she has encountered during the day.

Searle also noted:

Print is highly contextualised so both the social situation and the function of the text affect the meaning. So for staff to engage in 'reading' they require a knowledge of the vocabulary specific to retail... in addition to having a range of reading strategies and metacognitive strategies to know which reading strategy to utilise for a specific purpose. (2005, p.7)

As Searle implies, terms used to describe products often may be unfamiliar, particularly to those with EAL. For example Lena initially did not know the term 'shaved' when applied to cold meat and Haille had to learn that 'light' peanut butter meant less fat and not less colour or less weight.

It is apparent that assistants can be confronted with literacy and numeracy-rich, context-specific environment when they commence work, although this differs between departments. Gaining understanding and knowledge of a product can entail ‘reading’ a range of semiotic systems and non-text images as well as interpreting the meaning carried by different ‘modes’ of communication (Jewitt & Kress, 2003). For example, some products require careful reading of their packaging, to determine what distinguishes them from similarly packaged products. This can include brand name, product name, product variety, size or when applicable, expiry date. Other products are, or can with familiarity, become identifiable by their ‘look’, such as distinct packaging, colour, a picture on the label, a particular size.

The findings suggest that autonomous models of literacy and numeracy, such as described in Chapter 2, that claim understanding and meaning can exist independently of the context in which a text or semiotic system occurs, and assert that literacy and numeracy can be learnt in a neutral setting as a series of discrete skills, are inappropriate. They are neither a suitable basis for equipping assistants for the literacy and numeracy challenges of the supermarket, nor for explaining how, once they are employed there, they establish meaning when they encounter these challenges. In addition, as meaning is communicated through multimodal means and established using a range of strategies, considering literacy and numeracy in isolation appears problematic. It has implications for both the teaching of literacy and numeracy and the initial teaching and learning of new supermarket assistants which will be discussed in Chapter 5.

4.6 All in a day’s work.

Westlake (2005) commented that learning at the workplace is “merged with working, and work and learning are inseparable parts of the same lived experience; a part of everyday activity in the work place; ongoing and does not have a start and end point” (p. 3) For this reason any distinction between ‘on-the-job learning’ and ‘work’ is somewhat arbitrary as the two merge and are not distinct from each other. However I have decided to consider them separately as it appears that after a period of time, which differs between individual assistants and particular responsibilities, duties have been learnt and are now part of daily routines, although this by no means suggests that

learning has stopped. This section describes some of the duties that are a part of most assistants' routines. The duties I describe are not an exhaustive catalogue of the assistants' responsibilities; to do this would require a much more extensive and in-depth study than I have undertaken. However I believe the duties I have chosen are significant because they occupy a substantial part of the assistants' working days and / or provide insight into their use of literacy and numeracy on the job.

4.6.1 Maintaining displays

As mentioned in Section 4.4.2.1, one of the induction documents states that an assistant's job is "more than replenishing shelves ... it is customer service". While this may be the case, my research found that maintaining displays, which includes: replenishing shelves; checking expiry dates; 'facing' (see below); and collecting products from the stock room represents the overwhelming bulk of the work done by participants Haille in Grocery, Rula in General Merchandise and San Lee in Produce. Early in my interview with San Lee I asked him to describe his day. He replied, "I refill the fruit and vegetables". Lena in Deli-kitchen, Yanming in Seafood, Millie and to a lesser extent Rebecca, both in Bakery all have to serve customers as part of their duties so spend a lesser proportion of their time maintaining displays. However they also are required to fill and maintain display cabinets when on morning shift and empty them before completing afternoon shift.

The practice of maintaining displays consists of keeping them tidy, clean, safe and, where possible, full. I noted that when Haille, San Lee and Rula walk through their respective departments, they are always on the lookout for products that are not in their correct position, not neatly shelved or need replenishing. For example San Lee moved a green capsicum that had got into the yellow ones; Rula saw the packs of serviettes were running low so 'faced' the remaining products until she was able to get more stock. ('Facing' involves ensuring products are flush with the front of the display in a neat, orderly row). When, without thinking, I returned a misplaced item to its correct place, Rula remarked: "Good girl, you learn". On one occasion Haille, who takes particular pride in his displays, seeing an item that had been put back in the wrong place commented "Some customers – they don't care" before returning it to its correct place. He then noticed that there were gaps in the tea display, so immediately 'faced' them –

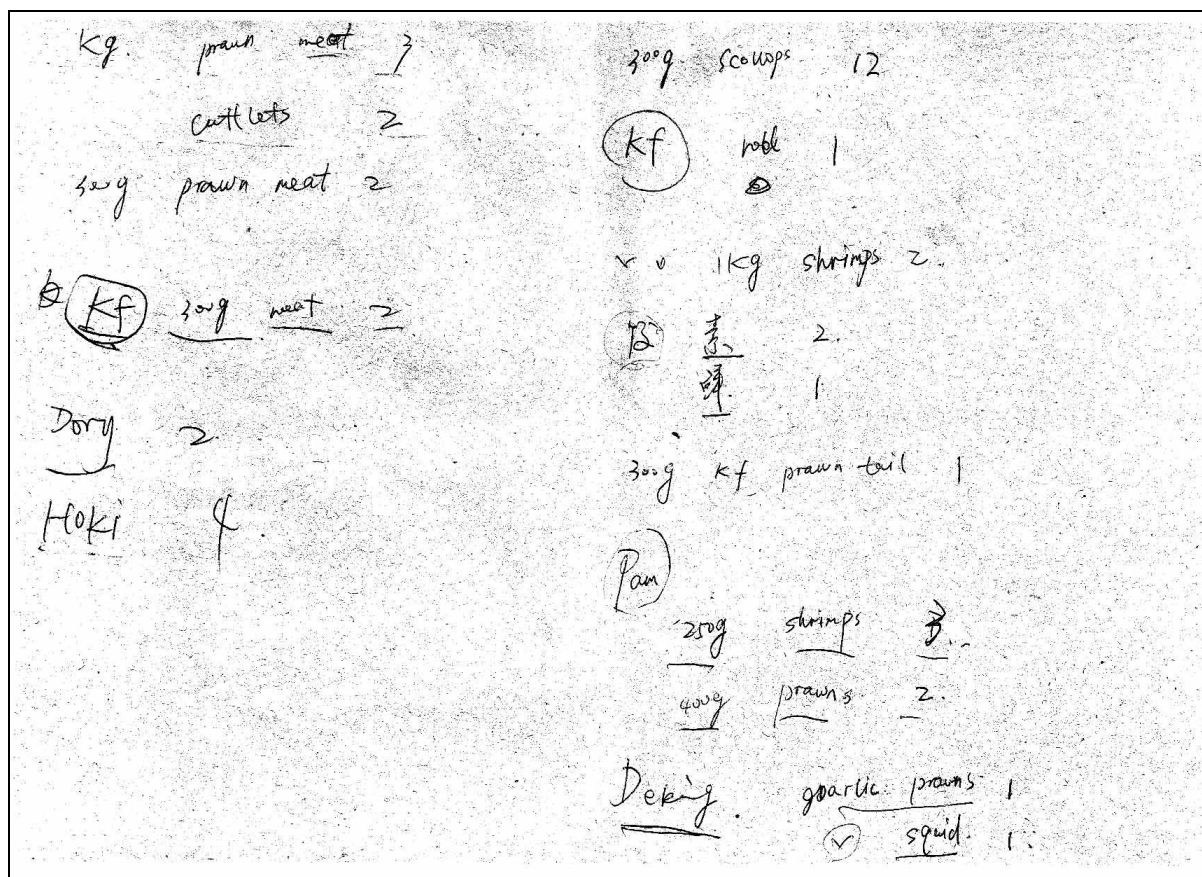
pulled them forward to the front of the display and said “Without this facing the shelf doesn’t have a good image.”

