

**NEGOTIATING THE OCCUPATIONAL LANDSCAPE: THE
CAREER TRAJECTORIES OF EX-TEACHERS AND EX-
ENGINEERS IN SINGAPORE**

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ABSTRACT

The central focus of this thesis is how professionals in Singapore negotiate occupational mobility in their career life-course. The research seeks to understand the factors that underpin and guide individual aspiration and motivations when making occupational moves within career trajectories. Occupational mobility is fast becoming the norm among the international skilled labour force, creating a need to understand how such flexibility can be used advantageously, at the national level, for workforce management. The approach taken in this study conceptualises the career landscape as a field, and analyses mobility at the political, social and individual levels. It examines the power that is enacted by government on its citizens and the reflexive meaning making of individuals participating in occupational mobility. The empirical work consists of interviews with ex-teachers and ex-engineers in Singapore. The thesis presents an analysis of their narratives and identifies generic skills acquired in pre-employment training and in employment as a key to understanding how professional individuals are negotiating occupational fields.

Amongst the achievements of the research is the understanding of what happens when individuals move from one occupation to the next. The research attempts to humanise the ‘human resource’ and present, through individual narratives, the individual’s perspective on the changing nature of work, the need to participate in boundaryless work contexts and their involvement in occupational mobility. The thesis further illustrates the complexities that surround mobile behaviours of workers within an Asian context, and presents ways of understanding the needs of such professional workers so that they can negotiate the contemporary advanced economy landscape more effectively. The resulting conceptual framework attempts to explain how mobile Asian professional workers negotiate occupational mobility within a context that is influenced by conservative Confucian ideologies that place nation before self, and community before family. The research further emphasises the role that state-initiated lifelong learning structures play in creating the mobile worker and explores how generic skills facilitate occupational movements. It discusses the importance of contextualised skill acquisition and practice for subsequent recontextualisation in a new occupation and also aligns current career discourses to the perceptions that these individuals have of their occupations. Finally, the role that

lifelong learning is perceived to play when considering the need for career adaptability competences, the space for recontextualisation of skills and the ideologies that influence individual occupational mobility are presented. By looking at those who have participated in it themselves, this research explores how individuals engage in occupational mobility and explains how control can be maintained over people's personal aspirations in the grand occupational mobility scheme.

DECLARATION AND WORD COUNT

I hereby declare that, except where explicit attribution is made, the work presented in this thesis is entirely my own.

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CHAPTER ONE: OCCUPATIONAL MOBILITY OF PROFESSIONALS IN SINGAPORE

The knowledge-based economy, new technologies, the growing speed of technological change and globalisation all influence the need to improve the population's skills and competences (Colardyn & Bjornavold, 2004). These forces have however, resulted in the unplanned growth of increasingly flexible mobile workers, who use these improved skills and competences to their occupational advantage, and who view movement between and within occupations as indicators of longer-term career success. Workers are treating the knowledge that they possess as having value to trade, in taking their place in the international, often knowledge-inclined, new workplace¹. Consequently, they are also moving *between* occupations more frequently, bringing their knowledge and expertise with them from one workplace to the next. Long term engagement within a single occupation for one's entire life span is no longer the global norm. This raises primary questions about the way in which occupational mobility is achieved, to enable workers to move effectively between occupations whilst remaining competitive in the contemporary knowledge economy².

In order to situate my understanding of occupational mobility, I have chosen to look at the Singaporean context, because of its strategic position in the South East Asian region. Understanding the ways in which Singapore strengthens national capacities in order to develop and implement effective workforce policies and strategies will present other countries with ways on how their workforce can be managed too. As there currently lacks research on individual reactions to, and management of occupational mobility, I have chosen to look at two specific knowledge-based occupational groups, engineers and teachers, in order to examine how they negotiate and achieve mobility as they move between occupations. Situating my research in the

¹ In Singapore, the new workplace is defined by as an environment that emphasises newer work practices like automation that requires workers to move beyond a Taylorist mode of working which requires greater creativity, literacy and problem-solving abilities.

² Singapore's knowledge economy is defined as a stage of economic development which began in the 2000s, and which focuses on the nurturing of new growth sectors such as the bio-medical sciences, information and communication technology, integrated resorts and high-value engineering. Singapore's knowledge intensive stage is underpinned by stronger educational systems and frameworks, which see the establishment of more first class education in order to sustain a talent pool appropriate enough to help with Singapore's longer term growth and development.

Singapore context presents an additional cultural dimension that focuses on the Asian influence on the occupational mobility of the participants in the study. That Singapore is a developed city-state that has been consistently ranked as one of the top nations in the world in terms of holistic development for economic growth (Lee, Goh, Fredriksen, & Tan, 2008) reinforces its suitability as a context for a study of contemporary occupational mobility.

The main aim of my research is therefore to seek for a better understanding of what happens when people move from one occupation to the next. Whilst existing research looks at movements within an occupation, my research focuses on movements across different occupations. Research to date has also focused on the western perspectives on occupational mobility, whereas my research is an initial attempt at presenting the Asian mobile worker's perspective on occupational mobility and examines individual engagement with the factors that influence occupational mobility, and how individuals negotiate their career trajectories in the light of these factors. Indeed occupational mobility is fast becoming the norm among the Singaporean skilled labour force (see, for instance, Kelly Services, 2011). My research examines current international discourses and career rhetoric, and unpacks how individual aspirations and motivations affect movement across occupations. It seeks to provide the Singaporean individual with a voice that exemplifies an Asian perspective on occupational mobility in the face of a lack of research on the motivations and experiences of individuals who move within an Asian context. The Singaporean context is particularly interesting because of its east-meets-west environment whose governing rhetoric is one of nation and community before self. It is also a very young Asian country, which gained independence only 48 years ago and that has in recent years been doing much to attract multi-national corporations into Singapore³ as observed from her emphasis on attracting global talent and establishing a globally competitive workforce (Ministry of Manpower, 2007). Singapore therefore presents a site that possesses a very global and cosmopolitan citizenry that mirrors the demographic profile of many similarly globalised and contemporary work contexts (Choy, 2007).

³ <http://www.mom.gov.sg/Documents/newsroom/annual-reports/2007/Globally%20Competitive%20Workforce.pdf> (Last Assessed 21 April 2013)

There are several other reasons why this research is significant and timely. Current career theories stipulate that a career is no longer for life (Greenhaus, Callanan, & Godshalk, 2010) and implicit in such non-traditional treatment of career trajectories is the occurrence of worker movement across different occupational sectors. The interest of international governments in occupational mobility is clear from the increasing professional conversion schemes designed as strategies for workforce manipulation. Just as an illustration, the Singapore Yearbook of Manpower Statistics reported that professional conversion programmes have expanded in the period beginning 2008 (n=1300) to 2011 (n=4200) at a rate of 69% (Ministry of Manpower, 2012a). From nurse conversion programmes in Australia (Kenny & Dunkett, 2005), to computer based information systems conversion course intended for graduates from other disciplines who have little or no knowledge of computing in the UK (Thompson & Edwards, 1999), sustained interest in these types of conversion programmes seems clear.

At the same time, international interest in employability skills also implies a growing acknowledgement of workforce flexibility. Willmott (2011) analyses the contextualised employability skills system in Singapore. In his report, he refers to the presence of similar employability support programmes in Australia and New Zealand. In these systems, Employability Skills training is often viewed as predominantly basic skills courses which offer little contextualisation (Willmott, 2011). Huge investments by national vocational education systems to design generic skill provision systems suggest an underpinning belief that generic skills can be decontextualised for transfer from one occupation to the next, supporting the occupational mobility ideology.

The huge international emphasis on generating knowledge economies (see Crespi, Geuna, & Nesta, 2006; Harding, 2003; Looney & Klenowski, 2008) also signals the implicit recognition that knowledge can be transferred from one context to the next, and reflects an unspoken expectation that workers can easily move across different sectors since they possess malleable knowledge; that movements are more easily enabled because with more knowledge, people are presented with more diverse occupational destinations.

It is with respect to these reasons that seeking for an overall understanding of how specific workers within an Asian context manage occupational mobility, will illuminate the mobility process undertaken by these workers. This understanding can be used subsequently to inform the design of national interventions for greater targeted and deliberate workforce management efficacy.

1.1. Introduction

Occupational mobility has become an unintended feature of the knowledge economy (Jarvis, 2007). The greater emphasis on knowledge creation and discussions by comparative international development researchers of the movement of knowledge workers, for instance Chinese and Indian scientists taking their expertise away from their countries of origin and contributing to Silicon Valley but eventually taking their learning back to China and India (Johnson & Regets, 1998; Saxenian, 2005), indicate the creation of a workforce that is interested in exploring different occupational options made available by their assumed substantial knowledge base. Furthermore, the current prevalence of competency based training and assessment systems, which define many of the national vocational education systems (IAL, 2009), signal the assumption that knowledge gaps can easily be filled through training. The fundamental proposition of this argument implies the potential of shifts in knowledge which enable eventual movements between occupations.

Currently, while much is known about people who move within occupations (intra-mobility research), little is known about movements across occupations. The lack of interest in this movement ‘across’ is understandable since the current structure of occupational systems, accord little responsibility to specific occupational groups in understanding how ex-workers negotiate their career trajectories once they leave that specific sector. Indeed these workforce groups and councils are often more interested in reducing attrition or perceived wastage in professional development budgets than exploring where former workers end up.

Situating my research within a specific system like Singapore’s, allows for an in-depth investigation of how Asian workers manage occupational mobility. Singapore produces a high proportion of knowledge workers since it is an economy that is defined by the contributions of its human resources. Singapore also boasts of a 94.6%

literacy rate which makes accessibility to knowledge much easier (Brown & Tan, 2011). From that perspective it is interesting to explore how Singapore manages occupational mobility since like most other global economies, the knowledge assets lie predominantly within human resources. The Singapore government appears to welcome occupational mobility and an example of their receptivity is in the creation of a suite of professional conversion programmes in response to the international recession in 2008. An online check of the professional conversion programmes available in Singapore in the second quarter of 2013 reveals opportunities for re-skilling and professional conversion initiatives by the Workforce Development Agency for conversion to educators within the early childhood sector⁴ or the diagnostic radiographer's⁵ profession. The Ministry of Education⁶ separately offers opportunities for mid-career switchers to move into a range of roles within the education sector too.

More recently, the Committees of Supplies launched the WorkPro⁷ initiative, which targets re-entry into the workforce and presents another set of professional conversion programmes for possible career conversions. The Workpro initiative was launched at the 2013 Committee of Supply to encourage economically inactive locals, including women and mature residents, to return to work and provides funding support for job-redesign, on the job training and, recruitment and retention efforts.

1.2 Singapore as the Context of Study

Singapore's state of development is very similar to that of other developed countries (Kuo & Low, 2001). A central feature of the Singapore context is that it is culturally Asian even though its work processes are drawn from Europe and North America, through the standard policy borrowing (Turbin, 2001) process. It has also been known internationally for its successes in workforce development and its successful move from a labour to a skill-intensive economy within a span of 45 years (Lee, et al., 2008). International invitations by governments to share Singapore's workforce development strategies and policies are testimony of this. For instance, Singapore was

⁴ <http://www.wda.gov.sg/content/wdawebwebsite/L207-AboutWSQ/L301-WSQIndustryFramework-EarlyChildhoodCareandEducation/L401-013EarlyChildhoodCareandEducation.html> [Last Accessed 19 April 2013]

⁵ http://www.wda.gov.sg/content/wdawebwebsite/programmes_and_initiatives/L701Eiv-1-DiagnosticRadiographers.html [Last Accessed 19 April 2013]

⁶ <http://www.moe.gov.sg/careers/teach/applying/mid-career/> [Last Accessed 19 April 2013]

⁷ http://www.wda.gov.sg/content/wdawebwebsite/COS_Main_Page_Sample.html [Last Accessed 19 April 2013]

invited to speak on its workforce development policies at the International Forum on Chinese High-skilled Workers in Beijing China⁸, 2006; the UK Commission for Employment and Skills Conference in Excel Centre, London⁹, 2009; and the Annual Bank Conference on Development Economics¹⁰, Paris 2011. As expressed by Deputy Prime Minister, Mr Wong Kan Seng at a keynote address at the annual 2011 flagship conference of the Singapore Institute of Policy Studies (IPS),

Our [Singapore's] voice is heard in international forums and taken seriously only because we are successful. If we are not, then no one will pay attention to us. According to a study by Foreign Policy magazine, consulting firm A.T. Kearney and The Chicago Council, Singapore is one of the top ten global cities in the world in terms of how much influence it has on what happens beyond its borders, and how well it interacts with global markets, culture and innovation (Wong, 2011).

With so much curiosity about its obvious successes, my research is well-placed to present how occupational mobility is negotiated within this Singapore context by focusing on the career trajectories of two specific knowledge-based occupational groups within the teaching and engineering sectors who have engaged in self-initiated occupational mobility.

Singapore has been known to publicly invest huge budgets in teaching and engineering sectors. The Singapore 2013 budget book¹¹ reveals S\$10.6 billion (£5.3 billion) allocation to education and approximately S\$16.2 billion (£8.1 billion) to trade and industry sectors including related engineering research and development capability and capacity building. The Singapore government has also frequently cited that engineering, technological and knowledge industries are of major national importance (Ministry of Manpower, 2010, 2011). They often refer to the significant number of mobile ex-teachers and ex-engineers who are found in all other major sectors too. And also highlight the substantial national investment in developing these teaching and engineering sectors to supplement Singapore's creation of contemporary knowledge economies. These two sectors are important because they are state sponsored occupations; they are also two of the largest professional groups in

⁸ http://www.ilo.org/asia/whatwedo/events/WCMS_BK_EV_159_EN/lang--en/index.htm [Last Accessed 19 April 2013]

⁹ <http://www.neilstewartassociates.com/jd225/day1.php> [Last Accessed 19 April 2013]

¹⁰ <http://siteresources.worldbank.org/EXTABCDE/Resources/7455676-1292528456380/7626791-1303141641402/7878676-1306699356046/Parallel-Session-1-Gary-Willmott.pdf> [Last Accessed 28 March 2013]

¹¹ http://www.mof.gov.sg/budget_2012/expenditure_overview/mti.html [Last Accessed 28 March 2013]

the city state; and there have been rising concerns that the investments in their occupational development have been compromised in the face of occupational departure.

1.2.1 Importance of Singapore's Role in Knowledge Generation

The global debates and discussions about the contemporary knowledge worker within the wider international context well-places the Singapore story at the focal point of my research since Singapore makes deliberate attempts to situate itself within world markets, and contributes significantly towards the growth of the knowledge worker (Lee, 2011).

It was highlighted by Minister of State (MOS), Lee Yi Shyan at the official launch of the National Engineers Day in 2011 that the government was investing heavily in research and development to improve knowledge bases within key emerging areas. He said,

Our [Singapore's] national technology plan is to raise R&D spending to 3.5% by 2015. In addition to the high-end manufacturing sectors that we already have, we are also investing heavily in R&D in key areas such as life sciences, green technology, urban solutions. We have created about 100,000 jobs per year in the last decade, between 2000 and 2010; many of them are in the technology and engineering sectors (Ministry of Manpower, 2011).

When you consider the discourses surrounding the role of the knowledge worker and human resources in the contemporary knowledge economy, it is easy to believe that all resources, including human resources, can be commoditised and easily shifted around as required. This is of particular significance as Singapore is often described in much of the literature as the smallest nation; a city-state, in South East Asia, with no natural resources that has to rely on its people or human capital as a key economic resource (Fahey & Kenway, 2010).

Perhaps though, the current definition of 'human capital' is inaccurate, they are not merely key economic resources which can be shifted from declining areas into other emerging areas of need. Neither are they resources devoid of any agency that are the objects of government manipulation for national effectiveness. It is necessary to consider how workers within this contemporary knowledge context negotiate occupational mobility by drawing upon individual lived experiences to make sense of how occupational mobility is managed by these human resources. It is also important

to understand how they make use of state provided structures to increase their ability to move from one sector to the next, possessing what Forrier, Sels, & Stynen (2009) terms as mobility capital and which shall be explored later in the thesis.

1.2.2 Relationship between Lifelong Learning Systems and the Knowledge Economy

Lifelong learning is important as an idea in my research because first, it is used by the Singapore government as a system that supplements the development of the knowledge economy. Yet Singapore's definition of lifelong learning is somewhat different as compared to how it is referred to internationally. The European Commission for instance defines lifelong learning as all purposeful learning activity undertaken throughout life with the aim of improving knowledge, skills and competencies within a personal, civic, social and/or employment-related perspective (European Commission, 2012). For the Singapore government it is restricted to the enablement of economic competitiveness and employability and lacks the personal, civic and social perspectives.

Hillage, Uden, Aldridge, & Eccles (2000) identified four ways in which lifelong learning is strategically deployed:

1. Changes to the learning infrastructure;
2. Changes to partnership and brokerage arrangements;
3. Changes in provider arrangements; and
4. Policy initiatives.

The way in which the Singapore government treats lifelong learning is as policy initiatives because the use of lifelong learning to control and manage worker mobility translates to more effective usage of human resources.

The Singapore government's adoption of lifelong learning and skills development as viable growth strategies that impact the workforce directly, were highlighted by Prime Minister Lee Hsien Loong at the 2011 National Day address when he said,

We [Singapore] continue to retrain workers to become more employable. Our growth strategies of upgrading education and skills and breaking into higher-value sectors have created good new jobs for Singaporeans (Lee, 2011).

Clearly, the reskilling and upskilling of workers to ensure continued employability and worker movements between sectors are important priorities that enhance sustained employability.

The nationally commissioned Economic Strategies Report (Economic Strategies Committee Singapore, 2010) had also reiterated this idea of worker movements between sectors when they highlighted the idea of developing the “T-shaped” worker who possesses not only the domain-specific industry skills but also the knowledge of broader employability skills to operate in different sectors. It began to subtly shift individual aspirations by challenging the specific industry contributions that workers have made so far, and questioning the degree to which they could contribute to other sectors. Thus the seeds of the flexible worker who could move between sectors were planted. At the same time, the media also began to promote the need for workers who possess skills that would allow translation across a range of different disciplines.

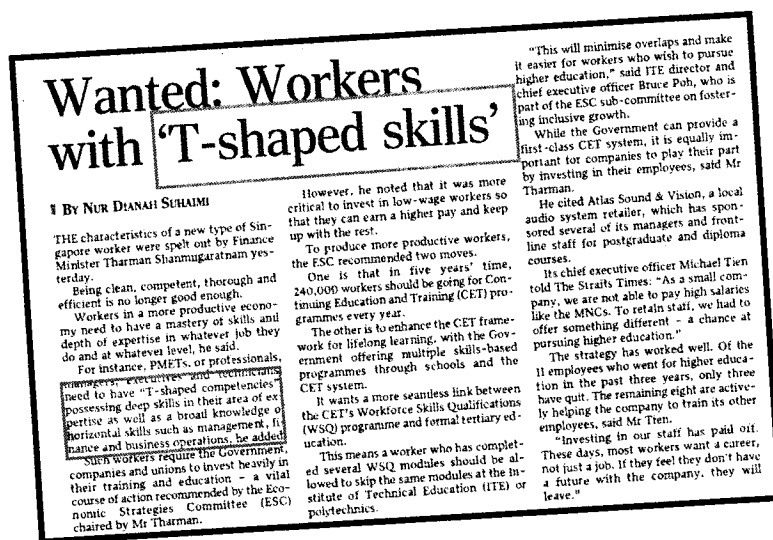
Soon, individual workers were sold on the idea that training was the means to becoming the contemporary worker who had a mastery of broad skills and depth of job expertise for movement across sectors. Many of these workers began enrolling for skills training in order to enlarge the scope of their employability and the Workforce Development Agency (WDA), a statutory board under the MOM, reported the following training participation figures for the period following 2008 (Ministry of Manpower, 2012a):

Year	Training places committed	Costs (S\$)
2008	430,278	110,900,403 (£55,450,202)
2009	410,773	225,443,441 (£112,721,720.5)
2010	295,132	111,399,843 (£55,699,921.5)

FIGURE 1: COMMITTED TRAINING PLACES IN SINGAPORE (AS OF 2010)

In addition, incentives were given out to encourage training and as compensation for employers who let their workers off for training. As seen below, public communicative efforts highlighted that the government was offering multiple skills-based programmes through schools and the CET system, and this created the rise of

individuals who began viewing participation in lifelong learning as part of their growth and development; they also perceived participation in training as an opportunity for continued employment in the workforce. As the news report highlights, staff from a local audio system retailer were sent for further education in the past three years, and its manager said, “Investing in our staff has paid off. These days, most workers want a career, not just a job. If they feel they don’t have a future with the company, they will leave”. According to him, only three of his pool of 11 employees, have resigned as of 2010.



Source: The Straits Times, 4 Feb 2010, cited in Willmott & Tan (2010). Different Approaches to Skills and Employment System: Learning from the Singapore Experience. UKCES Convention. Institute for Adult Learning

Invariably, while providing learning opportunities has created greater ownership for the jobs that workers are in, it has also created short career stints for those who failed to see themselves in the new expanded job roles. What is clear though is the Singaporean government’s commitment to using vocational training as a means towards developing professional workers within the workforce, to fill the skill deficiencies that these workers might have. Just as an illustration, the Singapore Yearbook of Manpower Statistics 2012 (Ministry of Manpower, 2012a) reveals that in

terms of skills training, the following total number of persons have completed courses at some of the continuing education and training (CET) centres:

Institutions	2008	2011	Remarks
Singapore Human Resources Institute	851	1187	Includes Human Capital Management certificates, post graduate certificates and diplomas, bachelors and masters programmes
Institute of Systems Science	2466	3751	Includes Graduate Diplomas, Master of technology and certificate programmes
Ong Teng Cheong Labour Leadership Institute	807	898	Includes Basic, intermediate and advanced certificates, diplomas, and professional diplomas

FIGURE 2: TRAINING NUMBERS AT SPECIFIC CET CENTRES

Indeed, the range of programmes, that have been provided by the WDA have expanded tremendously in the last 4 years, and the training participation show public interest and government commitment to skill development. After all, CET is heavily funded by the lifelong learning endowment fund (LLEF) which was set up in March 2001, with a current capital of S\$3.1 billion (£1.55 billion) as at FY 2010 (Ministry of Manpower, 2008, 2012a).

1.2.3 Importance of Skill Development

We must always be many steps ahead of others in the economic race. When others take to simpler kinds of industries we [Singapore] must move into the more sophisticated kinds of industries... All this means... acquiring new skills as old ones become outdated. (then Minister of Labour at a May Day Rally, Rajarathnam, 1969)

The government's preoccupation with occupational mobility is apparent from the creation of a generic skills provision system in 2003, which assumes that skills can be decontextualised and moved from one occupation to another. Willmott's (2011) study highlighted the importance that was given to the Employability Skills system as part of the national skills development strategy, when he observes that, employability skills training had become the single largest programme within the

Workforce Skills Qualifications (WSQ) system with S\$82.2m (£41.1m) allocated between 2008 and 2010.

In relation to the utilisation of skills in Singapore, a study conducted by Sung (2011) confirmed that there are some generic skills that appear to be more important within specific occupations than others, and that the same generic skills are utilised very differently across occupations and industries. My research intends to show that generic skills are developed during initial training and employment and refined during subsequent practice for recontextualised usage in different occupations and should not be conceived of in a deficit manner. Unfortunately, the employability system is underpinned by the assumption that workers possess skills gap and so there is a need to bridge that hole and my research will provide an initial attempt at establishing the relationship between skills initially acquired to subsequent practice in a different environment. This way of examining generic skills will provide evidence to support that skills taught are actually utilised in the workplace even though they may be recontextualised.

1.2.4 Government Interest in Occupational Mobility

In 2008, the government created the Skills Programme for Upgrading and Resilience (SPUR)¹², which is an enhanced funding scheme that was developed to scale up training programmes to help companies and workers during the economic downturn and to build strong capabilities for the recovery (Singapore Workforce Development Agency, 2011). SPUR was part of the Resilience Package, and created with the following objectives:

1. Cut costs and save jobs – help companies manage excess manpower and reduce retrenchment;
2. Reskill and upskill – help local workers, including those retrenched, to upgrade their skills and convert to new jobs; and
3. Build capabilities for recovery – strengthen manpower capabilities to better position the workforce for the upturn.

The objectives of SPUR highlight the growing acknowledgement of the presence of occupational mobility. In terms of the first objective “helping companies manage excess manpower and reduce retrenchment”, there is an assumption that the

¹² <http://app2.wda.gov.sg/web/Contents/Contents.aspx?Id=174> [Last Accessed 10 Aug 2011]

management of excess manpower implies moving the excess manpower elsewhere. The reduction of retrenchment so that it does not affect national unemployment figures further entail the need to facilitate the move of workers into emerging areas of growth where more workers are required. The objectives of “re-skilling and up-skilling local workers, including those retrenched, so that they can upgrade their skills and convert to new jobs”, and the “building of capabilities for recovery – strengthen manpower capabilities to better position the workforce for the upturn”, also point to the underlying assumption of mobility that clearly underpins the SPUR ideology.

Unfortunately policy makers’ theorising about the requirements and social make-up of the process of acquiring new skills for other industries or occupational mobility, tend to take for granted the actualities of the Asian society. The inability to acknowledge the prevalence of society and community influences have resulted in a biased perspective and simplification of the intricacies and realities, which surround the process of occupational movement, leading to the unfortunate atomisation of its complexities. It ignores the critical social issues, which make the labour mobility process extremely complex. The lack of engagement with sociological perspectives and considerations also result in civil servants designing government policy without being aware of the realities of society.

My research seeks therefore to examine these actualities of the Asian society so that greater understanding of engaging these workers can be determined. It will also present the Asian knowledge workers with an opportunity to share their individual motivations and aspirations in terms of managing their career trajectories, and explain their perceived footprint in the larger labour eco-system.

1.3 Singapore’s Economic and Labour Market Background

The nature of the Singapore’s labour market has important bearings on the findings of the thesis since the empirical data related to individual decision making and aspirations, is collected from within this predominantly east-meets-west context. To illustrate the labour force situation in Singapore, the total labour force¹³ reached 3,361,800 in 2012 from 3,237,100 in 2011. Of the total labour force, 2,119,600 are

¹³ <http://www.mom.gov.sg/statistics-publications/national-labour-market-information/publications/Pages/report-labour-force-sg.aspx> [Last Assessed 21 April 2013]

the resident labour force. 78.8% of the employed resident population are aged 25-64 years, and there is a notable increase in the employment rate of older residents following the Reemployment Legislation in 2012. The professional segment of the workforce is experiencing higher employment growth (4.5% p.a.) than non-professionals (1.4% p.a.) over the decade and the mean income for full-time employed residents rose by 7.1% over the year to S\$3,480 in 2012. The official unemployment rate of resident workers stands at a rate of 3% as at 2012 (Ministry of Manpower, 2012b).

If you view Singapore's future not as a regional city but as a global city, then the smallness of Singapore, the absence of a hinterland, raw materials and a large domestic market are not fatal or insurmountable handicaps. It would explain why, since independence, we have succeeded economically and consequently, and have ensured political and social stability (Desker & Osman, 2006:4).

As Desker and Osman (2006) observed, Singapore is positioned as a tiny nation with a highly competitive economy (the sixth wealthiest country in the world in terms of GDP per capita), contending with other much larger nations within the region, including China, India and Australia. For the past five decades, the power of Singaporean government has been held by one People's Action Party (PAP) and operates under a strong underlying ideology that is defined by its responsibility to its citizens. The PAP has defined five core values that underpin the national ideology and identity; (i) Nation before community and society before self, (ii) Family as the basic unit of society, (iii) Regard and community support for the individual, (iv) Consensus instead of contention, and (v) Racial and religious harmony (Tan, 2004).

Singapore makes deliberate attempts to keep its finger on the international pulse by ensuring the transformation of industries and continuous labour market shifts that are aligned to globalisation. Singapore's Prime Minister Lee confirmed this, when he said at the 2011 National Day address,

Singapore has prospered because we have been open to the world and alive to economic competition and change (...) while addressing pressing concerns at home, we must remain attentive to global trends and take a longer-term view of our future (Lee, 2011).

It deploys as a strategy, in keeping up with globalisation and in maintaining a globally competitive workforce, the attraction of foreign talents and multi-national corporations into its labour force so that it can ensure the contemporary

transformation of industries and continuous labour market shifts (Ministry of Manpower, 2007). After all, there are 1,232,200 foreigners operating in the Singapore labour force, a glaring indication that nearly a third of the labour force is made up of foreigners. These figures provide a snapshot of the global workforce that operates in Singapore.

1.4 Research Questions

Against this economic and labour development backdrop, my research will first, investigate empirically through the conduct and analysis of biographical interviews, what professional workers recognise as enablers of occupational mobility; second, examine the factors that influence career movement; third, seek to understand how individuals negotiate their career trajectories in the light of these factors and finally, ascertain the role of generic skills during occupational mobility and mobility more generally. My research will examine individuals' lived experiences within specific Singaporean political and social contexts in an effort to illuminate how successful occupational movement is enabled and managed amongst the former teaching and engineering knowledge based professional groups there. These two professional groups are known to possess capabilities that enable control over their lives and are well-regarded professional groups that possess their own respective system of regulation. What the government is not publicly stating however, is the importance of these two groups as symbolic state agents, responsible for bringing the national agenda forward. Teachers are viewed as pedagogic agents whom the Singapore government uses to ensure the development of good citizens (Lee, Goh, Fredriksen, & Tan, 2008), while engineers are responsible for contributing towards the creation of the engineering expertise and general technological orientation for which Singapore is much known (Gan, 2010; Liu, 2012).

In addition, Singapore's core ideology that emphasises country before community, family before self, together with other occupational mobility research that suggests social relations and community ties have a large part to play in job mobility, reinforce the need for the sociological perspective that underpins my research. Examples of such research include Wegener's (1991) exploration of life history data from Germany which demonstrates that job changes depend on the job seeker's social network and social ties; and Bian and Ang's (1997) exploration of the value of

guanxi networks (community ties) and its impact on job mobility from survey data of workers in China and Singapore.

1.5 Scope of Thesis

The French have invented their own buzzword for the ideal workers of the 1990s – polyvalent. It means a worker who is sufficiently literate and numerate to adapt to new technologies throughout his career.

Lee Hsien Loong, then Minister for Trade & Industry, & Second Minister of Defence at the opening of the National Productivity Board building 1987

The research focus is on understanding how professional individuals living in Singapore negotiate and manage career movements so that the understanding can better inform strategies that foster effective inter-occupational mobility. It explores the relationship between individuals' association to their careers through the different forms of mobility that occurs within the contemporary context. It also examines the effectiveness of using lifelong learning systems to artificially construct the conditions meant to support occupational mobility. It considers the need for career adaptability competences, the space for recontextualisation of skills and the ideologies that influence individual occupational mobility by looking at those who have participated in it themselves. My research seeks to explore how individuals engage in occupational mobility and observes if control can be maintained over people's personal aspirations.

Singapore has often been viewed as an enigma by many foreign countries and with much curiosity about its state of affairs; my research shall present an initial attempt in understanding the individual Singaporean worker's aspiration within the knowledge-intensive economy. I have also provided the broader ideological questions that surround the individual aspirations of those who have participated in occupational mobility, in the hopes that this knowledge can illuminate the process of acquiring new flexible skills for other industries or occupational mobility, whilst considering the actualities of the Asian society that are underpinned by ideologies that promote nation [country] before community and society before self, family as the basic unit of society (Tan, 2004). Rarely in the Singapore ideology is direct reference made or consideration given to the individual, which makes my research

original and ground-breaking since I am attempting to present the individual with a voice.

1.6 Conclusion

Singapore has been chosen as an appropriate context because of its emphasis on creating a knowledge-intensive economy that is supported by a rigorous lifelong learning system. My research aims to understand the processes by which professional individuals who live and work within this context, change occupations and attempts to map the occupational trajectories of those who have engaged independently in at least two instances of non-regulated professional movement in the course of their careers. The research is designed to help in the identification of factors that affect and support the occupational mobility process. The research further explores the social factors, which enfold each single career decision and takes into consideration the Asian influence of community and family which many tend to overlook. After all, Singapore's underlying social rhetoric is one of nation before community and self, so it offers an ideal site for my research.

The approach taken is not explicitly concerned with the theories that seek to understand individual occupational mobility from a psychological perspective, nor is it concerned with administrative, economic or political accounts of occupational mobility, although these perspectives do inform much of what is written in the field, and where relevant this work is addressed. It should also be stated that my research does not seek to predict mobile behaviours. However, it does attempt to understand individual empowerment during labour mobility in the hope that their decision-making mechanisms can be understood. Whilst the work cannot prescribe how policy interventions themselves should be designed, developed and what their initial aims and objectives should be, it might help governments keen on producing workers for the knowledge economy understand individual motivations and aspirations and thus, occupational mobility-related policies might be refined by the outcomes of my study.

In the next chapter, I explore the lifelong learning context and provisions within the Singaporean system and present it as the landscape through which the mobile individual moves during occupational mobility. I also explain the Singaporean

education and training systems, and present the issues with regulated mobility which forms the impetus for my research. The following three chapters present a discussion of the relevant substantive, methodological and theoretical issues based on a review of relevant literature and research. More specifically, Chapter Three engages with literature on mobility within the education and engineering sectors and identifies key areas of concern in international research while Chapter Four provides a more general contemporary perspective on occupational mobility and highlights the key themes that are used in the literature to make sense of occupational mobility. Chapter Five presents the theoretical perspective developed, and attempts to understand the individual's engagement with community and social affordances and how individuals engage with these affordances as they negotiate their career trajectories, particularly given the underpinning Confucian core value of community before self. Chapter Six presents the research strategy that drives the research and explains the development of the interview instrument and the mode of analysis of the empirical data. Chapter Seven presents the findings from the analysis of the interviews based on the research questions and further expands on the themes identified. Chapter Eight explores the analysis of generic skills and its role in facilitating occupational mobility. It questions the role that skills play in occupational mobility and the skill acquisition process for effecting movement between workplaces. Chapter Nine presents the implications of the research in terms of practice and policy and finally, Chapter Ten summarises the contribution and limitations of this research, setting the stage for future work.

CHAPTER TWO: EDUCATION AND TRAINING POLICY IN SINGAPORE

We will grow our economy by upgrading ourselves and raising productivity, reducing the need to import so many foreign workers. We will educate our young well and retrain our older workers effectively.

(Prime Minister Lee, 2011)

2.1 Introduction

It is imperative that I provide the unique Singaporean background so that its east-meets-west characteristics can be understood for application within an international context. So far, the larger Singapore economic landscape, the governing structure and the underlying state ideologies have been shared briefly, and in this chapter, the specific lifelong learning policies that are developed as the political technology which is enacted over its people, shall be referred to.

The government rhetoric states strongly that it is their responsibility to protect the welfare of the country and views lifelong learning as both an end and a means towards achieving the larger national political, economic and social benefits. As Ng (2013) aptly observed, Singapore's perspective on lifelong learning is strongly underpinned by Power & Maclean's (2011) framework of lifelong learning:

- Lifelong learning as a basic human right for individual development and empowerment;
- Lifelong learning as a means to better employment prospects and higher income;
- Lifelong learning as a strategy for poverty alleviation or closing income gaps;
- Lifelong learning as an enabler for social benefits such as higher productivity and social capital; and
- Lifelong learning as the 'master key' for the achievement of national vision.

Singapore's approach to lifelong learning is pragmatic and rational. Apart from using it as an instrument to socialise society into becoming law-abiding citizens, it is also one of the economic drivers used by policy makers to enhance Singapore's competitiveness and is as Kumar (2004) aptly observes, an antidote against unemployment. This parallels Power and Maclean's view of lifelong learning as an enabler for social benefits such as higher productivity and social capital (2011) and

is similarly acknowledged by Ashton and Green (1996) in their exploration of education and training within the global economy. Like other industrialised economies, the Singaporean government's position is that a highly developed human capital is an important means to increasing productivity. The links between lifelong learning, employability and productivity were acknowledged by then Prime Minister, Mr Goh Chok Tong at a May Day Rally from as early as 1998 when he said,

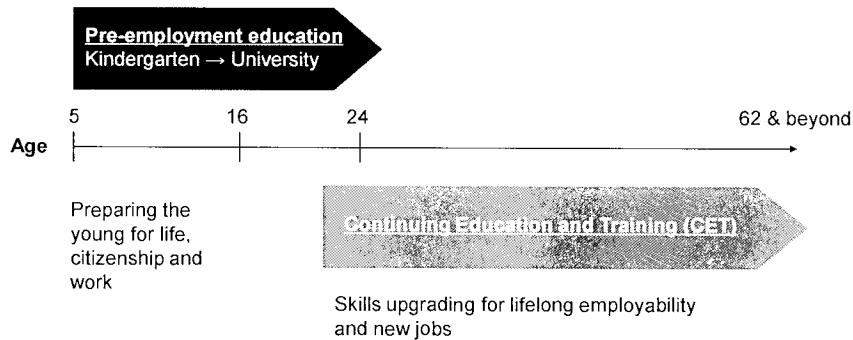
Looking beyond the immediate future, we must focus on lifelong learning and employability for the long term. The future economy will be driven by information technology, knowledge and global competition. The types of jobs change, and change rapidly. This means that workers must have broad based skills and the capacity to learn new skills. Only then will they have employable skills throughout their working lives (...) In fact, the whole country must become a Learning Nation. We must make learning a national culture. We will have to evolve a comprehensive national lifelong learning system that continually retrains our workforce and encourages every individual to learn all the time as a matter of necessity (Goh, 1998).

Clearly, the Singaporean definition of lifelong learning is for the preparation of individuals for the management of their adult lives, through stressing the purposes of learning, and the identification of education within the whole of life – a holistic approach to the concept (Bagnall, 1990) in the hopes that it contributes to national productivity and sustained employability.

2.2 Lifelong Learning, Productivity and Employability

Singapore's education system is divided into two parts, namely the pre-employment training that is governed by the Ministry of Education (MOE) and comprises of pre-employment education in schools and higher education before individuals enter the workforce, and the Continuing Education and Training (CET) system which is managed by the Singapore Workforce Development Agency (WDA), a government statutory board under the remit of the Ministry of Manpower (MOM). The CET system, akin to the international Vocational Education and Training (VET) system, is the vehicle through which lifelong learning is implemented in Singapore. Their relationship is illustrated as follows:

CET complements the Pre-Employment Training System....



Source: (Willmott & Tan, 2010) Different Approaches to Skills and Employment System: Learning from the Singapore Experience. UKCES Convention. Institute for Adult Learning

In an average life-course, a Singaporean individual would move from pre-employment training to continuing education and training. Any engagement within the CET system marks an individual's venture into lifelong learning. While it is not publicly stated, it is notable that the Singaporean government uses its teachers within the PET system as pedagogic agents to induct their people into becoming good citizens (Lee et al., 2008). The PET system is solely and managed closely by MOE, and being the only employer of teachers in Singapore, they have a strong hold over the curriculum and doctrines that are adopted in classrooms. These are important points within my research because first, teachers have an important symbolic state responsibility so the government heavily invests in the teaching profession; and second, there is no opportunity for an alternative teaching career in Singapore for teachers who leave the employment of MOE (unless they are in private non-state run schools).