When displaying products, assistants in most ‘self-service’ sections must note the former’s expiry dates and put ‘newer’ products to the back or bottom of the display. I noted that not all products have the same date format or order. For example, some have the name or name-abbreviation of a month and others the number of the month e.g. July = 7. Other products contain both a production date and an expiry date or other number sequences. Knowledge of date location and format must be learnt and keeping track of the days date is necessary for the removal of any ‘expired’ products.

At times there are large numbers of different products that need replacing or re-ordering. When this occurs it is common for assistants to make a list of them. On two occasions I observed Rula making lists, the first for magazines that required re-filling and the second for products that required re-ordering via the chain’s computerised ordering system - see Section 4.6.2. During my observation of Rula, I also noted Haille who was working in a nearby aisle, compiling a list. Yanming from Seafood also showed me how she notes items needing replacement. Figure 3 is a reproduction of part of her list. The informal restocking list is significant as it is one of few text types, that I observed, that is completely generated by an assistant. It is assumed, but not confirmed, that staff were initially instructed to compile a list, however it is evident that all the staff I observed ‘list-making’ had adapted their lists to include their own abbreviations, language and layout in order to make it meaningful and efficient for them.

A major part of Yanming’s day is spent serving behind the seafood cabinet-cum-counter and maintaining the display in the cabinet. However she must also maintain: the seafood section of the main freezers running down the centre aisle of the supermarket which contain products such as frozen scallops, prawns and shrimps; an upright fridge with packets of salmon, pots of oysters and other similar items; a display of fresh sushi and; a shelf with sushi making items. All must be checked every two hours to ensure there are sufficient products on display although, at the time I observed her, frozen scallops were on special and selling fast so needed checking more frequently.

Figure 3. Part of re-stocking list created by Yanming, Seafood Assistant.



Yanming's list, written on brown wrapping paper, was initially largely indecipherable to me, but she explained that she usually lists produce according to their brand, name, weight or size (if necessary) and the number required to replenish the display. The first three she gets from the product itself and not the display ticket which contains the same information. Still relatively new to the job at the time of observation, she has to read the packaging carefully as many products look quite similar, but daily she is becoming more familiar with them. She sometimes writes details of products in Mandarin, particularly those originating in China. Her list is mainly in English, but this is interspersed with Mandarin characters. Some brand names are abbreviated and in one case, box sizes have been differentiated with the words 'big', 'small' and 'middle', probably not how they are labelled. When asked how she determines the quantity required, she replied "I count a little and guess a little". Once in the storage fridge she identifies items by reading details either on individual packaging for loose items or on

the outside of a carton. Cartons of different products from the same supplier are identical and have a table listing these different products printed on the side of the box. The name of the product inside the carton is ticked.

Unlike Yanming, Rula is very familiar with the products in her department. I noted that she wrote the titles of magazines that needed replacing and how many of each were required with hardly a second glance, using her own abbreviations for some titles. She seemed not to do any counting to find out the number of each magazine she needed; rather it appeared she determined the size of the space to be filled and, taking into consideration the thickness of the magazine, came up with a figure. When I asked her how she decided how many she needed, she said she ‘just knew’. Her product knowledge was also evident when, back in the storeroom, she chose four titles from her list of twelve or so to replace first as these sold more quickly. She also took a pile of another title that she had not listed as she believed this would need replacing as it too was a fast seller.

On another occasion, I observed Rula preparing her own informal list in preparation for re-ordering products using the store’s on-line ordering system. (The process of ordering on-line is discussed in 4.6.2.) She worked systematically checking all products in the different sections of her department. It was necessary for her to list products under these sections e.g. stationery, gardening, brushes, serviettes, as these are headings in the ordering system. The system identifies individual products by a six-digit number printed on the price ticket that customers read. The number of products required is listed either by the box or individual item e.g. 2B means 2 boxes and 2R (or re-pack) means 2 individual items. Rula said she knew how many items were in a box for most items, but she could check on the computer anyway if she was unsure. However she volunteered that once she thought she had ordered one box of buckets but ended up with just one bucket. She laughed, “Oh my god, just one on the shelf!”

I copied the beginning of Rula’s list which was written on a piece of cardboard cut from a box:

<u>Serviette</u>	
242940	2b
242941	1b
161245	4R

By the time she had finished, Rula had listed 50-60 different products. She determined how many of each to order by using a combination of two factors. Firstly she checked how many items it would take to fill the display – pushing at items like packs of serviettes to see how much ‘give’ there was in the displays, straightening rows of light bulbs to see the gaps, pushing back products that were hung on hooks to the back of the hook to see what space there was from the products to the front of the hook. At no stage did she count items. Secondly she used her knowledge of how quickly items might sell. For example, paper serviettes and paper plates sell well just before the weekend during the warmer months, but sales slow in cooler weather. It was important, she explained, not to order too many items only to have them remain unsold on the shelves for long periods.

Haille, who appears to know his products intimately, only writes a list if he has a lot of different products to replace. He is not responsible for re-ordering. Like Rula he says he ‘just knows’ when asked how he determines how much replacement product is required. However in order to explain ‘facing’ to me, (when items are lined up neatly at the front of the shelf) he said: “2 faces, 7 each, 14 at once”, (that is, two products flush with the front of the shelf and six products behind each of these, making seven in each row). This suggests that perhaps he uses mathematical calculation, although in all likelihood subconsciously, to assist with determining his requirements.

San Lee from Produce does not need to make lists as it is only possible to transport one or two produce types at a time from the storeroom to the shop, given the large volume of produce it takes to fill a display. However while remembering which item to collect from the storeroom is not a problem, at the time I observed him, San Lee was clearly still learning about spatial awareness and the volume of produce he needs to get to fill

an individual display. He told me that a couple of days ago he had needed to fill the banana display so brought out three boxes which he thought was enough. The display took eight boxes. During my observation, when required to fill the kumara display, he deliberated whether he would take two or three boxes, but decided on the latter. While the display looked fine to me, he commented that the display could have taken another box.

Having good product knowledge is important for maintaining displays efficiently and the literacy demands and challenges of the two are similar. However maintaining displays, particularly in self service departments, has an important additional numeracy element to it. It is also significant as creating lists to assist with the process or to enable accurate ordering, was the only time I observed assistants generating their own hand-written texts. Assistants can be required at times to write down telephone and other messages (e.g. an order for a cake in Bakery); one assistant mentioned leaving a message for another worker on her departmental whiteboard and perhaps other examples exist, but I am unaware of them.

Assistants can become highly proficient at estimating how many replacement products are required to re-fill their displays, as Haille and Rula demonstrate. Neither was able to tell me how they did this but said they 'just knew'. It appears that they often determine, by various means, the volume or space that needs to be filled. While they can get a similar volume of products from the storeroom to fill the space, Rula for example translates this spatial notion into a number when she writes her list. She therefore has to make an allowance for the differing sizes of individual products, such as the thickness of magazines, when coming up with her figures. Her 'calculations' are further complicated when she is creating a list for ordering purposes, as she must consider whether she needs to order a product by the box or as a single item. If it is the former, she must decide how many boxes she needs based on how many products are in each box. (She is now familiar with which products are boxed and how many are in each box.) Finally she knows that the amount of a product required is influenced by the rate at which it sells, which in turn is dependent on many factors including the season of the year, the time of the week and whether the product is on special or not. Her knowledge of the product, contributes greatly to her accuracy.

Haille appeared to use a mathematical calculation in his estimation at times as, in order to explain facing to me, he multiplied the number of faces by the number of products in each to come up with a figure of how many of a particular product was on display.

The work of FitzSimons, Mlcek, Hull, and Wright (2005) is relevant here. These researchers undertook a case study to determine the numeracy required by those involved with the job of chemical handling and spraying. They concluded that in this area of work, estimation is almost always necessary and this is based on previous experience: “workplace numeracy tasks are always a social–historical and cultural practice—previous experience and historical data play a significant role in determining reasonableness of answers” (p15). This is highly applicable in the cases of Rula and Haille who both displayed high degrees of accuracy in estimating product requirements. Both are very familiar with the context-specific nature of the numeracy at Food-World and its relation to literacy and other semiotic systems, and able to draw on their ‘historical’ knowledge to determine the reasonableness of their estimation of product requirements. Conversely, San Lee from Produce was still refining his estimation skills when I talked with him.

Assistants were not aware of their use of numeracy during this task because of its embedded and highly contextualised nature and because the task does not resemble mathematics done at school (Marr & Hagston, 2007). Marr and Hagston suggest that this is tacit knowledge and is gained as the result of observation, imitation and practice and used without awareness. Instead the worker focuses on the task. Such learning is commonly associated with ‘communities of practice’. While this may be the case, I suggest that the workplace numeracy displayed by the assistants is also informal, and all likelihood modified to suit their individual needs.

The work of both FitzSimon et al. and Marr and Hagston, in my opinion, lends weight to the assertion that workplace numeracy, because of its contextualised nature, may be most effectively taught on-the-job. However I believe that prior understanding of the mathematical concepts that underpin these practices is necessary. Implications for the teaching of numeracy will be addressed in Chapter 5.

Searle’s work (2005), reported earlier, found that literacy practices of checkout operators, rather than involving extended reading, instead required the use of a range of

strategies. This also appears to be the case with the Food-World assistants in relation to writing. Assistants have developed their own informal ‘shorthand’, abbreviations, format and order of itemising when compiling their lists in order to complete them quickly, enable efficiency and ensure they are meaningful to them. For example, Yanming has found the use of Mandarin simpler when listing items originating in China and Rula uses her own abbreviations for magazine titles. The order in which Haille writes his list facilitates collection from the bulk store. As with the ‘back of house’ staff described by Hunter (2007) and cited in Chapter 2, these assistants are “not just customizing their literacy practices, but modifying them in self-directed, competent and innovative ways for the job” (p. 252). In a similar way the numeracy they use to determine quantities they require also appears to be informal and idiosyncratic. Their literacy and numeracy practices are highly context-specific and difficult to learn anywhere but on the job.

4.6.2 Ordering

The above section included a description of Rula preparing a list in preparation for entering product re-ordering requirements into the supermarket chain’s on-line ordering system. Rula was the only assistant participating in my research with this responsibility as part of her job. General Merchandise is a small department and as Rula is the only one working there on a day when ordering is done, she has needed to learn the procedure. The T/HR manager told me that there are assistants in other departments who are responsible for at least some of the ordering and the Deli-kitchen Manager indicated that if assistants show a particular interest or skill in working with computers, tasks involving computer skills can be delegated to them over time. Although I observed only one assistant doing this task, it is important to mention it as ordering is an important literacy practice within the supermarket, and the data entry it requires appears to be one of the few computerised tasks that assistants undertake.

Rula was taught to use the programme about three months after she started work by sitting and watching her supervisor ordering. She believes that it was important that she first had a good knowledge of her products, when and how quickly they sold. She had had little prior computer experience. Briefly, once at the computer, she logs-in her departmental code to get to the store’s intra-net site before clicking onto the ordering programme, a huge data base. Once there, she pages down to the General Merchandise

area which contains a list of sections – names she uses on her list, as described earlier. Clicking on a section then brings up a list of products. From there ordering consists of typing in the six-digit number from her list and clicking. The desired product then appears as the top item. Once at the product, she types in the number required. The letter ‘B’ (box) appears as a default, so it is necessary to change it to ‘R’ (repack) if single items are required. Movement around the programme is mainly by ‘tab’. At all times Rula uses the number keypad on the right hand side of the computer keyboard, rather than the numbers along the top. She types quickly and confidently and completed the task with speed and proficiency.

I noticed a number of prominent non-text base symbols next to some products and asked Rula what they meant. She did not know, but asked a manager from another department who was working at the computer next to hers. One of the symbols indicates that the product is due to be a ‘Ticket Special’ the following week and another that it is to be a ‘Supa Saver’, information that is useful for Rula to know (see 4.6.4); she subsequently wrote down all the symbols and their meanings and commented on their usefulness. It appears either she has been taught the ordering programme on a ‘need to know’ basis or she had been told what the symbols mean but had forgotten them. Perhaps she had not queried what they meant as they do not affect the ordering process in any way. Alternatively working in English with a relatively unfamiliar medium (ICT) may be complex enough without this additional information. It is also interesting to note that using the ‘new’ information about the symbols will entail her ‘decoding’ another semiotic system, but will add to both her product knowledge and her literacy proficiency with this task.

Rula’s task of ordering is very context-specific in terms of the programme she is working with, the sequence of key strokes she needs to perform, and the products she is ordering. It can only be taught on-the-job. The ordering programme, a huge, literacy-rich data base, while requiring a set sequence of key strokes and simple numerical data entry, also calls for attention to detail and is dependent on accurate preparation of the list of items to be ordered (see section 4.6.1), correct transfer of data from the list to the programme and checking of the product name to ensure the correct item has been ordered. Although potentially difficult to learn, it appears Rula’s background knowledge of the products made the learning process less demanding.

4.6.3 Working with codes and labels

While Rula was the only participant I observed recording and entering codes for on-line ordering, many assistants encountered other codes throughout their working day. Departments such as Grocery and General Merchandise work with a number of different coding systems. On a regular basis they are expected to scan product barcodes with a hand-held, electronic, scan gun to check that the ticket price and the computer price (that which is recorded and charged at Checkout) are the same. This is particularly important on a Monday when 'specials' change and new reduced prices have been advertised in the media and the chain's advertising leaflet. The process requires assistants to match the read-out on the scan gun: product brand, product name, weight if applicable, and price, with the product ticket that is attached to the display. Any discrepancies must be reported to management.