With reference to Bagnall's definition, Singapore's education system can also be perceived as the holistic way in which the wider public are prepared for the management of their adult lives, through the emphasis on learning and education

within the whole life course. The PET emphasis on the preparation of work is undertaken by MOE and the CET emphasis on upgrading and re-skilling of workers, by MOM.

The government's emphasis on CET as a skill development strategy is also apparent from the commissioning of the Economic Strategies Committee (ESC) in 2008, as referred to earlier in Chapter One, to propose a national strategy that improves Singapore's productivity and boosts the CET sector through heavier financial investments and subsidies. It assumes that lifelong learning is the 'master key' for the achievement of the national vision. After all, Prime Minister Lee presented it succinctly at the 2011 National Day address when he said,

Continuing education and training (or CET) is one of the Government's top priorities. A highly skilled and productive workforce is one critical advantage that we must have to compete against others with abundant natural resources. We stepped up our efforts in CET after the Asian Financial Crisis. At that time, the immediate need was to retrain displaced workers, and help them upgrade their skills and find new jobs. But we should not see this as a priority only during an economic downturn. Instead, CET should be a core part of the lifelong development of every worker. If we want Singapore to keep growing, our workers too must constantly upgrade (Lee, 2011).

The government has evidently broadened the relationship between productivity and lifelong learning by assuming an added dimension to this equation; that an improvement in the quality of CET results in improved productivity, which can be measured by the raising of incomes of Singaporeans through creating quality jobs. Deputy Prime Minister, Shanmugaratnam, in his 2011 National Day address expressed this again when he said,

Our key task is to achieve growth driven productivity, rather than growth driven by an ever-increasing supply of labour. We must therefore focus on improving the quality of jobs in the years ahead, rather than growing more jobs. This productivity-driven growth – growth that involves improving the quality of jobs – is how we will raise the incomes of Singaporeans, in every job and for every skill and talent (Shanmugaratnam, 2011).

Implicit in this complex, multi-faceted relationship, is the assumption that lifelong learning is a means to better employment prospects and higher income. The Deputy Prime Minister further confirmed that the government was looking at achieving two to three percent productivity growth amidst the imminent global recession that is plaguing the rest of the world economies and likened Singapore's national

productivity drive to a multi-year marathon, which will see concerted efforts by companies, industries, associations, unions, branches of unions and individual workers supported by the government. In addition, he confirmed the government's steadfast commitment to developing a first-class CET system through improving the quality of every job from the simplest to the most complex, from manual to office-bound. He feels that that is integral to raising the median incomes for all Singaporeans (Shanmugaratnam, 2011). The relationship between lifelong learning, employability and income as aptly summarised by Minister Teo Chee Hean at an earlier Parliament (2010) seating is hence that,

Lifelong learning is the means to an end, and that end is to add value. The ability to add value will bring about better employability and better income for workers (Teo, 2010).

Central is the belief then that a qualified workforce, with the necessary skills and competences, is necessary in ensuring boosts in productivity that inevitably drive economic growth, and that lifelong learning is viewed as an enabler for these larger scale social benefits such as higher productivity and social capital. The vehicle which the government uses to ensure sustainable CET is the Workforce Skills Qualification (WSQ) system. The WSQ system, akin to the United Kingdom's National Vocational Qualifications (NVQ) and the Australian Qualification Framework (AQF) systems, is a national credentialing system that provides work and job-focused vocational training for adults through an open-access training system (IAL, 2009).

2.3 Singapore's Skills Development Policy

With that policy rhetoric in mind, let's now look at a specific intervention, which signals the government interest in workforce mobility and that was developed to circumvent the 2008 recession, drive unemployment rates down and shift productivity up.

The deterioration in global economic conditions in the second half of 2008 led to a sharp decline in Singapore's economic growth to 1.8% for the year ending 2008 as compared to growth of 8.6% in 2006 and 8.5% in 2007. In response to the economic downturn, the Singapore Budget 2009 - which was underpinned by the rhetoric, "Keeping Jobs, Building Our Future" with a central focus on the creation of

Resilience Packages – was allocated towards the building of Singapore’s capability and infrastructure in preparation for the next wave of economic growth.

The initiative included an occupational mobility scheme named the Professional Conversion Programme (PCP). This scheme was part of the larger SPUR initiative which was described in Chapter One.

It was intended through SPUR that,

...workers have the opportunity to gain a competitive edge in the job market while employers are able to manage excess manpower, save manpower costs and retain workers by channelling them for skills upgrading and development. The goal is to help workers remain employable, save jobs and strengthen individual / employer capabilities to prepare for the economic upturn.

SPUR offers training programmes to help workers to upgrade skills (up-skill) to do better in current job or acquire new skills (re-skill) to take on jobs in a new industry. Under this programme, workers can choose from over 1,000 courses ranging from healthcare, education, security, social services to tourism, made available until 30 November 2010 (Singapore Workforce Development Agency, 2011).

Underpinning the SPUR rhetoric was the apparent need to ensure sustained employability so that unemployment rates were kept low. It also assumed a skill-deficit rationale, which workers should deal with during the economic downturn to ensure that they end up upon economic recovery, in new growth sectors. Specifically the *raison d'être* of the PCP was conceived from a regulated mobility angle and reinforces the underpinning occupational mobility ideology.

The government investment in this scheme totalled S\$650 million (£325 million) in 2011 and was supported by the Singapore Lifelong Learning Endowment Fund (LLEF). The objects which the Endowment fund may be aptly applied to are:

- the acquisition of skills and expertise by persons and the development and upgrading of skills and expertise of persons, to enhance their employability; and
- the promotion of the acquisition, development and upgrading of skills and expertise to enhance the employability of persons (Attorney-General’s Chambers, 2001).

Between December 2008 and November 2010, 334,000 workers participated in training under the SPUR initiative, of which:

- 212,300 workers were sent by 4,800 companies for training;

- 102,700 individuals took up training to re-skill or up-skill themselves;
- 16,100 individuals completed courses and programmes either on their own accord or with support from their employers; and
- 2,950 individuals had undergone and completed conversion programmes under the SPUR initiative (Willmott & Tan, 2010).

As shown earlier in Chapter One, the conversion programme participation figure subsequently grew to 4200 in 2011.

2.3.1 Professional Conversion Programme (PCP)

Evidently, the 2008 economic crisis had resulted in the decline of certain sectors and the rise of others. For example, the tourism and security industries were expanding especially with the opening of the two Integrated Resorts. The demise of sectors often means that a surplus of redundant workers would flood the labour market. The government developed the occupational mobility-type intervention to assist in the re-distribution of workers from declining to growth industries. Growth sector development is often a result of technological advances, economic restructuring and off-shoring and provides an attractive alternative to vocations that provide transnational and in-country labour market shifts. These professional conversions were often between occupations that are unrelated to the domain areas of expertise. At the time, there existed 49 conversion opportunities into training and adult education, nursing-, preschool teaching-, sustainable energy consulting-, culinary arts- (chefs) and biologics manufacturing-type occupations. There were a registered number of some 3,000 workers involved in this scheme, which cost the government about S\$40 million (£20 million) in total.

One example is the PCP for System Administrators that provided the opportunity for info-communication professionals to embark on a conversion programme that facilitated a career switch to the administration of IT infrastructure, which ran on the open source platform. The trainees were required to undergo the Certification of Performance in Enterprise Linux Administration (COPELA) course delivered by a local CET centre and were subsequently offered job attachments at participating companies to put what they had learnt to practice. The programme comprised the provision of specific skills that were deemed appropriate for a new entrant to be successful for an occupation in IT infrastructure administration.

Similarly, a budget announcement in March 2011 revealed that the Ministry of Education (MOE) had also developed a comparable scheme where a 70 percent course fee subsidy was given to workers who, in their efforts to stay current or switch careers, enrol in a second advanced or specialist diploma. MOE set aside S\$350 million (£175 million) for this cause. A completion award would also be given out to selected individuals to further entice and encourage buy-in to this redevelopment scheme (Ministry of Education, 2011).

Inherent in both these programmes is the underlying assumption that lifelong learning is the means that lead to skills provision in order to fulfil a skills gap for entry into a new occupation. It assumes that for workers to be successful in transiting into new occupations, they need to be equipped with a specific set of skills, which they currently lack. It ignores the importance of contextualised skill acquisition and practice for subsequent recontextualisation in a new occupation.

2.4 The Problem with Regulated Occupational Mobility

Two inter-related factors appear to shape such regulated occupational mobility schemes: first, the amount of control that the government has in enabling this transition through its incentives and policy schemes; and second, the seeming autonomy, which individuals adopt when making the regulated shift.

Despite its seeming theoretical robustness and carefully crafted implementation of a government scheme that promotes regulated occupational mobility, the lack of information on the success of the PCP implementation, suggests that the longer term outcomes of sustained continued employment in these emerging sectors may have been compromised. A reliable source within the Training and Adult Education (TAE) sector for instance, confirmed that none of the 101 individuals, who had participated in the TAE PCP, are working within the TAE sector now. In spite of this, we know from Chapter One that the Singapore government is still proceeding with the development of more professional conversion programmes, as seen in Figure 1.

The conversion scheme appears to lack the larger scale sustainability for national economic benefits to labour force management because individuals were rumoured to have reverted to their original occupations when the economy improved in 2010, signalling a disjunction between government and individual aspirations. Critical in

the PCP discourse is an assumed agential element, which suggests that while the government provided the conditions required to re-skill workers for a different occupation, it did not successfully ensure that there was sustained employment in these new sectors. The government failed to draw linkages between an individual's pre-employment training in school, initial occupational experiences and skill extensions. It also failed to acknowledge the value of voluntary participation in such a scheme. Unfortunately, the financial investment of S\$40 million (£20 million) in the specific mobility scheme did not achieve the expected outcome despite its seeming theoretical efficacy and careful implementation.

Ironically, adopting manufactured policy to control national prosperity seems to create problems because as explained by Sennett (1999), governments have unwittingly perpetuated an unintended culture of risk-taking, career mobility and flexible specialisation. Flexible specialisation is defined by Sennett as the "antithesis of system of production embodied in Fordism" (Sennett, 1999:52), and underpins the PCP because it assumes that occupational tasks can be broken up into pieces and specialisations within each area created, so that professionals can enter the occupation at any point, once they are appropriately trained in these knowledge gaps.

This issue was also identified by Mannheim in his observations about overspecialisation. With reference to academic teaching, Whitty (1997) in his Karl Mannheim Memorial Lecture, acknowledged Mannheim's observation that overspecialisation had the effect of neutralising the genuine interest in real problems and instead referred to a state where everybody takes responsibility only for a disconnected piece of knowledge and is never encouraged to think of situations as a whole. This way of classifying jobs and skills for each job ignores the socialisation that comes with orientating individuals to jobs and suggests that an individual's portfolio of skills can be objectified, thereby considering skills as physical capital that is devoid of humanity (Ashton & Green, 1996). The commoditisation of skills in this manner suggests that work can be atomised and is often criticised for the lack of contextualised acquisition.

2.5 Conclusion

The Singapore government takes it upon itself to protect the welfare of its country and citizens by using lifelong learning as a means toward achieving larger national, political, economic and social good. The government links lifelong learning to productivity and employability, both of which are valued as indicators of state success. Evidently, in an effort to ensure control over its citizenry, Singapore also sets up structures that conscript people in as agents to forward the national agenda. From schools to CET systems, the Singapore government attempts to shape its citizens by adopting pedagogic agents (for example, teachers) and conferring upon them the responsibility of ensuring active citizenry or good citizenship.

Regulating occupational mobility is one of the means of ensuring low unemployment rates and a viable skill redistribution strategy. Inherent in the lifelong learning rhetoric though, is the unspoken acceptance of occupational mobility as a by-product of contemporary knowledge economies. Regulated occupational mobility schemes, whilst noble in its cause to help the workforce cope with the 2008 recession, neither fail to acknowledge the complexities of skill development and occupational preparation nor take into account, an individual's prior education and practical experiences. The government's view of conversion programmes assumes certain knowledge gaps that can be bridged and rectified through participation in lifelong learning. While conversion programmes appeared to have helped circumvent the recession and kept workers in jobs, the larger issue regarding the intention behind such a scheme remains, and if indeed it had been conceived purely to keep national employment rates down.

The discussion on the feasibility of a nationally regulated occupational mobility scheme further necessitates a reconsideration of the role of generic skills and to explore more effective ways of teaching these skills so that they can be applied in a range of different contexts. Are generic skills really generic or do specific occupational skills have to be taught within specific contexts before they eventually morph into generic skills for other contexts? This manner of exploring generic skills is discussed in Chapter Eight.

It appears that an unintended consequence of creating such a national occupational mobility scheme costing S\$40million (£20million) is the creation of a culture of risk-taking and career mobility. The implications for a highly skilled country where the government maintains a strong foothold over its citizens are whether government control can extend beyond what is necessarily only for the national good or if there is room to consider support structures for the single individual within the workforce. In the next chapter, I present the background that underpins the specific ex-teacher and ex-engineer workforce groups that are examined in this research. I explain why professionals are an important category and share what current literature is saying about mobility for these two specific professional groups.

CHAPTER THREE: MOBILE PROFESSIONAL WORKERS; TEACHERS AND ENGINEERS IN THE WORKPLACE

In a globalised world, we [Singapore] can stay competitive by raising our education levels and productivity. We can pull ahead by enlarging our talent pool and remaining an open, vibrant society.

(Prime Minister Lee, 2011)

3.1 Introduction

The raising of education levels has created a mounting professional pool of workers. Professionals now constitute an increasingly important occupational category and have become a group that warrants greater attention from the Singapore government. As highlighted by first, the comment by Prime Minister Lee above on increasing education levels; second, the ESC recommendations for the development of professional workers; third, the cabinet ministers' acknowledgement of the rising international knowledge economy (See Gan, 2010; Lee, 2011; MOM, 2011); and finally MOE's drive towards providing more higher education places for local Singaporeans, the establishment of support worthy of a progressively more qualified professional workforce becomes important. As described by Sung (2012) the skills and education profile of Singapore in 2011 comprises 47% of the resident workers with a diploma- or degree- level qualification, and is a considerable increase over the equivalent figure of 30% in 2001.

With reference to the ESC recommendations (Economic Strategies Committee Singapore, 2010), it was acknowledged that there is a huge need for professionals in Singapore to develop horizontal general skills in areas such as business operations, people management, project management, marketing and finance. The governmental effects of adopting a political weapon powerful enough to ensure the development of specific knowledge actors and outcomes for the creation of the learning citizen were approached in a methodical manner. Similarly, the establishment of the CET Masterplan (Ministry of Manpower, 2008) was set out in a comprehensive manner to prepare Singaporean workers for the future and to develop a source of competitive advancement for Singapore. This masterplan was underpinned by the belief that if the Singapore economy was to remain globally competitive, then "lifelong learning as a capacity and practice of individuals, institutions and educational systems must

be brought forth in the construction of a learning society” (Fejes and Nicoll, 2011:2).

Prime Minister Lee confirmed this at the 2011 National Day address when he said,

We will grow our economy by upgrading ourselves and raising productivity. We will educate our young well and retrain our older workers effectively (Lee, 2011).

For the Singapore government, a qualified workforce with the necessary skills and competences are central to national prosperity. CET has gradually been organised around a deficit model that assumes people are in need of ‘qualifications’, therefore the CET system is viewed as a skills strategy, which enables adults to become more qualified so that they can be employable. The national investment in the CET system was committed at a sum of S\$5 billion (£2.5 billion) for a decade starting 2008. The CET masterplan is premised on the belief that as more industries restructure and move up along the value chain, every worker regardless of educational or skill levels, must continually upgrade and update his or her skills to stay relevant and perform their job better. Indeed some would need to acquire new skills in order to change careers and seize emerging opportunities from the new growth industries.

My research looks specifically at ex-teachers and ex-engineers and has identified them as transformative professional intellectuals (Giroux, 1988) who go through processes of socialisation, so that the recursive non-linear reconstruction of personal and professional occupational experiences for sustained employment in different contexts are attained.

The following sections of this chapter explain the rationale for engaging with these two professional groups and explore what the current literature about teacher and engineering mobility are saying about their movement patterns and lived experiences. It concludes with a discussion about the gaps in current literature.

3.2 Professionals in the Teaching Sector

The concept of the knowledge society is one of the most pervasive concepts in the rhetoric of educational reform (Looney & Klenowski, 2008). There is widespread agreement that internationally, more countries are depending on the creativity, skills and knowledge of the entire population rather than on dwindling resources such as raw materials or a supply of people willing to work for very low wages (Biesta,

Field, Hodkinson, MacLeod and Goodson, 2011). For international educational systems is that it is now paramount for students to become better learners and generators of knowledge (Hargreaves, 2003). What this means is that future national well-being is now determined by the existence of a knowledge economy and a learning society (Jarvis, 2007) that emphasises a person's ability to learn so that he can adapt and thrive.

The position of the Singapore government on education is premised on what Castells (1996:345) calls "the key quality of labour", where knowledge no longer characterises nor defines the knowledge worker, instead it is their ability to learn and re-learn or "creative ethos" (Florida, 2002:21) that is critical. The notion of the knowledge society is one of the more pervasive concepts that have emerged from the rhetoric of workforce development and has indeed found its way into the public discourse within the nation.

More specifically within the Singapore context, the emergence of the knowledge economy and the development of its accompanying knowledge worker have resulted in the MOE's targeted expansion of their teaching workforce to 33,000 by 2015 and a government investment of S\$4.8 million (£2.4 million) to meet this demand. As previously mentioned, since there exists two education systems in Singapore, government spending in teacher development is separate from the CET budget described earlier. The training of teachers is viewed to be the prerogative of the education ministry and is distinguished from the ambit of the manpower ministry that governs the training for workers in all other sectors, excluding those that are overseen by their respective professional associations such as medical boards, architectural associations and accounting groups instead.

As explained by education minister and second minister for defence, Dr Ng Eng Hen, "we want to increase the ... teaching workforce because there are clear educational needs" (Channel News Asia, 2010). Evidently, these educational needs refer to the rising knowledge economy and the need for Singapore to ensure that in the absence of natural raw resources, their human resources are well-equipped with relevant skills to deal with and manage the changes that globalisation brings. The national effort and investment in developing the teaching force were highlighted from as

early as the second half of the last decade through a government statement on raising and sustaining the teaching workforce. The following statement demonstrates the national recognition of the potential mobility of teachers and the need to ensure the retention of teachers too. It stated that,

...over the past 5 years, we have grown the strength of our teaching force from 25,000 in 2002 to 28,000 in 2007. We have maintained the high standards that we expect of new entrants and we have also been able to retain good teachers. This is despite the competition from other attractive sectors in a robust economy. The major improvements in the “Grow¹⁴” package for teachers have also helped to keep the teaching profession an attractive one. The overall attrition rate due to retirement and resignation has remained steady at a low rate of 2.4% over the years (Ministry of Education, 2007).

Such is the prominence accorded to the teaching force by the government in an effort to maintain the quality of education for the knowledge worker, and to retain them too. Unlike countries like the UK, the USA and Australia, teachers are directly and solely employed by the state via the MOE. Aligned to the concept of power and control, the resultant hold that the government has on teachers enables the use of these teachers as key state agents, who drive the national agenda forward through citizenship education that ensures the creation of good citizens. It also reinforces the Singaporean government’s emphasis on using teachers as pedagogic agents of the state to escalate their national cause and create good law-abiding citizens. The government’s investment on the development of teachers indicates the high regard that the government accords to these state agents in ensuring that the national code is effectively shared and well places teachers as a valid professional group for my research.

As of 2009, there are a total of 27,381 teachers in the educational institutions of Singapore (Department of Statistics, 2011). While teacher attrition rates are reported as being a very low rate of 2.4% (Lui, 2007) it is commonly believed by educators that this figure is in fact, much higher. Anecdotally, sources have put the rate at 25% instead. Regardless, judging by the 2.4% attrition rate and assuming a workforce of

¹⁴ The GROW Package is an enhanced career structure for all Education Officers in Singapore. It aims to maximise the Growth of our Education Officers through better Recognition, Opportunities, and seeing to their Well-being. It provides for instance, interest free study loans, reimbursement of course fees up to 80%, study grants of \$9,000 (£4500), Study awards with full scholarship of course fees and full-pay/no-pay leave and postgraduate scholarships with full sponsorship of course fees and full-pay leave.

28,000 and since MOE as explained earlier is the only employer of teachers, my research predicts that there are at least 672 teachers who are entering other occupations annually.

International research further cites the grim realities surrounding teacher mobility. Darling-Hammond (1999) for instance, draws the conclusion that at least 30% of beginning teachers in the United States leave within five years of entry into the profession; the “Project on the Next Generation of Teachers” (Johnson & Kardos, 2004) cited 50% of new teachers leaving within five years in the USA—22% within the first two years. Further, projections of teacher supply suggest that this is not a situation confined only to the USA. Smethem (2007) also found similar concerns in Europe (European Commission, 2002) and the situation in England also appears bleak as Feng (2011) found that on a national level, about 8% of teachers quit teaching every year and that this percentage has been increasing since 1987. The implications for my research are that these teachers are now employed elsewhere and hence it is crucial to find out how they are negotiating mobility in their career trajectory.

3.3 Occupational Mobility amongst Teachers

In the UK, an initiative known as “Teach first¹⁵”, driven by a vision for a society where no child’s education is limited by their socio-economic background, seeks to develop teachers with skills that they can eventually take with them into other occupations. This is testimony of the recognised mobility of teaching skills since the rationale of the programme justifies that people will carry through the skills they develop as teachers into other careers. In spite of this, little research has been conducted on where teachers eventually end up. Rather the research focus has been on the impact of “Teach first” on improved GCSE results; and the successes of developing teachers as compared to more traditional teacher development model and pathways. From the review of research, it became clear that the existing teacher mobility studies prioritised issues that pertain to quit decisions, attrition and retention of different groups of teachers; from beginning to head-teachers. Boe,

¹⁵ <http://www.teachfirst.org.uk/AboutUs/> [Last Accessed 12 May 2013]

Cook, & Sunderland (2008) found that almost a quarter of the USA public school teachers are leaving teaching, change teaching areas or migrate to a different school each year. In the USA, the National Commission on Teaching and America's Future (National Commission on Teaching and America's future, 2003) found that 14% of teachers leave the teaching profession by the end of five years.

Yet very little is known about what and how they do after leaving teaching. Even less is known about how these former teachers have negotiated the movement out of teaching into their new occupations. Only one study by Buchanan (2009) attempts to examine the transfer of knowledge, teacher-borne skills and expertise to other occupations in Australia. His study which examined the career trajectories of 22 ex-teachers highlighted their transferability into other occupations and value of teaching related skills in other occupations. In spite of that, little is still known about how the transferability occurs and applicability of such skills, more so within the local Singapore contexts. The motivations and broad objectives for Buchanan's study however were to improve perceptions of teachers and the retention rates in the teaching profession so did not seek an understanding of the occupational mobility process.

It is likely that because of the way in which our current occupational systems and associations are set up, the National Institute of Education (NIE) or MOE for that matter, would only be interested in research pertaining to existing teachers, hence their focus on issues like retention and attrition so that they can better understand and minimise these issues. However, it would not be in the interest of any specific occupational group to examine which sectors teachers are leaving the teaching profession for. Human resource departments are usually more interested in larger workforce groups and would not expend time and effort on finding out how teachers are adapting themselves to new occupational destinations or trajectories.

3.3.1 Attrition, Dissatisfaction and Inter-school Mobility

Much of the literature is driven by the need to understand the dissatisfaction of teachers, which contributes to the high attrition rates. Luther & Richman (2012) for instance focus their studies on listening to teachers in the hope of reducing attrition and find that many novice teachers choose to exit the field while still in the early

stages of their career. Similarly, Cooper & Mackenzie Davey (2011) looked at the career decision-making mechanisms which govern teachers' disaffection with teaching and sought to understand why they stay in spite of their dissatisfaction with teaching. Their study focused primarily on occupational change as a discrete event and did not explore life after teaching. Feng (2011) in her study "Teacher Placement Mobility and Occupational Choices after Teaching", attempted to explore the effects of initial school placement on teacher mobility. The study combines data from a *US Baccalaureate and Beyond* longitudinal study with school district information. However the study focuses only on teacher mobility across different school districts and renders that as occupational choice. She further suggests that a teacher's initial placement has important implications for student achievement and the distribution of teachers among schools, but did not seek to address the issue of mobility after teaching.

Similarly, Oplatka's (2005) research defines teacher mobility as inter-school transition, and examines the inter-school transition during the career cycle of mid-career women teachers in Israel. It sought to understand the process of voluntary interschool transition and its association with teachers' self-renewal as well as to unearth contextual and biographical determinants that facilitate this kind of connection in their career cycle, but fails to capture the inputs of teachers who had transited entirely out of the profession.

3.3.2 Retention

It was also found from the review that existing research has focused on teacher retention. Clayton & Schoonmaker (2007) explored the career trajectories and biographies of three women who completed the same graduate pre-service programme in elementary education. It focuses on the teachers' stories to describe the layered process of socialisation in an effort to make sense of the continuous reconstruction of personal and professional knowledge through the years encompassing teacher education and into the early years of teaching. This was done in the hopes of shedding light on the possibilities that surround teacher retention.

Similarly, Smethem (2007) conducted a quantitative study hoping that it could inform teacher retention strategies. His research serves only to supplement existing

knowledge about the career of teaching, highlight the challenges that are prevalent, and track the conceptions of linear career paths derived from the former industrial era. The research also only focuses on beginning secondary teachers' notions of career from initial attraction to the profession, experience and projected career trajectories in the subsequent years. Unfortunately the findings only had implications on the increasing marketisation of education and intensification of teachers' work, and its accompanying challenges on teachers' moral purpose and professional identity.

3.3.3 Teacher Training and Quit Decisions

Other research on teacher mobility tends to focus on the relationship between teacher training and quit decisions. Smith & Ingersoll's (2004) study on the effects of induction and mentoring on beginning teacher turnover focuses again on the offer of support and guidance for beginning teacher and the effects that the support has in retaining teachers in the profession. It relied on data that was extracted from a nationally representative 1999-2000 school and staffing survey cohort and finds that beginning teachers who were provided with mentors from the same subject field and who participate in collective induction programmes are less likely to move to other schools and less likely to leave the teaching occupation after their first year. Its focus on the provision of mentors in relation to quit decisions does resonate with some of the findings of my study.

In an earlier study, Brewer (1996) focuses his study on the quit decisions of teachers too and suggests the conventional argument that teachers often considered the employment opportunities and monetary rewards over their lifetimes when considering quit decisions. It also emphasises the relationships that occurred when transiting between teaching and school administration as well; again suggesting the value of relationships in the workplace. Buchanan (2010) also explores the events surrounding ex-teachers' decisions to leave the profession. He finds that few regret their decision to leave the profession and suggests that his work has larger implications for teacher retention and recruitment. Other researchers like Hill (1994) explored primary head-teachers' careers and conducted a survey of primary school heads with reference to women's career trajectories in the hopes of exploring the career trajectory of 287 primary head-teachers in one local education authority in the

United Kingdom. Again the study only focuses on teaching career development factors that pertain to level, qualifications, geography, age on first appointment to headship and sabbatical opportunities. The mobility research was restricted to intra-school job mobility within the same teaching occupation.

My research is not about teacher attrition and does not investigate the rationale and conditions upon which teachers are leaving the profession. It attempts instead, to investigate why ex-teachers are successful in their new careers. As seen so far, while many international studies have been conducted on teacher retention, attrition and turnover (see Arnold, Choy, & Bobbit, 1993; Brewer, 1996; Dolton & Van der Klaauw, 1995; Smethem, 2007), none except for Buchanan's (2009) study, examine teacher mobility into new jobs. Feng (2011) points out that more studies such as Hanushek, et al. (2004) and Imazeki (2004) have focused only on evaluating teacher mobility across school districts, and as spurred by the No Child Left Behind (NCLB) requirement for 'highly qualified teachers' in all classrooms, only investigate teacher mobility within school districts (Clotfelter, Ladd, Vigdor, & Wheeler, 2007; Hanushek, Kain, O'Brien, & Rivkin, 2005; Lankford, Loeb, & Wyckoff, 2002; Scafidi, & Stinebrickner, 2007).

Furthermore, much of the education-related research that is carried out by the Centre for Research and Pedagogical Practices (CRPP) in Singapore's national teacher training college NIE, focus only on classroom pedagogies, student outcomes, learning environments, intervention strategies and effective policy formulation (CRPP, 2011). Professor Lee Wing On, Dean of Education Research confirmed this when he wrote in his editorial foreword in NIE's Research in Education (REED) magazine,

Pedagogical research is at the heart of research at NIE, particularly pedagogies that would develop 21st century skills and literacies. With such goals in mind, researchers in this issue delve into the sciences of learning and teaching experiences. They challenge the status quo, create new learning technologies, and experiment with "bottom-up" pedagogies with a focus on students' activeness in learning (CRPP, 2011).

It appears that while no research exists on teachers' aspirations and enablers that facilitate successful teacher mobility and career development beyond teaching, it can be inferred from all these studies that workplace support is important for retention,

and that there is a value for the installation of mentors and peer support groups to help orientate and ensure sustainability in the new occupation. Further, the intensification of work appears to be a push for many who are not prepared for participating in responsibilities beyond teaching, and that thoughtful induction in preparation of new entrants for their new occupational role, is key. Clearly, the lack of research in this area is a result of how our occupational groups are set up. When individuals choose to leave the occupation, there is no specific body or association who is responsible for monitoring their movement or trajectories since there is no definitive destination. Suffice to say, the only group of people who may be interested in more general mobility, are business management or human resource groups, who may either engage in instances of high theorising related to organisational or career development theories or low theorising regarding how people generally choose jobs.

3.4 Professionals in the Engineering Sector

Engineers create. The Singapore we see today was not created overnight (...) It is a long and arduous process, but we were fortunate to have the service and dedication of generations of engineers, each bringing with them specialist skills and general problem-solving capabilities (Lee Yi Shyan, Minister of State for Ministry of Manpower and Ministry of Trade and Industry, 2011).

The idea that engineers have social responsibility was woven into the fabric of Singaporean society from as early as the 20th century. Engineers have traditionally been viewed as the heroic constructors of material structures of modern society. Crawley, Malmqvist, Ostlund, & Brodeur (2007) states that the description of an engineer's competencies might include the following; possesses a scientific base of engineering knowledge, problem-solving capabilities and the ability to adapt their knowledge and practices to new types of problems.

A study by PayScale cited in Huffington Post that engineering graduates are best paid (The Straits Times, 28 July 2011). Degrees with majors in engineering took seven of the top 10 spots in a survey of best paying college degrees. Briefly, as summarised in Table 1 below, the report cited the following starting and mid-career medium pays of several engineering disciplines:

TABLE 1: PAY SCALES FOR STARTING AND MID-CAREER ENGINEERS (FROM THE STRAITS TIMES 28 JULY 2011)

Engineering Discipline	Starting Median Pay (US\$)	Mid-Career Median Pay (US\$)
Petroleum Engineering	97,000	155,000
Chemical Engineering	64,500	109,000
Electrical Engineering	61,300	103,000
Materials Science and Engineering	60,400	102,000
Computer Engineering	61,800	101,000
Physics	49,800	101,000
Applied Mathematics	52,600	98,600
Computer Science	56,600	98,600
Nuclear Engineering	65,100	97,800
Biomedical Engineering	53,800	97,800

Source: PayScale¹⁶

An ideal engineer is described by Gray (as cited by Crawley, Malmqvist, Ostlund, & Brodeur, 2007) as one who possesses,

...an insatiable curiosity for understanding how things work, over the broadest spectrum of engineering and nature, underpinned by any necessary understanding of hard science or engineering practice; sufficient confidence to model and analyse the behaviour of engineering systems, This can only be developed through the experience of doing it independently; awareness of and sensitivity to, the contexts in which engineering is set, that is, social, environmental, economic and political; Sufficient confidence to make things happen and artefacts work, based on the experience of doing it against time and cost budget; awareness of the capabilities of self and others; ability to make the best of these capabilities, based on the experience of doing and through reflection on how things happen.

In Singapore, engineers are publicly acknowledged to possess skills that would take them into sectors beyond the technical industries. Minister of State (MOS) for Ministry of Manpower and Ministry of Trade and Industry, Lee Yi Shyan for instance, recognised the non-linear reconstruction of personal and professional knowledge of engineers' mobility and transfer into other occupations when he said,

Engineers' contributions go beyond manufacturing. They are present in virtually all sectors of our economy: banking, business services, finance, construction, communications and IT, logistics, transportation and many

¹⁶ A private company founded in 2002 and headquartered in Seattle, which claims to be a market leader in global online compensation data. Its database is compiled from information submitted voluntarily by people who do so in exchange for reports on how much other people in similar employment situations earn annually.

others. Many civil servants and ministers, past and present, are also trained engineers (Ministry of Manpower, 2011).

He also reiterated in a speech at the official launch of the National Engineers Day in 2011, the various stages of industrialisation that Singapore had undergone and accredited engineers' contributions to building Singapore's industry prowess,

From the 1960's rudimentary general manufacturing and 1970's electrical appliances production, we moved on to the petrochemical industry in the 1980's. In the 1990's we shifted to semiconductors and disk drives manufacturing before finally moving to biotech and nano technology in the 2000's. At each phase, engineers of different disciplines have made sterling contributions in building up our industry prowess. In the process, they created deep layers of skills and know-how that formed the foundation for future growth (Ministry of Manpower, 2011).

Clearly, engineering is viewed as a profession of upward mobility, which has the potential to positively influence the well-being of society.

The changes in the social use of technology may however, create challenges for engineers particularly when greater ease of technology usage may diminish reliance on engineers per se. With expanded reliance on technology to improve routine engineering work for real-life application, there are now calls for the development of a new breed of engineers who possess more overt social skills instead.

Leopold, R. From The Motorola Corporation as cited in Crawley, Malmqvist, Ostlund, & Brodeur (2007:23) described in an interview with the authors that,

In my estimation, the greatest potential contribution of engineering graduates is their ability to perform their engineering skills with a more mature appreciation of how a product satisfies real societal needs. This requires project success, broadly defined, which is based on both engineering and non-engineering contributions (...) As part of this process engineering graduates must have a better understanding of the value they add to the organisation. They must have better-developed personal skills, and be able to work with other engineers and with colleagues from other disciplines. The maturity of an engineer flows not only from knowledge of the breadth and depth of disciplinary knowledge, but also from the individual's experience in developing personal and professional skill.

While the status and prestige accorded to an engineer operating in a Singapore context and the acknowledgement of the engineers' contributions toward nation building are evident, there is now a need to consider the development of a more

functional engineer that befits the requirements and demands of the contemporary 21st century.

More recently, in an effort to attract more undergraduates to consider engineering as a profession, a book entitled “One degree, many choices” (Liu, 2012) served to depict the diversity and mobility of engineers by tracking the pioneer batch of 557 engineers from Singapore’s first engineering programme class of 1985, at the Nanyang Technological Institute. The authentic narratives from the inaugural cohort, share how an engineering degree has opened doors and provided many of its beneficiaries with opportunities into other occupations.

Unfortunately the diversity of the Singaporean engineering profession has resulted in the lack of an available aggregation of the total engineering workforce. It was reported recently on the daily news, that there are approximately 4500 local engineering graduates produced each year. Based on the average 45,000 birth cohorts per year, and assuming that 20% of each cohort ends up with a degree, we assume that there are approximately 9000 graduates entering the labour force at any given year. Of the 9000 graduates produced each year, the reported 4500 engineers make up half of graduates entering the workforce and suggest a huge continued interest in the profession. Further, this trend was confirmed by Minister of State for Ministry of Manpower and Ministry of Trade and Industry, Lee (2011), who acknowledged that on a per capita basis, Singapore produces amongst the highest proportion of engineers compared to many other nations.

The reverence that is accorded to this professional group is undeniable. Evidently, the infrastructure to uphold the industrious growth of Singapore continues to be reliant in part, on a sustainable engineering workforce and the government’s steadfast commitment to the professional development of its engineers. As emphasised by then Minister of Manpower, Mr Gan Kim Yong in his address to engineers in 2010,

The engineering profession will play a crucial role in the necessary transformation of our economy. Every sector in our economy requires engineers. This is true not only in manufacturing or construction; but also in service-related industries such as hotels, retail and logistics, not only in the technical or operational areas but also in management and planning. This means that there are many opportunities out there for our engineers to make a positive impact on the productivity of the companies that they work in (Gan, 2010).

He further went on to publicly commit government financial investments of up to 50% for professional level training subsidies in the Workforce Skills Qualification (WSQ) training programmes for engineers in sectors such as precision engineering, bio-pharma and wafer fabrication.

On the academic front, more has been done to align and rethink engineering preparatory education too. Charles M. Vest, President Emeritus at the Massachusetts Institute of Technology (MIT) explained in his foreword to Crawley et al. (2007) book, entitled *Education Engineers for 2020 and Beyond* that,

Challenges (in engineering education) for the past 35 years include (...) communicating what engineers actually do, and bringing the richness of human diversity into the engineering workforce. Students must learn how to merge the physical, life, and information sciences at the nano-, intermediate-, micro- and macro- scales; embrace professional ethics and social responsibility, be creative and innovative and write and communicate well. Our students should be prepared to live and work as global citizens, understand how engineers contribute to society. They must develop a basic understanding of business processes; be adept at product development and high-quality manufacturing; and know how to conceive, design, implement and operate complex engineering systems of appropriate complexity. They must increasingly do this within a framework of sustainable development and be prepared to live and work as global citizens.

The mobility of engineers into other occupations almost seems justified and warranted now that international engineering education has taken on the responsibility of creating engineers who not only possess the technical expertise but professional and personal skills for active global citizenry.

3.5 Occupational Mobility amongst Engineers

It was discovered as in the case of the review of teacher research earlier, that no study measuring the extent of the career mobility of engineers beyond the engineering occupation had been conducted. Again, the rationale is as previously explained that because of the way in which professional bodies and systems are set

up, there is no room for monitoring where an engineer who leaves the profession ends up. Engineering bodies are more interested in examining how they can help existing engineers in the system than to drive research that seeks to understand the occupational trajectories of prodigal engineers. Instead, as the next few sections shall show, current studies deal with engineer mobility in relation to migration, culture and gender (Robinson and Mcilwee, 1991). Apart from attempting to link mobility to inter-state and intra-firm movements (Resis, 1955), some studies attempted to use the engineering profession as a proxy for measuring social mobility especially when compared to occupations of these engineers' fathers (Perucci, 1961).

In others, racial comparisons were drawn from data, which measured equity in engineering career trajectories (Tang, 1993). In some extreme studies, the movement of engineers was rationalised as contributing to brain circulation with the value of these returning engineers after having spent a period of time outside their home country argued for (Johnson and Regets, 1998).

3.5.1 Gender and Culture Factors

A strong gender bias seemed to stem from earlier studies, with only one study examining women's position in engineering. Robinson & Mcilwee (1991) proposed a conflict model that emphasised the interplay of structural and interactional resources to explain the occupational positions of women engineers. A central feature of the model is the culture of engineering; the socially defined standard of behaviour and interaction among engineers. It was found in their study that males and females with virtually identical qualifications and occupational attitudes show dissimilar job statuses. It was argued that the culture of engineering, which strongly identified with the male gender role, works against women. Where that culture is strongest, women do most poorly in occupational status and mobility.