Staff in Seafood, Deli-kitchen, Butchery and Bakery attach a label to almost every product 'sold' over their counters. The label gives the product's name, unit price, weight or number of units of the item, total price and, if applicable, ingredients. Labels are generated by entering a four-digit code, unique to each product, into an electronic weighing scale cum label-printer. Bagged produce is labelled in the same way. Numbers on the scale/printer's keypad are laid out similarly to those on a calculator. I observed that all staff use them easily and quickly. I was told by the Deli-kitchen manager that the required slicing thickness for cold meat is set by also putting a code into the slicing machine, but did not observe this.

Product codes are printed on the back (the side that faces the staff) of the identification tickets of products that are in the departments' display cabinets and can also be found on a list in each department, usually located close to the printer/scale. Assistants report they learn the codes of high-turnover products quickly and most others over time. San Lee from Produce, whose job it is to label a range of bagged organic produce when it comes into the store once a week, was still learning their codes and consulted the code list. A section of the list is allocated to the organic range and items are listed in alphabetical order. He reports having no difficulty finding codes as the range is not big. He also showed me that he can do a search to find the codes on the department's computer in the Produce store. Items are set out in a similar manner to the printed list and the latter could be a print-out of the former. Competent with computers, it appears

that San Lee prefers the computer search, although it does not appear to be any easier than consulting the printed list.

Coding is a relatively easy task, generally relying on number recognition and use of a standard keypad. Accuracy is essential however and assistants need to check that the printed label matches the product. Reading a code list, if necessary, requires knowledge of the product name, an ability to recognize it in the list and to match the name with the code. At the checkout I noted, however, that the most common items do not have a code and the checkout operator is only required to press, for example, the key labelled 'bananas'. I do not know if this occurs in other departments.

Generally coding requires no mathematical calculations as these are performed automatically by the scale/printer. However I observed an occasion when coding was potentially less straight forward. One evening, I observed Yanming from Seafood reducing the prices of sushi, a task which is always done after 6.00 pm. Any unsold sushi is thrown out at the end of trading, so prices are reduced in an effort to attract purchasers and minimise waste. Changing the prices, Yanming showed me, entails putting the code of the particular sushi type into the scale/printer, changing its unit price, entering the number of pieces and printing the new labels. For the 5-piece box which reduces from \$5.00 to \$4.00, she changes the unit price from \$1.00 to 80c to get the correct price. However, for the 7-piece box which reduces from \$7.00 to \$6.00, it is a little more difficult so that she keeps the unit price at \$1.00 and enters 6 units (rather than 7) to get the right price on the label. I am unclear if it was Yanming who determined how she should change the unit price or the unit number for the correct pricing. Given her education level (she has a Masters degree), I suspect it was. It is undoubtedly easier, arguably more accurate and probably sufficiently detailed, given that re-pricing is done for a quick sale, to enter \$4.00 and \$6.00 respectively for the unit price and 1 for the unit number. Yanming, possibly because of her education level, actually makes the task of re-pricing sushi more difficult than it perhaps needs to be. She makes it a numeracy-rich activity requiring knowledge of multiplication and division. She shows she has a clear understanding of the mathematical concepts involved and chooses a mathematical approach combined with a pragmatic one (when \$7 to \$6 proved difficult) which she in turn, is able to describe and justify. From a

theoretical perspective, it appears that her use numeracy was not embedded or invisible to her and that it is unlikely that her method was generally used within the supermarket.

4.6.4 Monday morning ticketing

Monday is a busy day for those responsible for ensuring that new ‘specials’ labels are in place and the labels of products no longer on special are replaced with standard ones. This is known as ‘ticketing’. It is one of Rula’s jobs and must be completed by 8.00 am when the shop opens to the public. I learnt that there are a number of types of specials, two of which are the ‘Ticket Special’ and the ‘Supa Saver’. Ticket Specials run for one week only, so there are no dates on a Ticket Special label. Supa Savers however, run for about a month so the start and finish dates of the special appear on the Supa Savers label as six-digit numbers. For example 160908 is 16 September 2008.

Specials are pre-determined centrally for the whole chain so specials tickets are also issued centrally. Rula collects General Merchandise’s bundle of tickets from a central office, takes them to the department’s display area and locates each product that needs a change of ticket. This generally entails checking the product brand, product name and size written on the new ticket with that on the existing ticket and on the product itself. Rula’s familiarity with products in her department means that while the task requires attention to detail, it is now not difficult for her. She told me however, that she was very slow when she first started and had to check product and ticket details very carefully. Upcoming specials are identified in the on-line ordering system (see 4.6.2), requirements can be anticipated and products ordered to ensure sufficient supply. Rula’s manager apparently advises her of these verbally; however with her new knowledge about the symbols in the ordering system, Rula will be able to get this information herself. She also often double checks ‘her’ specials in the chain’s leaflet that is delivered to local letter boxes and available in the supermarket.

Ticketing is not one of Haille’s responsibilities despite the length of time he has worked at the store. I did not enquire as to the reason for this as I considered it was not my place to do so. It is necessary for him to be familiar with what is on special however. On a Monday morning, his first priority is to check the displays of products on special to ensure they are full and tidy. Throughout the week he also keeps a particular eye on them as generally specials sell faster than other products.

Ticketing requires considerable attention to detail. Products must be identified according to brand, product and size (if applicable) and a match of all details with the product ticket confirmed. In the case of produce, which is easily identifiable, the task is likely to be relatively simple, but is more difficult for large range products such as potato chips, jam and coffee. It could be complex for those with limited literacy. As with many of the assistants' tasks, good product knowledge makes the task simpler and quicker. In order to correctly determine the start and finish dates on Supa Saver tickets an understanding of the dd/mm/yy method of dating is necessary as is the need to match this with the day's date.

4.7 Quality Assurance

Section 4.4.2 describes a key document of the induction which includes "Greg's Choice – if Greg (the owner–manager) were to pick any five items in the store, is the quality at the standard that he would purchase it?" While the presentation of high quality products is important in every department of the supermarket, for those that have products with relatively short shelf lives or expiry dates, such as Deli-kitchen, Seafood, Bakery, Produce, Butchery, Frozen Foods and Dairy, quality and food safety are critical and standards are regulated by the New Zealand Food Safety Authority (New Zealand Food Safety Authority, 2008). Details of regulations are beyond the scope of this research. Suffice to say that departments have rigorous and rigid procedures to ensure regulations are met. The Deli-kitchen Manager who spent quite some time explaining her department's procedures to me said they are the core to the safe and efficient running of her department and the first thing her staff are taught. I have chosen to describe in some detail just one of the procedures, traceability, possibly the most literacy- and numeracy-intensive process I noted during my research.

4.7.1 Traceability: a corner-stone of quality assurance

Traceability is the monitoring of a perishable product from the time it enters the store to its sale to customers. While it is a function of many departments, it is possibly most critical in Deli-kitchen, Butchery and Seafood. My comments are however confined to the first-mentioned as I am more familiar with the procedure there.