Another earlier study that looked at occupational mobility for professional workers was that of Resis' (1955). His study described the patterns of occupational mobility for men in selected professional statuses of which engineering is one. The data set comprised of 654 white males, aged 25 years and over across four cities; Chicago, Los Angeles, Philadelphia and San Francisco in January 1951. The sample was defined as those having held a professional job at some time between 1940 and 1950

and who had worked for a month or more in 1950. It provided a very biased perspective of occupational mobility and focused on inter-state movement. The limitation of that research, apart from the fact that it was conducted in the 1950s, is that the range of professional statuses has also changed drastically from then. It was also not specifically focused on engineers as a sole distinct professional group.

Perrucci (1961) however, focused specifically on engineers, and defined them as professionals. His study examined the institutional avenue of mobility; that is, how occupational mobility was measured within the scope of intra-firm mobility. A time-comparative sample was analysed to determine the effect of social economic origins upon the relative prestige of one's job position in the professional category. Situated within the American context, this research dealt more with issues that surround social class and the propensity to move beyond their father's occupation. This research was driven by a focus on the relationship between fathers' occupation and sons' subsequent careers. Apart from the fact that this research was conducted in 1961, it dealt largely with social mobility and measured only the social class origins of these engineers. The research failed to inform the rate and the propensity of movement and did little to provide the career trajectories and contextual factors that facilitated or hindered the mobility.

Tang (1993) attempted to explore the influence of race and nativity, assimilation, human capital and market structure on patterns of income and career transitions of Caucasians and Asian engineers in the USA. She conducted a comparative quantitative research study, which employed multiple and logistic regression techniques to analyse the career histories of 12,200 Caucasian and Asian engineers from 1982-1986. She attempted to measure how well Asian engineers had performed in relation to Caucasian engineers. Her results indicate more racial disparity in managerial representation and upward mobility than in earnings, and more disparity in career attainment between foreign-born Asians and Caucasians than between native-born Asians and Caucasians. The data suggest that Asian engineers, except recent immigrants, have achieved earnings parity but have not yet attained occupational equality with Caucasians. This had little bearing on my research apart from reinforcing that more needs to be done to understand Asian motivations and aspirations for career development and movement.

3.5.2 Circulation of Knowledge

Another theme relates to the movement of knowledge when occupational mobility is considered. Johnson & Regets (1998) tried in their study, to rationalise the mobility of engineers and scientists to the USA. However, they argued instead for the one-way mobility to the US that deprived the countries of origin of the best and the brightest scientists and engineers. They argued the case for a brain drain that the countries of origin had to grapple with, and also introduced the concept of brain circulation, suggesting an advantage to the home country when these scientists and engineers do return. They tracked the number of foreign scientists and engineers who stayed in the USA and argued for the notion of brain circulation. The research does not delve into occupational mobility as much as it does the benefits of sharing of knowledge and expertise through international circulation of brainpower. It focuses on issues, which surround the diverse engineering supply in the USA and assumes that these engineers remain engineers all throughout their career life-course. What is relevant that can be applied to my research is how engineers are taking the knowledge with them as they move from one country to the next. This resonates with the knowledge that engineers are taking with them as they move on to other occupations, circulating their knowledge in new occupational fields and shall be explored later in Chapter Seven.

3.6 Conclusion

By proportion, the number of skilled workers being produced in these two sectors is significantly large, and the training regulation of these sectors warrant longer prior employment training hours before qualification. Graduate teachers for instance undergo a compulsory one-year post-graduate training programme while non-graduate teachers go through a three-year training programme. Similarly, graduate and diploma level engineers undergo a four-year and three-year specialised training programme respectively. It is clear that there are great financial and time investments in the training of teachers and engineers. These two groups are of symbolic importance to the Singaporean contexts since they contribute in their respective ways to the building of Singapore.

In addition, these two occupational groups; one technically-specific and the other, dispositional-inclined, are also highly specialised in their respective domain areas of

knowledge; and are appropriate occupational groups, which can inform future policy initiatives that relate to managing career life-courses of the more general professional worker.

Existing research on teacher and engineer mobility does little to unravel the complexities that confront these two groups whenever they move into a new occupation because of the ways in which current occupational systems are set out. It is only reasonable that educational and engineering associations or bodies are interested in research that relate to existing teachers' and engineers' intra-movement within the occupation, retention or attrition. As teachers and engineers move into the larger labour market, there is no collective governing body responsible for overseeing their resulting occupational trajectory or destinations since many move into vast fields of unrelated roles. Hence, it is understandable why the review of literature points to a dearth of research on these two professional groups beyond their former professions and indicates a huge gap in research literature of an increasingly prominent phenomenon in this contemporary age. The studies also do not deal with movement out of the profession into non-related contexts within an Asian context.

Apart from Buchanan's (2009) Australian study which sought to make sense of whether teachers leaving the profession constituted a brain drain or skill-spill, the literature review revealed a scarcity in knowledge regarding where these teachers were going, and what they are doing with their existing teacher skills. This review strongly suggests the need for research in understanding and identifying where engineers and teachers are moving into, given their high attrition rates and the types of skills that they are bringing into their new occupations as identified in Johnson and Regets' (1998) study on the circulation of knowledge. There is also a need to explore the contexts in which these ex-teachers and ex-engineers exist, so that a better understanding can be sought on the occupational mobility decisions and personal aspirations of these professional groups.

In the next chapter, I explain what the current literature is saying more generally about occupational mobility and highlight the gaps that exist in attempting to make sense of occupational mobility within the literature.

CHAPTER FOUR: CONTEMPORARY PERSPECTIVES IN OCCUPATIONAL MOBILITY

In my age, staying long term in a job is not something that you associate with anymore. Of course ultimately you need a job to pay the bills, as a means of living and ultimately a lot of it is now about an exciting life, and I like to see the world, so maybe a job that would allow me to do that, then definitely I will go for it, so maybe currently for now the job does allow for it to some extent... but for my generation, job security is not so important anymore.

(28 year-old pilot participant from preliminary study)

As established so far, there lacks research on teacher and engineer mobility because of the way that current workforce systems and occupational bodies are set up. There is simply no justifiable interest by any specific bodies or groups at this point, on a group of mobile professionals who are leaving their professions and entering diverse fields of unrelated occupations. What's been discovered thus far is the circulation of knowledge that occurs when transitors leave one occupation for the next, and the context within which these Singaporean engineers and teachers operate. This section of the thesis focuses on the review of research pertaining to the more general perspectives of occupational mobility. It begins by discussing the various discipline-specific perspectives before the gaps in literature are highlighted. The research that is referred to in this chapter are western in origin and focus, and does not take into account the value of collectivism and community influences that often define the Singaporean culture (Bian and Ang, 1997). It is important to state that my research is not about the development of another occupational mobility model. It seeks instead to explain how occupational mobility is facilitated and enabled. The review of occupational mobility research provides the basis for the theoretical perspectives, which underpin my research and is set out in the next chapter.

4.1 Introduction

Broadly, it was observed that much of the mobility literature revolves largely around the scientific rationalisation of mobile behaviour. Theorists like Vardi (1980), Milkovich Anderson and Greenhalgh (1976), Grusky (1966), Gitelman (1996), Sicherman and Oded (1990) and Veiga (1983) brought precision into their analysis of mobility. They attempt to calculate the rate of mobility in relation to human

capital, wage differentials with multi-variance and quantitative measures and frameworks. In contrast, writers like Hout (1984), Wilensky (1960), Super (1957), Roe (1956) and Dalton (1970) are more concerned with the qualitative extent and understanding of mobility in terms of the continuous process of adjustment to social and occupational environments, actual work experiences and how it affects rational occupational choice. The assumptions that have been made about individuals do not consider the humanising factors that make each individual different.

Central to this review is the acknowledgement of the emerging knowledge worker in the global context that is set against a climate where the nature of professional work has changed dramatically in recent years. Unfortunately, the old world of work, which was previously characterised by job security, vertical career progression and dominant employer autonomy in employee career trajectory no longer, exists. Work now involves far greater pressures, are more complex and generate ill-structured problems and greater uncertainties than before (McLagan, 1999). Further, as international literature suggests, the purpose and direction of a knowledge worker's career is now no longer confined to a single employer boundary and are seen to be the responsibility of the employee (Lamb & Sutherland, 2010). The trend in the new world of work is now that individuals are becoming more self-concerned (Baruch, 2006) as well as globally mobile (Cappellen & Janssens, 2005).

These trends reinforce Bourdieu's concept of knowledge as an investment between individuals and the organisation that presupposes the commodification of knowledge as something which carries an extrinsic monetary value and constitutes the individual's career capital (1986). It places value on the knowledge that individuals bring to the organisation when they negotiate occupational and global mobility; in the case of the employee, the chance for a new occupation; and in the case of the employer, the opportunity for engaging an employee with the relevant expertise and knowledge to escalate the organisation's cause. This argument was similarly echoed by Sennett (1999) when he referred to the value of labour, and the components which contribute to this labour. Since career capital resides within individuals, it is often argued that its usage is left entirely to the individuals' negotiation for a perceived, better position within the labour market.

Interest in mobility studies began at the turn of the century where Sorokin (1959) registered 23 mobility tables collected between the period of 1900-1925. The earliest being the French table in 1900 by Limousin and Coste (Hout, 1984).

This research however, explores studies related to occupational mobility beginning only from the 1950s. One of the more stark discoveries of occupational mobility literature of teachers and engineers so far, was not only the lack of mobility research for these two specific occupational groups but for those tailored to the Asian context. Although theories on occupational mobility exist, they stem largely from the management and business fields and are situated within Western workplaces and contexts. They also do not focus on specific occupational groups, often looking more broadly at a range of different workers instead.

4.2 Organisational Perspectives

Vardi (1980) develops a broad integrative model of occupational mobility from models which exist in the psychological, administrative, organisational, economic and sociological disciplines. He recognises that different conceptions of career result in the range of definitions of theoretical constructs, meanings of concepts, operationalisation of factors, populations investigated, and interpretations of data. These create considerable gaps in the understanding of the organisational career mobility phenomenon. In an effort to simplify these complex conceptions, he limited his definition of occupational mobility to actual mobility within the organisation and attributes subsequent behaviour to what employees and managers feel as a result of it. He reveals not only a few selected and discernible patterns of movement, but also "any un-folding sequence of jobs" (Vardi, 1980:346) and rationalises it as predictable behaviour. His integrative model attempts to serve as a springboard towards more systematic and applicable research in the field of organisational career mobility. His proposed model reveals individual and organisational constraints on career mobility and focuses on the role of such experiences at both levels. His model however, does not examine the range of possible social and contextual factors that contribute to occupational mobility. It only predicts the mobility patterns of individuals within a specific organisational context and since was not defined in the scope of the project, does not address other political and governmental factors that exist in a top-down leadership environment outside the organisation. The general

applicability of this model is also limited since it assumes both organisational and individual levels as sole mediating factors. The model does not observe political and labour market trends and influences too.

In an earlier study, Milkovich, Anderson, & Greenhalgh (1976) also address patterns of job movement as experienced by organisational members but explore such movement through examining the characteristics of the organisation such as its type, technology, structure and size. Their study reinforces Vardi's research in so far as attributing mobility to infrastructural factors. It highlights though that despite the correlation of organisational factors as mitigating factors of occupational mobility, his research does not address individual aspirations and prior experiences, which as explained earlier in Chapter One, the contemporary work environment acknowledges. These signal the need for my research to consider and draw upon the synergies that could occur when individuals are placed within the system, and acknowledge that the organisation is part of this system too.

4.3 Economically-driven Approaches to Mobility

The literature also explores attempts to measure mobility from an economic perspective. Gitelman (1966) identifies four main dimensions to rationalise such aspects of occupational mobility. These are the rate, amount, direction and initiator of mobility. Unfortunately his research was limited to the constraints of the inter-firm activity. His model however, does alert this research to the potential use of economic factors to measure mobility and reinforces the catalytic role that the government could take to seed mobility from an initiator perspective. In an earlier piece of research by Reynolds (1951), a similar effort was taken to make sense of mobility within the organisation through economic measures. Reynolds' research attempts to link mobility to the prevailing types of technology used by the organisation. The structural attributes of the organisation, the characteristics of the workforce and the varying types of organisations are measured as a result of external economic forces, internal cost and supply ratios. His research had initiated the early considerations of individual agency, for example in determining the characteristics of the workforce when examining occupational mobility albeit defined by organisationally driven factors and underpin the theoretical perspectives that are undertaken by my research.

Adopting a more quantitative approach, Veiga (1983) uses a multi-variance framework to measure the reasons for career mobility. Career mobility is represented in his study by two criterion factors; first, the rate of movement and second, the propensity to move. He breaks mobility patterns up into stages and the average time per position is chosen as the operational definition of rate of movement because it provides a standardised and objective basis for measuring a manager's mobility disposition. He measures the impact of 22 individual career-related factors on career mobility and finds that some of them resonate with the substantial portions of variance in both criterion variables. The limitation of his research however, is the lack of a qualitative empirical base. In addition, the factors are classified into three milestones namely barriers to moving, career path factors and finally, motives for moving. Whilst focused on individually driven factors, his study does not explore the effects of government at each stage, nor does it examine the influence that political and economic contexts play in such processes; which is a very important aspect of my research.

In a slightly later study, Sicherman & Oded (1990) analyse the role and significance of occupational mobility in the labour market by focusing on individual careers. They provide additional dimensions to the analysis of investment in human capital, wage differences across individuals, and the relationships between promotions, resignations and inter-firm occupational mobility. They posit that part of the returns to education take the form of higher probabilities of occupational upgrading, within and across firms. From the study, it was suggested that schooling increases the likelihood of occupational upgrading, hence enabling mobility within and across firms. Furthermore, they find that workers who are not promoted despite a high probability of promotions are more likely to quit, suggesting a relationship between tenure and individual expectations on occupational mobility. This is an important consideration for my research since Singapore advocates a compulsory education policy and its citizens are required to attend six years of required schooling; providing grounds for the future investigation of the impact of compulsory education on subsequent occupational mobility.

Sicherman and Oded's research brings to the fore an earlier piece of work by Grusky (1966) who believes that the strength of a person's commitment to an organisation is

greatly influenced by the rewards that they had received from the system and the kinds of experiences they have had to undergo in order to receive the rewards. He further hypothesises that the greater the rewards received, the greater the degree of the person's commitment; and the greater the obstacles the person has had to overcome to obtain the organisation's rewards, the greater their commitment. His findings indicate that his first hypothesis was supported when measured on four indexes; seniority, identification with the company, attitudes toward company administrators and general satisfaction with the company. It signals the need for my research to consider the role of rewards within a meritocratic society such as Singapore, where the government has recently been trying to promote the practice of rewarding good performance. This serves to create conflicts because Singapore still comprises a large Asian population, governed by strong Confucian ethics of respect for seniority. The implementation of meritocracy within an Asian society creates tensions especially when the notion of hierarchy makes promoting younger and more capable employees ahead of their more seasoned counterparts, difficult (Lew & Kim, 2005). Again, this serves as grounds for future research.

Interestingly, Grusky also finds that managers who had been most mobile during their careers had ironically expressed the greatest loyalty to the firm, suggesting that the rate of movement and the propensity to move may be inversely linked to eventual commitment and loyalty. The research does not however, unpack the contextual factors that surround individuals beyond the organisation and while many of the studies are restricted to firm related factors, it does shed light and corroborate with the reasons why the sample in my research have chosen to leave their initial occupations and are now committed to their current employment. There is value in creating the appropriate identification that individuals could have with the organisation in order to ensure sustainability within the new occupation and shall be explored later and classified as association to the occupation within the theoretical perspectives in Chapter Five.

4.4 Individual Perspectives and Influences

It is crucial to state that much of the basic research on individual driven occupational mobility was informed by, and stems from the work of Hall (1976) who defines careers as the individual processed sequence of attitudes and behaviours associated

with work related experiences and activities over the span of a person's life. The factors are however, limited to organisation and work related factors. He rationalises that when a person is older, he would feel less occupationally mobile and attractive in the job market, so they are more likely to be concerned about job security (which serves as a barrier to movement). He also posits, like Grusky (1966), that a person's career mobility is related to the commitment and identification with the organisation. Hall took his research further when he worked with Super in 1978 on a book entitled "Career Development: Exploration and Planning", where they explored the relationships between individual vocational interests, internalised career images (perceptions of what a career means to the individual), the rational choices of an occupation and actual work experiences to make sense of career mobility and development. The issue with this though, is the subjectivity that surrounds rationality and that the level of meaning, which individuals accord to any situation differs, based on prior psychological and social contexts.

Another leading contributor towards research in this area is that of Schein (1978) who developed the concept of career anchors. The concept revolves around the idea of the syndrome of motives, values and perceived competences which function to guide and constrain an individual's entire career. He rationalises that a person's desire and ability to move is constrained by the value of employment and stability that is accorded. Again, this refers to firm-influenced factors as enablers or barriers of mobility. He also views careers as a path through time that reflects both the individual's work related needs and society's expectations for certain activities. He was particularly keen on the changes in self-identity as one's career unfolded and developed a framework to predict organisational strategic career behaviour. He suggests that individual attributes, choices, attitudes and behaviours are related to experiences that people have with their work mobility; and also saw a relationship between the nature of the first job assignment with subsequent careers. This resonates with the theoretical perspectives that underpin my research and is later defined as job association. Schein's work is notable in that it attempts to understand how individuals negotiate the contextual factors in their career life-course, but unfortunately does little to explain the strategies that individuals utilise to negotiate these factors. Forrier, Sels, & Stynen (2009) through a comprehensive review of

existing literature, introduce the concept of movement capital and suggest that mobile individuals possess human and social capital, self-awareness and adaptability in order for movements to be made. They also identified shock events, which serve as the impetus for specific mobile actions. Their concept though lacking in empirical foundations, resonates with this research and underpins the way in which the mobile individual is later defined in Chapter Nine.

More recently, Harris & Ramos (2013) explored the ways in which individuals assumed greater responsibilities in their career trajectories by examining the career capital theories of adult samples in Australia and Singapore who built individual career capital for effective transitions. The three models of career capital that they had referred to are as follows:

TABLE 2: MODELS OF CAREER CAPITAL THEORIES (SOURCE: HARRIS & RAMOS, 2013)

Model 1 (e.g. DeFillippi & Arthur, 1994; Inkson & Arthur, 2001; Cappellen & Jenssens, 2005; Suutari & Makela, 2007)	Model 2 (e.g. McNair, 2009; Findsen et al., 2011)	Model 3 (e.g. Lamb and Sutherland, 2010)
<ul style="list-style-type: none"> • Knowing-why capital – identification of own career motivations, personal meaning and self-awareness • Knowing-how capital – development of occupational skills, knowledge and understanding needed for good performance • Knowing-whom capital – acquisition of career-relevant networks and contacts 	<ul style="list-style-type: none"> • Identity capital – ability to maintain a sense of meaning and purpose in life, self-esteem and identity, pursued through a wide range of routes, including much ‘non-vocational’ learning • Human capital – ability to contribute to the paid and unpaid economy, pursued through explicitly ‘vocational’ courses and by informal workplace learning • Social capital - ability to live as an active member of a community with others, pursued by engaging in learning with others 	<p>‘Must-have’ capitals:</p> <ul style="list-style-type: none"> • Knowing why • Knowing how • Knowing whom • Knowing what • Knowing where • Knowing when • ‘fit’ (cultural, organisational and functional) <p>‘Nice-to-have’ (differentiating) capitals:</p> <ul style="list-style-type: none"> • Knowing one-self • EQ (emotional intelligence/maturity) • Opportunity identification • Context management and adaptability • Internal locus of control • Action Orientation

Harris and Ramos' research focused on individuals who had undertaken transitions from the Higher Education and Vocational Education sectors. They explored retrospective data from transition information gathered by earlier researches done separately within the field. While the motivations for transition were different for their sample in that they explored formal education within the Higher Education (HE) and Vocational Education (VE) systems as specific triggers for transitions, what appeals to my research, is the career capital theories that they had referred to particularly regarding Lamb and Sutherland's 'knowing-when', 'knowing-whom', 'knowing-how' and 'context management and adaptability' as key determinants of mobility. It is with reference to Lamb and Sutherland's career capital theory that I shall attempt to make sense of the analysis of my research findings because it best resonates with the findings of my research.

4.5 Psychologically-driven Approaches to Mobility

The idea of examining occupational mobility within the context of psychological processes started to emerge with Super (1957); Roe (1956); and later Crites (1969); Holland (1966) and Super & Hall (1978), all of whom had attempted to establish a link between psychological processes and occupational careers. Their studies postulate a relationship between individual vocational interest, internalised career images, rational choices of an occupation, and actual work experiences. Specifically, Elder Jr (1969) conducted a longitudinal study involving 69 men from middle-working class families and explored the enactment of new roles during occupational mobility that results in psychological change. He finds that differential mobility is related to role patterns and attitudes in adulthood and to personality (measured by self-descriptions and ratings) in three time-periods; junior high school, senior high school and adult-hood. He also finds that the upwardly mobile tend to enter family roles at a later age than the non-mobile and were often more orderly in their work-life so mobile men especially those of working-class origins, are found to be more orderly in their work-life. While my research acknowledges the debates and studies which relate psychological processes to occupational mobility, my sociological emphasis signals the need to examine the factors that affect individuals attempting to negotiate the social aspects which influence occupational mobility instead.

4.6 Sociologically-driven Mobility

The socio-economic background on occupational attainment has been well established. Hout (1984) in his study of the value of status, autonomy and training in occupational mobility, postulate that the amount of autonomy and the degree of speciality required of these elements are important for mobility. He illustrates his point with the following example; men whose fathers were entrepreneurs or were employed in other positions that required little supervision, are more likely to be mobile than men whose fathers were closely supervised, to enter occupations that offer at least some degree of on-the job autonomy. His research is one of the few in establishing a link between mobility and family or social influences. The relationship between class and job mobility is also offered as a frame for the socially driven arguments in his study. In a similar light, Mayer & Carroll (1987) investigate retrospective career history data from the Federal Republic of Germany. They explore theories of class reproduction, work degradation, bureaucracy, industrial segmentation and life course against class and job mobility. They find that job and class mobility are distinct, with each deferring to a different view of the opportunity structure within the German society. They however, discover the strong effects of industrial sector, firm, size, educational and class background in career mobility; supporting the case for the presence of distinctive contextual factors that determine mobility. Their study provides a glimpse into the links between job mobility, class structure and social mobility based on the rationalities that are accorded by individuals in making sense of their social positions within the class structure, and could be the grounds for future work following my research so that the link between occupational mobility and social mobility within an Asian context is explored.

A more traditional perspective of occupational mobility is provided by Gouldner (1954), Grusky (1961) and Weber (1978) who believe that officials move upwards along predesigned advancement channels, that mobility is dependent not only on ability but on seniority too, and is tied to increases in the amount of responsibility, prestige and pay. Movement, in their opinion, is governed by bureaucratic organisations based on performative structures like meeting specific requirements for selection and promotion. This resonates with my research since being situated within a fairly hierarchical society, advancements within an organisation in

Singapore is determined by increased seniority, responsibility and pay, and may well be factors that broadly affect occupational mobility [see also Kriesberg (1962), Gordon & Becker (1964), March & March (1977)].

Similarly, Maniha (1972, 1975) explores the mobility of elites in a bureaucratising organisation; The St. Louis police 1861-1961. He attempts to rationalise the organisational demotion and the process of bureaucratism amongst these specific public professionals. His research presents bureaucratic organisations as the most extreme case of career management and advancement as being the sole prerogative of the organisation. Careers in this case, are seen as a manipulative and sanctioning part of the reward system. He finds that the more bureaucratic the organisation, the more weight is given to universalistic criteria such as seniority and contractual positions, that is, employment terms. Promotions are viewed as rewards and organisations use demotions and transfer as a power control mechanism. (See other similar studies: Edstrom & Galbraith, 1977; Goldner, 1965).

Such practices appear to be subjective and suggest that mobility is directly influenced by those who are superior and in power. The value of rewards appears to resonate with my research since, as the narratives shall later show; it emerges as a factor that affects and influences occupational mobility. It also underpins the conflicts within the Asian Singaporean society, which values seniority and hierarchy, and a performance-based meritocratic system.

Dalton (1970) explores the concept of socialisation within careers and the impact that the continuous process of adjustment within the career is related to the social and occupational context. This is of particular significance to my research especially with regard to the ways in which my interview participants refer to their social and occupational contexts as huge determinants of mobility since it affects their decision to remain in an occupation. Similarly, Becker & Strauss (1956) attempt to frame occupational careers within the organisation with the concept of adult socialisation. Apart from emphasising the pacing and timing of mobility events, they conceive of a 'career flows' model that attempts to explain how persons move through an organisation in a number of streams that constitute channels and routes to higher prestige and more responsibility. They however, view career mobility narrowly as

only an upward movement within the organisational structure while my research acknowledges the existence of sideward mobility too. Around the same time, apart from noticing that the speed at which individuals move along specific career lines tends to follow fairly identifiable timetables, Martin & Strauss (1956) began exploring the idea of viewing organisational careers from both the individual and organisational perspective. Their attempt to broaden the different perspectives of occupational mobility are rationalised as follows: first, the organisational system of positions is the basis for the authority structure and second, this system provides the individual members with defined routes for satisfying their career needs. According to the pair, all patterned, sequential and work-related job movement should be regarded as occupational mobility. They state that “over time, the paths of movement of personnel through the system of positions making up the company’s structure tend to become more or less stabilised” (p.101). Thus not only should promotions but also horizontal job movement be considered as part of the organisational career mobility network. They illustrate channels of intra-organisational mobility as the trunk and branches of a tree that serve as escalators for mobility. Their viewpoint resonates with my research as it is later shown that my interviewees have engaged in a range of both horizontal and vertical movements too. However, the mobility in this case, is limited to intra-firm mobility that forms part of a negotiated sequence. Wilensky (1960) had also conceived of organisational career in the same fashion, as an orderly movement through a sequence of jobs within an organisation.

These studies do not explore cross industry mobility outside the organisation, which my research is particularly concerned about. There is a need to examine how these professionals who move between occupations, that is from teaching or engineering to other professions, have to acquire a practical sense or feel, something like Bourdieu's (1986) concept of habitus, for the new occupation. This emphasises the need to explore the enablers of individual occupational mobility. The discourses produced by individuals within a new occupation are derived from the logic of the occupational field itself, and arise from the field in which professionals are competing with one another for the rewards that are available. The newer recruits vis-à-vis the seasoned occupants within the occupation are contending for power

over the occupational field, and the seasoned occupants are withholding valuable information and knowledge unless the newer recruit is able to negotiate for more knowledge by contributing to the field utterances in a meaningful way. With reference to Bourdieu's idea of assimilation within a political field, my research identifies with the need for professionals to acquire relational status within the new occupational field in relation to the other utterances used by other professionals in the same field.

4.7 Highlighting Gaps in Literature

As observed by Heppner (2006), an estimated 5-10 percent of Americans change occupations each year. Invariably with such short work stints, workers may also leave the scene long before they are physically or mentally ready to retire. Castells (1996) aptly predicts that the actual working lifetime, that is, the productive life span of individuals are being compressed to less than half the biological life span. This short-term behaviour is also observed in Singapore as it was reported by a Global Workforce Index poll conducted in 2011, that more than half of all 900 Singaporean participants expect to switch careers within the next five years, the main causes cited are the need for higher income (32%), changing personal interests (25%) and the need for improved work-life balance (25%) (Kelly Services, 2011). The contribution that individuals make to the workforce is therefore no longer long-term. This results instead in greater emphasis by immediate workplaces on informal training methods to meet existing occupation requirements. It seems only legitimate that with average career life-courses being built on short-termism and seeing numerous occupational shifts, the objectification of occupational skills is key to sustaining a successful career in the 21st century.

What does it mean in dealing with such transient workers within an Asian context? On the one hand, individuals negotiate their own individual contract that point to a greater degree of self-reliance and individualism in the new world of work (Pringle & Mallon, 2003). On the other, with more rapid turnover of products and services and the fact that people are changing jobs more often now, there is a need for more frequent renewal of knowledge and skills (OECD, 1997). So what is the important role that national vocational education systems should play?

There currently lacks systematic research on the interaction between individual and national level social determinants, and its effects on national career mobility patterns. My research recognises that there exists an interactional role between individuals and their lived context through the ways in which individuals make sense of and engage with their occupations and changes during their lives. It raises issues that were highlighted at the start of this study; that policy makers theorising about the requirements and social make-up of occupational mobility, tend to take for granted the actualities that surround different cultural societies. The inability to acknowledge the prevalence of social and cultural influences has resulted in the simplification of the intricacies, which surround occupational mobility and the unfortunate atomisation of its complexities.

Jarvis (2010) observes the relationship between lifelong learning and occupation mobility when he notes that the concept of a lifelong learning society has been incorporated into the current economic and political discourse of global capitalism which positions people as human resources to be developed through lifelong learning or discarded and retrained if their job becomes superfluous. He suggests that by providing sufficient lifelong learning opportunities, the ability to move from one career to the next has become very real, reinforcing career development discourses that a job is no longer for life. This implies that occupational mobility has become an unanticipated consequence of lifelong learning. Why then do government mobility schemes not work if lifelong learning structures to support the movement are provided?

4.8 Conclusion

Unfortunately there appears almost to be a lack of consistency across researchers in how the conception of occupational mobility is understood and defined. The naming conventions differ too. Some refer to career mobility (Mayer & Carroll, 1987; Sicherman and Galor, 1990), others, career transitions and organisational mobility (Vardi, 1980). In true qualitative fashion, each writer makes sense of the underlying influences in his or her own way. As described earlier, this research refers to occupational mobility as that which occurs when individuals progress within or across occupations throughout the individual's work-life span, resulting in changes in skill status, prestige and attitudes (Hall, 1976; Schein, 1971, 1978).

Existing literature focuses on the investment on human capital, wage differences across individuals, and the relationships between promotions and quit decisions to justify intra- or inter-firm mobility. This research is not directly concerned with the links between schooling and the mobility levels. Neither is it concerned with the strength of a person's commitment to an organisation and whether mobility is influenced by the rewards that is attained from the system. Rather, my research seeks to develop an understanding of the subsequent career trajectories of individuals and the negotiation of their career life-courses in other industries. There is currently a lack of information on the decision-making mechanisms that motivate individuals as they move from one industry to the next. There is a greater need to explore the factors that contribute towards expanding the field of an individual's production of ideologies pertaining to occupational mobility through examining the personal aspirations of specific individuals.

In the next chapter, I explore the ways in which individuals engage with different political and social contexts and use the information to situate the theoretical perspectives that underpin my research.

CHAPTER FIVE: POLITICAL, SOCIAL AND INDIVIDUAL INFLUENCES ON OCCUPATION DECISIONS

The essence of government is power and power lodged as it must
be in human hands will ever be liable to abuse.

*James Madison (1751-1836), speech at the Virginia Constitutional
convention, Richmond Virginia, December 2, 1829*

5.1 Introduction

Given the Singapore government's top down approach and the prevalence of stronger Asians social ties with their community as illustrated by the PAP's core values, this chapter sets out first to unpack how an individual's engagement with governmentality and control is understood, in particular, the relationship between power and lifelong learning within the local context. Second, it attempts to rationalise the individual's engagement with community and social affordances and explore how individuals engage with these affordances as they negotiate their career trajectories, given the underpinning Singaporean core values about community before self. This review goes on to examine the individual's perception of autonomy and its resulting impact on occupational mobility. This chapter later presents the theoretical perspectives that underpin my research in terms of the themes for the subsequent unpacking and making sense of the empirical interview data.

5.2 Governmentality and Control

Bourdieu (1986) refers to institutions not necessarily as particular organisations but as any relatively durable set of social relations, which endow individuals with power, status and resources of various kinds. It is with reference to these social relations that participants of occupational mobility are equipped with the autonomy to carry out the act of movement. The PCP (referred to earlier in Chapter Two), neglects to address the social relationships in which individuals participate and assumes the objectification of a set of actions which is in reality, the product of a complex set of social, historical and political conditions (Bourdieu & Thompson, 1991). In reality, power means relations, a more-or-less organised, hierarchical, co-ordinated cluster of relations (Foucault, 2003). According to Foucault (2003), bio-power or governmentality emerges at a particular moment within the modern state as a

coherent political technology based on disciplinary power, as a concern for the human species and interest in the body as an object to be manipulated.

Singapore exemplifies a Foucaudian form of governmentality in trying to mould citizens into a way of thinking that is likened to an engagement in war (Ng, 2011). Foucault's work on government resonates most appropriately with Singapore's strong government and top down governance (Ng, 2011) which is apparent from the assumption that the government makes about being able to impact, in this case, the occupational decisions that have traditionally resided with the individual. The government rationality which assumes power over the individual and direct control over the individuals' career best describes the stronghold that the government has over its people, hence Foucault's concept of governmentality is deemed most appropriate to my research.

Historically, power began with sovereign power where the sovereign had the right to decide life and death. This perspective on power was derived from the ancient *patria potestas* that granted the father of the Roman family the right to "dispose" of the life of this children and slaves; as just as he had given life, he could take it away (Rainbow, 1991). The implications are the right to take life or let live and power is given entirely to the state.

Since the classical age, the West however, had undergone a very profound transformation of these mechanisms of power. Power was viewed as working to incite, reinforce, control, monitor, optimise and organise the forces under it: a power bent on generating forces, making them grow and ordering them rather than one dedicated to impeding them, making them submit or destroying them (Rainbow, 1991). The transformation also saw the old power of death that symbolised sovereign power replaced by the administration of bodies and the calculated management of life who started to explore issues such as political practices, economic development, problems with birth-rate, life-expectancy, public health, workforce development, housing and community development. This resulted in numerous techniques for achieving the regulation of people and the control of populations, marking the beginnings of bio-power. Bio-power is a constituent of the capitalist society, with capitalism being more of a consequence of controlled

planning and performative societies. Power as represented by Foucault's concept of governmentality, provides a powerful tool for understanding the relations between discursive patterns of society and the dominant institutional forms of economic and political power. Connolly (1985:368) suggests that Foucault merely attempts to "incite us to listen to a different claim rather than to accept the findings of an argument"; to excite in the reader, the experience of discord between the social construction of normality and that which does not fit neatly within the frame of research constructs. Bridges (1997) has questioned philosophy of this nature because of its lack of engagement in real research and the requirement to blindly trust that anyone who has taken the trouble to produce a philosophical perspective such as this, has shown evidence of some sort of systematic and sustained enquiry. As explained, Foucaudian theories are used in my research to justify the governing models of power because of the resonance that this theory possesses to the political make-up of Singapore. The intention of expanding the Foucaudian theory is not to ascertain the legitimacy of state power but to understand the nature of governmental rationalities as specific forms of state reason, linked to specific technologies in terms of how collective power is exercised over individuals (Olsen, 2009).

5.3 Power through Lifelong Learning

The Singapore government views lifelong learning policy as a means towards implementing larger state political and economic agendas. Any discussion on strong governmental influence would be incomplete without reference to the vehicle upon which most contemporary governments use to determine its human resource related agenda. Ng (2011) explains that the lifelong learning concept was initially developed under slightly different labels and advocated by a number of international organisations, including the United Nations Educational, Scientific and Cultural Organisation (UNESCO), the Organisation for Economic Cooperation and Development (OECD), the World Bank and two European regional organisations, first, the Council of Europe and then the European Union (EU—or its predecessor, the European Community—EC) (Jakobi, 2007; Schuetze, 2006). Despite the non-standard reference and use of the concept of lifelong learning, it has become embedded within the discourses that surround national human resource and employment (Ng, 2011). For consistency and clarity, the definition of lifelong

learning I will adopt, is the definition by the European Commission (2012) as it resonates with the way in which the term is used by policy makers in Singapore. Thus within this context, lifelong learning is taken to be,

all purposeful learning activity undertaken throughout life with the aim of improving knowledge, skills and competencies within a personal, civic, social and/or employment-related perspective.

It also corroborates, as referred to in Chapter Two, with how lifelong learning policies relate to the fourth dimension as defined by Hillage et al. (2000), on its role as policy initiatives. Schuetze (2006) is of the view that the current debates and agenda of international organisations that advocate lifelong learning are influenced by national governments that use them for pushing and legitimatising their own political agenda. This is undoubtedly in line with Olsen's (2009) argument which situates Foucault's concept of governmentality within the structures of power through which conduct is organised, and by which governance is aligned, with the self-organising capacities of individual subjects. Foucault's definition of government is the form of activity aimed to guide and shape public conduct.

In line with the European Commission (2012) definition of lifelong learning, Kuo & Low (2001) confirm that within the Singaporean context, the government has taken a lead role in shaping not only the economic strategies, but also in creating the conditions that support the changes within the education and training landscapes in support of these economic strategies. Like Foucault's concept of governmentality, their role is similarly conceived by Green, Ashton, James, & Sung (1999) in their study of Singapore, as that of a skills coordinator where the government takes a key role in the coordination of skills supply and demand. Olsen (2009) similarly refers to lifelong learning as a political instrument of power for the flexible preparation of subjects. He further identifies lifelong learning as contributing toward worker versatility, which enables high levels of job mobility. Hence, the concept of lifelong learning in Singapore is aptly reflected in three of the five tenets of Power & Maclean (2011) framework, which explains that:

- lifelong learning creates better employment prospects and higher income;
- lifelong learning creates social benefits (productivity, GDP, social capital, health); and

- lifelong learning as the ‘master key’ that opens doors to poverty alleviation, greater social justice, equity, peace building and sustainable development (Ordonez & Maclean, 2006).

Clearly, there exists a link between governmentality and lifelong learning particularly when lifelong learning is used in Singapore as a system to foster economic well-being within a state that lacks any form of natural resources. It is assumed that in using lifelong learning as a policy tool, the government can encourage better employment prospects which may lead to higher income so that greater social benefits are sustained. This line of argument presupposes too that lifelong learning plays a large role in influencing occupational mobility and career trajectories of the contemporary knowledge worker, which is the focus of my research and shall be explored later in Chapter Seven.

5.4 Community and Social Affordances

Hakkarainen, Palonen, Paavola, & Lehtinen (2004) consider all expertise as socially embedded and as an emergent product of social systems. The associations that individuals have with their community have been apparent even from research conducted from as early as half a century ago. For instance, Laumann & Pappi (1973) found that friends and associates of parents might lessen some of the effects of the father as a role model by serving as alternative role models. Some intergenerational research on occupational mobility, have also explored the relationship between socio-economic origins and destinations. These however, are more social mobility type studies and do not account for individual aspirations in the negotiation of occupational mobility (for example, Hauser et al. 1975a, 1975b; Hauser, 1978, 1979; Featherman and Hauser, 1978:77-78, 147-50; Goldthorpe, Llewellyn and Payne, 1980). In 1997, Bian and Ang conducted a comparative study on the impact of community ties to job mobility. They sought to explore how job changers found helpers with high sound positions through ties of varying strength and examine whether there was a correlation between the job levels of the helpers and the job-seekers. Their secondary analysis of data from past surveys of random samples made identifying the demographic backgrounds of individuals, difficult. Their study also focused largely only on the establishment of *guanxi* networks and its impact on job mobility. What is useful from their study though are the direct relationships that they

found community ties had with job mobility within China and Singapore; and that social systems had influenced individual career trajectories.

Giddens' (1984) structuration theory refers to the analysis of the constitution of society and presents humans as purposive agents who have reasons for their actions and when required, are able to elaborate discursively upon those reasons. He argues that reflexivity is an important concept that explains the continuous monitoring of action which humans display and expect those around them to display. Inherent in this argument is an ontological awareness of time-space as constitutive of social practice, which is fundamental to structuration. Archer (2012) too, referred to reflexivity and focuses on four modes of reflexivity that occurs with all of us, some of the time, through internal conversations. She identifies these four modes as communicative, autonomous, meta- and fractured reflexivity. She explained that communicative reflexivity involves internal conversations which need to be confirmed and completed by others before they lead to action; autonomous reflexivity involves self-contained internal conversations that lead directly to action; meta-reflexivity involves internal conversations that critically evaluate previous inner dialogues and are critical about effective action in society while fractured reflexivity involves internal conversations that cannot lead to purposeful action but intensify personal distress and disorientation resulting in expressive action.

Archer's (2012) rationalisation of reflexivity resonates more strongly with my research as it provides a frame that assumes reflexivity is not a homogenous phenomenon but is exercised through distinctive modes and that one such modality is dominant for almost every person at any given time. Given my research's strong cultural stance, her argument that reflexivity does have a history and may result from a historical succession in the dominance of such reflexive modes, also makes her way of classifying reflexivity particularly appropriate for my research. These internal conversations to which Archer (2012) refers, may result from the cultural phenomena that Kegan (2003) identifies as the hidden curriculum; the idea of artefacts and arrangements that a culture creates, contributes toward the claims or demands in the minds of its constituents. He argues for the existence of a more complex level of consciousness for the individual's navigation of community and government. This more complex level of consciousness is achieved through

education, by what Bernstein (1990:84) likens to “agents operating in the recontextualised field who are concerned with establishing a set of rules that can serve as the recontextualising principle that selectively appropriates, relocates, refocuses and relates other discourses to its own orderings’ to embed understanding and consciousness”. In an earlier study on adolescents, Turner (1978) also refers to a process of anticipatory socialisation which prepares these adolescents for their expected occupational destinations through the attainment of necessary educational credentials. This parallels the socialisation which occurs when the claims and demands of a culture impact an individual’s understanding and consciousness. Clearly, the effects of socialisation resonate with my research, since the Singaporean context is defined by the PAP core values that warrant community before self-mentalities and often presents itself as social capital in career capital theories.

Given that the European Commission (2012) defines lifelong learning as encompassing all purpose learning activities which improve knowledge, skills and competences within personal, civic, social and/or employment related perspectives, I sought to explore the social nature of skill acquisition. Interestingly Ashton & Green (1996) suggest that the social nature of skills reflects the technological and organisational context in which skills are to be used. They argue that skill acquisition assumes certain social parameters and refer to the institutional context which shapes the skills acquired; where on the demand side, an institutional culture of short-termism or conflictual industrial relations may influence the types of skills required while on the supply side, skills are transmitted through institutional routines (Hodgson, 1988). It appears therefore that skill acquisition may be influenced in part by an individual’s social capital and may have implications on the recontextualisation of skill development for subsequent occupations.

Invariably, when considering skills, the workplace is now presented as another dimension of the social context within which individuals exist. As identified by Billett (2011) and Bound & Lin (2010) workplace cultures and structures, their discourses and the interaction of discourses with professional discourses, mediate the perceptions of possibilities, and have implications on the professional identities of individuals. Specifically, the community of practice literature relates and affects individual identity and decision-making particularly within the process of

participation in a community, where we encounter engagement in social relations, power structures and dynamics. It is argued by Lave & Wenger (1991) that it is only through such engagements and participation we learn how to talk, how to act, how to relate to others and therefore ultimately how to be. This resonates with the arguments presented so far on the influence of community on individual occupational association. If the workplace is now viewed as a social context too, then Billett's (2011) notion of 'how to be' that includes evolving ways of knowing within a sense of self, which shapes ways of interacting with changes and events within a workplace, are defined by engagements that help individuals learn.

Similarly, Bourdieu's concept of symbolic capital which relates to the rules, both written and unwritten that apply in various social contexts, is valued as the social capital of the knowledge worker (Bourdieu, 1986). This social capital may be shaped by the community and since individuals are now expected to have multiple episodes of employment, it is important to consider and recognise the effects of learning transfer across multiple episodes of employment since no two workplaces are similar therefore learning which forms social capital is warranted in each new occupational setting (Billett, 2011). Finsden, Mcewan, & McCullough (2011) and McNair (2009) have similarly referred to social capital too and define it as the ability to live as an active member of a community with others, pursued by engaging in learning with others. Social capital is a key concept within the Singapore context as the community is often placed before self, hence a person's existence is often characterised by the community with which they keep.

5.5 Perceiving Self and its Implications on Occupational Mobility

To begin with, the content and process of career development theory are influenced by constructivism, suggesting the importance of meaning construction to individuals. Amundson (2005) and Guichard & Lenz (2005) acknowledge the emergence of constructivism, systems theory, action theory and paradoxical theory to support an individuals' negotiation of development and change within individual careers. In particular, Guichard and Lenz (2005) identify three main characteristics in the international career theory literature, (a) emphasis on contexts and cultural diversities, (b) self-construction or development emphasis and (c) constructivist perspective.

In line with meaning construction by individuals, the Centre Canadien de gestion & Drucker (1995) acknowledge that knowledge workers need to continually reinvent themselves in aligning with the business context. They must be prepared to learn, are highly mobile and possess a high level of knowledge and skills (both specific and general business acumen) on which they capitalise (Lamb & Sutherland, 2010). Lamb & Sutherland (2010) describe the 'must-have' capitals as including: knowing why, knowing how, knowing whom, knowing what, knowing where, knowing when, knowing oneself, EQ (emotional maturity), opportunity identification, context management and adaptability, internal locus of control and action orientation. This implies and signals a greater element of individual autonomy and sense of self in occupational negotiation. Building on Billett's (2011) comment about developing a greater sense of self which shapes engagement and employment - these suggest the opportunity for individuals to reinvent themselves whilst moving from one occupation to the next if they capitalise on their knowledge and skills. This is an important idea that has implications on my research since it questions how such knowledge and skills are attained so that it can be applied effectively across a range of different contexts.

Kohn & Schooler (1969) added earlier that autonomy is a more important dimension of occupation than socioeconomic status. They are of the view that,

Occupational position matters for values and orientations because it determines the condition of self-direction that jobs provide or preclude (...) In industrial society, where occupation is central to [workers'] lives, occupation experiences that facilitate or deter the exercise of self-direction permeate their views, not only of work and of their role in work but also of the world and of self (Kohn and Schooler, 1969:677).

This builds on March & Simon's (1958) earlier research that presupposes the desire to move and the ease of movement as individually-driven factors that influence mobility. Increasingly, there exists a discourse of individualisation that makes subjects personally responsible for their own construction and redefinition of their work identity (Etelapelto, 2008). Arthur & Rousseau (1996) likens the individual to a career actor who drives and negotiates his or her own occupational path as opposed to the organisation making the decisions. Invariably, this would mean that the career actor would have a part to play in making sense of the other factors that stem from the individual's interaction with the context in which they exist too.

Harris & Ramos (2013) explored the increasing individual responsibility for career trajectories and compared Australian and Singaporean adult samples on the different ways in which they perceive in the development of their career capital. They focused their research on individual motivations, meanings and perceptions of career self-management rather than on the influence of labour market and economic opportunities on career development because they feel that career development is an individualistic perspective that focuses on the agency side of the agency/structure debate in literature. In their study they referred to individual capital that defines the different dimensions of knowing; more specifically, knowing-why, knowing-whom, and knowing-how. Harris and Ramos (2013) further present three other career capital models by Finsden et al. (2011); McNair (2009) and Lamb & Sutherland (2010). These are important ideas that resonate with the discussion of findings in Chapter Nine since it aligns strongly with individuals' meaning making during occupational movement. It also presents ways in which to define individual identity that may be reflexive and malleable as Hallam (2005) describes.

Hallam (2005) referred to individual identity when she explores the interactions between individuals and contextual factors in determining motivation (for learning). Like Giddens (1984) who explained that agency concerns events which individuals are the perpetrators, in the sense that individuals could at any phase in a given sequence of conduct, have acted differently. She alludes to the fact that an individual's identity or self-concept represents the way they think about themselves and their relationship with others. Such agency results in action which is a continuous process, a flow in which the reflexive monitoring which the individual maintains is fundamental to the control of the body that actors ordinarily sustain throughout their everyday lives (Giddens, 1984). She argues that the desire for approval from interactions with the community results in certain behaviours and actions. She also refers to the malleable aspects of self, which includes identity, ideal self, possible selves, self-esteem and self-efficacy as important factors in the identification of self. Self-identity is hence built on the basis of a socially constructed self as the primary source of meaning while also reconstituting through the interactions within time-space (Giddens, 1991) and is therefore constituted through an individual's interaction with various social contexts, and how individuals

reflexively monitor the circumstances based on their perceived reality. Sfard & Prusak (2005) also suggest that identity is a potential analytic heuristic device for investigating the interdependent nature of individual and collective experiences in specific social contexts. The element of prior experience is highlighted in the theoretical perspectives and echoes Sfard & Prusak's (2005) stance that self-identity makes us able to cope with new situations in terms of our past experiences and provides us with tools to plan for the future. This view of identity is a mainstay of symbolic interactionism (Schwalbe & Mason-Schrock, 1996) since it presupposes that individuals make sense of themselves "I" through their perceived notions of social assumptions, often, presented in the literature as "me". Goffman (1959) perceives the rules and social conventions as resources that people use to elicit responses from each other and coordinate rational action.

Inherent in this view is the assumption that personal identity is shaped by the social order and rules that surround individuals, hence can influence and affect an individual's professional identity that in turn, warrants behaviours. The idea of the self in its principal form of the knower or subject "I" is at the centre of the person's consciousness. In experience, the "I" interacts with the "me" or the self as object and derives meaning from this interaction (Fontana & Frey, 2005). Meaning is therefore gleaned from interactions and encounters with others. Meanings shift and in this way the self is created. Embedded within this understanding is also that social groups negotiate meaning together. Plummer (2005) explains that societies are a vast matrix of 'social worlds' constituted through the symbolic interactions of "self" and "others".

The complexity of individual perception of self and self-context is a mediating factor in the shaping of an individual's association to their occupation, which results in how individuals act, what decisions they make, the ways in which they react and engage with the discourses that surround occupational sustainability or mobility. My research recognises the interplay of multi-complex contexts in which individuals exist, and suggests that apart from the processes that exist within individuals, the social and community contexts too, serve to embed individuals within a more complex ecological network. This network leads to people's framing and reframing of lived experiences, integrating perspectives and experimenting with different ways

of interpreting and negotiating these experiences. My research attempts therefore to engage in a discussion of such interactions with social and community factors since little empirical research has attempted to make sense of how individuals are negotiating occupational mobility within an Asian context. It seeks to do this by adopting symbolic interactionism as an overarching theoretical device. “The importance of symbolic interactionism to qualitative inquiry is its distinct emphasis on the importance of symbols and the interpretative processes that undergird interactions as fundamental to understanding human behaviour” (Patton, 2002:113).

Discourse that surrounds occupational mobility suggests that social relations and ties have a large part to play in job mobility. Invariably, human interaction is mediated by the use of symbols, by interpretation, or by ascertaining the meaning of one another's actions and can be modified through an interpretative process used by the person in dealing with things they encounter.

5.5.1 Recontextualisation of Knowledge

Any discussion of mobility would be incomplete without the acknowledgement of the knowledge recontextualisation that occurs when individuals move from one occupational setting to the next. Evans & Guile (2009) present the concept of recontextualisation during knowledge transfer. Recontextualisation is described as a process which sees the movement of knowledge from one context to another through the embodiment of knowledge in curricula, pedagogic, workplace and personal practice. Early research by Anderson, Reder, & Simon (1996) was of the view that, knowledge and skills can be taught in such a way that they are detached from the conditions that constrain the generality of meanings and action. However Greeno (1998) had suggested a situated perspective of learning and challenged their claims by arguing for the cognitivist notion of propositions which places knowledge outside of our minds that emerges from some assumed independent world. This position however, results in the oscillation between our self-generated mental representations and the propositions that purportedly represent an objective reality (Evans and Guile, 2009). Vygotsky had himself been known to take a decontextualised perspective of knowledge. Vygotsky (1978) argues that the internal connection of things is disclosed with the help of thinking in concepts, as to develop a concept of some

object means to divulge a series of connections and relations of the object with the rest of reality, and to include it in a complex system of phenomena.

Evans and Guile's (2009) concept of recontextualisation was predicated on Vygotsky's belief that abstraction entails the application of propositions that had been memorised to a new situation and that it constitutes the contextualisation of concepts from the specific context in which they were derived. They postulate that recontextualisation involves the understanding of the reasons that give a theoretical concept its capacity for generalisation and consequently results in the need to continuously recontextualise those concepts in new situations and challenges.

Van Oers (1998) elaborated on recontextualisation by exploring the concept of activity and suggests that any activity can be realised in different forms of action patterns, distinguished either horizontally or vertically. Horizontal recontextualisation is defined as the multiple realisation of a well-established activity, which can be carried across to another platform; for example, typing on a computer and texting on a mobile phone allows us to express ourselves even though the form of message development varies from the typing on a "qwerty" keyboard and a phone numeral pad. On the other hand, vertical recontextualisation is the catalyst for the creation of new goals and strategies when problems arise within existing practices and requires the abstraction and recontextualisation of knowledge and skills for specific actions.

In engaging with the idea of the recontextualisation of knowledge, my research therefore posits that for learning to make sense, knowledge and skills have to be learnt and practised within a specific context before it can be applied elsewhere. The implication is that generic skills do not exist in a vacuum and have to be learnt and used in context before such skill competences can contribute towards adjustments to global changes.

We have to look for new employment model... 'lifetime employability' which means equipping our workers with the skills and the mindsets to adjust to changes around them, so that they can always take on a new job if they lose their old one.

Goh Chok Tong, then Prime Minister at the official launch of Workforce Development Agency, 2003

The lifetime employability that then Prime Minister Goh referred to in 2003 may well be developed initially during pre-employment training and its subsequent practice before it is firmly embedded in the mindsets of the workers when approaching a new job. My research also postulates that the affiliations between reflexivity and recontextualisation of knowledge imply a process of self-discovery and awareness about their personal skill abilities, adaptability and resonances.

5.6 Theoretical Perspectives

Instead of reviewing the circumstances in which the individuals who have undergone regulated occupational mobility have reverted to their initial occupations, my research looks at others who have not participated in regulated professional conversion but have themselves sought for non-regulated occupational shifts in their career life-course. My research is underpinned by the knowledge that first, human beings act towards things on the basis of the meanings that is accorded to them; second, meanings are derived from or arise out of the social interaction that one has with one's surroundings and finally, that these meanings are handled in, and modified through an interpretative process used by individuals in dealing with situations they encounter. My research attempts to understand occupational mobility behaviour through an individual's interaction with their context based on the three premises listed.

My research further refers to Archer's (2012) modes of reflexivity as a means of making sense of the symbolic interactionist premise of "I". How the individual defines the "I" is a result of the internal conversations that help shape agential action. Archer's refers to the reflexive monitoring of activity and everyday action that involves the conduct of both the individual internal conversations and views of others. She classifies reflexivity into four levels and views humans as reflexive agents who are reflexive about the circumstances of their actions and that of others. They draw upon the production and reproduction of that action through internal conversations that are subsequently confirmed by others. She acknowledges that the structural properties of social systems do not exist outside of action but are chronically implicated in its production and reproduction too. The human agent is assumed therefore to resort to different modes of reflexivity during action on different occasions. This reflexivity is the theoretical mechanism to which my

research refers in order to make sense of the meaning that is produced by the internal conversations of the individual. It also considers the empowerment that allows individuals to establish meaning from the reflexivity that occurs from internal conversations. In addition, the internal conversations which occur within the individual could take the form of the 'knowing-when', 'knowing-how', 'knowing-why', 'knowing-whom' and context management and adaptability that are referred to in career capital research which Harris and Ramos (2013) had referred to in their research.

The task of analysis is hence to make sense of the relationship of individuals within the broader community context, taking into account the social and governmental factors that affect occupational mobility by examining individual reflexivity towards the movement. Fundamentally, the actions of individuals are derived from the meaning that stem from the affordances surrounding them. Viewed as an underpinning ideology, the reality is thus socially constructed so there is no single observable reality. There are instead, multiple realities or interpretations of a single event. This is separate from the individual's own wishes, interpretations, wants, objectives, self-image and self-esteem. The research assumes that there is an affiliation between individual consequence and action with group life and political affordances.

Individuals now possess a greater amount of individual autonomy and sense of self in occupational negotiation, and therefore the theoretical perspectives posit that the individual's association with the occupation is a key feature of occupational mobility. The individuals' negotiation of occupational mobility is dependent on the individuals' ability to be reflexive about the opportunities for movement.

Figure 3 attempts to show the interpretative structures and processes that occur when individuals engage with community and government affordances.

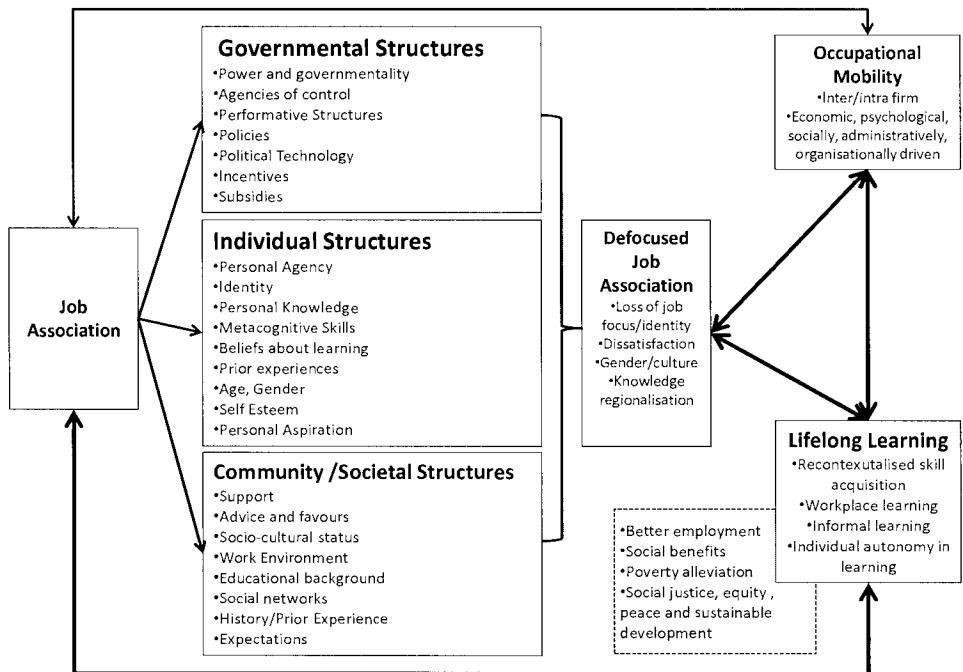


FIGURE 3: THE MAPPING OF OCCUPATIONAL MOBILITY TO THEORETICAL PERSPECTIVES

Drawing on the work of Foucault, structure and governmentality are seen as products of government which as this schematic figure postulates, impact an individual's association with their occupation. The level of control that is exerted on individuals through policies, subsidies or incentives, either serve to hinder or foster the development of strong associations with the occupation. According to Foucault (2003), bio-power or governmentality emerges at a particular moment within the modern state as a coherent political technology based on disciplinary power, and as a concern for the human species and interest in the body as an object to be manipulated. The population is therefore regulated through the needs of the community so that it is shaped in specific ways. An individual's engagement with the affordances that the government provides, act as mechanisms of control which ensure that certain behaviours are encouraged. The notion of performativity (Ball, 2003) is a consequence of governmentality and serves to establish proxies for assessing performance. What the government enforces as indicators of performance for audit purposes simultaneously shape the affordances emplaced by the agencies of

control, leading to compliance for conformity and eventual political and social stability. Performativity, as elucidated by Ball (2003), is the new mode of state regulation which makes it possible to govern in an ‘advanced liberal way’, creating in its path the new performative worker who is a promiscuous and enterprising self with a passion for excellence. Ball argues that for some, this creates the opportunity to make a success of them, but for others, it portends inner conflicts, inauthenticity and resistance which may lead to weaker occupational associations. This occurs since the modern culture of capitalism perceives the failure to move as a sign of weakness, and people view movement out of an occupation as a way out of an unauthentic existence riddled by the need for performance indicators. The association with an occupation is thus malleable in every sense, due to the individual’s experiences with the governmental powers, community and their internal value and belief systems. In this study, I propose that the current capitalist landscape challenges an individual’s association to their occupation and creates the potential for defocused associations with their occupation and thus encourages subsequent occupational mobility.

While the government structure is effective in maintaining control, uniformity and stability, critics have argued that in such instances, humans are transformed into subjects. What occurs in the objectification of the productive subject is that the subject labours in the analysis of wealth and economics (Foucault, 2000). The perspective adopted in this study though, acknowledges that individual meta-cognitive skills, personal agency, prior knowledge, and personal aspirations are dimensions that arrest such objectification, thereby bringing individuals to life. Also inherent within this structure is the concept of governmentality which suggests definitive power. There may not be universal applicability of such strong governmental control in Western countries because the political context in which my research is conducted, is, as elucidated by Kuo & Low (2001), largely governmental and led by one political party, the People’s Action Party (PAP). The unique political climate in Singapore is largely determined by policies and strategies that warrant specific actions by its citizens. As power is relational and does not exist except through action, it is perceived by the Singapore government as a means to modify and influence action within individuals or groups (Fejes and Nicoll, 2011).

The exercise of power (...) is a total structure of actions brought to bear upon possible actions; it incites, it induces, it seduces, it makes easier or more difficult; in the extreme it constrains or forbids absolutely; it is nevertheless always a way of acting upon an acting subject or acting subjects by virtue of their acting or being capable of action. A set of actions upon other actions (Dreyfus & Rainbow, 1982:220).

In addition, the individual's desire for social approval, particularly from those we admire and respect, leads us to behave in particular ways (Hallam, 2005) thereby allows for diverse reactions towards different occupations. This in turn challenges or enhances the individual's associations to their occupations. The importance of social networks, for instance through the combination of family and friends' histories, emergent expectation, role allocations and current dynamic interactions play a central role in defining identity (Davidson & Borthwick, 2002). The theoretical perspectives recognise that the concept of socialisation has played a central part in the development of anthropology, social psychology and sociology (Danziger, 1971).

The literature in the socialisation paradigm have also focused on how expectations are instilled through various socialisation agents such as family, school, peers and the media (Sikora & Saha, 2011). Interaction in human society is symbolic as individuals take account of the actions of one another when they form their own action; which in turn determines conduct and behaviour. Failure to accommodate this constitutes the fundamental deficiency of accountability that individuals accord to human society in their participation within social organisations. Human group life results from a necessary formative process and is not an arena for the expression of pre-existing factors (Blumer, 1969). Blumer explains that human group life is a vast process through which people are forming, sustaining and transforming the objects of their world as they come to give meaning to objects. Individuals are acknowledged, as those whose actions and motivations are inherently contextual and whose extended connection of actions, make up so much of human group life, where interdependency of diverse actions of diverse groups of people, exist.

During occupational mobility, individuals are constrained and supported by systemic factors and their reflexivity of these factors warrants different individual action. The task of analysis from a symbolic interactionism perspective is to make sense of the

relationship of individuals within the broader community context, taking into account the social and governmental factors that affect occupational mobility. Fundamentally, the actions of individuals are derived from the meaning that is derived from the affordances that surround them. The different individual experiences, cognitive abilities, malleable aspects of self, personal goals and aims (Hallam, 2005) affect the individual's negotiation of the occupational landscape. The reality is socially constructed and there is no single observable reality, which stands on its own. There could exist however, multiple realities or varied interpretations of a single event. This is separate from the individual's own wishes, interpretations, wants, objectives, self-image and self-esteem. Often though, there could be an affiliation with individual consequence and action within group life and political affordances.

In an attempt to avoid single-paradigm analyses, the interrelationships between each of these different social systems are explored and attempt to make sense of the phenomenon from the analysis of the interviews with individuals, who have experienced occupational mobility between professions.

Different rationalities exist within the social world and how an individual makes sense of these rationalities; result in the different strategies that are adopted in negotiating their occupational life-course. Figure 3 illustrates this complex relationship and suggests that the association that one accords to an occupation has direct implications on occupational mobility. This association is determined not only by individual factors like agency, identity and prior knowledge, but may also react to governmental mechanisms like subsidies, incentives and policies; and social influences like social support, advice, workplace affordances. These factors interact to create the differing degrees of rationalities, which result in a reconstruction of the occupational association. These rationalities acknowledge March and Simon's distinction between the desire to move and ease of movement (1958) and assumes that the desire and ease of movement will not occur unless the factors that create such desires and ease of movement are present.

The rationale is therefore that the individual, government and social factors provide the grounds for the association that individuals accord to their occupation.

Occupational mobility occurs when there is a lack of occupational association, such that one feels disengaged with the affiliation that may have been present at the start. Two things may occur with lack of focus; first, with the lack of affiliation to any job since most job engagements are now fluid and short, the individual may view lifelong learning opportunities as avenues to getting new knowledge that facilitates occupational mobility. Understandably, formal, informal or non-formal learning imply knowledge recontextualisation. On the other hand, weaker associations may encourage constant episodes of self-renewal in an effort for meaning making or to seek for something more relevant since there is a lack of affiliation to one occupation.

The affordances that form the agencies of control through government policies, incentives, subsidies and social influence from relations with family and friends, and finally a process of interpretation within self, influence the meaning attributed to association with an occupation. As illustrated, the individual structure is flanked by the government and community affordances to highlight the malleability of self in the face of other influences. The individual's meta-cognitive skills, beliefs about learning, prior knowledge, individual characteristics, paired with age, gender, social background, self-esteem, aims and goals are malleable and attempt to make sense of the external affordances that surround them on both sides.

Modern careers are now constructed from sequences of personal and social contexts that are unique to individuals, and are shaped by the internal conversations that occur in the definition of the individual "I". This internal conversation leads to the creation of divergent experiences and meaning that arise from the diversified reflexivities to that an individual eventually resorts. What results is the non-linearity of occupational development. The theoretical perspectives as defined in Figure 3 are predicated by the narratives that surround learning as a social practice; where iterative cycles of recursive community level action and reflection, place power in the hands of its beneficiaries thereby creating diversified reflexivity that may lead to occupational mobility. This approach takes into consideration the individuals' confrontation and response to context-specific barriers to change as they emerge and is further influenced by Biesta and Tedder's (2007) belief that people's trajectories are partly shaped by their own capacities for exercising control over their lives -

capacities that include different degrees of reflexivity and levels of human capital - and that people's trajectories are embedded in a lived context of external factors, which structure the opportunities that people face. The complex interactions that also occur between the environment and the individual can influence the choices, motivation and ultimately, behaviour (Hallam, 2005).

5.7 Conclusion

This review presents the added dimension of individuals seeking an understanding of the world in which they live and work. They develop subjective meanings of their lived experiences in the sense suggested by symbolic interactionism. These meanings are varied and multiple, resulting in the complexity of views. Often these subjective meanings are negotiated socially and historically. In other words, they are formed through "interaction with others and through historical and cultural norms that operate within individual lives" (Cresswell, 2007:20-21). What this review has invariably shown is that apart from the relationship among individuals, their career capital and development; there exist other components and features within the social and political systems that speak to the exchange which occurs between the individual and their choices in occupational mobility. The gaps in literature pertaining to empirical studies of this nature within the Asian contexts, and the lack of information on the career trajectory of ex-teachers and ex-engineers beyond their professions, make it necessary for a study that explores the interplay of political, social and individual affordances in influencing occupation-related decisions. While it was discovered that much has been done in terms of rationalising mobility and relating mobility to employer-employee relationships, age and job security within intra-firm contexts, little has been found to elucidate what other factors exist in influencing occupational mobility beyond the organisation. Hence my research explores the factors that affect such occupational mobility through examining how individuals negotiate mobility beyond the organisation at an individual level. The review of literature also strongly suggests a link between one's commitment and identification to the organisation, without which the motives, values and perceived competences which function to guide and constrain an individual's entire career are compromised. This suggests an implicit link between the symbolic stability that is accorded to the occupation and the instances of actual mobility.

Evidently, there seems to be a huge need to examine how these professionals acquire a practical sense or feel for the new occupation, that is habitus as referred to by Bourdieu (1991), which is in turn, attuned to the specific conditions of the subsequent occupational fields. It is important to establish if we can make sense of individual activity and reflexivity through the adoption of a symbolic interactionist approach. The discourses produced by these individuals within a new occupation are derived from the logic of the occupational field itself, in which these professionals are competing amongst themselves, the newer recruits vis-à-vis the seasoned occupants within the occupation. Paralleling Bourdieu's idea of assimilation within a political field, my research suggests that there is a need to understand how the relational status among these professionals are acquired, i.e. that the individuals can only make sense of the new occupational field in relation to the other utterances used from other professionals in the same field. Therefore the overarching research question that frames my research seeks to understand how sustainable occupational mobility in the new capitalist environment is influenced by the career trajectories of ex-teachers and ex-engineers, who have successfully negotiated occupational mobility.

The review also highlights that the choices of an occupation and actual work experiences are governed by degrees of rationality, i.e. individuals are subjective about the rationality and levels of meaning accorded to each situation and may differ based on individual and social contexts. These degrees of rationality however, remain unexplored in current literature and are often presented as sources of tension.

In the next chapter, I elaborate on the rationale for the research strategy that is adopted in this study. I also present the brief profiles of the research participants to provide a better understanding of their backgrounds and thus their narratives.

CHAPTER SIX: THE RESEARCH STRATEGY

The world is always different. Each morning we open our eyes to a different universe. Our intelligence is occupied with continued adjustments to these differences. That is what makes the interest in life. We are advancing constantly into a new Universe.

(George Herbert Mead, 1936:231)

6.1 Introduction

This chapter maps out the study that was conducted. It explains the design and structure of the research and describes the different components of the research. It begins by providing a review of the theoretical approach and conceptual language adopted. The definitions of key concepts that are used for my research as developed from the engagement with the literature are provided next and used to guide the selection of specific research participants. Next, the structure of the research, which shapes my research, is provided. In these sections I explain the rationale and relevance for the conduct of the preliminary study, the main interviews and the generic skill section and outline the method of analysis.

6.2 Perspectives Taken

Like Plummer (2005:360), I refer to “critical humanism” as a means of focusing my inquiry that emphasises human experience. At the heart of my analysis is concern for the presence of human subjectivity, experience and creativity. I begin with people living daily lives; examine what they talk about, their feelings and actions as they move around in their occupational landscape.

This is consistent with Blumer’s (1969) interpretivist theoretical stance because Blumer believes that human beings act towards things on the basis of the meanings that human beings accord to them and presupposes that individuals are born without a sense of self but develop this self-concept through social interactions. These things range from physical objects around us to other human beings to situations and abstract concepts of policy or rules. He was also of the view that these meanings are handled and modified through an interpretative process that is used by the person in dealing with what they encounter. Critics have questioned the superficiality of how meaning is ascribed to these things (Denzin, 1992). Meaning is now taken for granted and

viewed as unimportant or is regarded as a link between the factors responsible for human behaviour (Plummer, 1996). Sociologists identify factors such as the social position that status demands, social roles, cultural prescriptions, norms and values, social pressures and group affiliation (Blumer, 1969). In reality, rationalising human beings' actions toward things on the basis of the meaning of such things is much too simplistic to describe symbolic interactionism. From Blumer's perspective, symbolic interactionism views meaning as arising from the process of interaction between people and social factors. The meanings that are ascribed differ from individual to individual, and their different actions serve to define the situation for the individual. In this regard my research subscribes to Blumer's perspective because he views meanings as social products and creations that are formed in and through the defining activities of people they interact with, and shapes the rationale for the different experiences that each individual undergoes.

Much of the research engaging symbolic interactionism have focused on making sense of how professional identity is strengthened. For instance, Kleiner (2009) explored how symbolic interaction can produce self-consciousness, cultivate unself-consciousness in ballet training. Using in-depth interviews with twenty-three individuals from six countries and twenty-three American states, he showed that dancers learn, through self-conscious symbolic interaction, how it feels to embody what an audience sees, as they strive to train their bodies to portray an institutionalised aesthetic. The embodiment of technique facilitates a markedly unself-conscious flow experience while performing. In contrast, having an acute awareness of embodying an incompatible physiology inhibits flow and often motivates dancers to self-select out of ballet. These interactionist sources of nonsymbolic interaction both evoke and suppress mind through social interaction.

Symbolic interactionists view identity as a conscious phenomenon over which the individual has agency (Costello, 2005). Indeed as human beings go about assembling meaning through interactions with others, I sought in my research, to establish if there was a role for the use of symbolic interactionism in creating weak identities and associations to the occupation instead. Since meanings shift depending on how the individual self perceives the social world, I attempted to determine if it contributes to the creation of individuals who participate regularly in occupational mobility.

6.3 Definitions

As highlighted in Chapter Five, lifelong learning is defined as all purposeful learning activity undertaken throughout life with the aim of improving knowledge, skills and competencies within a personal, civic, social and/or employment-related perspective (European Commission, 2012). This definition was chosen because it represents the more widely accepted definition among policy makers in Singapore.

It is important to emphasise that related to lifelong learning; formal (regulated-type training often in classrooms) and informal learning are included as part of an individual's engagement with the social and institutional affordances too, and are viewed not only as a temporal dimension since it always involves the reworking of earlier experiences but as contextually situated since learning is inextricably related to doing and being. There exist a need to approach what and how people learn through an understanding of the contexts in which they learn (Biesta, Field, Hodkinson et al., 2011).

For the purposes of my research and arising from the engagement with literature in the earlier chapters, occupational mobility is defined as progress within or across occupations throughout the individual's work-life span, resulting in changes in skill status, prestige and attitudes (Hall, 1976; Schein, 1971, 1978). In addition, my research recognises that mobility may not include just vertical but horizontal movements too and has established a way of classifying mobility as described in Figure 4. My different forms of mobility resonate closely to Brockmann's concept of the different dimensions of mobility which includes vertical mobility (job grades/levels, e.g. promotion, career progression); and horizontal mobility (functional departments, e.g. significant change in job role and function) and involve individual workers, either within an organisation or in a new field (Brockmann, 2007). I explore the presence of the following internal/external system and forced/voluntary dimensions to explain the forms of occupational mobility undertaken by the individuals in my study. Internal refers to institutions within which the individual operates; while external refers to the labour force more generally. So, in the case of forced internal mobility, it could be where the company or institution has been shut down or downsized and the individual is made redundant.

<i>Forced Internal Mobility</i>	<i>Forced External Mobility</i>
<ul style="list-style-type: none"> • Redundancy • Closure of company 	<ul style="list-style-type: none"> • Recession • Declining Sector
<i>Voluntary Internal Mobility</i>	<i>Voluntary External Mobility</i>
<ul style="list-style-type: none"> • Transfer • Posting 	<ul style="list-style-type: none"> • Resignation

FIGURE 4: FORMS OF MOBILITY

Professionals are defined in local Singapore terms as those who possess a minimum educational qualification of diploma-level (Tan, 2010); and have been referred to in my research, not only those who possess specific theoretical or technical expertise, but a range of distinctively moral attitudes, values and motives, designed to elevate the interests and needs of clients, be it patients or pupils above self-interest (Carr, 1999). In line with symbolic interactionism, this definition presupposes that each individual is unique and reacts differently to occupational change in order to make sense of how meaning is accorded through individual interactions with others. Since individuals are assumed to be self-reflective, they alter meanings that result in individual behaviour and shape specific actions that are warranted by different situations.

6.4 Structure of Research

My research comprises of the preliminary and main study. The main study includes the conduct of the main interviews and a segment on the exploration of generic skills. The main research was informed by the preliminary study that was conducted with a much smaller sample of only four participants. The purpose of the preliminary work was not only a means of testing the interview schedule, it was also a way of trying to identify themes and refining the research questions which are explored in greater depth within my main study. The preliminary study helped to provide the structure for the main study and raised awareness of the issue of generic skills, which is explored at length in Chapter Eight.

I am the primary instrument in the collection and interpretation of this interview data, and strive to derive meaning from the analysis of the data. The result of my study is

the development of a substantive theory that is grounded within the data that is drawn from specific, everyday-world situations (Merriam, 2009). The researcher inevitably interprets what he or she finds through certain theoretical frameworks. The same applies to the subjects he or she studies in how they make sense of the world. The representation of findings too, is no ordinary description that anyone could provide (Wood, 1982). Underpinned by symbolic interactionism, I adopted the position that our knowledge of reality is a social construction by human actors. I recognised that the analysis of the data that is derived from the interviews is not value-free since elements of my preconceptions may colour the process of enquiry during interaction. I decided on using interviews nonetheless in my research design because this has been a particularly effective method in evaluating or assessing a person's response to my larger research question.

Walford (2001:90) calls an interview a "social encounter, not merely a site for information exchange". Armed with an interview schedule, I sought to make use of this social encounter to access what is inside a person's head, in an attempt to measure what a person knows, what a person likes or dislikes and what a person thinks (Tuckman, 1972) with regard to their encounter with occupational mobility. I therefore guided the individual through their occupational terrain to first, interpret an individual's occupational mobility experience, second, identify how individuals construct their own realities and third, identify the meanings that are ascribed by these individuals to their occupational mobility (Merriam, 2009). Inherent in the adoption of interviews as a data collection strategy is also Giddens (1984) argument that the competent actor, the interviewee in this case, is typically able to explain most of what they do, if asked.

6.5 Preliminary Study

In an effort to ensure that good questions were asked, the preliminary study, an account of which can be found in Appendix A, helped to test the initial questions and served as a means towards rewording questions which proved difficult to interpret, and clarified questions that were vague or unclear. The preliminary interviews also helped ensure that the concepts, which were referred to during the interviews were understood in familiar language. For instance, the preliminary interviews had an initial question, which referred to professional identity. However, it was discovered

that the four participants had difficulty understanding what the term professional identity meant. I also realised that in explaining the concept during the preliminary interviews, I had unconsciously biased the participant's professional identification, so in the main interview, the question was reworded and referred to as an association with the occupation instead. I also discovered as the interviews continued that it was helpful to use words that made sense to the participant, and to adopt a mode of presentation that would help ease the participants' anxieties through the interview. This ensured that the interviewees were comfortable with me since a more common understanding and rapport had been built.

6.6 Interviews in the Main Study

Interviewing skills are not simple motor skills like riding a bicycle; rather they involve a high-order combination of observation, emphatic sensitivity and intellectual judgment (Gorden, 1992:7).

Interviews are regarded as the major data collection technique in this research because it allows me to engage with the participant in conversation focused on questions related to the research study. I recognise that while there are many other forms of interviews available, including unstructured interviews, group interviews, oral history, creative interviewing (Fontana & Frey, 2005) the person-to-person interview technique best allows me to obtain the information that is required for understanding how the participants interpret the world through their career life-course experiences.