Figure 4. Deli-Kitchen Traceability Sheet

Created on 23/04/2007 12:14:00 p.m. Page 1 Deli Kitchen Traceability Record

Traceability for Salads: 2 days storage life*

Product	Supplier	Date Opened	BB4 Day	Sign	Date Remove from Display		Action Taken	Sign
					Guideline date	Actual Date		
Wild Rice	Speirs	21/9	11/9	---	4/9	3/9	Sold	---
egg & potato	Speirs	21/9	14/9	---	4/9	2/9	Sold	---
Chicken Pesto Dress	FIT/G	21/9	6/9	---	4/9	3/9	Sold	---
Baby Lettuce Cream	FIT/G	21/9	8/9	---	4/9	3/9	Sold	---
Arabis Salad	Speirs	21/9	13/9	---	4/9	2/9	Sold	---
Feta & Feta	Pita Bread	21/9	10/3/8	---	4/9	2/9	Sold	---
Potato salad	Speirs	21/9	13/9	---	4/9	3/9	Sold	---
egg & Potato	Speirs	21/9	21/9	---	4/9	3/9	Sold	---
Chicken Pesto	Salads to go	21/9	6/9	---	4/9	3/9	Sold	---
Vegetarian Pesto	Salads to go	21/9	7/9	---	4/9	3/9	Sold	---
Colossal	Speirs	21/9	10/9	---	4/9	3/9	Sold	---
Colossal	Speirs	3/9	9/9	---	5/9	5/9	Sold	---
Potato Salad	Speirs	3/9	16/9	---	5/9	4/9	Sold	---
Chicken Pesto	Salads to go	3/9	7/9	---	5/9	4/9	Sold	---
Dijon Chicken	Salads to go	3/9	8/9	---	5/9	4/4/9	Sold	---
Smoked Chicken	Nutri Fare	3/9	14/9	---	5/9	4/6	Sold	---

* Form when the product is first opened to when it is sold (the customer shelf life must fall within the "Best Before Date" set by the manufacturer)

--- CAN NOT SOLD DATE WHEN PRODUCT HAS TO BE OUT OF STOCK

Traceability is carried out by staff on every Deli-kitchen product that is displayed in their cabinets-cum-counter. Figure 4 is a reproduction of a typical traceability sheet, this one is for salads. For each different product, staff must record the name of the product, the supplier and, throughout its passage to its eventual sale, four different dates: (1) the date packaging is opened and the product is displayed for sale; (2) the product's expiry date; (3) the guideline date that it must be removed from the display, a date which staff need to calculate to allow the product sufficient 'shelf life' in the customer's fridge before the expiry date – usually two to four days depending on the product and; (4) the actual date the product is removed from display. Generally this final date is the date the last of the product is sold, but occasionally it remains unsold by the required removal date. The staff member who opens the product may not be the one who finally removes it from the cabinet, so each product requires two signatures as part of its traceability. Dates recorded for a particular product, for example a given bag of potato salad, must also be checked against the dates entered for the bag of salad that was opened before it

to ensure correct date sequencing. All traceability sheets are checked by the manager or her deputy, any errors are noted on the sheet and the staff member making the error must sign the note.

Lena, who had worked in Deli-kitchen for seven months when I met her, did not yet open and slice meats as part of her responsibilities so is not involved in the initial recording and sign-off of these products on the traceability sheets, however as she is responsible for serving customers, she often sells the last of a particular product so needs to complete the final recording and sign-off. She said she initially found filling in the sheet very confusing and worked with an experienced co-worker until both the manager and she were confident she could complete the sheet correctly.

The completion of the traceability form is another excellent example of what Marr and Hagston (2007, p.6) call “the invisibility of numeracy in the workplace” and the embedded nature of numeracy. Mastering the traceability documentation is facilitated by an understanding of the concept of, and reasons for, traceability which in turn necessitates knowledge of the notion of expiry dates. Three dates must be taken into consideration – the expiry date set by the manufacturer; the last date the product can be sold; and the ‘shelf life’ for the customer which must fall within in the manufacturer’s expiry date. Calculations are required and generally done without a calculator. An understanding of tables, skill in form filling and strict attention to detail, are required. In my opinion those completing traceability documentation require a sound grounding in basic arithmetic and calculating dates, coupled with an ability to use this knowledge in the context of food safety. The task however is seen primarily as a reading and writing one, although the Deli-kitchen Manager acknowledged that “in a way they have to do a little bit of maths.” From a theoretical perspective, the exercise of completing a traceability entry illustrates well the multimodal nature of communication and how literacy and numeracy fit within it (Pahl & Rowsell, 2006).

Not surprisingly, the Deli-kitchen Manager mentioned that some assistants find the procedure difficult to understand and take some time to master it, in particular the calculations for the different expiry dates. Assistants are given supervision to complete the sheets until they can confidently manage them independently. As with many tasks done by assistants, the literacy and numeracy practices related to this task are highly

context-specific. The traceability schedule is likely to be unique to Food-World in its particular format, although similar in its purpose to other supermarkets. It is in all likelihood one of the most numeracy-rich task that assistants do.

4.8 Other texts

The presentation and discussion of my findings is limited by the scope and word requirement of this thesis. Supermarket assistants encounter, use and perhaps generate other literacy and numeracy events which I have not examined. As I note in the Limitations section of the next chapter, this is a weakness of my research, albeit an unavoidable one. This section identifies some of the workplace texts and numeracy events I have not mentioned before but observed or was told about during interviews with managers and assistants. It then makes some general observations but does not analyse any text in detail. These include, but may not be confined to: lists of duties for the day; department procedures; recipes; departmental newsletter – Deli-kitchen; training and professional development texts; work rosters; messages on notice boards; employment related texts such as application forms, pay slips and leave forms; social and other notices in the tea room; writing down phone or other verbal messages and orders, for example: cake, deli platter; stock-room checklists for incoming goods.

Most departments had a range of departmental and health and safety notices attached to walls not visible to the public. Reading these items requires understanding of a range of text formats and contexts, for example: lists with department-specific procedures and vocabulary, rosters, checklists, and informal notes on notice boards. These varied between departments as did the apparent importance attached to them. For example, the Deli-kitchen manager expects her staff to read, and adhere to notices, and they must initial the departmental newsletter (the only department where I saw one) when they have read it. This may not have meant that it was understood however. Conversely, San-Lee from Produce said that he had not been referred to any of the notices, except the work roster, and he had not read them. These included for example, instructions for the carton compactor and for cleaning round the wet area of the store. I concluded that perhaps the texts were not read as they are either considered too literacy-dense; not relevant; not of sufficient interest; not important; or unnecessary as instruction has been

given verbally. I noted that small departments such as General Merchandise generally rely on personal contact rather than written messages.

Some assistants may need to write down messages / orders accurately from either a face-to-face or telephone interaction. This may include taking details of a supplier or a customer's name and phone number. This may be difficult for staff who are unfamiliar with businesses and names that are not used in their home culture and with limited product knowledge. On one occasion an assistant mentioned writing a message on a notice board for another staff member. Leave forms require completion; and temperature, cleaning and other checklists must be completed. However writing is usually done by others for assistants to read, confirming Gowen's (1992) earlier mentioned claim that entry-level employees are more often than not the recipient of texts rather than their producers.

Chapter 5: Conclusions and Implications

5.1 Introduction

My research sought firstly to examine the pre-requisites, and in particular the literacy and numeracy required for entry level employment in a supermarket. Secondly it investigated the literacy and numeracy encountered, and used by supermarket assistants during their induction into the supermarket, while learning their job, and as they perform their daily duties. It hoped to identify whether job requirements are a true indication of job demands.

This chapter provides an opportunity to reflect on the study's findings in order to draw conclusions from it and to consider the implications firstly for the teaching of workplace literacy and numeracy, and secondly for the induction and training of new assistants. Limitations of the study will also be identified and suggestions for further research will be offered.

5.2 Employment pre-requisites and job demands

The literature (Atkinson & Williams, 2003; Boyle et al., 2001; Bracey, 2006; Newton et al., 2006; Taylor, 2005) reports that most employers do not regard literacy or numeracy proficiency to be important considerations when determining the suitability of an applicant for work which is generally considered to be low skilled. My findings suggest that, while this may be so, employers also may be unaware of the implications of low English, literacy and/or numeracy proficiency for employees.

Of much greater significance for employment are an applicant's general appearance, presentation and oral communication skills. Employers, including Food-World, are looking for workers who have a pleasant manner; relate well to customers and to each other; and are punctual and reliable. Food-World, consistent with the literature, considers that skills that workers are required to perform as part of their work can be taught on the job.

Despite the above, the Food-World induction process uses texts, some of which are potentially more suitable for readers at a tertiary level of education, than at a lower

secondary level, (the accepted education, and therefore literacy and numeracy level on its grocery assistant's job description). The language is highly contextualised to the supermarket environment and texts contain: technical language, numerical concepts, jargon, idioms and other vocabulary that are potentially complex, particularly for those with low levels of literacy, and / or who have EAL. Furthermore, in the induction that I observed, inductees' literacy levels and understanding of texts were inadequately canvassed; material was generally presented without establishing its context; and inductees received little feedback about the tasks they were required to do (for example, answer questions about a text). I conclude that there is considerable disparity between the stated levels of literacy and numeracy proficiency that are required for employment of supermarket assistants, and those that are demanded by the induction texts.

The literature suggests however that the induction process plays a relatively minor role in the learning of those employed in low skilled jobs and that most of the training for low skilled work is done on-the-job (Atkinson & Williams, 2003; Hughes, 1999; Newton et al., 2006; Price, 2004). This, and the above conclusion, have implications for the induction's content and format. These are further explored in the next section of this chapter.

When considering my findings concerning assistants' on-the-job learning and performance of their daily duties, I often reflected on the statement of the T/HR Manager who told me: "There is not a lot of reading and writing in their jobs". I conclude that she is both right and wrong. As Searle (2005, 1991) found with the checkout operators she studied, literacy events requiring extended reading and (especially) writing are rare, so if this is the T/HR Manager's understanding of reading and writing, she is correct. She is also correct in the case of San Lee in Produce, who works with a relatively small number of familiar and highly recognizable products displayed in bulk and has no great need for 'paper work'.

However assistants, like Haille in Grocery and Rula in General Merchandise and to a lesser extent Lena in Deli-kitchen and Yanming in Seafood, are surrounded by a huge number of different products and work in literacy-rich environments. All these assistants, who have EAL and were unfamiliar with the context of work in a New Zealand supermarket, experienced initial difficulties identifying and discriminating

between products. Their daily literacy practices are situated within a broad multimodal communication backdrop. It has been necessary for them to become familiar with a range of vocabulary, abbreviations, numerical and other semiotic systems, and non-text based images, many which are specific to their area of work. They employ a range of strategies to establish meaning (Pahl & Rowsell, 2006; Searle, 2005).

Assistants' most frequent forms of 'writing', that I observed, involve the creation of informal lists to facilitate the maintaining of displays and ordering; the completion of quality assurance documentation including traceability, temperature and cleaning checks; and ordering on the supermarket's computerised ordering programme. The successful completion of all these tasks relies on an understanding of the supermarket's literacy and numeracy practices and, like the 'reading', the use and integration of a range of strategies and modes, as they are highly contextualised. The quality assurance documentation and the ordering programme are used by many different staff "so only certain (standardised) 'meanings' are possible" (Searle, 2005, p.7). Conversely the lists which are informal, not part of the supermarket's official documentation and only for the use of the assistant who creates them, are the result of assistants customizing their literacy practices (Hunter, 2007).

Numeracy while 'invisible' because it is embedded, sometimes in literacy-rich texts, and unlike mathematics studied at school (Marr & Hagston 2007), requires a repertoire of different skills including an ability to estimate and assess the 'reasonableness' of the estimation; total accuracy with mental arithmetic; and an understanding and ability to work with different date formats. A number of the numeracy events, for example completion of the Food-World traceability documentation appear to be unique to that supermarket, so their mastery cannot readily be achieved in an external setting. My findings confirm however that as Boyle et al. (2001) suggest, there is an expectation that applicants will have the literacy (and numeracy) proficiency needed for the job if they have the desired oral communication skills.

An applicant's oral communication skills, general appearance and presentation are considered to be of highest priority for most unskilled work, and in particular the retail and hospitality industries. According to the T/HR Manager at Food-World, the major obstacle to employment is an applicant's 'command of English'. I suggest that this

could be broadened to the applicant's ability to communicate in English and that having poor or inadequate communication skills may not be necessarily confined to or include those with EAL. In a workplace such as the supermarket, communication means the ability to: use and understand the specific vocabulary of the workplace; relate to customers courteously and helpfully by answering questions and managing transactions and other interactions in a manner generally expected by New Zealand shoppers; and interact formally and informally with co-workers and management, in ways which are appropriate in most New Zealand workplaces. Many of the oral communication demands of supermarket assistants are "deeply embedded in the social context" as Searle (1991, p.37) suggests, and therefore need to be learnt on the job.

Finally, it is worth noting that the literature suggests that the potential for promotion from low skilled positions is not high, as in addition to other factors, opportunities for on-going training and development are few (Atkinson & Williams, 2003; Boyle et al., 2001; Newton et al., 2006). A number of participant assistants have worked at Food-World for considerable lengths of time without promotion. However T/HR Manager told me she likes to "grow the staff" and to recognize potential with additional responsibilities or promotion to more senior positions in the supermarket. I did not research the reasons for the assistants' non-promotion.

In reflection, this study has led me to conclude that the demand for literacy and numeracy placed on supermarket assistants is highly dependent on their position in the supermarket. Some, for example those in Produce, have little need for reading, writing and numeracy throughout their working day. Others, like those in Grocery, General Merchandise and Deli-kitchen work in literacy and numeracy-rich environment. For this latter group there is an under-acknowledgement and limited understanding of the role of both literacy and numeracy in their work. For example, the importance of literacy to product knowledge and maintaining displays, which in turn are essential for good customer services; or the significance of numeracy to the completion of quality assurance documentation, is not well understood. The latter may be partially explained by the 'invisibility' of numeracy (Marr and Hagston 2007). My findings suggest that literacy may also be 'invisible' sitting as it does "within a much wider communication landscape" (Pahl & Rowsell, 2006, p. 8) of a busy supermarket. There is no question that oral communication skills are considered of greatest importance in the supermarket

environment. Staff-customer interactions are a major part of what defines customer service and positive interactions are one of the keys to the success of the business.