The semi-structured interview allows the questions to be asked flexibly and seeks for specific data from the participants. The use of unstructured interviews was decided against because of the need to address specific research questions that were defined by the study. The use of semi-structured questions provided the frame within which the themes from the discussions could be explored and understood. Whilst comprising of a list of pre-defined questions, the interview is structured in so far as it is guided by the responses. This is because some participants may already have responded to later questions and the semi-structured nature of the interview would allow me to alternate or vary the questioning as I deem fit. This design also allows me to respond to the situation at hand or to the new ideas, which may emerge from the interview intuitively. The interview technique adopted in my study is aligned philosophically to one of a phenomenological nature. I attempt in this case, to understand the core of an

individual's experience through a focus on the lived meanings and experiences of the ex-engineers and ex-teachers, assuming that these experiences guide their actions and interactions with occupational mobility. The extent of their teaching and engineering experiences ranged from six months to six years. One reason for the choice of these participants is that their prior experiences make them well placed to make comparative comments between their prior (teaching and engineering) experience to their subsequent occupations in terms of factors such as workplace support, context-specific, personal, institutional or governmental affordances.

Interviews were selected over surveys because in-depth interviews allowed me to get richer information from the participants. The use of surveys would not have provided the required depth of data required in understanding the decision mechanisms used by the participants in their career trajectories. The use of interviews in my research thus marks a move away from seeing human subjects as "simply manipulable, data as somehow external to individuals, and instead moves towards regarding knowledge as generated between humans, often through conversations" (Kvale, 1996:11). Kvale classifies inter-views as an interchange of views between two people on a topic of mutual interest. The centrality of human interaction for knowledge production emphasises the social situatedness of research data (Cohen, Manion, & Morrison, 2011). The participants were encouraged to speak about the meanings that they have ascribed to the factors that may have potentially influenced their occupational movements. Therefore, questions like "What are the conditions that enabled the movement?", "What is your personal image of the field that you are engaged in?" serve to encourage discussion and the sharing of meanings and perceptions that individuals accord to their occupation and subsequent mobility, giving us more insights on the engagement of personal agency within the social structure. The researcher is mindful though, of the potential as suggested by Kitwood (1977), for using interviews as a means of pure information transfer and of researcher bias. I also made it a point to ensure that from the initial rapport established, questions were asked in an acceptable manner so that accurate data was obtained.

Sixteen individual ex-teachers and ex-engineers, who had gone through some form of forced external and voluntary external mobility in their career life-course, were interviewed. Table 3 provides a brief overview of interviewee profiles. It classifies the

current job that the participants are in, their age and briefly provides the number of transitions and reasons for mobility.

TABLE 3: MAIN INTERVIEWEE PROFILES

Unique Marker	Ex-Job	Current Job	Age	M/F	No of Transitions	Reasons for mobility
Erica	Ex-Er	Director, Staff development	48	F	3	Chance, happenstance, progression (Forced Internal Mobility)
Evana	Ex-Er	Lecturer	49	F	3	Chance, happenstance, progression (Voluntary External Mobility)
Edmund	Ex-Er	Lecturer	37	M	4	Seeking change actively, applied for opportunities (Voluntary External Mobility)
Edwina	Ex-Er	Administrator	29	F	2	Seeking change actively applied for opportunities (Voluntary External Mobility)
Earl	Ex-Er	Sales	40	M	2	Seeking change actively, applied for opportunities (Voluntary External Mobility)
Eddie	Ex-Er	Teacher	35	M	2	Retrenched so moved into different sector deliberately; wouldn't have left engineering if wasn't retrenched (Forced External Mobility)
Ervin	Ex-Er	Corporate Communications Manager	38	M	3	Did not enjoy engineering at all and thought he could do something with his above average command of the English Language instead (Voluntary External Mobility)
Edison	Ex-Er	Assistant Director, Organisational Planning	37	M	5	Moved from being a practical hands-on engineer to organisational development. Each transition shifted him a little further away from his core engineering training. (Voluntary External Mobility)
Edgar	Ex-Er	Principal Manager,	48	M	3	Wanted to try something that was different from engineering

		Business Development				during his 30s when an opportunity presented itself. Applied for an engineering position in his first transition but was offered an auditor position. Started moving away from engineering as a result. (Voluntary External Mobility)
Eton	Ex-Er	Regional Sales Consultant	38	M	3	Wanted to give sales a shot since the sales role required an engineering background in terms of solutioning and technical support. (Voluntary External Mobility)
Tim	Ex-Tr	Iconoclast	48	M	4	Sought change actively; applied for opportunities; had a short attention span and consciously did not remain in any occupation for more than required (Voluntary External Mobility)
Tara	Ex-Tr	Unemployed	39	F	2	Sought change actively and moved consciously into administration, recently unemployed due to company reorganisation (Voluntary External Mobility)
Theo	Ex-Tr	Assistant Director	37	M	3	Deliberate movement out of teaching because wanted to try entrepreneurship but eventually ended up in administration (Voluntary External Mobility)
Tina	Ex-Tr	Unemployed	47	F	2	Deliberate movement out of teaching because wanted to try something else
Tenny	Ex-Tr	Admin Manager	38	F	3	Deliberate movement out of teaching because wanted to try something else (Voluntary External Mobility)
Tia	Ex-Tr	Admin Manager	30	F	2	Deliberate movement out of teaching because wanted to try something else (Voluntary External Mobility)

Detailed descriptions of each individual can be found in Appendix B.

Briefly, women outnumbered the men, which is typical of research populations generally, where volunteers are sought (Merriam, 2009). Of the 16 interviewees comprising of a Singaporean sample, 56% (n=9) of them were ex-engineers and 44% (n=7) of them, ex-teachers. The gender make up is 56% (n=9) males and 44% (n=7) females. It is notable that 10 of the interviewees have participated in more than two transitions in their career life-course, suggesting that the propensity for mobility becomes more pronounced when they encounter success in their initial movement.

The research narratives have been anonymised to ensure confidentiality and privacy. These details present the backdrop upon which the research analysis in the subsequent chapters are drawn upon, and also highlights that the analysis of the data has been extrapolated from a reliable research sample; one who has undergone at least two instances of mobile transitions within their career life-course, and for whom change is a constant. It also presents a glimpse of the career aspirations of the sample and displays its unanimous alignment to current career discourses of the mobile 21st century worker.

6.7 Selection of Participants

Merriam (2009) refers to snowball or network sampling as the most purposeful method of convenience sampling. The strategy adopted in my study therefore involved locating a few key interviewees with my colleagues who in turn suggested others. This method of sampling provided me with the opportunity to tap on interviewees who were recommended by others who are familiar with the interviews, having gone through the interviews themselves and allows for more effective targeted identification of an appropriate sample. People who had made at least two transitions from their initial occupation were included in the sample. For reasons previously explained in Chapter One (1.4) and Three, the sample comprises only former teachers and engineers who have participated in such transitions. This choice is further motivated by the status of teachers and engineers in the local context, by the government emphasis on these sectors and by the labour market mobility that have been observed from these two groups. My research posits that high attrition rates result in occupational mobility since in leaving the two professions, most would likely be required to look for jobs outside the sector. The research recognises that while some may leave their jobs for a similar role in a different organisation, it assumes that

because teaching and engineering are highly regulated occupations, particularly in the education sector where teachers all need to be registered with the Ministry of Education, departure from the occupation almost means complete resignation from the teaching service. Similarly because engineering as a profession requires constant engagement with the knowledge domain to ensure sustainability in the occupation, leaving the profession suggests losing touch with the discipline, causing longer-term detrimental effects for engineers intending to return to the profession.

6.8 The Interview Schedule

The interview questions in the schedule were largely made up of opinion and value questions, e.g. “what motivated you to join teaching/engineering as a profession?”, allowing for me to seek insights into the interviewee’s beliefs and opinions on what they think about their initial occupational choice; Sensory questions that refer to why they did certain things in order to elicit more specific data about what was experienced, e.g. “What were the benefits of joining teaching/engineering as a profession?”; and were corroborated to their background and demographic information like “Age”, “Years in teaching/engineering”, “Current job title” etc. It was also necessary for me to ask probe questions but these are dependent on the response or lack thereof. Adjustments had to be made during the interview so that greater clarification and understanding could be sought immediately. Some examples of probe questions include, “What did you do after you left engineering/teaching”, as part of Section A on Interviewee History, in order to unpack the mobile experience and trajectory more clearly.

In summary, the interview schedule is broken up into the following sections; A: Biodata and Participant History, where information on career life-history are ascertained so questions pertaining to their general demographic information and their life-history are based here; B: Teaching/Engineering Related Factors, where factors that influence initial occupation choice are determined so examples of questions include, “What motivated you to join teaching or engineering as a profession” are included; C: Current Job, provides information about the requirements of the current job and draws on perception of prior experiences and attempts to link past occupations to current one, questions include the transfer of skills to their current occupation; D: Perception of What Affects Occupational Movement, examines

individual perception of what had facilitated occupational mobility for the individuals; E: Perceived Professional identity, explores the occupational associations that the individuals have accorded themselves (See Appendix C for interview schedule).

6.8.1 Relating Interview Questions to Research Questions

The profiling section allowed for the individuals' history, gender, age range, job orientation and contexts to be determined. It allowed for interviewee life history to be captured, and documented the number of job transitions which have occurred in their career life-course. This addressed question one since individuals shared why and how decisions to leave their occupations were made, so that individual qualities and characteristics were drawn. Section B of the schedule sought to understand the factors that motivated occupational change and is aligned to question two of the research question pertaining to the factors that influence occupational mobility. It asks questions like "What motivated you to join teaching or engineering as a profession?", and "What were the conditions that led you to join teaching or engineering as a career?" to determine their motivations for joining the occupation; and questions like "Was teaching or engineering a long term career option for you then?" to ascertain perceptions of job sustainability, including perceived barriers to their decision. I also asked questions, which related to why they decided to leave their initial occupations and also the benefits that they had perceived to have attained from the occupation to glean the contextual factors, which either impede or facilitate occupational change. Section C sought to understand the current job that they are in and the factors, which, in their opinion, were critical in helping with the move to their new jobs. The levels of government, social and individual influences were explored in this section. It also determined the amalgamation of learning from previous occupations to manage their occupation movements. This allowed for insights on the occupational associations, which they identified with and questions their association to their current job. Questions for instance like "What are the conditions that would entice/enable the movement?" and "What enabled the movement into your new job?" attempted to understand the external factors that facilitated the movement and the ways in which individuals made sense of and engaged with these factors in their career life-course thereby addressing question three of the research question. Section D dealt largely with capturing their perceptions of what contributed towards the movement and listed

some motivational factors, which they could identify with. The section also asked if interviewees would consider going back to their original occupation and whether they would move into something entirely different. This attempted to measure the level of professional fluidity perceived by these individuals at the time of the interview.

Finally, Section E attempted to make sense of the occupational association by likening it to the concept of professional identity. As elucidated earlier, it was noted during the preliminary study that professional identity is a concept that I had to explain before the interviewees were able to comprehend and respond appropriately. As such the concept had been subsequently changed to association to occupation in the main study so that it was more self-explanatory and easily understood by interviewees in the research.

The response to the final research question related to the role of generic skills in facilitating mobility was gleaned from the individual narratives of their career negotiation and explored if indeed generic skills had a role to play in facilitating the movement. This question was also included since the interview participants had themselves referred to a range of different generic skills whenever they spoke about their career movements.

6.8.2 Interview Analysis

The oldest and most natural forms of sense making are stories or narratives (Jonassen & Hernandez-Serrano, 2002). In my research design I have sought to use such stories and narratives as data so that the first person accounts of experience are captured via interviews. I designed a schedule in such a way that would facilitate the sharing of stories so that the interviewee is guided along as accounts of experiences are related. The texts from the stories form the data set, which would be used to interpret and inform findings from the research. My research adopted a biographical approach (Denzin, 1992) in its analysis, where the importance of life events, turning point experiences and other persons in the interviewee's life are captured and explored for themes. I intend to,

retell our respondents' accounts through our analytic redescriptions. We, too are storytellers and through our concepts and methods – our research strategies, data samples, transcription procedures, specifications of narrative units and structures and interpretive perspectives – we construct the story and its meaning (Mishler, 1995:117-118).

Viewed in this light, I decided that the unit of analysis are the stories that the interviewees share. All the interviews except for one were recorded and subsequently transcribed before they were analysed. The one exception had specifically indicated that he was uncomfortable being audio-recorded. In that instance, I took notes during the interview and supplemented these with as much detail as could be remembered after the interview. Email confirmations of the interview were also sent to the interviewee to ensure that accounts were accurately reflected. Content was analysed for indicators of individual decision-making mechanisms; factors that affected occupational mobility; and the individual negotiation of these factors. The findings were critically evaluated for what was revealed about ex-teachers' and ex-engineers' constructs of career movement and of the strategies that enabled the transition. For the purposes of clarity, the findings are reported under institutional, individual and community categories but these are by no means mutually exclusive.

Implicit in my analysis is the need to construct a new discourse and mode of analysis to understand the ways in which ex-teaching and ex-engineering professionals perceive their own occupational mobility. On the one hand it serves to analyse and identify the factors that facilitate occupational mobility and on the other, it reveals different ways in which these professionals perceive how their mobility is sustained. I then determine how their experiences of initial teacher or engineer preparation and practice contribute to an understanding of the factors that facilitate and sustain their movement from one sector to another. Finally I ascertain the perceived professional associations of these interviewees so that I can place their lived experiences within their own perception of job association. Underpinning the analysis is the notion of rationality, which places the assumptions and practices of these professionals within a rational frame in order for them to understand and shape their own experiences.

Rationality as a construct is often applied to the way in which individuals navigate their career course; and embodies a set of rational and ideological assumptions and interests about the world in which they exist. The element of ideology is typically

used to underpin the analysis because it assumes specific ways in which meanings are produced, mediated and embodied for these individuals. My study takes ideology to be as a set of doctrines as well as a medium through which professionals make sense of their own experiences and those of the world in which they find themselves because it identifies the tension that is created with using rationality as the sole means for justifying action. In relation to decision-making, ideology becomes a partial frame for understanding not only how these professionals sustain and produce meanings, but also how they negotiate their career life-courses.

The data analysis comprises of an iterative process of data classification which involved moving back and forth between the data and themes, engaging in inductive and deductive reasoning between description and interpretation. Initially the analysis required reading through all the transcripts and identifying segments in my data that responded to the research questions. These units of data generally revealed information that was relevant to the study and research questions, and as Lincoln & Guba (1985) explained, should be interpretable in the absence of any additional information other than a broad understanding of the context in which the inquiry is carried out.

The constant comparisons established recurring patterns across the data sets and drew together thematic categories, which related back to the research questions. This iterative process resulted in the sharpening of the units of data so that they relate more clearly to the themes and factors that were identified in the research. An example of how the raw data was sorted into themes/factors was in considering the recurring patterns, which appear across the data sets, i.e. the interview transcripts. A factor like “chance” which the interviewees all referred to suggest the random nature of career transitions, however in delving deeper into the occurrence of these ‘chances’, what the data began to reveal was that there was also an element of recognition of these ‘chances’ which suggests then that the process is not as random as it first appeared to be in the accounts of the interviewees. The analysis revealed an opportunistic element that was present in almost all accounts. This process required a comparison of the units of data against each other so that there was validity and reliability in the analysis. Soon, thematic patterns began to emerge inductively from the data and patterns of their occurrence provided a useful way of making sense of the data. In

grouping these patterns together, I was soon able to extrapolate the analysis to a new level and further group the analysis in a more meaningful way. For instance, what had emerged initially as coaching and mentorship support soon revealed a strong reference towards support in the workplace which comprised not only of support by superiors but by peers in enabling occupational transitions. This in turn led to the establishment of support structures and relationships in the workplace as major thematic categories for sustaining occupational mobility. This iterative process required the constant construction and reconstruction of themes and factors, which eventually led to the creation of a robust data analysis system leading to data saturation.

6.9 Generic Skills

The topic of generic skills arose as an emerging theme in the preliminary study and was dealt with and explored more thoroughly in the main study. In fact the reference to generic skills and the way in which all the participants accorded it reverence for entry into an array of different occupations, helped to steer my interest in exploring generic skills more closely. At the time, Sung (2011) was producing a Generic Skills Index in Singapore, which made categorising generic skills and making sense of what generic skills meant, easier. Exploring generic skills soon emerged as a crucial aspect in my research.

6.9.1 Generic Skills Analysis

My study used Sung's (2011) Generic Skills Index (GSI) to examine the different areas of generic skill utilisation for my research sample and mapped the identified generic skill from their initial occupations against the utilised generic skills in their subsequent occupations. My analysis drew on the Singapore Standard Occupation Classification (SSOC) to provide the breakdown of general responsibilities for teachers, engineers and every additional occupation that the ex-teachers and ex-engineers have ended up in; in an effort to understand the extent of generic skill utilisation and adaptability across occupations. In addition, another dimension to my analysis was the mapping of the GSI to the initial teacher and engineer preparation programmes. My research referred to the NIE teacher preparation curriculum and the Nanyang Technological University engineering curriculum to provide an idea of the fairly standardised initial skills training that were formally provided in pre-

employment training. My method of analysis provided a mapping of the range of generic skills provision to the standard occupational classification and the samples' experience through the heuristic device of the Generic Skills Index. Figure 5 illustrates the various mapping categories and is explored in detail in Chapter Eight:



FIGURE 5: GSI SCHEMATIC MAPPING

6.10 Ethical Considerations

I am aware that my role as a government researcher, working in areas that relate directly to workforce development and policy may potentially bring about power relations. As such I am sensitive to what the variations in vocabulary, intonation and accent that reflect different positions in the social hierarchy could bring, and have to the best of my abilities, avoided speaking with authority. I am mindful of the different strategies by which words can be used as instruments of coercion and constraint, as tools of intimidation and abuse, and have consciously avoided such ruses and iniquities during my interactions with the interviewees. Further, I was careful to ensure that my personal occupational mobility experiences, from teaching into a research role, did not serve to bias the analysis of the research findings.

I sought to explain to the sample interviewees that their involvement in the study was purely voluntary that they could withdraw from the study at any point. An

information sheet and consent form was sent to the interviewees prior to the interviews, and covered areas that related to informed consent and permission to audio-record the interviews. Further, in an effort to downplay my professional and formal association with government and policy, I opted to conduct the interviews in neutral settings outside the workplace, often conducting the interviews in a cafe over a cup of coffee. I had also made the effort to dress down and appear in casual attire so that the power relations could be eliminated.

Additionally, in an effort to ensure the confidentiality and anonymity of interviewees, I have chosen to label each research document randomly. The transcripts are tagged by arbitrary names that begin with T and E to define if they are former teachers or engineers respectively.

6.11 Conclusion

In this chapter I have presented the research strategy that was adopted in the conduct of the research and highlighted the research methodology and elucidated the considerations that were taken in designing the research. I have laid out the research journey that I had embarked upon, and explained the rationale for the use of specific data collection methods. I also explained why a preliminary study, which served to provide an initial context to ascertain the feasibility of the main research study, was conducted. I also shared the research instruments that were developed and revised through the research journey and explained why the preliminary study was helpful in developing an accurate instrument. The most critical section of this chapter has to be the brief profile of the interviewees because it presents an initial attempt at situating them within the research. In the next chapter, I start with providing more information on each of these interviewees before I present the findings from the analysis of the interviews and relate these findings to the research questions.

CHAPTER SEVEN: THE PROCESS OF NEGOTIATING OCCUPATIONAL MOBILITY

There were push and pull factors, so that push factors were the unfavourable conditions of the previous job, the main pull will be referral, knowing someone from within, and the other thing isn't really a pull, it's the lack of inhibitions to try other unrelated fields.

(30 year old pilot participant from preliminary study)

7.1 Introduction

This chapter presents the findings from the analysis of the interviews and builds on the themes that were identified in the preliminary study. The preliminary study identified factors that (1) facilitate and (2) sustain mobility. These factors include an exploration of the different agencies of control within the capitalist environment that influence the individual's perception of mobility and their attitudes towards learning. The preliminary study also explored the significance of informal learning and recontextualised learning experiences, the value of generic skills, the role of professional idealism and association, and its impact on occupational mobility. Emerging ties were found in the preliminary study, between the discourses of lifelong learning and occupational mobility, suggesting that occupational mobility has become, not only a part of active citizenry but also is now an expected consequence within the new capitalist landscape. The role that governments play in enabling individual interactions with the surrounding social and institutional structures, to create the professional associations necessary to determine the navigation of the career life-course, were found to have expanded tremendously too.

It was also discovered that the potential for individuals to participate in occupational mobility could depend on the professional associations shaped by the individual's processing of information within the social/community contexts and government structures in which they operate. These broad overarching themes have guided the analysis of my main research in relation to the first three of four research questions; and are now organised into sections that are facilitated by these research questions. This is so that the themes from the preliminary study could be classified in a way that addresses the research questions more directly. It is important to note that all

responses from the interview data illustrate the broad patterns and relationships which have been identified, so the excerpts that are provided in this chapter more appropriately clarify and illustrate the patterns and relationships which have been observed in the main study.

It should be stated again that my research does not attempt to predict mobile behaviours. It does however seek to understand such behaviours and attempts to do so by seeking to underpin the themes with the theoretical perspectives discussed in Chapter Five.

Before the outcomes of the analysis are provided, I shall present a brief description of each individual so that the following analysis can be better understood. Detailed descriptions of each individual can be found in Appendix B.

7.1.1 Profiles of Ex-Engineers

Erica is a 48 year-old ex-engineer who works in a local Institute of Higher Learning (IHL)'s Department of Staff Development. She currently works as a director there and manages the staff development requirements of the IHL and facilitates the development of learning programmes for lecturers within the IHL. She started as a control and IT engineer in the air force and gradually worked her way up the career and qualifications ladder. She currently possesses two Masters degrees; one in Engineering and the other in Design Thinking. Following her experience in the air force as a control and IT engineer, she joined a local IHL as a lecturer and used education as a means to promote her craft. She chose to study engineering because it had sounded quite interesting and was practical-based. Engineering empowers her and allows her to look at things differently. She participated in forced internal mobility.

Evana is a 49 year-old engineer who currently works as an engineering lecturer. She started as an engineer from the onset and has never really deviated much from her original craft even though her responsibilities are now that of a Subject Head that requires her to tap on her administrative abilities. She started as an engineer because she felt that she had the aptitude for it. Her first role as an engineer was in a trading company where she remained for about three years. She subsequently left and pursued her computing engineering degree before returning to the IHL where she

has been working in for the past 23 years. She joined the engineering profession because she liked the hands-on experience that the profession brings, as she enjoys seeing things move. She felt that her experience as an engineer contributed to her teaching abilities and has been integral in providing the worldly experience that any engineering lecturer needs. She participated in voluntary internal mobility within the field.

Edmund is a 37 year-old electrical engineer who recently joined the lecturing profession. His ambition had always been to go into engineering education and he had tried on many occasions to get into the education sector to no avail. Whilst awaiting a suitable opportunity to arrive, he had moved from being an IT network engineer for two years on to being a software engineer for another three years. He then became an IT security engineer before finally securing a position as an engineering lecturer. He had started with a diploma in Engineering in 1981 and subsequently applied to further his studies, securing an engineering degree in 2000. He participated in voluntary internal mobility within the field.

Edwina is a 29 year-old administration manager who started her career with an engineering diploma in 1999 from a local polytechnic. She began as an engineer for a year before she decided that engineering was not a job for her. She decided to move into something completely different from what she is used to, and went into the coffee business. She joined an international coffee chain and was trained as a barista. She eventually moved up the rungs of the business and soon became a trainer of young baristas. She remained in the coffee chain for 10 years before she decided to pursue a more formal career in learning and development. She works at a local training agency as an administration manager where she deals with customers enquiring about training as a career. Edwina participated in voluntary external mobility.

Earl is a 40 year-old financial advisor who started out as an engineer in his first career. He was interested in computers as a teenager and had enrolled in engineering because electronics engineering was the most popular programme in the late 80s. He had preferred to go straight into vocational training after his GCE O Levels even though he qualified to progress to take the GCE A Levels. He had also at the time,

wanted a work qualification so as to minimise the burden that he would otherwise have created on his parents. He is a trained electronics and communications engineer. Earl participated in voluntary external mobility.

Eddie is a 35 year-old ex-engineer who now teaches at a local secondary school. He studied science in Junior College and because of his science-based education; he felt that the natural progression was to proceed to become an engineer. At the time, engineering was perceived to be a job that paid well and garnered a sound reputation. Acknowledging the herd effect, he followed everyone else into the profession. He went into NTU to do a four year engineering degree. He started as an engineer in 2003 with a hard-drive developer. He held a series of short employment stints with a range of engineering companies before he was made redundant. This is the shock event that Forrier, Sels, & Stynen (2009) referred to, which they defined as distinguishable events that leads an individual to make judgements about remaining with or leaving their current labour market situation. He participated in forced external mobility.

Ervin is a 38 year-old corporate communications manager who was trained as an electrical engineer and despite having being trained as an engineer, practised engineering only during his internship. He did not feel compelled to pursue this line of work so he took his time to look for a job and eventually stumbled into journalism. His venture into journalism helped open doors for him in the media sector and he moved subsequently into public relations-related work before finally settling into the corporate communications role within a semi-government agency. Ervin participated in voluntary external mobility.

Edison is a 37 year-old male electrical who spent four years in an engineering role related to automated guided vehicles, before the opportunity came for him to venture beyond his core engineering training. Despite his transition out of engineering he was still in touch with the practice albeit, indirectly. His latest job is that of an internal business consultant where he focuses his efforts on improving the business processes within the organisation. The practice requires tapping on his prior engineering training because he is still dabbling in theories that are engineering related, to make sense of his current responsibilities, e.g. workflow diagramming,

solutioning and queue theory. He admits to tapping on his prior engineering training for logic and reasoning in his current occupation and had participated in voluntary external mobility.

Edgar is a 48 year-old trained electrical engineer who decided to venture out of the practice in his thirties because he wanted the opportunity to try something different. His foray into auditing and business development was purely opportunistic. He had applied for an engineering position after his first job but was offered an auditing position instead. He reflected on his abilities and decided that it was something to which he could extend his competences. His initial entry into engineering was because the profession was at the time, well regarded and since he was good at the science-related subjects, felt it was a natural progression. He had participated in forced external mobility.

Eton was a trained computer engineer who spent six years in engineering before he resigned to take up a position in sales. He currently works as a regional sales consultant whose key task is promoting business products across nine countries in the APAC region. He had joined the engineering profession with the intention of it being a long-term career option. However, he soon realised that he could diversify his technical expertise by focusing on sales of these technical products. He does not rule out the possibility of returning to pure engineering practice since he has not moved too far away from the practice and still keeps himself very current with engineering developments as a requirement of his existing job. He participated in voluntary internal mobility.

7.1.2 Profiles of Ex-Teachers

Tim is a 46 year-old corporate manager who started his career as a teacher in 1988. He graduated with a degree in Economics from the National University of Singapore in 1986 and joined the College for Physical Education (PE) for two years after that to train as a PE teacher. He formally completed his training as a PE teacher in 1988, and commenced his nine year career as a teacher in a local junior college after that. He was subsequently posted to the education ministry as a specialist for two years before he resigned from the government service. He then took on short work stints before he decided to take on a full-time employment at one of the local IHLs as an

Education Advisor. His motivations for joining teaching were purely out of his love for sports and he had envisioned a long-term career as a PE teacher. However, he was disillusioned by the requirements to conform to the rigidity that the bureaucratic system brings. Tim participated in voluntary external mobility.

Tara is a 39 year-old ex-early childhood education teacher who had ventured into administration work. She started as a teacher in 2002 and spent five weeks teaching before moving into doing childhood education-related administration work in the Sunday school of a Christian organisation for another five and a-half years. She eventually left for another administrative role at an optical shop. Her responsibilities involved Human Resource (HR) related matters, purchasing and general administration. She was there for two and a half years before she left this administration job in July 2011 and has been unemployed since. Tara participated in voluntary external mobility.

Theo is a trained psychologist and was a classroom teacher for two and a half years before he was sent back to the MOE to perform a role as an education psychologist. He spent four years there before eventually leaving to set up his own training company for seven years. His training company focused on the development of cognitive abilities of teachers and students. After having to deal with managing his own business for a while, and because he had to provide for a young family, he decided to seek for a more permanent job role that would bring in more consistent pay. He is now currently employed as a middle manager in a government statutory board. He engages in training occasionally though his role is largely administrative management in nature. Theo participated in voluntary external mobility.

Tina started as a trained English teacher in 1988. She was teaching for three years before she eventually resigned and joined a local IHL as an adjunct communications lecturer for a year. She was motivated to join the education industry because she was very keen on teaching as a craft and in children. She decided to leave teaching because she felt that her career was becoming stagnant and wanted to try something new. She then joined the hotel industry and spent another three years as a training executive, which required her to plan the company's training and conduct orientation programme. She then joined the manufacturing sector for two and a half years and

engaged in training and quality management before she left to join a government office that had a focus on manpower development. She resigned in mid-2011 because she felt that she needed a break. She is currently enrolled in a local art school and spends her time drawing. Tina participated in voluntary external mobility.

Tenny started as an English teacher at a primary school in 1996. She spent six years teaching before she went on sabbatical to pursue her masters. She decided to leave teaching because she could not get back into it after her sabbatical leave as she had been sent to MOE headquarters to do policy related work instead. She joined teaching because it was what was available and her parents were not too keen for her to join the corporate world. She eventually joined a local institution of higher learning and started a role as an administration manager. She currently manages the administrative aspects of staff development. She arranges and manages workshops and events within the institution and dons a supervisory role with a team of two administrative staff under her charge. Tenny participated in voluntary external mobility.

Tia started as an English teacher with a specification in Elements of Office Administration in 2003. She spent three years as a teacher in a secondary school and another year on a teacher exchange programme teaching in Japan before she decided to leave teaching completely. She had resigned without a job and eventually found one as a recruitment consultant for Japanese-speaking positions at a Japanese organisation. She subsequently sought a variety of different options as a third career, one of which was as a teacher in an IHL, the other being an administrative manager in a government department. She took the latter option and is currently an administrative manager who deals with literacy training and development within a local statutory board. Tia participated in voluntary external mobility.

7.2 Enabling Occupational Mobility from Individual Perspectives

Research question one attempts to understand how occupational mobility is enabled from individual perspectives. The findings are discussed in relation with what was discovered from the literature review, through the use of symbolic interactionism's "I and me" as an overarching theoretical device. As such, the individual features are

presented ahead of the broader organisational features since it is from the individual perspectives that the organisational features are derived.

7.2.1 Individual Perceptions that relate to Transitions

As discovered in the preliminary study, an emerging rhetoric prevalent in our modern career culture suggests that the failure to move occupationally is taken as a sign of failure, and stability is seen as a living death (Sennett, 1999). This perspective underpins the narratives which the individuals share. Like one of the preliminary interviewees who pointed out that people of his generation (Y) do not see being in a job as a long-term commitment, Tim said, “Probably. Who knows? I always believe in diversifying”. When asked about what his fluid professional competences were, he listed finance/accounting, personnel/human resource relations, marketing/ sales, research and development, teaching and said “I can do almost most things”, when asked if he would go into a different occupation again.

On the other hand, even though Tara had fluid competences in finance, accounting and HR, she would only be comfortable doing a job range that covered either teaching or administration, both of which she has had experience. She explained that she was not an ambitious person and had no interest in doing more than what is required of her, suggesting that individual dispositions and aspirations could play a large part in determining mobility. Theo also alluded to the fact that he would only have considered remaining in teaching if the career pathway was clear and promising. The inability to commit to one occupation is apparent from Edmund’s account when he said that even though he was employed he was always looking for another job, “I was always employed, but was always looking”. He recognised that he had fluid professionalism in research and development (R&D), marketing and human resource related disciplines though he would not mind going into psychology work though he acknowledged that it might require further studies. Eddie similarly perceived the short-termism which reinforces that a job as no longer for life when he acknowledged that his entry into engineering as a first degree was merely a platform for the acquisition of a degree. He explained that he had not thought about whether engineering would be a long-term career option because he saw it as just a means to getting a degree. He had not considered much about it and did not develop much of a

professional identity nor affiliation to the profession. He merely viewed it as a phase in life that he had to go through.

Edison alluded to this issue of commitment too when he said,

Because once I finished that particular item, which was to build that interface, I got a bit bored. Because after a while, the patterns are the same, the problems are the same and all that. So I started looking around. And at that point in time was where I started to slowly switch over to non-engineering, non-IT, non-whatever.

Tia alluded to such non-commitment when she said of her initial venture into teaching, "I didn't think it would be a long term career at the point of application" when asked about her tenure within her teaching experience. She eventually left teaching because she became acutely aware that there was a lot more to be experienced beyond teaching. She said,

I left teaching after the Japan stint because the overseas exposure helped me see that there's much more to be learnt and experienced, something which a local teacher (or me), did not seem to really know about. As a local teacher, I was very much in my own world, absorbed and caught in the daily routines of lesson plans, marking, getting ready for the next test, exam, etc, and I really didn't care much about what was happening around me.

The fear of being unexposed to the wider world propelled Tia into a different occupation.

The fluidity in such short stints is portrayed in Tina's account when she explained of her own career trajectory, "...actually my career history went from teaching to training then to career development then back to training". She clarified though that her last training stop was not training per se but the management of training, which was more administrative instead. Similarly Tenny said, with regard to short-term job fluidity, prospects and sustainability,

I wouldn't have mind going back to teaching but in the end it was not my life course. But I am glad I left otherwise I may have become too comfortable and ended up being like a primary school teacher all my life; which I couldn't see myself doing anyway.

The overarching theme that seems to emerge from the analysis of the data suggests that the destination matters less than the act of departure, and this perceived necessity for mobility brings to light the argument by Sennett (1999) of the lack of opportunity which arises from short job stints. It further implies that such constant shifts bring about the development of a culture of risk-taking and fluidity that results

invariably, in the inability to develop a suitable, sustained narrative which captures identity and life history. It creates instead people who treat uncertainty and risk-taking as challenges at work. They therefore develop ways of interpreting and negotiating their learning context to cope with their short job experiences; and these affect not only their understanding of, and behaviour and attitudes towards career mobility but their lifelong learning patterns and needs too. Clearly, these individuals are also reflexive and confident about the skills that they possess; hence are able to picture themselves in other occupations that may require different occupational skills like marketing, human resources, and accounting etc.

7.2.2 Situational Features

This category of features relate more specifically toward situations and circumstances that the individuals find themselves in when having to make the occupational move. It is inferred that while individuals possess an element of reflexivity and awareness of their own abilities in justifying the movement, the recognition of this situational feature is also important in enabling mobility.

7.2.2.1 Opportunity and Chance

Lamb and Sutherland (2010) identified in their research, the career capital that relates to opportunity identification and, it appears that chance and the seizing of opportunity facilitates occupational mobility; since it is not only about recognising the opportunity when it occurs but also grabbing the opportunity when it arises. This is largely individually driven as what is perceived to be an opportunity could vary from person to person. As explained by Edmund,

I was in [name of company] doing electronics, I was quite happy there until [name of company] called me up, like I said I was with them during my student industrial attachment, attached with [name of company] at San Jose US, doing something related to what they are going to set up in Singapore. So two years later they decided to set up their R&D centre in Singapore and since I was still a student attachment there, they ask me to come in, so I felt it was a good opportunity so that is why I jump into software engineer which I later regretted; after maybe about one year.

Tia said when asked about how she managed to get into administration, “I suppose it would be application at the right time, with some degree of skills match to the required role”. Her entry into her current administrative role was triggered by the

fact that the ideal opportunity came up after she had applied to an array of different openings, she said,

This current job came about as I wondered how I could put my skills to good use, yet work in an education-related field. Honestly, I had no idea what [name of organisation] was about when I applied for the position, just that it seemed like an interesting backend role to explore that suited my background. At the same time, I also applied for other educational opportunities such as being a Polytechnic lecturer. I chose the [name of organisation] position eventually as it would provide me the backend experience of education, and a different kind of education in that it would be Continuing Education and Training instead of Pre-Employment Training.

Tenny also said, “Like if the [hotel] job came first, then I probably would have gone and done that, then I probably won’t be here now, maybe I will be doing something else different altogether”. She further explained of her move from teaching into her current administrative role,

Chance, that there was opening and my experiences were considered quite relevant for entry to the job. Not really planned, when I left [education ministry] I wasn’t sure what I was gonna do, I kept my options open again so whatever came up I told myself that I should be open and try it. I didn’t mind actually going to private school to teach, or independent school to teach. But when the poly thing came up I thought it was a good opportunity to get myself into the higher-ed (HE) level system.

Similarly, Erica’s experience in occupational mobility was a result of an opportunity presenting itself and the awareness that a decision had to be made in order to move.

This awareness is referred to in the literature as ‘knowing-when’. She explained,

...it’s very hard to say no. So I said, “Let me think about it, I’m going on tour anyway. So he [the deputy principal] was quite persistent, the moment I came back from my leave, he called me the first thing in the morning, “So how you want to come or not?” My answer then was, “Mr [current director] is good staying here”, he say, “No no, you better make you decision because you don’t come, Mr [current director] cannot go somewhere else.” He says there is a bigger job for him. So that was what he told me, then I said, “Ok, then I don’t want to (...) stuff his plans.

She eventually made the transition to a leadership position just because she did not want to waste her predecessor’s future development opportunity. In Erica’s case, it emerged that there was no particular active search for movement opportunities; but it just happened and when it did, that she was able to act on the opportunity and seized it so that occupational mobility was enacted. As for Edgar, the engineer who became a business analyst, his venture out of engineering was not an intended one.

According to him, he had applied for an engineering role but was offered another role during the interview,

...surprisingly as I said I went for the interview... for the opening at quality assurance. And over the phone when HR called me and explained the job scope, I thought it was quite interesting so I went for it [the auditing role].

Evidently, he was able to seize the opportunity to take on the role that he had no intention of applying for because he could see himself as an auditor and knew how he could perform in the new role. This idea was similarly referred to by Lamb and Sutherland (2010) as knowing oneself.

Tim's initial opportunity presented itself when his friend contacted him to venture into a local start-up. He explained that his foray into his current consultant role was a result of an opportunity that presented itself in a social context which resulted from his 'knowing-whom' capital,

It was more an opportunity that presented itself because I used to teach the head of this company that I am now working with tennis. So one day he asked me if I wanted to consult for his company first and it was only after the consultation and I produced the report for him that he ask(ed) me to join his company full time so that I can implement the findings and recommendations from my report.

He further elaborated on his 'knowing-whom' capital when he explained his subsequent venture into marketing,

I was posted to [education ministry] to corporate affairs, where I was supposed to write policy speeches, but I only spend one day doing it then I decided that I didn't like it so I was transferred to the extra-curricular activities (ECA) branch as a specialist and spend 2 years there after that. Then during my time at ECA branch, I was contacted by my friend from ISS, and he asked me to help with marketing in the new start-up so we ended up starting [name of company].

In Eddie's case, his career life-course was based on the opportunities that presented themselves. His entry into education was because MOE had shortlisted and called him up for an interview but what is apparent is his awareness that he was able to do the job that saw him take up the opportunity. Similarly Tina joined the hotel industry after leaving teaching because,

I wrote in to a very few cases, I won't say that I am that great [that] people will [want to] get me. I ... write to a few places. The hotel one came up late in the night, I was very suspicious, are you sure there is such a job? But it was really true, my boss was working until almost 9 o'clock. He asked me and

okay I come down. He brought me to the coffeehouse and then we had tea, is this an interview? And when I went to work, the first thing they asked me is to be attached to the front office.

Sometimes mobility is a result of retrenchment and the decline of a particular sector, so it was not often entirely up with the individual. In the case of Eddie, he was unfortunately made redundant during the 2008 economic recession and was forced to leave the engineering profession. This suggests that at times, situational factors play a key role in determining movement, that while reflexivity and awareness of personal abilities are crucial, the ability to react in a manner that seems rational to the individual matters too.

Tim summed it more generally and his views are representative of the other interviewees too when he said,

So I think that was more a personal thing for me. I won't say that there is one specific thing that motivates or influences me in the choices that I have made and it depends on the circumstances at the time. I am quite flexible and fluid that way so I don't like to be constrained to only one thing. As I said before I like to diversify.

7.2.3 Personal Features

These features relate more specifically to the individual and the ways in which the process of negotiating occupational mobility makes sense to the individual. Lamb and Sutherland (2010) refer to this as knowing oneself. Some of these factors may be conceived by the individual as important purely because it is underpinned by symbolic interactionism that stresses individuals are not born with a sense of self but develop self-concept through social interactions. Much of individual behaviour is shaped by the process of interaction and communication with others, and defined by the reactions of others and our perceptions of their reaction. This finding resonates with the research on Bourdieu's social capital and subsequently Finsden et al. (2011) and McNair's (2009) exploration of the same concept too.

7.2.3.1 View towards Initial Occupation

It was observed that these individuals are generally non-committal and nonchalant about their initial occupation, aligning strongly to Hallam's concept of the malleable individual identity. Their personal aspirations had not included going into their initial occupations. The motivation for movement into the first career was often a

result of what was available and what seemed trendy at the time or what they were good at. Lamb and Sutherland (2010) refer to this as context management and adaptability. While the ex-engineers themselves clarified that they had gone into engineering because it was the right thing to do since they were all good at science in high school, none of them attested to being completely passionate about wanting to be an engineer when they grew up. There is a strong need to conform to what is expected of them and a constant reference to what seemed as the socially expected thing to do. Again, this resonates with the conventions that surround symbolic interaction since meaning is ascribed based on interactions within the context of human relationships. As explained by Evana,

In secondary two there was an aptitude test, which indicated that I am suitable for becoming an engineer. (it) shows that I am good in engineer(ing), something like IQ test, show that I am suitable for engineer... actually I didn't think I was that good in this kind of work because in sec three I choose the technical course, and because I did quite well in class and was quite in front (in terms of ranking) so I was given a choice to do electronics. Then because I did it in sec three and sec four so automatically after that I decided to do an engineering diploma.

Ervin also said,

I guess that time when you are young you don't really know what's out there. You basically just decide to study something that you think you are good at, and something, which you think is marketable. Engineering is marketable. But sometimes you realise that as you go, as you drill into the intricacies of engineering, sometimes you might wonder, you get this realisation that whatever you thought you want to do initially, may not be what you want to do after you graduate. Because the realities of the job, probably will dawn on you as you struggle through your studies at that time.

Earl also said,

I was interested in computers as a teenager. Electronics was THE course to take in the late 80s. I preferred the Poly route although my O level results were good enough for almost any JC, as my 2nd language was not good and I wanted a "work qualification" so as not to burden my parents (we were not well-off).

Edmund confessed that,

My O level [results] was quite okay, at that time I was choosing between business and engineering, not the other unpopular course where the cut-off point is much lower. So the better courses were business and engineering. So I didn't like business, I'm more of analytical person, so I went to engineering... At that time there wasn't much courses available. I joined SP in 1981, it wasn't like now where there is so many, 49 diplomas offered by SP, and then

at that time there were very limited choices, and at that time, engineering was popular.

He explained that it was partly for pay and prestige, “Firstly, there is not much choice and engineering at that time was the top few choices, unlike now unfortunately”. Eddie said that he was in the science stream in junior college and coming from a science-based education, he felt that the natural progression ahead was to proceed on to become an engineer. At the time, engineering was perceived to be a job that paid well and there was a good reputation for civil engineering. Due to the herd effect, he followed everyone else into the profession. He went into NTU to do a four year engineering degree.

Tim explained that he joined teaching because he was interested in sports, and at the time he felt that going into physical education teaching was the best way to ensure that he could engage in sports indefinitely while Tenny’s venture into an initial teaching career was largely because it was what was available. She explained of her context adaptability capital,

At that time, I sent applications to many different jobs, like journalism, PR, advertising, marketing, corporate comms [communications] all I tried. Actually after I accepted the teaching offer, I got a call from [name of hotel] for interview at their corp comms/marketing. But by then I already signed the [government office] offer so could not back out.

This was also the case for Tia who explained that,

[she] had not really given it much thought at the point when I decided to join teaching. I’d always liked to nurture, and had several tutoring assignments while studying, and it came more as a natural progression. In my last year in [local university], I attended a Career Fair and decided to just give teaching a shot. The application led to an interview, and one followed the other. That’s how I started as a teacher.

This suggests that apart from doing what they had perceived to be socially acceptable, their associations to their occupations were malleable and defined by trying the first job that they could gain access to; suggesting degrees of context adaptability and management. It was after they got into the job that they considered if that was an area that warranted longer term commitment or that provided development opportunities. All interviewee accounts featured a specific trigger that set the mobility in motion. The trigger similar to Forrier et al.'s (2009) shock event, coupled with the trying out if the job fits mentality, catalyses the mobility when a

misfit is observed or experienced. The trigger could take the form of conflict, reflection on personal ability (elements of reflexivity) and job fit, or may be opportunistic, a result of boredom or a fear of stagnation. It also suggests that the propensity to move is more pronounced after the first movement, since the small victory from making the initial move reinforces the individuals' perceptions about personal success in the act of occupational mobility.

The sample had embarked on at least two instances of mobility, suggesting too that the ease of subsequent movement is determined by the success of the first transition. The mean transition occurrence across the entire group is at a median rate of 2.9, again suggesting that the propensity to move became more pronounced after first movement.

7.2.3.2 Personal Awareness and Reflexivity

Related to the earlier discussion on chance, there is also an observation of elements of reflexivity and personal awareness that result in knowing-why, knowing-how and knowing-when. Archer (2012) explained that reflexivity is grounded in the continuous monitoring of action, which is defined by internal conversations. She added that we all resort to one of the four modes of internal conversations on different situations and occasions. This reflexivity assumes rationalisation and career mobility capital. There are signs that such reflexivity occurs in our sample too, as there was reference to other life episodes or mentors that facilitated action. Tim attributes who he is and where he is today; 'knowing-whom', to an ex-principal and mentor,

...learning my management style from [name] was a huge benefit for me, because she was really my mentor and I look up to her as a role model and who I am today is really because of her, how I manage is really from watching and learning from the way that she does things.

He acknowledges that he possess emotional intelligence and recognises it as the factor that contributes to his multiple occupational successes,

I think EQ is the most important skill I learnt from being a teacher and that is what is most important in my new current job. Also I think I am able to be engage people to talk about anything, and appear to be smarter than them so that I don't get fooled by them.

Similarly, Edison identified his strengths; possessing ‘knowing-how’ and ‘knowing-why’ when he describes, “Things relating to business processes, understanding them, understanding the techniques and methods to optimise them, understanding what kind of organisational structural change is required. How to go about doing it, understanding what kinds of methodologies you need in order to make it happen”, as crucial skill-sets that contributed to his success. Tara also confirmed that she had learned systematic skills and the need to meet expectations and welcome innovation from her teaching experience.

The ability to tap on what was familiar is important too. Tia also described being equipped with related knowledge for her subsequent move into an administrative manager position within the vocational education setting and the recognition that she possessed the necessary knowledge that could ensure her success in this new environment when she said,

When I was transferred to the [subject] team and worked on the Test project, I began to enjoy my work much more. It was related to my background and I enjoyed the wide spectrum of the different job roles.

Similarly, Evana describes contributions from her past engineering practice and prior experience as particularly helpful in developing her into the person who she is today,

Analysing skills, logical thinking all are also part of the engineering experience. For instance in the final year you guide the student if there are any problems, we will be able to guide them better. If any problems the student basically will learn how to self-analyse. So those are the benefits for me from engineering.

Earl also realised that he was more suitable outside the engineering sector and was able to make the related move when he said, “I realised my skills were better off in sales or marketing and just decided to make the choice since I am more of a people orientated person”. Erica too, spoke confidently about her own abilities in relation to the conditions that led to her mobility. She said,

Okay in my mind I think the conditions are very simple, I can’t see myself working in the air force until I hit 60 so it’s like then let’s go somewhere and air force and the army they have contract of six years. Then it’s very clear, after six years it is somewhere else. So then I was thinking, teaching can be quite fun. In my mind teaching is quite fun, so maybe I will go for a Masters course then after that I go to school. So that one was very targeted. The second

move on the school of design one, the driver was trying to do something different. Yes something different for myself because as I said I don't know what it is but it sounds like something interesting, because I was always doing engineering, so I tried CDIO, so I was doing a bit shift into the thinking processes. And I thought the area was very interesting because besides being able to do things, you must be able to articulate what you are able to do as well. So that part strikes me and again I think it's still the same trigger. I don't want to do engineering my whole life; I want to do something else.

This evidently suggests that she recognises the contributions that she could bring to subsequent occupations. This idea of knowing-how is described in the research as the development of occupational skills that account for good performance (Harris & Ramos, 2013). When asked if she would consider going into something else if the opportunity presented itself, she responded in the affirmative.

All the interviewees were able to objectively describe specific skills that they currently possess from thinking reflexively about the initial training and practice, suggesting that there is an element of reflexivity and awareness when considering engagement in occupational mobility.

7.2.3.3 Reactions to Risks

Being reflexive and aware were not enough if they were not able to take the risk of taking on what was unfamiliar. It was observed that the interviewees possessed sufficient risk-taking attitudes, which enabled their initial move out of engineering or teaching too. Most left, sure that they were not going into another related occupation. This has some bearing on the way they interpret and give meaning to the world. The risk is only a risk if it is perceived to be one. For these individuals, their actions are defined by the meaning that is accorded to such situations, and clearly they do not ascribe any element of risk to such behaviours. Except for Edgar, who was open to joining another engineering outfit and continuing work in the area but was instead offered an auditing position, and Eddie who was retrenched during the 2008 recession, all of those interviewed were looking at moving into areas that were unrelated to their original occupation.

Tina was keen to leave teaching because she was afraid that she was missing out on the real world. Tim had had enough of the bureaucracy and stopped believing in a system which he felt should embody integrity and commitment to honesty. Edmund

was disillusioned by the corporate engineering world. Ervin realised that engineering was not his passion, while Edwina acknowledged that engineering was not her cup of tea either. All of them have similar risk taking attitudes in leaving their options open when they resigned without a definite job on hand. Whilst embarking on different paths, they were all governed by similar motivations. Whether it was leaving without another job in the pipeline, or leaving for a job that was seemingly unrelated to their areas of initial training, these individuals were all unfazed by the impending lack of job security and safety, and possessed a certain level of awareness and assumption that they were capable of making it in a completely different sector and occupation. Almost half of them (Eton, Ervin, Eddie, Tia, Tenny, Tina, Theo, Tara and Tim) left their initial occupations without a job.

7.2.4 Organisational Features

These features were found to have a strong organisational affiliation and have been identified as homogenous factors related specifically to institutional support and recognition of prior experiences within the new occupational environment. It also suggests that these organisational features facilitate the creation of some degrees of identification to the new occupation, which affects one's decision to either remain or leave for another job.

7.2.4.1 Support in the Workplace and Mentors

Bourdieu's notion of institutions as any relatively durable set of social relations, which endows the individual with power, status and resources of various kinds, was referred to in Chapter Five. The processes of occupational change as identified by the individuals are broadly based on the provision and elements of such social relations in the workplace. Given that people are inherently social, the relationships that people create or are part of, and the social capital that results from relationships, seem related to openness towards learning and occupational mobility, so opportunities for sharing practices with new recruits are critical. For instance, Eddie who moved into teaching associates the lack of information sharing and communication in the workplace as problematic. He says there was little time for his mentor to support him during his attachment at his permanent school. Fortunately as he had been there for his teaching practicum it was not a new environment for him since he was familiar with most of the expectations and practices of the school.

Conceptually, this signals a problem when the new entrant is unable to relate to the existing pedagogic practice since there is the lack of opportunities for cultural reproduction-production support and provision in the environment. By that same token, Tina found that,

...the most valuable training is the mentorship from the boss because everything you want to know you just go and ask him, like an encyclopaedia. Isn't that great? I don't need any other training programme. So you must find the right mentor, boss to guide you. I was very lucky.

While she confirms that transparency in information sharing and support within the new workplace is crucial for sustaining longer-term employment, it was also interesting that Tina had referred to the physical work environment as being particularly important in facilitating or hindering occupational mobility. She explained,

The boss likes me, but I didn't like the workplace. We were all cramp into this storeroom and all working from there. So work environment is very important, so I also left.

Hers was the only account that referred to the physical environment as being a deterrent for sustainability in a job. In her case, her boss was able to ignore the power relations, and in providing the guidance, was able to incite, monitor through growth, so as to generate forces (Rainbow, 1991). It was discovered in the analysis of data that all 16 of the interviewees referred to mentorship and support in the workplace as important structures which facilitated directly or indirectly, and that affected occupational mobility.

Relationships within the workplace are also viewed as important support systems for sustained employment in the new occupation. A system that encourages cooperation and teamwork with the existing staff facilitates easier assimilation and positive experiences within the workplace. This again relates to the issue of Bernstein's pedagogic practices because it suggests that the relationships between the new recruit and the existing workers have direct links to the process of occupational change. Eddie explained that learning from a mentor is important, and that it was difficult to learn from other teachers because of the lack of time and the different value systems that different teachers possessed. It also meant that he had to rely on himself to get used to the workplace as there was very little support offered to help

him. Tia also referred to this when she cited “good working relationships” as particularly crucial in hindering occupation movement. Fortunately for Edison, despite not having any mentors, he was able to assimilate quite quickly into the occupation because of the nature of his job. As an IT system developer, it was in the organisation’s best interest for all to cooperate with him so that he could design an operationally sound IT system to support the work of the organisation. He explained,

And people are ok (...) because if they don’t tell you they don’t get the system that they need to do their work. So they will tell you everything. They will tell you things that even their bosses don’t know. So they will tell you everything. And as IT guy, you appear harmless.

Edgar was able to sum up the need for peer support in the workplace nicely when he said,

If you ask me I think the support from the peers is very important and also the so-called buddy system approach. I think in [name of company] I had the opportunity to be buddy-ed with somebody who was able to help me kind of like walk me through what needs to be done. And there are people around who you can actually approach as resources... The other sources of course, is in terms of documentations and procedure and being given the opportunity to participate in whatever meetings and discussions then you can see how things is done.

He did add though, that mentorship is not an institutionalised practice, “Mentors, ok, that is a very interesting thing because you’re not given mentors, you have to find your mentors”. In comparing the value of buddies and mentors, he explained that,

I think both would have helped a lot. A buddy is more immediate in a sense that he will bring you up to speed quite quickly what you need to do when you’re into a new job, at whatever level that you are, that’s in my opinion whether you are a junior staff or a senior staff. Even if you are a director level, the buddy will actually help to bring you in, tell you roughly what needs to do and also get you assimilated into the culture of the organisation. Mentor-wise, I think the mentor will be something that comes along the way, not everybody is comfortable to be a mentor to someone and it’s also depends on the trust level.

Conflict within the workplace, also serves to enable mobility. In the case of Tim, he was unable to conform to what was expected of him as a teacher, and that forced him out of the job. He demonstrated ‘knowing-why’ capital when he said, “actually it was a result of tensions that I have with [government body]’s department because I don’t agree with many of their practices”. As in the case of Tenny, she left her job at one of the teaching related institutions because,

I didn't like it much doing all the policy related stuff so I quit. Also my boss was quite awful and I couldn't work with her. Actually I didn't understand why they threw me to do admin when I never really trained or asked to do it.

The lack of engagement with the individual in determining job fit or interest seems to factor quite strongly in determining sustainability in the job. It also suggests issues regarding symbolic power that resides with the existing workers in the new occupation as compared to a new recruit; and legitimises the relations of order, creating problems for someone attempting to break into the social order of the new occupation. Institutional support is important in determining occupational change and relates to the concept of modalities of practice, suggesting that weak and strong classifications at the level of the institution result in the dislocation of knowledge. With the weak classification between the inside and the outside (in this case, the new recruits attempting to break into the new occupation), there lacks a hierarchy of knowledge between the so-called common sense and uncommon sense. The institution is aware of the symbolic hierarchical categories among staff and therefore of the potential for internal cohesion. When new recruits arrive, the competition for promotions and payments, particularly in a performative-based system, spreads the incentives out because there is a finite amount of activity and resources which define each institution. Any new recruit is therefore perceived as a threat to the existing organisational base. This compromises the way in which staff relate to each other in terms of their intrinsic function, which jeopardises the reproduction of pedagogic discourse. In the March and Simon (1958) study of the organisation, they referred to the concept of organisation equilibrium and it is with reference to this acknowledgment of the value of an individual's contribution and participation through the amount of inducements or incentives, that this discussion refers.

Governed completely in an Asian context by the principal or CEO, the power is related in a top down fashion through the institution; thereby allowing more fertile grounds for the creation of a social basis for opposition and lack of cooperation among the workers who may not see the need of participating since the balance of payments to staff for contributions to the organisation are greatly affected in the presence of perceived competition.

7.2.4.2 Opportunities for Regionalisation of Knowledge

While the recontextualisation of knowledge seems to feature very dominantly in the narratives, those interviewed seem to only be aware of the need for this recontextualisation after they have moved into a new job. Obviously the employers who offered them the job had some idea about the possible extension of skill-sets, but as the interviewees have described, there seems to be little explicit translation of specific skills from one context to the next. There is however, some consideration of the requirements of the new job at the start but often it is only after they have commenced in the job that they attempt to make their prior experiences work to their advantage.

As described by Edison,

...we study how in those electronic parts, there's a lot of variations. How do you control the variations through some engineering techniques. And you can learn the results of it, you can see that you have effective, using statistics to see whether it works or not. Today in my work, that is one of the things that we are looking at. Because here, one of the issues is the ability to measure outcomes. And interestingly in engineering, they have already long ago figured out how to do that. Because in engineering, for example in process engineering, which is not business process, but process as in chemicals and all these kind of things, it has the same problem.

Similarly, Ervin said of his experiences in recontextualising knowledge,

To me the value in engineering is not only how to design a circuit or how to actually solve an equation. It's actually the thinking skills involved. Look at the problem in its totality. Think of how you can sort of modularise or pick up the product in the different parts and try to solve the different parts. Then try to put all the different parts together in the final solution. And you apply it in a certain way, in terms of communications as well. So it's more the thinking skills.

Tenny also confirmed this when she reflected on her own prior teaching experience and related it to her current job,

Teaching is not about teaching, honestly 'cos teaching was only one small part. In the end I spent a lot of time doing counselling, handling problems that my kids had, dealing with parents, being a nurse, caretaker, parent, at the same time; have to ensure my kids passed exams etc. So teaching was not the real thing I did much of. But I guess if anything, teaching did teach me to manage people better. Like to be more aware of different perspectives and points of view that I cannot assume and have to be patient to listen to what people have to say about things before jumping into conclusions. It exposed me to different types of people and gave me broader perspectives of things. It helps me very

much now in my job because it is about managing people even though they are not kids but adults also sometimes behave in the same way!

Tia was also observed to have been reflexive on the value of her prior experience to her new occupation when she said,

I was first placed in the safety team, though I had applied for the linguistic position. The content was not my subject knowledge and I did have to grapple with understanding the safety landscape, and its training demands. Hence, I was not totally comfortable with what I was doing in the beginning, as it just did not seem to resonate with my background.

The reflection on their prior experiences for regionalising knowledge suggests the ability for the movement of knowledge from one context to another through the embodiment of knowledge in curricula, pedagogic, workplace and personal practice. It suggests an effort in re-establishing continuity between the old workplace to the new, and implies a huge individual responsibility in finding ways to negotiate within that space so that they can make meaning through such interactions.

7.2.4.3 Recognition of Prior Experiences

In the discussion so far, occupational change seems to be determined by the degree to which prior experience and training are recognised within the new workplace. Recognition of previous expertise and experience from past occupation facilitate innovative ways of doing existing things. In Eddie's case, an ex-engineer who became a teacher, he found that his prior training and experience as an engineer helped him make sense of some of the practices within the school and he felt compelled to help in piloting innovative practices within the system. The same can be said of Edison who describes being able to tap on his prior experience as an engineer in his new job. He explained this link and application,

And I find that a lot of it actually links back to what I've studied... Back to engineering, it's all back to that. We haven't started but very likely we're going to start looking at some statistics, even the top of figuring out some statistics and all these. These are all very common things we deal with in engineering. Statistics is one of the core subjects and we understand all that. But beyond the statistics as a subject itself, in engineering we learn how to apply it. We call it applied statistics.

He related the engineering application to his current work when he explained,

Today in my work...one of the issues is the ability to measure outcomes. And interestingly in engineering, they have already long ago figured out how to do that. Because in engineering, for example in process engineering, which is not

business process, but process as in chemicals and all these kind of things, it has the same problem. You cannot directly observe the outcomes. You only know the outcome at the end. But how do you know that the outcome is a result of what you do? So they already have some techniques for dealing with that, which you can port over and use.

Edgar was also able to relate his engineering practice to his subsequent career. He explained,

...ok, I think one of the areas was in, that time in [name of organisation], we actually were organising some events, so what we did was that we kind of have some, developed a simple tracking system, to track in terms of the individual, responses for the individual. And we made it available on a notice board area so that anyone who goes there can see, and that was used as a basis to gather feedback also as well as to get other people to help to make some calls and things like that. I understand that in the past it was information that resides with the particular person in charge. Other examples I think probably in terms of how you manage certain things. Project-wise is that you share some experiences with what you have learnt from other projects to other people and allow them the opportunity to learn. The sharing part is quite critical because everyone handles projects at different phases so if you know of something that you've learnt and you know that there could potentially be a mistake then you make that idea available to theirs.

This addresses issues with bringing together modalities of practice, especially for one who has expertise and knowledge from other singular knowledge entities that can be reproduced and recontextualised; and which could result in the possible regionalisation of knowledge for more effective change in the classification of knowledge in that specific occupational field. Conversely, what this implies is that the lack of such opportunities for the regionalisation and sharing of knowledge enables occupational mobility.

7.3 Factors affecting Occupational Mobility

In relation to the second research question regarding the factors that influence occupational mobility, which seeks to understand the externally related factors that affect individual occupational mobility in their career life-course, the analysis of the interview data shows an emerging role for learning and skill-related factors that influence occupational mobility. In line with symbolic interactionism, some of these are perceived by the individual as being important because of social conventions. The responses referred to in the analysis have been selected for their ability to illustrate the patterns that support the key factors in terms of their clarity and fluency.

7.3.1 Learning Related Factors

Learning facilitates the movement into different occupations because it provides the individual with related learning experiences for recontextualisation into the new work contexts. However, little workplace learning affordances seem to be provided and the narratives suggest it to be a necessary consideration for individuals attempting to negotiate occupational mobility.

7.3.1.1 Recontextualised Learning Experiences

The constant acknowledgement of past experiences and the reference to these learning experiences as different parts, contribute towards the ease of movement in the new occupation. Learning is viewed as having undergone a process of recontextualisation when the interviewees referred to learning practices from their occupational history as comprising of a series of prior experiences, work preparation processes, years of experience and processes of continuous reconstruction of different individual experiences. It seems that these ex-teachers and ex-engineers continually reshape their mental frameworks for understanding practice as they go along in their careers and subsequently use this recontextualised learning to make sense of and facilitate their occupational movements. The influence of the teacher going first to school to prepare for the teaching career, then interacting subsequently with their peers in the school, all contribute to their beliefs about the role of teachers in relation to students, parents and school personnel. This provides the layered process of exposure to the different forms of learning and learning contextualisation that have in turn, been necessary in equipping them with the skills for dealing with subsequent movements to other industries. Tina said, when asked about the value of past occupational experiences in helping with her mobility into a policy-management-related role,

Yes, and the things I learn in my jobs both in the hotel and also in the manufacturing was both very useful because not many people have the exposure to both sectors, service and manufacturing.

Similarly, Tenny attributed her wide skill sets to the requirement in her teaching experience to deal with multiple responsibilities and roles that teachers play in schools. She may however, have a narrow definition of what teaching entails. The layered process of learning displayed strong social factors that surrounded her as a teacher,

Teaching is not about teaching, honestly 'cos teaching was only one small part. In the end I spent a lot of time doing counselling, handling problems that my kids had, dealing with parents, being a nurse, caretaker, parent, at the same time; have to ensure my kids passed exams etc. So teaching was not the real thing I did much of. But I guess if anything, teaching did teach me to manage people better. Like to be more aware of different perspectives and points of view that I cannot assume and have to be patient to listen to what people have to say about things before jumping into conclusions. It exposed me to different types of people and gave me broader perspectives of things.

Erica represented it aptly when she provided an analogy of skill application across different contexts,

It's like how you apply them and how you use them. It's like a skill, like knowledge. So it is like, if I put the context of equipment, if you look at let's say the case of automation. Automation came from the car industry, if you know how people make car last time it's on this conveyer belt, then the car have to go to different places, so this equipment called programmer logic controller, it was based totally on automation area, just for cars. But today, this PLC equipment is maybe in buildings, it is even in MRT, it is in many places. So to me, how I see knowledge and skills is when you learnt it, of course that is something you learn, when you used it, it can be many context.

Edmund referred to all his various engineering-related jobs as contributing towards his eventual teaching destination. He also attributed his social factors as providing the support for his movement. The analysis of the data shows that taking ownership of one's own learning presents the existence of a learning mind-set that underpins and supports the conditions for subsequent transition and the unregulated career shift. It also signals that there is value in breaking down learning so that it is recontextualised and provides opportunities for the individual to arrest gaps through the learning of specific skills for sustainability within a new occupation. Evans and Guile (2009) postulate that such abstraction involves the application of propositions that had been memorised to a new situation, which constitutes the contextualisation of concepts from the specific context which they were derived.

Indeed without the necessary contextualised learning experiences, it would have been harder for individuals to extend what was situated within a prior context to a new occupational setting. The fact that individuals possessed basic levels of propositions facilitates easier contextualisation of concepts.

Current literature suggests that the modern employer should focus on providing the essential skills and training to employees to heighten employability, thereby

allowing for future opportunities in other workplaces (Gardner, 2005), confirming that recontextualised learning does encourage whole human development for a career life-course that should not be limited to one single occupation.

7.3.1.2 Informal Learning in the Workplace

There were also constant references to informal learning, non-formal and on-the-job training in the workplace. As discovered in the preliminary study, informal learning seems to be another consequence of normative systems at all levels of society (Chisholm, 2008). This results in the innovative negotiation and personal sense making of learning constructs that influence the practice of work transitions. With such informal learning structures in place, occupational mobility is not governed by strict learning requirements, making it easier for career courses to be negotiated individually. The instances of in-class training were not referred to as much because the interviewees found the need for immersion into the context more beneficial for the forging of real learning. As Tim explained, when asked about formal training to assist his career adaptability,

No specific training. Whatever I need I think I just pick up along the way from all my experiences from before. Not really one thing that make me go through. For example, my training in [institution X] prepared me for the engagement of audiences now as I speak to groups as a change agent. Then what I learnt from [name] when I was in [institution Y] is useful in the corporate management that I need for my job now.

At the same time, Tara referred to “On-the-job” type training when asked how she prepared for her new role in administration. She said that there were no formal learning programmes that prepared her to be effective as an administrator; nor any formal training programmes to fit her role apart from the service provider who came to teach her how to use the online accounts system. Edmund also attributed his ability to assimilate effectively into his mobility across the different engineering domains to on-the-job type workplace affordances but acknowledged formal training too; “On-the-job and of course formal trainings. They sent you off for training. They are more willing to spend money to train you, compare to smaller companies”. When asked about the training that facilitated his shift into lecturing, he said that he was required to go for a “Certificate in Teaching” programme that was offered by the polytechnic where he was teaching. He also had a mentor and was slowly inducted into the teaching profession,

...in my first day they didn't give me additional responsibility, they just ask me to teach. So I wasn't even doing module development, so they want me to get into the, do my teaching well first before I move to job like module developer, other responsibility. So that helps a lot where I was teaching and the module I was supposed to take over is one of those that I am teaching. So I teach one year first, before I took over the module. So it helps, compare to other schools I heard.

This was also the case for Eton who said that there was more "Learn as you go" and "trial and error", when asked about the learning affordances in the workplace. Theo also paid tribute to "Lots of OJT as well as peer sharing and involvement during symposiums" in rationalising the opportunities for informal learning in his workplace. In the case of Eddie, he had to go to NIE to do a one-year teaching diploma, which focused on equipping him with the relevant teaching pedagogies. He felt that the NIE teaching degree had helped him only to a certain extent because the module-by-module teaching method had lacked the integration and authentic application that was required. He felt that the examples provided in the textbooks did not provide for the real authentic situations in the classroom. He explained that NIE attempts to only equip the new teacher with the ideals of being a professional teacher.

Once in the teaching career however, it was largely OJT training, in-service training at teacher's network and learning from mentors. Although he personally found it difficult to learn from other teachers as a result of the lack of time and the different value systems that he felt different teachers possessed. Tina said, when asked about her views on training for the job,

So when you observe someone doing it, you (are) learning from there. You are imbibing the values, as you get into the hotel service, if it's just talking it's no use, you have to be observing. So I was in the training capacity right, so all these are very valuable to me, and as you come up you see. And everything involves the, you are right, the emotional part is very important; it's not just a lot of talking. If the person is emotionally engaged, you can't deliver service.

She added learning from observations too,

A lot of sharing, my boss will bring me to a lot of meetings. And I will understand what are the concerns of that meeting. So it's just observing much of the time and you are learning as you hear how he speaks. He even sponsored me for a course at [institution], diploma in training and development, and then I met other people from the hotel industry so I learn more about the industry itself.

Tenny also confirmed the value of on the job learning,

...just on the job learning, then I also had a buddy, the lady before me overlap with me so in the end she did a proper handover and I learnt as much as I could from her, she was also nice 'cos she allowed me to call her and ask her things even after she left. Other than that I applied for some ... training at [name of training facility]. Then also internal induction programmes by HR helped me.

Tia too alluded to the value of on-the-job learning when she said, "As I did not have a fixed image of what to expect or envisage I took in all that was required and just tried doing the best I could", suggesting a huge personal responsibility to ensure learning within the workplace. The analysis of the interview data suggests that learning need not be within formal contexts anymore but could exist informally, as and when needed. It also implies that the funding for training may need to be reconsidered since the narratives suggest a greater preponderance of learning outside the formal learning environment.

7.3.1.3 Individual Perceptions toward Learning

There exist now very different perceptions of learning, which seem to be aligned to the current career development rhetoric. As the literature suggests, adults have widely differing dispositions towards learning. The meaning and the language used to describe the value of such learning and the thoughts that they have for such learning, differs from individual to individual. For many, it may merely be a reaction towards having to deal with changes in their lives or the perception that they have of social expectations of them, than as learning per se. It could well be the individual's way of coping with such changes. It is interesting to note that Eddie views learning only as a vehicle towards a better life and is very pragmatic towards taking on additional learning. He does not think he will embark on lifelong learning to do his Masters because it was his perception that the Ministry of Education does not recognise Masters-level qualifications. This relates to the "me" versus "I" conflict that plagues the individual. The perception of what's real may in reality only be the individual's interpretation of what is real. The one time payoff of S\$5000 (£2500) at the end of a completion of a Master's degree was neither attractive nor enticing enough for him.

On the other hand, Tina said that she was more convinced of the idea of learning, and had participated in enhancing her learning by taking on post-graduate studies, "I

took my (part-time) Masters (and) came back". She explained that she had embarked on her studies in the midst of her career because she was bored with what she had been doing. She has since quit her last job because she had decided to pursue a diploma in art.

Tina summarised her mantra succinctly when she said, "I want to try all kinds of things, I don't want to be stuck. I can try many, many things. So it encourages you to experiment, you know to think of new things, new ideas. You watch around your peers and they are doing something interesting". Ironically, the associated meaning that Tina has with learning and her engagement in lifelong learning policy development, had strengthened her beliefs and associations with attaining further qualifications and diversity through learning. This was similarly the case with Tia who said of her perceptions towards learning a new area of work after her occupational shift, "... I was very open to learning and would do my best to see how I could value add despite the lack of resonance with the subject matter".

Erica also referred to an array of learning opportunities that she had sought out for herself,

If I look back at my education and training; ... I went for this Master's course then in between I actually went [to] England they equivalent [matched] it to degree in professional engineer. So the whole process, when I look at the whole learning process, I think when I go through this thing, of course content is quite frightening. But what I feel strongly about this whole learning process is ... perseverance.

She provided the following explanation regarding her learning disposition,

So to me when I solve the maths problem, yes it is doing the question but when I meet the next problem, my practice is this, I tried to do it but I can't do it. I keep the question, first thing tomorrow morning I pull out the question again and do it again. So I'll try for 3-4 days, eventually I'll crack it. So to me this learning process maybe it's not the intent of the lecturer but for me if I keep trying and trying the disposition or what I tell myself is, 'I can crack it sometime'. So usually after doing for 3 days, I managed to crack it.

Bourdieu's concept of field is a useful way of conceptualising positions, dispositions and structures. It may be argued that the positioning influences, contribute to meanings of learning since positions within wider social and economic contexts determine behaviours. As defined by Bourdieu, a field is "a network or configuration of objective relations between positions" (Bourdieu & Wacquant, 1992:97).

Positions in the field reflect for Bourdieu, the interplay of people's resources (social, cultural and economic capital) and their habitus on the one hand, and the rules of the field on the other. All of those interviewed show the impact of such influences in their lives and learning within specific fields. Of course such influences vary from person to person, and can play a more or less significant role in a person's life.

7.3.2 Skill Related Factors

The value of generic skills and the acknowledgement of its importance in facilitating mobility are constantly cited as reasons for their ability to succeed in their new occupation. Most recognised that these generic skills were gleaned from contextualised experiences in the past (i.e. teaching and engineering practices). The complex interactions that occur between the environment and the individual can influence the choices, motivation and ultimately behaviour (Hallam, 2005). The ideology that individuals are able to transfer skills and competences between jobs in the interest of flexibility has come to the fore as an instrument of lifelong learning policy. As a result, Chapter Eight has been dedicated to exploring the role of generic skills in occupational mobility.

After all, various forms of competences have been portrayed as generic or transferable which are highly significant for individual effectiveness, flexibility and adaptability in the labour market (Kelly, 2001). As discovered in the preliminary study, the learning and skills that have been identified by the interviewees as particularly useful in enabling their mobility were generic in nature and gleaned from the initial occupations from which these individuals come from. The international literature in generic skills suggests that the origins of generic skill development arose from school education in the form of compensatory programmes to assist young people moving into work from schools. As explained by Hayward & Fernandez (2004:119), "the emergence of the generic skill movement in the UK during the late 1970s and 1980s reflects the deficiency of these skills and if a set of common skills were developed, that it would make these young people more employable". The emergence of generic skills training resulted as a measure to address the schooling deficit.

My research focuses on the value of engaging generic skills to facilitate occupational mobility. While there have been documented successes in codifying and conveying explicit forms of personal knowledge and skills, there have been fewer successes in codifying tacit forms of personal competence like creativity and problem solving. The growing interest in their codification stems in part from a growing recognition that the tacit dimensions are very important in the performance of individuals, organisations, networks and whole communities (Evans, Kersh, & Kontiainen, 2004). The analysis of the interview data shows that while there is value in disengaging generic skills from the domain disciplines for application in subsequent occupations, there is contextualised skill acquisition at the start so that inference and recontextualised application can occur in a different context during occupational mobility. It is not about how learning can be transferred from one setting to another, typically from theory to practice (Evans, Kersh, Kontiainen, 2004); it is as Evans & Guile (2009) now postulate, a multi-faceted concept that refers to the idea that concepts and practice change as we use them in different settings.

Tim, when asked about the most important element that facilitated his mobility, explained,

I think EQ is the most important skill I learnt from being a teacher and that is what is most important in my new current job. Also I think I am able to be engage people to talk about anything, and appear to be smarter than them so that I don't get fooled by them.

Tara cited patience as an important element that she picked up from teaching,

Tolerance for noise, full of patience. Ya, because when you deal with children, you need to repeat yourself and you must be very patient. It's a training ground for making a person not lose a temper so easily.

Similarly, Tia was able to identify specific business and people management related competencies that she had learned during her overseas teaching experience,

...in Japan, while teaching, I learnt also other things – businesses, opportunities to interact with folks from other industries, new cultures, etc. Besides being an English teacher, I also assisted in other language-related jobs, PR stuff and voluntary work. All these experiences opened my eyes and provided a boldness and courage for me to decide to change my industry and try something different when I came back.

She alluded to the recontextualisation of skills when she recognised that she possessed the following generic skills in relation to her current occupation as an administration manager,

I think someone not trained as a teacher would also be able to do my current job. However, there are definitely skills that are transferrable, like general administrative skills, coordination skills, writing skills, PR skills, patience, handling of stress, managing tight timelines, working in teams skills, tact, managing different stakeholders, professionalism, specific language skills required for the literacy development, which would draw on prior experience and knowledge as an English teacher.

Erica referred to the generic skills that had been gleaned from her engineering experience when she said,

So (from) engineering what I think has been very useful for me is the deductive thinking and also the very systematic way of addressing the problem. And also have this discipline in doing that problem, so I think the engineering training has been very helpful for me in all these areas. The knowledge I find that it might not, as I look back, it wasn't really what; of course when you do it, it is the knowledge but at the end of the day what I gain from the learning experience was really the deductive thinking, very strong and useful. Doing things in a system, very systematic way. And because this process is very tedious, and because of this tedious in process you need to build up this persevering and discipline in yourself.

In relation to procedural skill development, there is a move from a conscious to unconscious performance where automaticity is developed and internalised thereby allowing for application in a variety of contexts (Fitts & Posner, 1967). Tara found this when she added that she is more methodical now,

Systematic, because when you are a teacher you need to teach the children to do step 1 step 2, step 3, step 4. So my last job when doing account I have to be very systematic. Cannot go all over the place.

She also referred to the ability to keep up with the performative culture in the workplace, which ties in with individual discretionary skills,

The need to keep up to expectation, because teaching sometimes you tend to get a lot of admin then there is some admin aspect. You need to keep up with it if not you will be lagging, like writing to parents or difficult parents. So if you don't do that, then it gets laggy and you can forget about it and all totally.

Erica also attested to such procedural skill development when she explained of a specific practice that guides her practice,

Design thinking, they have the four things. Okay first you start conceiving. Conceive that means try to discover the user needs are met, you know. After

conceive, but you have to work as a groups. Conceive sometimes you get to do observation. Ethnographic interview, I think you know right? After conceive then you come back to brainstorm then you come up with all kind of ideation that means work as a group. Like design thinking who then come up with all kind different ideas ... Then after that you follow by prototyping. You have to come with a 3D storytelling. Then you bring these prototypes to the user to get user feedback. Because they will tell you this is not what they want then have to improve. Then eventually you implement, so the design thinking is thinking between C and the half of the D. Then after that continue to do the D, design, then you implement.