There is however an assumption that if an applicant's oral communication skills are deemed adequate for employment, then their literacy and numeracy proficiency will also be adequate, which is not necessarily the case. This assumption may be misplaced for at least two reasons. Firstly, as staff employed as assistants require only a lower secondary school education, they may not be expected to have achieved particularly high levels of literacy and numeracy proficiency. Secondly, the literacy and numeracy practices of the supermarket are highly contextualised and require a range of strategies that assistants may not be familiar with as many have had no retail experience, have limited English proficiency and/or are unfamiliar to the New Zealand work environment.

However it is also evident that assistants can, and do, become highly 'literate' and 'numerate' over time. Much of their learning comes from being socialised into the supermarket literacy and numeracy practices through working with and learning from others. However other learning comes from adopting their own problem-solving strategies as well as 'learning from one's mistakes'.

It is noted that there appears to be limited opportunity for either 'growing the job', 'growing in the job' or 'growing beyond the job' as much of the work is repetitive, cyclic and seems to hold little potential for job enrichment. Notwithstanding the above discussion of literacy and numeracy proficiency, it appears that advancement beyond an assistant's role requires skills that may not be learnt as an assistant. Neither is the opportunity to learn the skills outside work available for many. While this observation may be unfounded and promotion may not be of concern to some supermarket assistants, as a literacy and numeracy educator, I believe it needs to be addressed.

The following section examines some of the implications for teaching of workplace literacy and numeracy that result from the conclusions I have drawn.

5.3 Implications for workplace literacy and numeracy training.

In the section above I reported that employers consider that the skills workers need to perform in low skilled jobs can be learnt on the job. My findings have led me to

conclude that this is generally true. It appears though, that extending both the amount and the scope of in-work training could simplify and speed up this learning process considerably for some workers, particularly those with limited language, literacy and/or numeracy proficiency. As a consequence, this could be beneficial for the employer in terms of improved staff efficiency and reduced error rate. However, I also believe trainers who work in non-workplace settings have a significant role to play, firstly in assisting learners to meet the pre-requisites for employment; and secondly in facilitating and providing a foundation for the communication, literacy and numeracy learning which must occur on the job. In this section training in non-workplace settings is first discussed followed by in-work training. The points I raise are particularly related to work in supermarkets although may have relevance to other sectors. Unsurprisingly many of them concur with the work of Searle (2005, 1991).

It is perhaps a misnomer to title this section *Implications for workplace literacy and numeracy training* as my findings suggest that a holistic approach to both off-site and in-work training which includes, but may not be confined to, oral and non verbal communication as well as literacy and numeracy training is the most appropriate model. It better encapsulates the notion of multi-modal literacy which suggests that meaning is conveyed through an interconnection of a number of different ‘modes’ or resources for making meaning (Jewitt & Kress, 2003) and more accurately reflects the role of workplace literacy and numeracy as an integrated part of the communication of the supermarket. Jewett encapsulates this well: “Multimodal understandings of literacy require the investigation of the full multimodal ensemble used in any communicative event. The imperative, then, is to incorporate the non-linguistic representation into understandings of literacy in the contemporary classroom” (2008, pp. 247, 248).

I believe that pre-work training, particularly for those who have EAL and/ or those who are unfamiliar with the New Zealand working environment, has an important role in familiarising learners with the social and culture *morés* which underpin life and work in New Zealand. This of course includes the important concept of customer service, critical at Food-World, but also essential in all good workplaces. The importance of notions such as punctuality, reliability, appropriate presentation, initiative and motivation which have been shown to be of key importance to employers, but which

may be misunderstood or of less importance in other settings and cultures, can be discussed and illustrated.

Non-work settings can also provide the opportunity to observe, simulate, practise and gain confidence with interpersonal communication. For example, 'cold calling', that is making informal enquiries to businesses about work, and the job interview process may both be unfamiliar to those from different cultures and can be addressed from both the employer's and the employee's perspective. Other interactions include but should not be confined to transactions of goods and services and other customer interactions; tea-room conversation which is often centred on non-work topics; supervisor-worker interactions. Use of appropriate language and register in different settings; strategies to clarify understanding and minimise potential communication problems; and non-verbal communication and cues can be covered.

It is important however that the nature of workplace literacy and numeracy, and the limitations of training in non-workplace settings are understood by trainers and funding agencies alike. My findings suggest that it is likely to be difficult to replicate and teach the contextualised literacy practices of the different workplaces learners will find work in. However literacy learning should be embedded into work-related learning, rather than seen as separate from it. Learners need to be exposed to a range of relevant text formats, semiotic systems and non-text based images and ICT. It is essential they are taught reading and problem solving strategies to assist them to establish the meaning of, use, and if appropriate customise, the texts they encounter.

Given the assumption of employers that applicants have the required numeracy proficiency for the job, experienced numeracy trainers in non-work settings have an important role in establishing learners' understanding of underpinning mathematical concepts and knowledge. Marr and Hagston (2007, p34) believe this (non-worksite) learning is important as a 'just in time' approach to numeracy training, which may occur with in-work training, is insufficient. Throughout this study, the embedded nature of workplace numeracy has been stressed. It follows that numeracy taught in the classroom should also be part of authentic tasks. However Marr and Hagston warn of a potential danger of an integrated approach to developing numeracy skills:

It is possible that, when skills are embedded or invisible within larger tasks, there will not be the desirable increase in learners' awareness of having developed new numeracy skills. Thus neither their numeracy self-image nor their confidence for future development will benefit from the training. (Marr & Hagston, 2007, p. 35)

I also think that there is an important role for the use of voluntary or subsidised work experience as a bridge between class-based literacy and numeracy training and work, particularly if it is a precursor to employment in the workplace where the placement occurs. Its success however, depends on close liaison between the trainer and the workplace, and a familiarity by the former with the site-specific knowledge and literacy practices that the learner will encounter. In an ideal situation, the trainer should have regular on-site contact with the learner and opportunities to provide both on-the-job guidance and 'off the shop floor' teaching and feedback. A work placement that is not full-time can give different learners the opportunity to meet together; reflect on their experiences; share what they have learnt; and practise relevant language, literacy and numeracy.

However as it has been reiterated throughout this study, the oral communication, literacy and numeracy practices of the workplace are highly context-specific. Because of this, learning these practices and the 'language' of the workplace is best taught and learnt on the job. First, it is necessary to ensure management appreciate the extent, role and particular characteristics of literacy and numeracy in many of their assistants' work.

Much of the assistant 'insider' learning can be done by: working alongside, observing, listening to, copying, discussing, and 'practising' with experienced workers. In this way "meaning will be constructed and reconstructed as part of participation in the social activities of everyday work" (Westlake, 2005, p. 4) and "literacy knowledge and practices, which are known and valued by members of specific Discourses are distributed" (Searle, 2005, p.8).

For some workers in some jobs, working alongside others will be sufficient to gain the required proficiency and confidence. However it appears to be important that new workers do not 'go it alone' before they are ready and that they are able to receive support and feedback as long as they are required. For those with limited English,

literacy or numeracy proficiency, additional training may be important. New workers may not only be unfamiliar with the context of the particular workplace or industry, but also of the New Zealand working environment. As with learning in an external setting, the language, literacy and/or numeracy leaning should be embedded into authentic work-related learning for example communication skills, workplace texts and practices, and not seen as external to them. Because reading and writing require the use of a range of strategies, a problem-solving approach to learning these should be encouraged; for example, the different strategies required to identify and distinguish between products could be determined and discussed. Where possible training should be individualised or carried out in small groups.