Edmund said that he had reaped the benefits of objectivity when he left engineering, "I guess we are more objective (and) technical". He added also that during his time as an IT security consultant, he was able to translate content and communicate it effectively,

I was already giving talks to IT security companies, to colleagues. So there is a lot of transfer of knowledge at that time. Because IT security was quite new, so I had to research, after that I got to teach what I research to senior management, to the lower working staff; so that helps.

Eddie found that he was able to tap on his extensive travel experience, which he had amassed during his role as an engineer and was also reflexive about his overarching competences. For instance he was able to refer specifically to his problem solving abilities, which he recognised as having been transferred from his previous role as an engineer. He felt that teachers required a different set of skills altogether that ranged from being a counsellor, to being a parent, to policing. He cautioned though, that the transfer of learning might be subtle and not immediately identifiable because of the fundamental differences between both teaching and engineering professions.

Tina, when asked about the transfer of skills from her initial career as a teacher to her subsequent occupation explained that,

Definitely, there are a lot of similarities, because you are also interested in human development right? Then I would say counselling and guidance... Because adults at their stage of life also sometimes need to reach a stalemate. So they not sure what direction they want to go, then all of them took advantage of that moment to tell them tell them what they should do for themselves and their job. So it's a bit similar to what you do as a teacher to students, because students enjoy life most of the time. So you reach certain milestone and you have to tell them what you are looking for, so a lot of counselling guidance skills.

She also referred to a recurring element of meta-monitoring of one's own abilities too, especially learning through reflection on the experience. For instance, Tina was able to extrapolate the overall skill that she had gleaned from her prior experience, "Problem solving, yea I am always analysing their problems. Helping them to see how they should be working at their problems. Analytical skills". She also added that she is now, "very adaptable and very open to seeing things and you cannot have value judgement; this kind of job is a certain thing. You just see how the whole hotel operates and the customer again, the heart of everything". This helped her to relate to her subsequent occupations.

There was an acknowledgement of the importance of generic, transferable skills that assisted their transferability into their new occupation. As Tenny explained,

But I guess if anything, teaching did teach me to manage people better. Like to be more aware of different perspectives and points of view that I cannot assume and have to be patient to listen to what people have to say about things before jumping into conclusions. It exposed me to different types of people and gave me broader perspectives of things.

As explained by Hallam (2005), the conceptual categories which experts adopt in problem solving are semantic and principle-based as compared to those of novices. In the case of Tenny for instance, she was able to draw mental representations from her teaching experience, infer relations and apply them in a new setting that she now exists in,

I learn how humans learn so in the end it is useful in teaching my own kids. I also offer advice to my relatives, usually at family gatherings people always come to talk to me about problems they have with their kids etc and expect me to offer advice.

She added that,

I think probably being able to work with people and more understanding of people's different situations? Also I can multi-task and project manage in a way. My school principal required us to all do project management course as teachers 'cos she felt that it was necessary for us to have that skill.

She concluded that,

I became more experienced and mature I think. 'Cos you deal with so many things at the same time, I think I became good at multi-tasking. I can do a few things at the same time. My experience also taught me to be more patient.

The analysis reveals that apart from the generic skills, the individuals referred to the practice within their initial occupations as pertinent in facilitating their skill development. This is an important point particularly since when it was conceived, the underpinning principle of PCP, which falls in the form of forced external mobility, did not acknowledge the value of such initial occupational preparation and practice, but assumed a skills deficit which the policy maker obviously felt could be arrested by training.

7.3.3 Professional Related Factors

Professionally, the interviewees are driven largely by social expectations of how professionals should behave and focus on how the perceived professional associations relate to social norms. This has large resonances with the symbolic interactionism “I and me” conflict described in Chapter Five. The need to ensure adherence to social conventions and the value of social influence, create the social contexts for occupational mobility.

7.3.3.1 Professional Idealism

The present ideology that guides the rationality of the actions and behaviour of a professional is relatively conservative, that it is primarily concerned with what a professional actor should look like as perceived by the individual from the conditions and limitations that are present in the social context. This reinforces the symbolic interactionism arguments of the “I and me” debate, but does not question nor distinguish among the knowledge and behaviour of different professionals. In other words, questions concerning the specific roles of the professional as an actor, as perceived by individuals as being important within the current knowledge economy and social context, tend to ignore the history, vision and experiences that each professional brings to individual career development. Against this shortcoming, it is difficult to separate the concept of professionalism as conceived by the individual’s expectation of what constitutes social perceptions from personal expectation and warrants mention since the assumption is that society plays an influencing role.

Suffice to say, it is not enough when examining professionals, in just considering those who possess proper and adequate theoretical knowledge and skill without

considering the appropriate behaviour towards the pupil or client. It is also necessary to view this within the social and institutional context in which the interviewees exist. As Carr (1999) explained, there exists many different definitions of professionalism, but what is important are those where professions have distinct ethical dimensions which call for expression in a code of practice, and require organisation and regulation for purposes of recruitment and discipline, that is, a high degree of individual autonomy – independence of judgement – for effective practice.

From the interviews, it seems that these were emerging issues too. As Tara explained, she recognised that teaching and administration are two different jobs but was willing to try and has been unfazed by the perceived professional differences and expectations,

In doing something totally (different) because in term of teaching and doing admin work, the working hours are different... As a teacher you start very early, like 7am. You get off about 3 or 4pm, whereas in (admin) work you start at about 9am and you finish at 6pm.

She would consider going back to teaching as a retirement job though.

On the other hand, Edmund feels that he is more successful as a lecturer than as an engineer and shares his perceptions on the professionalism of the other existing older lecturers, suggesting the expectation that he places on lecturers more generally,

Perhaps I'm one who has been graduated recently compared to them (the older lecturers). One advantage I have is, the lecturers here maybe are not used to getting poorer students, compared to my time when they are getting all the good, single pointers so that they can teach a lot to the students and they [the students] can keep up with the lecturers. Then suddenly, because they have been teaching ... the good students, then suddenly you are getting the poorer students; sometimes the lecturers are reluctantly to reduce the curriculum. One thing is because of the professionalism because to award the same diploma but you teach less somehow they don't feel it, they don't feel right. Last time this group of students can do this diploma, I teach so much they learn how much, then now I give the same diploma to the students but I teach 50% less to them. They are not prepared to lower the standards of our poly. But I came in with this group of students, 17-20 pointers, so I can see the standards and I haven't been setting a high standard before, so I am more willing to compromise.

In the case of Tina, she cited her experience of resigning without a job and on her adamant belief of her own professional ideals, that she could teach even when she had initially not been shortlisted for consideration of a teaching role,

Okay, I resigned without a job. But I was pretty confident of getting a job, because my friend was already in the polytechnic, then she was telling me, oh they need you; so don't worry. So I already got the job. You can say I resign without a job, but at the same time I know I could get the job.

It is clear that she was convinced and aware of her own abilities because her friend had assured her that she would eventually get a job, and provided her with the assurance for resigning without a job. She displayed a nonchalant and honest attitude about her teaching abilities, indicating the strength of her professional conviction on her own abilities,

...the first time they rejected me; because I was very blunt. I said because I can teach. Then as if everyone should know I can teach and I know I can teach. Then after that I tried the second year, the second time I was smarter, said because I like working with children, I like to motivate them. Then I got it.

Tenny also had firm beliefs about what each resignation and new job should bring and said, when asked if she would consider going back to teaching,

No I won't because I think for teaching you need a lot of energy also the pay is not good. Yesterday's [news] papers, there was article about how poorly rehired teachers are paid; I think something like 30% lesser than last drawn pay. That is terrible. I don't think I can go through pay cut because of all my commitments now. I also was taught to belief that with every new job that there should be increase in pay and not for it reduce.

The analysis of the narratives suggests that these individuals accord some degree of social expectation into their definition of professional ideals. The ability for individuals to conform to social conventions, whether defined by their family and friends or individually driven, is coupled with their personal aspiration that defines their professional ideologies, and influences the degree to which they participate in occupational mobility.

7.3.3.2 Associations to their Occupations

When asked about their associations to their occupations, the ex-teachers and ex-engineers defined themselves in relation to their current job. However what is interesting is that throughout their interviews, even though they had referred constantly to their initial training as an engineer or teacher, the ideological perceptions of themselves are often seen as being divorced from their initial careers. Evidently, the lack of association to their occupation feeds occupational mobility. When asked about the association to his occupation, Tim referred himself as an

“Iconoclast. I believe that I am someone who can change things. I am a changer”. He cites his motivations as being more personal,

So I think that was more a personal thing for me. I won't say that there is one specific thing that motivates or influences me in the choices that I have made and it depends on the circumstances at the time. I am quite flexible and fluid that way so I don't like to be constrained to only one thing. As I said before I like to diversify.

Theo too, now identifies as a training manager with some policy-making influence.

On the other hand, because Tara's short-term engagement with teaching was for more pragmatic reasons, she knew right from the start that she was not going to remain in the occupation for a long time. She did not associate professionally to her role as a teacher, as neither did Eddie who was an ex-engineer, now teaching in a secondary school. However, all the ex-engineers referred back to their core functional engineering skills as useful in helping them in their current careers, indicating that while they do not explicitly acknowledge their association with their main identity as engineers, it certainly does not suggest a disassociation with their initial identity. Edison did not shun the idea of moving back into engineering. He explained,

If I were to go back, I wouldn't say absolutely no. I would be working on a different level already. I would not be able to be at the ground doing the actual, because I've left that for quite a while already, so in terms of the experience, skill-sets and everything, it'll be very difficult to deal on that level. But I will be able to go back into an engineering company as a manager. As a non-technical manager that has a little bit of technical knowledge. But I will not be able to be a technical person anymore.

Eton also did not reject the possibility of moving back into engineering if the opportunity arose, which suggests the lack of disassociation from the original occupation. Unlike the other ex-engineers in the sample, he is currently working as a sales consultant of technical products that requires him to keep abreast of engineering development hence facilitating his easier transition back into the occupation if he so decides.

Similarly, Evana said that she would only return to engineering if she were in her 30s, but is now in her late 40s and refers to herself as a “teacher cum engineer”. Erica identifies as a “lecturer” too even though she had referred so much to her engineering practice guiding her thought processes. In contrast, Tia was quite keen

on returning to the education sector after moving into a sales function because the experience provided the contrast for comparison. She explained,

I was quite sure that I wanted to go back to the education sector after my 1-year experience as a recruitment consultant doing sales at [name of Japanese company]. While doing sales stretched me in other areas and helped me to develop in other skills (e.g. negotiation skills, PR skills, etc), I wouldn't say that it was my passion. I decided hence to return to the education sector and began to look at other education-related job positions.

While she was able to specifically relate her passion back to education, she identifies as a public servant. When asked about her professional association at the end of the interview, she said,

A public servant who wants to continue to upgrade, learn more, and move into more senior roles eventually where I can implement and effect positive changes whether in my company, or society at large.

She also does not rule out the possibility of moving back into teaching however and added that she did not think it would be in the near future. This was similarly the case for Theo who said that he would possibly only return to teaching after he retires. This infers that the association that one has with their initial occupations, has some resonance on subsequent mobility since one is more likely to participate in movement when their associations with the occupation is weak.

7.4 Making Sense of and Engaging with Occupational Mobility

This section relates to the third research question about how individuals manage the factors that affect occupational mobility and have been classified into job-related, personal belief systems and behavioural and non-controllable features. It draws on the features that enable occupational mobility from individual perspectives as addressed by question one, and the factors that were identified in question two. As a summary, these were the features and factors discussed so far:

TABLE 4: SUMMARY OF THE INDIVIDUAL PERSPECTIVES OF, AND FACTORS THAT AFFECT OCCUPATIONAL MOBILITY

Individual Perceptions of Occupational Mobility		Factors affecting Occupational Mobility	
Situational Features	Opportunity and chance	Learning related factors	Recontextualised learning experiences
Personal Features	View of initial occupation		Informal learning in the workplace
	Personal awareness and reflexivity		Individual perception toward learning
	Reactions to risks	Skill related factors	See Chapter Eight
Organisational Features	Support in the workplace and mentors	Professional related factors	Professional idealism
	Opportunities for regionalisation of knowledge		Associations to their occupation
	Recognition of prior experiences		
Underpinned by current discourses of career theories			

7.4.1 Job Related Features

Job related features focus on the occupational related ways in which interviewees have responded to and attempted to make sense of the occupational movements in their career life-course. These cover the recognition and use of prior experiences and skill-sets to move into occupations that resonate and have closer degrees of proximity with the initial occupation. This is largely underpinned by discussions earlier regarding how occupational mobility is enabled from individual perspectives.

7.4.1.1 Prior Experiences and Skill-Sets

The interviewees often referred to their prior experience from their previous jobs without explicitly recognising the value of the experience. This draws on what was earlier discussed regarding organisational features that highlight the need for support in the workplace through the recognition of such prior experiences and skill-sets. Individuals acknowledge the application of individual skill-sets to new occupation; and link their current successes to their previous occupations, suggesting the

importance of the workplace in facilitating the movement. Tim when asked about the factors which have contributed to his movement into his current occupation said,

It was the students that I got to know, and also the networks that were formed from teaching them. Even now I am still in touch with some of them and some of them are very successful so it is very fulfilling to see how everything works out for them. Also learning my management style from my ex-principal was a huge benefit for me, because she was really my mentor and I look up to her as a role model and who I am today is really because of her, how I manage is really from watching and learning from the way that she does things.

This suggests that Tim values and recognises his networking contacts and was able to utilise this collaborative opportunity in his subsequent careers. Tia was also able to identify the value of her previous English language training as a teacher, to the work that she currently does as an administration manager. She said, “Specific language skills required for literacy development which would draw on [the] prior experience and knowledge as an English teacher”. In a similar vein, Eddie explained that because engineers are perceived to possess logical thinking, he felt that his stint as an engineer has equipped him with broad experiences, especially from his travels, that he could bring into the classroom. He also felt that his broad engineering experiences could provide the necessary career advice to his students. In his last job, he was required to work overseas, he found himself developing the ability to be resilient. He explained that the responsibility fell entirely on him to work on solving the problems, on representing the company and to appease his clients, thereby building his resilience and strength of character. This suggests that Eddie was able to recognise the transfer of skills he had learned during his engineering practice to his subsequent teaching career. This was also the case for Eton who found it easy to translate his engineering knowledge to his current sales role. He sells technical products that tap on his engineering expertise since it requires him to understand the mechanics of the product technicalities. Tina was also reflective about her past work experiences that equipped her with the necessary adaptability for mobility to subsequent careers. This excerpt provides an idea of how her different job roles helped expose her to the different working requirements,

I would say how the hotel prepared me. I had an orientation programme. I had an attachment so I went to the front office; I went to the housekeeping; I went to the security, then my boss said 'stop, enough already'. Then I came back. But in the manufacturing I don't have the luxury, but I have very good co-workers who shared a lot of their product knowledge because, you are right, product is different from service. So they did formal, informal sharing of what the product involve, of what they do and when I were conducting writing courses for my colleagues I was also given a chance to understand what they do in their jobs.

When asked more specifically about the skills that were utilised in her subsequent role as a career counsellor, she said,

...they will present problems to you. And then tell will tell you, 'what do you think I should do? I have family you know, and I only have this job that doesn't pay me very much. Do you think I can do other things?' So okay they will always give u the problem, that after that you helped them. Ya, analytical skills.

She also added the need to simplify complex problems during her counselling of redundant job seekers. This suggests the role that skills play in facilitating the movement from one occupation to the next. Tenny was able to apply her management skills which she had picked up during teaching practice, to managing her own children at home. She explained,

I became more experienced and mature I think. 'Cos you deal with so many things at the same time, I think I became good at multi-tasking. I can do a few things at the same time. My experience also taught me to be more patient. Which is good 'cos I can apply at home with my kids too. The teaching experience helped me to understand how people learn so it's useful when I teach my kids.

Acknowledging their prior knowledge and using this knowledge seem to be a useful way of facilitating occupational mobility. Often able to explicitly state the use of specific skill-sets in their subsequent occupations when probed, the analysis of the data shows the value of prior experiences and the application of recontextualised skill-sets in the individual's subsequent occupations.

7.4.1.2 Degrees of Occupational Proximity

It seems crucial that the interviewees were able to move into occupations that presented greater resonance with their previous careers. This reinforces the discussion surrounding skill related factors earlier where for instance, Tina was aware of the link that she had with education even though she may have moved into

a more administrative responsibility, "I think it's because of training, as usual. Ya, so I always have something to do with trainers, something very consistent in my career" (started as a teacher). Similarly, Tia was able to relate her education background to her subsequent administrative occupation, when she explained,

When I was transferred to the literacy team and worked on the service project, I began to enjoy my work much more. It was related to my [education] background, and I enjoyed the wide spectrum of the different job roles.

Edison also attributed his success back to his engineering practice because he was able to relate all his successful experiences in his subsequent careers back to his engineering practice. He explained,

So when I was doing the true blue engineering, the robot, for example, one of it was artificial intelligence. So that in essence is the core element of computer engineering and all that. So a lot of algorithms and all that are the same that we use, you can translate. So that is the very core element of it. Then I think this is why it is quite easy for me at least, to move around. Because when you start moving from that into computers, and when you start to service enterprises, enterprises you service ranges from manufacturers to financial institutions and everything. It was still very much on IT engineering, systems and all that.

Edmund, who started as an engineer and is now a teacher, was also able to draw links from his engineering practice that facilitated his success in his new occupation, when he said,

So it's more as in what I learn as an engineer to how it helps as a lecturer, More on my teaching skills. Maybe in my time as an IT security consultant, at that time I was already giving talks to IT security companies, to colleagues. So there is a lot of transfer of knowledge at that time. Because IT security was quite new, so I had to research, after that I got to teach what I research to senior management, to the lower working staff; so that helps.

Edgar was also able to draw the link between his engineering experience and his current business analyst role, when he expressed,

I don't remember a course in engineering that teaches logical thinking and all that. It comes with the engineering subjects, meaning when they teach you about mechanical analysis or mechanical design, it's a very structured approach and a very analytical approach. You know why you did it from here and from here you move to here that kind of thing. So I don't remember the subject called logical thinking or something like that. There are some softer skills down there like project management and you can do some financial accounting.

He suggests that the skill that was imbibed during his engineering training was contextualised within the domain knowledge, but he was able to be reflective about his skill transferability. Edgar was also able to attribute his engineering experience to his current job as a business analyst,

I think the engineering experience help from an analytical perspective, in terms of being able to solve problems systematically, able to identify processes where there's opportunity for improvement. And also in the area of communication skills and presentation skills as well. Because as an engineer you need to be able to present your ideas very succinctly and clearly. So I think those are areas that helps. A little bit of project management also. As an engineer you need to manage your projects, be accountable for everything. So in that aspect I think those are areas that are relevant.

When asked if he perceives his mobility to have taken him far away from his original engineering occupation, he said,

Yes and no. I was doing evaluation work... I think the first six months or so we were still doing that, then after that we joined with another team, still within the same division doing, they call it programme improvement and promotion something like that, so we were doing actually looking at the programme initiative as well as promoting our systems and programmes. So we were in this division, then after that I think that then one of the ex-[bossess] decided to move us down to IT Department (...) so we were in IT Department, supporting it from the business angle.

While being unaware at the time, most were confident that they were able to move into other occupations that bore some resonance with their original skill-sets.

7.4.1.3 Current Career Perceptions

Underpinning the job-related features is the awareness that a career is no longer for life and that movement could be conceived of as a way of strategising promotions or movement up the salary scales. In the case of Tara, she explained honestly, that her movement was more an effort to move her pay levels up, "Realistically, in terms of salary, short term". She explained that the pay as an early childhood teacher was only about S\$1000 (£500) a month. Even as a child-care teacher, she was only entitled to making S\$1300 (£650) a month, which limited her take home pay tremendously. Edison was also honest when he attributed his mobility to pay. He said, "I think, of course pay is one of them. Higher pay". He did also attribute his mobility to curiosity,

If I really think about it, one of the things that kept me going on from one to another was curiosity. I guess as an engineer one of the things that you are inbuilt with is, you are curious about how a problem can come about. And you tend to want to find a way to fix it.

In contrast, Edmund however offered a different perspective that,

Because pay is not everything, I felt that over there the politics will be even worse. Probably there will be no life because they work 24/7. So many money transaction around, and I'm going to be an IT security officer there, not sure if I'm up to it or not. Even if I'm up to it, it will affect a lot of my personally life, my personal time which I think that I value it more than money.

And since a career is no longer for life, then he would not have to suffer within such a system. On the other hand, Eddie left his job when he realised that his opportunities for promotion were bleak,

In 2003 [I] started as an engineer in [organisation x], hard-drive developer, which was eventually bought over by [organisation y]. Was in [organisation x] for 2 years but realised that there was no promotion opportunities. Decided to venture out and applied for other jobs.

He eventually chose the job with a car allowance because it was more related to his training as engineer. The car allowance helped tremendously too. "Was with the company for two years but again realised that there were no opportunities for movement ahead (promotions etc) so decided to look for another job". Eddie is open to the idea of moving back into engineering after he completes his teaching bond; but he is also very pragmatic and feels that it will depend on the company because he had been out of the sector for a while. If he goes back it will be after his bond, by which time he will be 37 years. And he would have left the industry for about 5 years. He thinks that the company may not want him and he may have to suffer a pay cut. He felt that given an option, the company would likely employ a fresh graduate who will cost less. He also said that the currency of experience and knowledge are important. He feels that the closest he can get is to go back as an engineering trainer.

Such modern perceptions about career transitions are also apparent from Tina's account, when she said,

No, I'm not someone with a long term career plans. Because I'm someone with a short-term career plan. I just thought of it at the spur of the moment and I enjoyed it. Actually I'm very proud of my career... Because you just try and do things you want to be, just go on one to the other, don't worry. You must like it, if you like it, it would help you, you know.

Similarly, Tenny explained too that she was basically very fluid in her occupational destinations and did not see herself firmly rooted in any occupational goals,

...my dad owns small provisions company. I only helped him for about 6 months. I didn't like having to handle the customers who I found different to engage because these people don't really speak much English, also my dialect is not good then I found telling them and talking to them very challenging. In the end I didn't feel like it was something that i wanted to do in the long run so I started to look elsewhere for jobs.

Subsequently her movement out of teaching was “not a planned transition in terms of the job.” She confessed that,

I was ready to accept whatever came along, which offered the most pay. I didn't know where I was going to end up really, just took a blind leap of faith and see what I end up with. I don't really have any inclinations to any job, to me a job is just a job and no need to make it like my whole life. I am quite pragmatic because it is about the money at the end of the day that of course when I move into different jobs that my pay also goes up accordingly.

7.4.2 Belief Systems and Behavioural Features

This cluster focuses largely on individual belief systems so that individual actions are directly related to what is perceived to be more relevant for the circumstances that people find themselves in. Again, this is underpinned largely by the current career discourses of the 21st century. Acknowledging that personal empowerment drives occupational mobility, underpins their ideological beliefs and makes the non-conventional treatment of learning behaviours, careers and mobility seem less random. The recognition that weaker work associations and the higher incidence of risk taking behaviours drive personal emancipation in occupational change and helps to put career mobility into perspective.

7.4.2.1 Personal Emancipation

There seemed to be an element of personal empowerment in meaning creation when existing in a different occupational context. Tim explained that his persistence was due to his astute nature and willingness to learn, “I think at first my understanding of the corporate context was limited but it is not difficult to learn, and also my EQ

sense is heightened and sharpened". This was also similar for Erica who was quite clear in her mind about what she had wanted, and sought to attend the most appropriate training she could find, all on her own accord. She said,

In your mind quite focus and you can have some steps to bring about a greater success that was what was in my mind. So when I saw this program, I found a few programs on the internet, there is one very unknown institution which I've never seen before in my life is called institute of design, IIT.

In Tina's case, her motivation stems from "The results of the students. My students didn't turn into gangsters". She explained further that,

... that's the best you know because it's something money cannot buy [that her students did not turn into gangsters]. I know it sounds very idealistic but it's true. Money can really buy a lot of things, but cannot buy this (...) so that's the greatest reward.

Tia also alluded to this when she said, "I was very open to learning, and would do my best to see how I could value add despite the lack of resonance with the subject matter", when asked about adapting to a new occupational context. She cited factors like; "gainful employment, career growth, training and learning and development, good working relationships, salary and benefits", as crucial in enabling occupational sustainability or mobility. Similarly, Edmund spoke about the ability to teach and communicate with the students, that edged him on further,

Ya that you are able to come down to the level of those people. Because you are supposed to be the main expert to the people you are teaching, the main domain. So to be able to go down to that level, and then be able to teach to bring them up to the certain level is not really engineering related stuff... Teaching is (...) about getting the (...) communicating and about imparting the knowledge in the best possible way student can learn which I felt after teaching a few years here.

Edison was empowered by more pragmatic considerations when he explained honestly, "I think, of course pay is one of them. Higher pay". He added, "If I really think about it, one of the things that kept me going on from one to another was curiosity". He explained that,

I guess as an engineer one of the things that you are inbuilt with is, you are curious about how a problem can come about. And you tend to want to find a way to fix it. In the past, my professors in universities, one of them was quite inspirational. He said that... scientists discover symptoms and phenomena. Engineers find out how to use them. So as engineers, we don't really go into, why is this thing like that. That's for scientists to do. Engineers, we, after the scientists have found out all these things, we look at the thing and say that, hmm, how can we use this for whatever else.

He related this to his propensity to shift occupations by admitting,

Or the other way of looking at it is that, there's this problem, how can I design a way to solve this problem. So along the way of all these different career switches, all are things that have been a core element of wanting to switch is that I'm always very curious on all these industries.

Erica alluded to this when she explained about her own transition into a new occupation, which she found difficult, but still managed to cope,

The switch definitely was not easy because it was a different set of work; it is different set of people you are dealing with... I think the context was very different. And it is engineering knowledge and educational knowledge (...) I think what has been helpful for me, is always this desire to learn, so things which I don't know, I am always not afraid because I felt that as long as I put in effort, I can learn. So education pedagogies all those, to me it wasn't difficult. You can learn it, you can learn it. But it is spending time, enough time to do it.

Viewed in this light, the ability to acknowledge the drive which motivates as one moves into a new job, seems to facilitate occupational mobility.

7.4.2.2 Diverse Ideological Beliefs

Related to current career discourses, is an ideological belief that learning new things in areas completely unrelated to their existing jobs, creates new opportunities for avenues into other careers. Tara confirmed that she was open to moving into any area that was beyond her comfort zone, "I don't know whether you call the willingness to be able to do something different" as the reason for her move from teaching into admin". Edmund would not mind being a psychologist or going into the psychology professions too even though he recognises that it would require further studies on his part. Eddie is open to the regionalisation of knowledge from both teaching and engineering fields and would consider marrying both domains and going into training in future. In the case of Tina who is currently unemployed, she is

taking a full-time arts diploma now and when asked about what her future career plans entail, explained,

It's very fluid at the moment, but must be something creative. I don't know what is it. Something that brings joy to people. I am still thinking of (...) Don't have to be too people oriented. But it has to help in some ways and it must involve some form of creativity effort, some beauty you can bring about. Don't know what it is.

Tia when asked about other occupational areas at this point, also said,

I thought of the law profession, but understand that that requires different qualifications, and might not be possible at this stage of my life. Challenges would be time, money and family commitments. Another occupation is to become an interpreter and translator for English, Japanese and Mandarin. The challenges are the acquiring of the Japanese language skill. To be able to speak, interpret and translate well, I reckon it would take some years of training, and to be living in the culture for sound understanding of the intricacies of communication. The challenges would be time, money and family commitments.

7.4.2.3 Weaker Work Associations

There seems a strong inclination for weaker work identities and associations, which allow for disengagement from occupations thereby justifying movement into other unrelated fields.

Tim moved along just one day after his stint at a government organisation and that was all the time it took for him to make up his mind that the job was not for him. This was also the case for Theo who felt an urge to see the world and experience corporate life. Similarly, Tara explained that she had “decided to try something new and get [a] higher salary”. She said that the reason she had gone into teaching in the first place was because,

I think that was the time when a lot of my friends were having children so whenever I went out I was with them, so I will end up being a children, so my friend said that 'you should try consider teaching children.

Edmund had always wanted to be a lecturer and had identified as a lecturer long before he started his career as an engineer. In the case of Eddie, he confirmed honestly that any movement would be justified only if the pay is good. He cites job security as another crucial element for consideration especially now that he has a young family to support. He believes though that salary is a motivating factor for moving into a different occupation. Interestingly, even though he is open to moving

back into engineering in future, he states that he identifies as a teacher and has weak associations with his engineering identity. He feels a weak affiliation to his engineering identity even though he constantly referred to his engineering practice when explaining why he does things in the way that he does. Tina when asked about why she left teaching, explained that,

...[it was] because I think it's too limited. I should go and expose myself to the real world. So that's the main reason... Maybe I gave up too easily as well, but at the same time you need to know the real world right? I cannot just stay in teaching, teaching is a bit superficial. I mean sorry to say, but if you are not in touch of the real world, how can you tell the students what is happening?

She felt strongly that the essence of a good educator resides in the ability to bring authentic learning experiences into the classroom. Tenny said that she would move if the pay were better,

If higher pay, then doing the same thing, of course I will consider. As I said before, pay is motivating factor for me. I probably won't mind going into something like lecturing at a university in future 'cos I think that is a good retirement job, also flexible hours 'cos I heard that you don't have to be in school when you don't have classes, also you have time to do your own research work.

When asked about her occupational identity though, she replied,

I never felt like a teacher even I am trained as one and technically I am not trained as a manager, but after doing it for so many years, I guess I feel like I am a manager now. Even though if you ask everyone else in my family they still think that I am a teacher, because like I said before they always come to speak to me about education problems with their kids. But I don't feel like a teacher anymore. That is like an experience from long ago I don't really think much about it anymore.

Interestingly, whilst those interviewed seem to portray a weak association to their initial occupation as either an engineer or a teacher, they often referred back to their prior engineering or teaching experience in rationalising their successes in their new occupations.

7.4.2.4 Risk-taking Behaviours

There seems to exist a strong element of risk-taking behaviour, often more strongly reinforced after the first movement. Those interviewed have engaged in at least two or more movements in their career life history. Eddie moved around for a while until he was made redundant. He had found a job as an installation engineer with a company that was based in Israel that required him to travel globally to Japan, China,

Korea and Taiwan. He had encountered a very macro-supervisory style then, so he had the autonomy to do what he wanted as long as he had the job done. He was however with the company for only two years before he was laid off in November 2008. Tina confirmed too that she was unaffected by resigning without a job,

Okay, I think I resigned without a job. But I was pretty confident of getting a job, because my friend was already in the polytechnic, then she was telling me, oh they need you; so don't worry. So I already got the job. You can say I resign without a job, but at the same time I know I could get the job.

Interestingly, Tina was not firmly rooted in her ambition in becoming a teacher, and explained, "Actually, I avoided teaching because everyone is going into teaching. Then until I tried then I got it. I'm not the kind who grew up and wanted to be a teacher".

Similarly, Tenny confessed that,

I was ready to accept whatever came along, which offered the most pay. I didn't know where I was going to end up really, just took a blind leap of faith and see what I end up with. I don't really have any inclinations to any job; to me a job is just a job and no need to make it like my whole life. I am quite pragmatic because it is about the money at the end of the day that of course when I move into different jobs that my pay also goes up accordingly.

There seems that there was a huge inclination towards mobility with indefinite plans to stay, if it is perceived as an unsuitable line of work or if the interviewees perceived that they have had enough of the work. Edmund explained, "... I don't see in the near future I will move, unless something drastic happen; education scene that I lose faith in it". Tina alluded to short-termism when she explained of her decision to move into a different occupation,

...2 and half [years], then I decided, ok enough very boring. There's nothing more for me already and I have to look somewhere and [organisation x] those day were trumpeting about manpower development, very exciting things. Then I was like, 'hey isn't that my kind of thing?' Then I applied, in fact not only [organisation x], [organisation y] also. Both offered me, I can't remember which one. But anyway I accepted [organisation x] afterwards...So it went on for the next 3 years. That was the last stage before I had enough.

Tenny also referred to being open to leaving if she was uncomfortable with the work arrangements,

I think I will stay here for a while unless there is something that push me out of this. But so far, I am quite happy, the hours are quite fixed and my bosses are nice. Also no real complaints. My colleagues are also nice. It's a comfortable job for me here.

Tia explained too about her desire to move out of teaching because of the fear of stagnation, and alluded to risk-taking behaviours when she said,

At the same time, I thought that if I did not leave the [institution] system then, it would be much more difficult for me to decide to take a step out as the years passed. Hence, it was more a step into the unknown, and a step, which I felt was absolutely necessary for me as I wanted to experience new challenges, and to grow in other areas.

Managing risks seem to be an individual feature that is worth considering when negotiating occupational mobility.

7.4.3 Non-controllable Features

These strategies relate to external factors that are beyond the individuals' control but are no doubt factors for consideration when occupational decisions are to be made. Age and opportunity related factors seem to be crucial enablers of occupational mobility. For age, the propensity to move decreases with age, while the ability to recognise opportunity when it presents itself, is also key.

7.4.3.1 Age Barriers

What seems clear though is that the interviewees were aware that occupational mobile behaviours might not be sustained beyond a certain age. Tenny explained the impact that such fluid mobility would have on her family and commitments after a certain age,

Probably if it's something I don't mind learning about. I am almost 40 and I have a family so any major upheaval or uproot will be quite a big thing to me 'cos I need to see if it will impact my family.

Evana also referred to her age as a factor that affected mobility when she was asked if she would go back into engineering, "I think maybe if I were in my early 30s I would". Edgar, when asked if he would consider going into another career, cited his age as a reason that would probably be a barrier to his movement,

Possible. If you ask me I think it's possible. If I discount the fact that I am coming to 50 soon. If I discount age as a factor, I think it's possible because I think the experience that you've accumulated form an engineering perspective and top that over with what you've acquired in the government perspective

where you are trained to think very strategically, you are also trained to write presentation clearly and concisely, targeting at different audience, so I think that it is possible.

Age brings commitment and family responsibilities and that inherently requires greater occupational stability. This is implicitly a socially driven factor that interviewees acknowledge, particularly within an Asian context where it is socially expected that one takes care of their family after a certain age. Theo also said that he would only consider going back to teaching after he retires; recognising inherently that the teaching profession has provided him some form of a safety net.

7.5 Conclusion

This chapter presents the analysis of the interview data that pertain more specifically to the first three research questions. In the process of negotiating occupational mobility, several personal, situational and organisational features come into play. At the individual level, individual perceptions relating to career transitions suggest an alignment to current discourses that surround the modern career. Conformity to modern discourses underpins many of the decisions that are made about remaining in a career; since a long term career is no longer the norm. However, there are some situational features that enable occupational mobility too, and merely relying on individual reflexivity may not automatically mean that mobility would occur since the opportunities for mobility need first to occur and then, be recognised. The ability to recognise such opportunities, coupled with individual reflexivity and confidence in individual skill abilities, enable mobility into new occupations.

The analysis of the narratives also suggests that the ways in which individuals enter initial occupations have some bearing on possible mobile futures. It appears that individuals who lack the definitive personal life-long career aspirations are more likely to engage in mobility. These individuals were observed to possess a risk-taking disposition and were generally open to moving into another occupation that may not have any obvious resonances with their initial occupational training or practice. In addition, there are some external learning related factors (like recognition of informal learning), professional-related factors (such as structures to encourage professional associations) and skill-related factors (that encourage skill recontextualisation) that affect occupational mobility, too. These factors need to be

considered when institutionalising occupational mobility, particularly since there is a role for acknowledging recontextualised learning experiences and the recognition of informal learning in the workplace. The associations that individuals have with their jobs also serve to affect occupational mobility since it could serve as an anchor in a job. The ways in which these individuals make sense of and engage with occupational mobility have been classified more broadly as being job related and personal belief system-related. How individuals perceive their own skill-sets and the ability for individuals to recognise skill proximity and resonances with a new occupation helps individuals make sense of and contribute towards occupational mobility too.

Furthermore, the analysis shows that since individuals are pragmatic, they would only participate in occupational mobility when they are within a certain age-range. This is mainly because of the social expectations on individuals to support their family which often led them to consistently mention age as a factor that would impede occupational mobility at a later stage of their lives. In the next chapter, I explain how generic skills occur as a recurring theme in the interview data and explore how the pre-training opportunities and the initial occupational practices have direct implications on generic skill resonances for facilitating eventual occupational movement.

CHAPTER EIGHT: THE ROLE OF GENERIC SKILLS IN FACILITATING OCCUPATIONAL MOBILITY

Most job growth in mature economies involves complex interactions, not routine production or transaction work

(Manyika, Lund, Auguste, & Ramaswamy, 2012:30)

8.1 Introduction

This chapter addresses the fourth research question on the role of generic skills in facilitating occupational mobility. The debate surrounding generic skills is longstanding. The current policy rhetoric on strengthening the local government's economic strategy focus on growing human and the knowledge capital through a rigorous skills development programme, brings such issues to light again, and warrants greater in-depth attention. The issues circle largely around the provision of such employability skills and/or the lack thereof. The implication of the development of an employable workforce suggests the need to create a flexible and adaptable worker. The assumption is that there exists a common set of generic employability skills, which can be provided to the workforce so that competences that relate to flexibility and adaptability are created thereby allowing the ease of shifting manpower to sectoral areas of urgent need.

Generic skills were also emphasised by many of the interview participants, as a key determinant in effecting successful transitions, when asked about how their move from one occupational context to the next. With that in mind, I grew more interested in how generic skills were acquired, how they were perceived to be used and what generic skill provision during pre-employment training meant for real practice. I also sought to examine if there were resonances between the generic skill provisions during initial occupation training and subsequent occupational destination.

At the macro level, governments of developed countries often use basic generic skill programmes as a means of providing for their workforce in the hope that it will enhance economic well-being. From that perspective, the Singapore government is right in emphasising the need for basic skills training. From as early as the early eighties, Sung (2011) noted that in Singapore, generic skills occupy an important

position within the CET system as well as the WSQ qualification framework and in 1983, 'basic skills' were introduced under the BEST (Basic Education for Skills Training) programme. Since then, generic skills training went through a few transformations and was reformulated into another programme called CREST (Critical Enabling Skills Training) in 1988. These early forerunners in generic skills training tended to focus on specific general skills like numeracy or workplace English.

The study by Willmott (2011) indicates that as of 2010, employability skills training had become the largest programme within the Workforce Skills Qualification (WSQ) system, because of the large S\$82.2m (£41.1m) government investment between 2008 and 2010. The assumption of the Singapore employability skills system is that, there exists a uniform and equitable skills need across all sectors and occupations. My study challenges this assumption because, as the analysis of the data suggests, while there are common generic skills, different occupations tap on and deploy different generic skills. This means that there may not exist one set of generic skills, which allow application and interoperation across all occupations. Instead, different occupations utilise different skill sets, hence there is a need to reconsider the role of a standard decontextualised generic skills training for everyone across different occupations.