5.4 The induction process

While it is acknowledged that the induction process often plays a relatively minor role in the learning of those employed in low skilled jobs, it potentially is a cost-effective means of introducing a group of new workers to the culture of the organisation; starting their familiarisation with health and safety and other statutory obligations they are required to adhere to; beginning the learning process which will continue when they are on the shop floor; and completing the necessary administration associated with joining the organisation.

However it is suggested that a review of the aims of an organisation's induction should be carried out on a regular basis and from this it should be determined whether its content and format successfully meet its stated aims. Furthermore, if an induction is literacy-rich, its documentation should be examined to ensure that the literacy demands do not have the potential to exceed the proficiency levels of those attending.

Consideration should be given to inductees' varying culture backgrounds, experiences and learning styles, particularly where the group includes those with limited English proficiency, and the induction adapted to accommodate these wherever possible. The use of a range of presentation modes such as audio-visual, demonstration, role-plays, use of models could be considered. The induction may also provide the opportunity to introduce and practise some of the skills that staff will need to use immediately they commence work, for example, an interaction with a customer.

5.5 Employment, on-going learning and promotion

It was noted in 2.6.2 that many people in low skilled work, could not be considered 'low skilled'. This is borne out by the skills and experience of many of the participants in this study (4.2). However, when considering suitable applicants for a particular department at Food-World, there appears to be limited consideration of their previous work experience or the skills they bring to the job (4.3.1). The T/HR Manager though, mentioned the supermarket liked to 'grow' their staff. It is suggested therefore that, where possible, the 'growth' of staff should begin at that time of their employment. Greater consideration could be given to the placement of those applicants with skills that can potentially be exploited and developed by the supermarket. For example, those with computer skills may be best utilised in positions that require considerable amounts of this type of work, rather than be placed in work that requires no computer work and training those with no previously experience. Better skill identification at the time of employment and matching skills to job requirements would enable greater utilisation of the skill potential that exists within the workforce. Coupled with recognized pathways for development and advancement within the supermarket, this could not only be a cost-effective use of staff, but also provide long-term career paths for individuals.

Notwithstanding the above, the literature suggests that opportunities for both in-work skill development and promotion are limited for those in entry level positions. Furthermore, literacy and numeracy proficiency are generally pre-requisites for employment in, or promotion to, more senior positions (Atkinson & Williams, 2003; Boyle et al., 2001; Newton et al., 2006). However it is my opinion that those who wish to advance from entry-level positions, but may be prevented from doing so by lack of opportunity, limited language, literacy and/or numeracy skills and presently have no way of addressing these, be offered appropriate training. It is suggested that this may be best achieved through external funding to allow assistants to be released from duties to attend either on-the-job, mentored work experience and learning; or class-based programmes if underpinning literacy and numeracy concepts need to be learnt.

5.6 Limitations

Although a great deal was learnt from this study, it has a number of limitations.

Research was carried out in one suburban Auckland supermarket only. A total of seven

managers, one group of nine inductees and seven supermarket assistants participated in the research. The assistants came from six different departments and hence did not represent all departments in the supermarket. All participants, with the exception of the supermarket's owner manager and the grocery manager whom I initially talked to informally and later arranged to interview, were recruited by the T/HR Manager and initial access to participants was through her. Because of the 'gate keeping' role of the T/HR Manager, both the number of participants and range of departments they came from are fewer than I would have ideally liked. For example none of the participants work in either the checkout or the stores departments.

Observation of supermarket assistants, a major focus of the study, was necessarily limited by the availability of both the assistants and the researcher and by the constraints of carrying out research in a busy, functioning supermarket. For these reasons it was not possible to observe the complete working week of an assistant and it is reasonable to assume that assistants were involved in tasks that were not observed. Differing amounts of time were spent with each assistant and each manager and as a result, there was a greater understanding gained of some assistants' work than others. Finally the reporting and discussion of findings were limited by the required scope of the study. More data was collected than appears in this document, but thesis length requirements have prevented it from being included.

Therefore care should be taken in generalising the findings of this study to other supermarkets and their staff. It should be noted however that all large supermarkets in Auckland are owned by one of two chains, so findings are likely to be reasonably representative. The study can only identify areas of possible interest in relation to other retail stores and 'low skilled' workplaces.

5.7 Suggestions for further research

This study could be replicated but with more participants and include assistants from different departments of the supermarket. Other literacy and numeracy practices of supermarket assistants that were not covered by this study could also be explored. The literacy and numeracy demands and requirements of other low skilled work, in particular in the retail sector, would provide an interesting comparison. Useful research

could also result from a study of related areas such as literacy and numeracy training within supermarkets, voluntary work experience and promotion from low skilled work.

Finally, much of what I have learnt during this research project I owe to the generosity and professionalism of the supermarket assistants and managers. This quotation from Jackson (2004a, p. 280) has particular resonance for me:

... an ethnographic researcher begins to understand events from the complex and often multiple perspectives of insiders. The issue of perspective is important because how insiders see things is often quite different from the ideas and understandings with which the researcher began the study...the members of the setting are the experts and the researchers are the learners.

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Appendices

Appendix A: Induction Documentation.

The following documents were part of the Food-World induction observed by the researcher. A copy of each of *Welcome to Gee Street Food-World* and *Food Safety Multi Choice* can be found in Section 4.4.2.

Title of Document¹.

1. Inland Revenue Tax code declaration & Bank and Acc no details
2. Gee Street Food-World Next of Kin Details
3. Welcome to Gee Street Food-World
4. Health and Safety in the Work Place
5. Food Safety Multi Choice
6. Liquor and Tobacco Products Training Assessment
7. Gee Street Food-World Employment Booklet

¹. The title of the document has been changed where this could identify the supermarket.

Appendix B: Typical Supermarket Assistant Job Advertisement

Trade Me Jobs - GROCERY ASSISTANTS - TradeMe.co.nz - New Zealand

Page 1 of 1

GROCERY ASSISTANTS

Classified number: 166994316 |

Company: _____

Location: _____ Canterbury

Type: Full time, Permanent

Listed: Mon, 21 Jul

We currently have full time positions available in our busy Grocery department. The main responsibilities will include the replenishment of stock, stock rotation, assistance with inventory management and customer service assistance. This is ideally suited to someone with a genuine interest in the Supermarket and/or retail sector. The successful applicant should have the following attributes:

- A high standard of personal presentation
- An energetic, self motivate, forward thinking personality
- An ability to follow instructions and work unassisted or supervised
- The ability to prioritise work effectively
- The ability to show initiative, common sense and flexibility in a team environment

Days and hours will be discussed at the time of the interview.

To the successful applicants we offer excellent working conditions in a modern friendly environment with a great team atmosphere.

You must be eligible to work in NZ to apply for this role.

This listing expires at **11:32 am, Wed 20 Aug.**

Trade Me classified number: 166994316

Contact this advertiser or apply online

- E-Mail or post a copy of your CV
- Contact _____ for further information or to apply for this job.
- Apply online at <http://www.trademe.co.nz/Browse/Listing.aspx?id=166994316>

<http://www.trademe.co.nz/Browse/Listing.aspx?PrintPreview=1&id=166994316>

30/07/2008