8.2 The Generic Skills Index (GSI)

In an attempt to understand the concept of generic skills in facilitating occupational mobility and as highlighted briefly in Chapter Six, my research looks at Sung's Generic Skills Index (Sung 2011) as a means of representing the range of generic skills. To reiterate, the GSI represents the amalgamated skills sets that workers are using in their jobs across the various sectors and professional groups. The GSI codifies and maps the authentic job skill requirements within specified workplaces, and provides indicators that can be used to discuss the realities that workers are encountering in the workplace.

For the purposes of my research, the GSI is used to map the identified generic skills from initial teaching and engineering preparations programmes against the utilised generic skills in their subsequent occupations. At each stage, public documents like

the Singapore Standard Occupation Classification, the pre-employment preparatory curriculum from the National Institute of Education (NIE) and the Nanyang Technological University (NTU); were referred to, in providing an idea of the general responsibilities for teachers, engineers and every additional occupation that former teachers and engineers in my research have ended up in. This is to ensure that an understanding of the extent of generic skill utilisation and adaptability across occupations is sought. My method of analysis provided a mapping of the range of generic skills provision to the standard occupational classification and the interviewee samples' experience through the heuristic lens of the Generic Skills Index. The schematic illustration of the mapping relationship is presented below and was previously referred to in Figure 5 of Chapter Six:



The breakdown of the Generic Skills Index (Sung, 2011) is presented in Table 5 below:

TABLE 5: GENERIC SKILLS INDEX

Generic Skills	Skills Content
Literacy Skills	Reading and writing documents, memos, forms, reports etc
Leadership Skills	Coaching and motivating staff, developing career for staff, planning others' activities; making strategic decisions and managing resources
Physical Skills	Physical Strength, dexterity with hands and stamina
Problem-solving	Spotting and analysing problems, identifying causes and finding a solution
Influencing skills	Advising customers, persuading others, dealing with people, making speeches and presentations
Teamwork Skills	Working in teams, listening to colleagues, paying attention to details
Planning	Organising and planning own activities and time
Numeracy Skills	Working with numbers, using advanced mathematical and statistical tools
Emotional Labour	Language skills, negotiation, managing others and own feelings

While it may appear that the provision of generic skills from the initial teacher and engineer preparatory programmes and the Singapore Standard Occupational Classification's (SSOC) competency listing of both professional groups, recognise and represent the general requirement for generic skills, my research acknowledges that the eventual transferability of skills into new jobs could be compromised. The assumption is therefore that while there seems to be evidence that suggest an effort in providing broad generic skills at the preparatory and occupational classification levels, the eventual translation and transfer of these skills into the workplace is not guaranteed. The assumption is also that individuals are still continually learning as they move into a new job role and that the workplace affordances could affect such generic skill recontextualisation or transferability.

8.2.1 Mapping Teacher's SSOC to GSI

The SSOC for teachers suggests that the required occupational tasks and responsibilities of teachers cover the GSI index more broadly. The information should be cautiously considered though because my study was not designed to ensure the validity and reliability of these curriculum statements:

TABLE 6: MAPPING SSOC TEACHING COMPETENCES TO THE GSI

Designing and modifying curricula and preparing courses of study in accordance with curriculum guidelines	Planning
Establishing and enforcing rules for behaviour and procedures for maintaining order among students	Influencing Skills
Preparing and giving lessons, discussions and demonstrations in one or more subjects	Planning Leadership skills
Establishing clear objectives for all lessons, units and projects and communicating those objectives to students	Influencing skills Leadership skills
Preparing materials and classroom for class activities	Planning; Literacy Skills
Adapting teaching methods and instructional material to meet students' varying needs and interests	Literacy Skills; Planning; Emotional Labour; Teamwork
Observing and evaluating students' performance and behaviour	Problem Solving
Preparing, administering and marking tests, assignments and examinations to evaluate pupils' progress	Planning, Literacy Skills,
Preparing reports about pupils' work and conferring with other teachers and parents	Literacy Skills, leadership skills, problem solving, teamwork, planning
Participating in meetings concerning the school's educational or organisational policies	Emotional labour; teamwork; leadership skills
Planning, organising and participating in school activities such as excursions, sporting events and concerts	Physical skills, literacy skills, leadership skills, teamwork, problem solving; planning, numeracy skills; emotional labour

As seen from the mapping, the identified teacher competences cover broadly, all the listed skills in the GSI and I shall next explore if this provision is similarly covered in the pre-teaching preparatory curriculum.

8.2.2 Mapping Teacher Preparation Curriculum to GSI

I mapped the curriculum structure for the general teacher preparation programme from the National Institute of Education (NIE) against the GSI. I have selected the core education curriculum that prepares a teacher for general teacher duties in the mainstream schools. Details of the mapping can be found in Appendix D.

While generic skills are listed as being provided within the module descriptors, there is no evidence in the analysis of the data, to ensure that the generic skills were effectively inculcated in the trainee teacher development programme. What I can infer though, is that since it is listed in these module descriptors that the modules are generally designed to address these areas. I can corroborate this with the interview narratives too, especially if teachers refer to using some of the generic skills in their practice. However, my research is not designed to check if these generic skills were provided for by the teacher preparatory programme, or if it was picked up by the teacher in the workplace. It does provide the grounds for further research following this thesis though.

So, it seems that teachers possess the appropriate literacy skills because as part of the teaching selection criteria, teaching candidates were required to display their proficiency in these literacy areas. Often the Ministry of Education, who selects potential candidates for the occupation, rely on the GCE 'A' and 'O' level English grades as pre-requisite conditions for entry into the profession. The NIE website, http://www3.ntu.edu.sg/oad2/website_files/Alevel/Min_Subject_Requirements.pdf, states that the minimum subject requirements are either (1) 2 subjects taken at H1 level, including a pass in General Paper or (2) a Pass in at least five subjects including English as a first language taken at 'O' Levels. In other words, teachers are assumed to possess literacy competences based on their pre-employment training entry criteria from the onset. Furthermore, apart from the domain specific discipline training, all student teachers in the general education diploma programme are minimally required to take studies in English Language as part of their Curriculum Studies module (NIE, 2011). In addition, the Language Enhancement and Academic Discourse Skills (LEADS) component is aimed at helping student teachers improve their use of the oral and written language in teaching. Additionally, the

Communication Skills for Teachers' module seeks to provide student teachers with the oral and written skills necessary for effective communication in the classroom and in their professional interactions with colleagues, parents and the general public. Student teachers also learn the importance of considering the purpose, audience and context when communicating and learn how to communicate effectively to promote student learning. The module also requires that they engage in practical hands-on activities that relate to making oral and written presentations in a variety of school contexts.

As can be inferred from the analysis of the data, the teachers confirm that they possess a high level of leadership skills. Teachers are generally required to coach and motivate their students. They are expected to develop their students appropriately and lead the class of students so that the desired educational outcomes are attained. As described in the GSI, leadership skills require the worker to make strategic decisions and manage resources, as a teacher would in the classroom, when dealing with a variety of interactional opportunities with the students. They are also required to decide on a variety of issues, the appropriate mode of action for the betterment of the class on a daily basis. The NIE teacher preparation curriculum does make provisions for the development of coaching and motivational skills; developing career for staff; planning activities for others; making strategic decisions and managing resources. In the Group Endeavours in the Service Learning (GESL) Project for example, the student teacher is required to work in groups of 20 on a dedicated project. The GESL project empowers student teachers to conduct service-learning projects and to develop project management, teamwork, needs analysis, decision-making, and empathy skills. Engaged within a large team, the idea is that their leadership skills will also be honed. This is because the activities which govern the team of 20 would need to be strategic, and the resources, effectively managed.

This ability to make strategic decisions is key and as described by Tina, "For the children you will have to tell them about the future and you tell them where they are, you have to give them the option what they what they want to do." Similarly, Tim in his capacity as the head of physical education explained, "You know, as a head, I had to maintain a certain number of percentage passes", all of which confirm the need for leadership skills.

Teachers however, are not required to do much strenuous activities that require massive physical strength since their occupation is largely knowledge-related. The GSI describes “physical skills” specifically as “physical strength, dexterity with hands and stamina”. That being said, teachers who teach physical education as in the case of Tim, would be required to possess this skill competence. E.g. the NIE describes the physical education “Outdoor Residential Camp” module as employing the experiential learning approach to prepare the student teachers in the “execution of activities, facilitation skills with ample emphasis on making outdoor education a positive learning experience”. Presumably teachers would be required to participate in these outdoor activities and demonstrate their physical skills, hence the assumption that physical strength is required. Similarly, the module “Physiology of Exercise” requires an understanding of the aspects of the functional anatomy dealing with the various systems of the body and the part each plays in physical performance”. This requires again the engagement of physical strength in demonstration. The other teachers interviewed, did not otherwise refer to the requirement for much physical strength in the classroom since they were not engaged in the conduct of physical education.

In terms of problem-solving however, teachers all generally agree that as part of leading the class, and dealing with a class of young learners, there is a requirement to solve problems on the spot. The GSI defines problem solving as “spotting and analysing problems, identifying causes and finding a solution”. Comparatively, as described in the SSOC, teachers are required to adapt teaching methods and instructional materials to meet student’s needs and interests. They are also required to establish and enforce rules for behaviour and procedures for maintaining order among students, suggesting the need for a high degree of problem-solving competences. Many teachers are required to spot and analyse problems related to their pupils and identify causes so that a resolution can be immediately attained, and whilst not often overtly referred to, most teachers would have unconsciously helped solve a classroom problem promptly in their time. In the case of Tenny for instance, she referred to her problem-solving competence when she said that she helped others make sense of their problems,

I offer advice to my relatives, usually at family gatherings people always come to talk to me about problems they have with their kids etc and expect me to offer advice.

Similarly, Tina explained that,

Problem solving, yea I am always analysing their problems. Helping them to see how they should be working at their problems... because they will present problems to you. And then tell you, 'what do you think I should do? I have (a) family you know, and I only have this job that doesn't pay me very much. Do you think I can do other things?' So okay they will always give you the problem, then after that you helped them.

The nature of a teaching career also requires a high degree of influencing skill. The GSI describes influencing skills more generally as having to advise, persuade and deal with people and also to make speeches and presentations. On a related note, the SSOC describes the need for teachers to "participate in meetings, concerning the schools' education or organisational policies", suggesting the requirement for them to influence where appropriate, institutional policy for improvements to teaching practice. In addition, they are required to establish clear objectives for all lessons, units and projects and for communicating those objectives to students; and to plan, organise and participate in school activities such as excursions, sporting events and concerts. Given that teachers are often standing in front of a class dealing with a room full of students, they are adept at making speeches and presentations to appropriate audiences. Apart from dealing with students, teachers are also required to deal with fellow teachers, their subordinates, peers, parents, school administration personnel and ministry personnel. As Tenny described, "teaching did teach me to manage people better." Tina also explained that teaching provided her with influencing skills like "counselling and guidance". She explained,

Because adults at their stage of life also sometimes need to reach a stalemate. So they not sure what direction they want to go. So it's a bit similar to what you do as a teacher to students, because students enjoy life most of the time and you have to tell them what you are looking for, so a lot of counselling guidance skills...

As part of teaching teams, teachers are often required to work in teams, for instance within subject committees to improve the quality of teaching and assessment. The GSI defines "Teamwork Skills" as "working in teams, listening to colleagues, paying attention to details". As described in the SSOC, teachers are required to participate in meetings concerned with schools' educational or organisational

policies. In addition, they have to prepare reports about pupils' work and confer with other teachers and parents too. In that regard, teachers are required to work in teams, listen to their colleagues and pay attention to detail. Teachers are often clustered and divided into subject domains, allowing them to work more specifically amongst teams. Tenny alluded to this when she said, "I think probably being able to work with people and more understanding of people's different situations". The other teachers also shared insights on the need for teachers to work with other teachers and sometimes parents.

With regard to the teaching preparation programme, apart from being required to work in teams within their teaching practice, teachers are also required to participate in service learning community engagement projects. This is a compulsory co-curricular activity, which requires student teachers to work in groups of about 20 on a service-learning project that they conceive of together with a partner organisation. The service learning initiative empowers student teachers to engage more actively with the community and also to foster project management, teamwork, needs analysis, decision-making, and empathetic competences.

A large component of a teacher's responsibility involves planning. As described by the SSOC, teachers' tasks include "designing and modifying curricula and preparing educational courses"; "preparing and giving lessons"; "establishing clear objectives for all lessons"; "preparing materials and classrooms for class activities"; "adapting teaching methods"; "preparing and administering marking tests, assignments and examinations to evaluate pupils' progress" and "planning, organising and participating in school activities". These suggest a high degree of planning competences related to organising and planning activities and time. The GSI describes "planning" as "organising and planning own activities and time". As similarly illustrated by the course description provided by NIE, the teacher preparation programme includes modules like, "The Social Context of Teaching and Learning", that requires the teacher to prepare their students in understanding the rationale of major education policies and to appreciate the impact that such policies have on school leaders, teachers, students and other stakeholders. A module like this requires planning to ensure that correct information is provided in the most effective and understandable way. Similarly, the module "Teaching and Managing Learners at

the Primary/Secondary Level” also requires the teacher to plan for the creation of productive and supportive learning contexts. Implicit in this module is the requirement for the teacher to manage the class effectively too; hence a large element of planning is assumed. The “Teaching Practice” also requires for the student teacher to develop lesson planning and delivery competences. As inferred from a comment by Tenny related to planning competences, “I can multi-task and project manage in a way. My school principal required us to all do a project management course as teachers ‘cos she felt that it was necessary for us to have that skill”, suggests the need to plan, manage time and activities appropriately. Similarly Tara alluded to the need to plan and referred to systematic deployment of activities in a logical sequence when she said in response to a question on the skills that were learned from her teaching experience, “Systematic, because when you are a teacher you need to teach the children to do step 1 step 2, step 3, step 4. So my last job when doing accounts I have to be very systematic. Cannot like go all over the place”.

Teachers are also required to be familiar with numbers too. The GSI describes numeracy skills as “working with numbers, using advanced mathematical and statistical tools”. In dealing with class-loads of students, the teacher would be required to calibrate test scores, voting systems, ranking of their students and should be familiar with using various mathematical systems to derive the appropriate numbers. In addition, the percentage breakdown of student results from their formative and summative assessments, suggest the need for teachers to be familiar with advanced mathematical formulas and systems. Some of the teachers are also required to teach mathematics, as is the case of Tim who is a trained mathematics teacher. The Mathematics module in the teacher preparation programme, allows for exposure to a range of mathematical tools and working with numbers.

The final skill in the GSI is that of Emotional Labour, which is described as “language skills, negotiation, managing others and own feelings”. The Emotional Labour skill resonates very strongly with the responsibilities of a teacher because the SSOC describes teachers’ responsibilities as having to evaluate students’ progress, report on student’s work and also observe and evaluate student’s behaviour and performance. Teachers’ stakeholder groups span from students, parents to head-teachers. It also includes the institutional stakeholders like the Ministry of Education.

The mapping of the teacher preparation curriculum from NIE further suggests that modules like Teaching Practice, Educational Psychology, ICT for Meaningful Learning, Teaching and Managing Learners at Primary/Secondary Levels and the Social Context of Teaching and Learning also inculcate the student teachers with skills that relate to negotiation, managing others and own feelings. The Group Endeavour in Service Learning (GESL) Project similarly develops such social-emotional competences. As does the “Educational Psychology” module which prepares the student teachers in understanding their learners, learner’s development and the psychology of learning. It also requires the student teachers to consider why and how some students learn or fail to learn and how the students’ intellectual, social, emotional, personal and moral development occurs. Similarly, the “Teaching Practice” module requires that the student teachers teach and manage pupils independently, and consult when appropriate, with their teacher buddies. This involves a large element of managing their own and others’ feelings. For instance, Tara explained that her teaching experience had prepared her to be tolerant when managing others. She explained, “because when you deal with children, you need to repeat yourself and you must be very patient. It’s a training ground for making a person not lose their temper so easily”. Tim related this emotive competence to that of Emotional Quotient and sensitivities to others’ and his own feelings. He said, “I think EQ is the most important skill I learnt from being a teacher and that is what is most important in my new current job. Also I think I am able to engage people to talk about anything, and appear to be smarter than them so that I don’t get fooled by them”.

The mapping suggests that the NIE preparation curriculum imbues teachers with the appropriate leadership, problem solving, influencing, teamwork, planning skills, numeracy, literacy proficiencies and emotional labour skill competences. This suggests that the teacher preparation programme equips teachers with broad generic skills so explains why teachers subsequently move into a range of other occupations with such ease.

8.2.3 Mapping of Teachers’ Subsequent Careers to GSI

The subsequent careers of the ex-teacher interviewees, mapped to the SSOC, are illustrated and described in detail in Appendix E. The mapping explores if the ex-

teachers have moved into areas of work that tap on the array of generic skills that they possess. The generic skill utilisation is inferred from the SSOC descriptor of each of the subsequent occupation that teachers have landed in since leaving the teaching profession.

Again, the assumption from this mapping is that the descriptors of the subsequent careers in the SSOC provide the authentic working and skill context. However, as explained previously, there is no evidence to suggest that these are what are required in the occupations, nor does each of the interviewees demonstrate the skill utilisation equally. The information on general skill utilisation in subsequent careers should be considered cautiously, and is subjected to recontextualisation within the situated contexts and workplace.

In an effort to validate the skill utilisation of skills in subsequent occupations, my research further used the teacher career destination from the Buchanan study to establish the reliability of the skill utilisation range of subsequent occupational destinations and found the results, similar. Details of this mapping can be found in Appendix F.

In conclusion, this mapping suggests that ex-teachers generally move into subsequent occupations that seem in theory, to resonate strongly with the generic skills that they possess from their initial teacher training and teaching practice. Specifically, because of the diverse coverage of generic skill utilisation across the GSI, it is fair to say that teachers are generally adaptable and possess the flexibility in moving to occupations that require high levels of literacy, numeracy, leadership, planning, problem solving, emotional labour, influencing and teamwork skills. It also suggests the importance of contextualised skill development before more general applicability can be established.

8.2.4 Mapping Engineers' SSOC to GSI

In the same fashion, my research repeated the same mapping exercise with engineers in measuring the degree of generic skill competence that they possess from pre-employment training to practice. Again, the same assumptions apply. While the SSOC describes engineering jobs as covering broad competences, my research is not designed to check the validity and reliability of the actual implementation of such

generic skill competences in the workplace, and hence acknowledges that there may be gaps in the implementation of all the generic skill competences referred to in the SSOC document when describing actual engineering practice.

The SSOC provides two entries for engineers, one for civil and the other mechanical engineers. Their responsibilities have been provided separately but overlaps are noted especially across the more general areas. The differences lie largely in the technical domains. Details are listed in Table 7 and 8 below:

TABLE 7: MAPPING SSOC CIVIL ENGINEERING COMPETENCES TO THE GSI

Conducting research and developing new or improved theories and methods related to civil engineering	Literacy Skills; problem solving; planning; numeracy skills
Advising on and designing structures such as bridges, dams, roads, airports, railways, canals, pipelines, waste-disposal and flood-control systems, and industrial and other large buildings	Influencing skills, leadership skills
Determining and specifying construction methods, materials and quality standards, and directing construction work	Influencing skills, leadership skills, planning, physical skills
Establishing control systems to ensure efficient functioning of structures as well as safety and environmental protection	Problem solving, planning
Organising and directing maintenance and repair of existing civil engineering structures	Leadership skills, problem solving, physical skills
Analysing the behaviour of soil and rock when placed under pressure by proposed structures and designing structural foundations	Problem solving, planning
Analysing the stability and testing the behaviour and durability of materials used in their construction	Problem solving, planning, numeracy skills

TABLE 8: MAPPING SSOC MECHANICAL ENGINEERING COMPETENCES TO THE GSI

Advising on and designing machinery and tools for manufacturing, mining, construction, agricultural and other industrial purposes	Literacy skills, leadership skills, problem solving; influencing skills
Advising on and designing steam, internal combustion and other non-electric motors and engines used for propulsion of railway locomotives, road vehicles or aircraft, or for driving industrial or other machinery	Literacy skills, problem solving, leadership skills, influencing skills
Advising on and designing hulls, superstructures and propulsion systems of ships; mechanical plant and equipment for the release, control and utilisation of energy, heating, ventilation and refrigeration systems, steering gear, pumps and other mechanical equipment	Literacy skills, problem solving, leadership skills, influencing skills
Advising on and designing airframes, undercarriages and other equipment for aircraft as well as suspension systems, brakes, vehicle bodies and other components of road vehicles	Literacy skills, problem solving, leadership skills, influencing skills
Advising on and designing non-electrical parts of apparatus or products such as word processors, computers, precision instruments, cameras and projectors	Literacy skills, problem solving, leadership skills, influencing skills
Establishing control standards and procedures to ensure efficient functioning and safety of machines, machinery, tools, motors, engines, industrial plant, equipment or systems	Problem solving, planning
Ensuring that equipment, operation and maintenance comply with design specifications and safety standards	Problem solving, planning

Apart from the technical competences, the SSOC engineering competences refer largely to a high requirement for numeracy, problem solving, planning and influencing skills if indeed these accurately depict what occurs in practice. This suggests that engineers require specific generic skills to function professionally in the occupation. Influencing skills, teamwork and emotional labour seem to be lacking in this SSOC mapping, and my research can only infer that if these practices are required in the workplace that it is picked up and developed there instead.

8.2.5 Mapping Engineering Curriculum to GSI

The undergraduate engineering training curriculum is also mapped against the GSI as a means of understanding if engineers are inculcated with these skills during their

initial pre-employment training. The assumption is that these skills are deliberately included in undergraduate courses since they have been explicitly referred to in the course descriptor. The engineering curriculum as informed by the curriculum structure of the local leading engineering school, the Nanyang Technological University, where most of our engineering sample hail from (8 out of 10 engineers) is provided to give a sense of how the civil and mechanical engineering curriculum (source: NTU Engineering School website) looks like and is mapped to the GSI too. The detailed mapping of the course descriptors against the GSI is provided in Appendix G.

It is interesting to note that at the module level, the range of generic skills covers more technical knowledge without any explicit reference to more generic problem solving, leadership and planning skills. At a more macro-level, the student learning outcomes as stated in the curriculum content of the NTU engineering school, refer to the requirements for planning, teamwork, problem solving and leadership skills. The student competencies are listed as follows:

Knowledge

1. Competence in mathematics, applied sciences and engineering;
2. Competence in the use of modern techniques, skills, information technology and engineering tools necessary for civil engineering practice; and
3. Possession of essential knowledge in sustainable development and understanding the needs for sustainable infrastructure management and development.

Skills

4. Ability to conduct independent scientific research, assume a R&D career or pursue graduate study;
5. Competent skills in problem analysis and design of sustainable civil engineering facilities;
6. Ability to work in a multi-disciplinary team and understand the principle of project management;
7. Ability to acquire information, knowledge and skills independently; and
8. Ability to formulate sound solution to complex civil engineering problems through conducting literature review and scientific research, designing experiments and integrating resources for achieving robust solutions.

Professional Awareness and Insight

9. Awareness of the environmental and social impacts of economic development;
10. Ability to recognise the importance of ethics, and the need to uphold high moral standards in relation to professional conduct; and
11. Conscious responsibility towards safeguarding the interest of society, industry and the environment.

It is assumed that because it was referred to in the course objectives that it was deliberately catered for, in the course. My research however, was not designed to evaluate the actual implementation of the curriculum in practice and only assumes it to be included in the programme. The only way to corroborate if indeed these were taught is through the narratives of the ex-engineers. However there is no way to confirm if these generic skills were imbibed in the preparatory programme or within the workplace. This could be a separate piece of research that follows my thesis later.

The undergraduate engineer's training at the university level refers specifically to numeracy skills - "Competence in mathematics, applied sciences and engineering" which is addressed by the Mathematics module that provides the student with fundamentals in calculus and complex analysis required for the upper years of study. Mathematics topics include: Complex numbers and analysis; Vectors and analytical geometry; Limits and continuity; Sequences and series; Derivatives; Applications of derivatives; Integration; Integration techniques; and Application of integrals. As described in the student learning outcomes, the Mathematics module provides engineers with the basic numeracy competency required to function as an engineer. Moreover, the "Probability and Statistics" module exposes the engineer student to the basic concepts in probability and statistics so that they can better solve their practical engineering problems. Similarly, the Matrix Algebra and Computational Methods module attempts to equip students with fundamentals in linear algebra and numerical methods required for the upper years of studies. After all, the Student Learning Outcomes (SLO) of an engineering education relate closely to the GSI, which states, "the ability to work with numbers, using advanced mathematical and statistical tools", engineers are deemed therefore to possess the relevant numeracy generic skills. The minimum admission criteria ensure that undergraduates possess a pass in GCE 'A' Level Mathematics. Narrative accounts by my engineer sample also allude to the need to refer to their numeracy skills. For instance, Eddie had tapped on

his numeracy ability in making sense of the current business problems that he encountered in his daily work. Furthermore, Earl was able to translate his mathematics competence into his current career as a Finance Analyst, suggesting that initial engineering training had provided him with the necessary foregrounding for such analytical work.

Problem solving skills as described by the GSI state the ability to “spot and analyse problems, identify causes and find a solution”. Indeed engineers are required to problem solve, as described in the undergraduate SLO, “Competent skills in problem analysis and design of sustainable civil engineering facilities”. The ex-engineers’ narratives confirm this too. In addition, the SSOC states that engineers establish control systems to ensure efficient functioning of structures as well as safety and environmental protection and organise and direct maintenance and repair of existing civil engineering structures. The heavy emphasis in analysis and providing advice on systems design suggest a strong problem-solving element. The undergraduate curriculum emphasises problem solving too, for instance in the module “Computing”, the student is required to learn how to use computer programming in solving problems in engineering contexts. Similarly, the “Mechanics in Engineering” module equips the students with the basic understanding of force vectors and their operations, force equilibrium, stresses and strains of a body when the body is subjected to external loads. The subjects covered in this course provide the essential technical basis for the analysis and design of civil structures and infers a large problem-solving element. Indeed the interview narratives did refer to this competence too, for instance Edmund explained the requirement to solve problems even though he felt that it was not something that most would appreciate, “Programming is not a very good job because if your software goes wrong, a simple little bug may take many days but when you finally solve it no one appreciate it”.

Similarly, Evana also referred to the need to analyse when she said “I think when you train as an engineer, you will be trained in ... what we call as the logical thinking, analytical skills, analysing”. Erica was also able to hone in on the benefits of an analytical mind, which she attributes to her engineering training.

To me when I solve the maths problem, yes it is doing the question but when I meet the next problem, my practice is this: I tried to do it but I couldn't do it. I keep the question, first thing tomorrow morning I'll pull out the question again and do it again. So I'll try for 3-4 days, eventually I'll crack it. So engineering what I think has been very useful for me; the deductive thinking and also the very systematic way of addressing the problem. And also I have this discipline in doing that problem, so I think the engineering training has been very helpful for me in all these areas.

Engineers thus seem able to spot and analyse problems, identify causes and find a solution.

Influencing skills are described in the GSI as the ability to advise customers, persuade others, deal with people and make speeches and presentations. At the same time, the undergraduate engineering SLO refers to the "ability to formulate sound solution to complex civil engineering problems through conducting literature review and scientific research, designing experiments and integrating resources for achieving robust solutions". If the SLO guides the curriculum development, then the Industrial Attachment facilitates the development of influencing skills since it requires the student to gain an in-depth understanding of the practical aspects of the civil engineering industry so that the student engineer can understand the practical aspects and technical knowhow of the civil engineering industry and gain valuable contacts necessary to give them an edge in the working world upon graduation. The SSOC also refers to the need for engineers to provide advice after analysis and problem-solving, suggesting the need to advise and persuade clients; making presentations and speeches about their practice, where appropriate. Eddie referred to, ...understanding of the stages in which you develop software, IT and engineering etc, the first set of it is, understanding the requirements. And to understand the requirements, you need to interview and truly understand how people operate, how they do things, how their work works, what's their policies, what's the rules etc.

He conceived a systematic way of breaking down the problem before he translated it to influencing how people operate. He further explained that,

...because you know the technology, people give you the opportunity to interview them, and they don't treat you like, oh you don't know anything, I don't tell you. Because they need you to help them develop a system.

He was able to successfully influence others into working with him in order to translate their needs into solutions.

Teamwork skills, which is described as “working in teams, listening to colleagues, paying attention to details” is referred to and corroborates with the undergraduate SLO that stipulates the “ability to work in a multi-disciplinary team and understand the principle of project management”. The undergraduate engineering curriculum prepares the student engineers through its computing module that uses computer programming in solving problems within engineering contexts; the Probability and Statistics module attempts to apply the probability and statistics concepts in solving practical engineering problems. The SSOC engineer descriptor refers more specifically, to domain specific competences and fails to address teamwork competences. Moreover it is observed that whilst teamwork is highlighted in the SLO, that there is no specific or explicit reference to the requirement to work in teams within module descriptors. The assumption therefore is that student engineers will be inducted incidentally into teamwork competencies through working with other students in the general elective modules that they have to enrol themselves in as part of getting their degree. It is also interesting to note that the SLO suggests the requirement for student engineers to work with multi-disciplinary teams in project management but it is not explicitly stated that there is a requirement to work with other engineers within the team.

The generic skill that refers to Planning is described in the GSI as “organising and planning own activities and time”. In contrast, the undergraduate SLO alludes to the need for planning competences when it states “Competence in the use of modern techniques, skills, information technology and engineering tools necessary for civil engineering practice”. The SSOC implicitly states planning competences when it emphasises the need to “Ensure that equipment, operation and maintenance comply with design specifications and safety standards” and also “Organise and direct maintenance and repair of existing civil engineering structures”. Evana broached the

requirement for planning competence when she related a current engineering education model back to her engineering practice,

Conceive design implement operate. That one is engineering education model, so actually engineer already train. All these CDIO is actually they put into the framework, more subject framework. Actually more or less they have learnt it before, it's just that they put it in a more structured manner so that, you know we can follow through. So it's actually the same as what we have.

Similarly, Erica referred to a specific engineering method that structures the planning within engineering practice,

Design thinking, they have the four things. Okay first you start conceiving. Conceive that means try to discover the user needs are met, you know. After conceive, but you have to work as a groups. Conceive sometimes you get to do observation. Ethnographic interview, I think you know right? After conceive then you come back to brainstorm then you come up with all kind of ideation that means work as a group. Like design thinking who then come up with all kind different ideas ... Then after that you follow by prototyping. You have to come with a 3D storytelling. Then you bring these prototypes to the user to get user feedback. Because they will tell you this is not what they want then have to improve. Then eventually you implement, so the design thinking is thinking between C and the half of the D. Then after that continue to do the D, design, then you implement.

Eddie also referred to the requirement for planning when he compared his own engineering practice to the processes that involve sending a robot into space,

I was working on automated guided vehicles. How to create these robots that, on its own, can navigate through places, as in roads and everything. It is very close to things that; like sending a Mars roamer to roam around Mars and actually take pictures and figure out the place and all that kind of stuff. Sound very similar. And the whole idea was to build that robot.

All of these examples suggest the need to organise and plan own activities and time.

The literacy skill competence is assumed since it is a pre-requisite for entry into the pre-employment training programme. The undergraduate SLO refers to this when it suggests the “Ability to conduct independent scientific research, assume a R&D career or pursue graduate study”; suggesting the need for effective language proficiencies. Additionally, the SLO also states to “formulate sound solutions to complex civil engineering problems through conducting literature reviews and scientific research”, and assumes that the literacy competence is implicit in their initial engineering training. As similarly described in the GSI, literacy skills refer to “the ability to read, write documents, memos, forms and reports”. The engineering

curriculum prepares their engineers with this communicative competence through its “Professional Communication” module, which equips students with the written and oral communication skills essential for functioning effectively in the workplace. A more specific technical communication module also teaches the trainee engineer principles of technical communication for their academic and professional needs.

The accounts by Erica, Evana and Edmund for instance, suggest that as lecturers they are required to translate their domain knowledge into specific learning outcomes. In addition, the minimal admission requirement into the degree programme, assures that engineers possess a relevant level of literacy ability and this is displayed through at least having gone through the Singapore-Cambridge GCE ‘A’ Level Examination in the English medium and having obtained two passes in subjects at H2 and attempted General Paper (GP) or Knowledge and Inquiry (KI). With reference to the SSOC outcomes, “conducting research and developing new or improved theories and methods related to civil engineering” and providing advice following problem solving, infers a certain degree of literacy competence in order to communicate such advice to the relevant audiences.

8.2.6 Mapping Engineers’ Subsequent Occupation to GSI

An engineering education does not just prepare a person to become an engineer, but opens up many more options, as can be seen in the diverse career paths of this pioneer cohort of NTI engineering graduates. Besides the many who have been successful as engineers, there are those who have successfully branched into a wide range of areas, including media, entertainment, hospitality, finance, education, entrepreneurship and management.

DPM in his speech at the “One degree, many choices” book launch ceremony. 2012

The genesis of generic skill training for the engineer is the ability to translate such contextualised generic skills into subsequent occupations. Eddie was able to relate his engineering training to his current role. He explained, providing a specific example, “Workflow diagrams are a basic course that you learn in engineering. It is the core, or one of the first few computer engineering artefacts where you model how a user works so that you can create programs for them in that diagram form. But interestingly in the whole business process space, it also uses the same thing. So that common denominator came with me”. There is no way to ensure though, that

these skills that those interviewed referred to, in their narratives, were developed from their engineering preparatory programme. While the assumption is that the preparatory programme had sufficiently prepared them for this skill utilisation, my research also acknowledges that the workplace affordances could be another conducive context for the development of such skills if it was not sufficiently developed at the initial occupational preparatory stage.

Appendix H provides information on the subsequent occupations of the ex-engineer sample mapped to the GSI.

The mapping suggests the utilisation of high degrees of generic skill in terms of its literacy, leadership, problem solving, influencing, teamwork, planning, numeracy and emotional labour components in subsequent occupations. This presents a contradiction when compared to the SSOC mapping of the engineer's competence, which lacked influencing skills, teamwork and emotional labour. The engineering education however seems to make up for the shortfall since as it was reviewed above, the interviewees referred to numeracy, problem-solving, influencing, teamwork, planning and literacy competences when speaking of the skills that they had imbibed during their engineering career. The only one that seems to have been left out was that of emotional labour although the interviewees seemed to be equipped with this affordance within their subsequent occupations. This suggests that actual engineering practice was important in helping to situate more general competences, and confirms what was established earlier in this chapter regarding contextualised skill development through preparation programmes and subsequent practice.

Similarly, when the subsequent occupations of the engineers referred to in the "One Degree, Many Choices" study was examined; a similar observation was found. This additional mapping exercise was conducted to ensure reliability in the findings from the original research sample. Details of this mapping can be found in Appendix I.

Briefly, it was again found from the mapping, that the emotional labour skill seemed to feature consistently across all subsequent accounts even though it had not been explicitly taught in the engineering education or referred to in the SSOC engineering competence breakdown. This suggests such emotional labour skills could have been developed outside their formal engineering training and that perhaps these mobile

engineers were more pre-disposed and receptive towards picking up such generic skills, which helped to facilitate their movement to a new occupation. It can be inferred too, that engineers who possess other elements of the GSI, which is separate from what is deliberately inculcated in the engineering preparatory curriculum and expected in the requirements of the occupation, contribute to the mobile workforce more actively.

8.3 Analysis and Implications

I attempt in this section to attribute a numeral value to the teachers' and engineers' skills as referred to in the analysis thus far. This provides a simplified comparative representation of the value that is accorded to generic skills as referred to in the GSI by teaching and engineering occupations through the SSOC and curriculum analysis. It serves to provide an indication of the extent to which generic skills have been referred to and adopted in pre-employment training, occupational performance and practice, and subsequent occupational destinations. In the table below, I have accorded each skill as it is referred to in both the SSOC and curriculum with a value of 1. For those that were not explicitly stated but referred to, a value of 0.5 and for those that were not mentioned at all, a value of 0.

TABLE 9: GSI BY OCCUPATION

1.	GSI	Teachers	Value	Engineers	Value
2.	Literacy Skills	Pre-requisite skill	1	Pre-requisite skill	1
3.	Leadership Skills	Yes	1	Not explicitly stated (inferred)	.5
4.	Physical Skills	No	0	No	0
5.	Problem solving	Yes	1	Yes	1
6.	Influencing Skills	Yes	1	Yes	1
7.	Teamwork Skills	Yes	1	Not explicitly stated (inferred)	.5
8.	Planning	Yes	1	Yes	1
9.	Numeracy Skills	Yes	1	Yes	1
10.	Emotional Labour	Yes	1	Not explicitly	.5

				stated	
11.	Total Score		8		5.5

The mapping of the GSI to the teacher preparation programme, subsequent work experience and the SSOC suggest a very well-rounded development of generic skills for workers in these sectors, assuming again, that the implementation is rigorously observed in practice. As illustrated in Table 9, eight out of the nine generic skill areas from the GSI were found to be present in teachers through exploring their pre-employment training, job outcomes and work experiences. This suggests the ability for teachers to move into other occupations that require greater utilisation of these generic skills. Indeed, the mapping of the GSI to the subsequent careers of teachers shows that ex-teachers have consistently moved into occupational areas that resonate very strongly with a wide range of generic skills covered. Specifically, only physical skill is observed to be a skill cluster that is lacking from teachers' development in general although the physical skill competences are typically associated with the declining sectors that focus on menial tasks. It can be inferred too, that teachers are generally mobile because the requirements and conditions of the occupation, and the subsequent practical experience in the school contexts, provide the basis for the development of a broad generic skill range, allowing teachers to be adaptable to any subsequent occupation that requires these broad skills.

The mapping also suggests that whilst engineers are presumed to be exposed to pre-employment training that focuses on most areas of the skills within the GSI, the SSOC outcomes focuses more on the problem solving, influencing skills, numeracy and planning skills. The other skills like teamwork, emotional labour and leadership skills as described in the GSI are only incidental and its skill utilisation, inferred from the analysis of the data presented. The assumption therefore is that because engineering is in itself a very technical specific occupation that the emphasis is on the development of such technical competences. These technical competences lend themselves more strongly towards operational competences like problem solving, numeracy and planning. Physical skills, again is not a skill that was referred to by the SSOC, the engineers' experiences, their subsequent careers or the undergraduate

PET curriculum. Literacy Skills are assumed since the minimum requirement for entry into the engineering PET programme requires for this competence. Hence, the successful ex-engineers who have moved into other careers, have in their own right either possessed more people-orientated dispositions that allowed them to venture out of engineering and succeed in a new occupation or ended up in occupations that required large project management and operational functions with emotional labour learnt along the way. It may also suggest that these engineers have got more out of their subsequent engineering practice, which provided the affordances that were necessary in situating their contextualised skill development within the workplace, thereby allowing for subsequent generic skill applicability.

8.4 Conclusion

In summary, the mapping infers that former engineers and teachers tend to move to occupations that resonate strongly with the GSI provided by their initial occupational preparation. Consistently, it was found that ex-engineers moved to occupations that are of a stronger operational nature, which focuses on planning, problem solving, influencing and numeracy, suggesting that while they possess other more non-technical skills, the nature of their job choices are more logic-inclined. On the other hand, ex-teachers seem more likely to move towards occupational destinations that tap on personable dispositions, since as the mapping shows, these occupations draw on a wide range of the GSI spectrum. The findings from this mapping and research suggest that first; the occupations that these interviewees go into have degrees of proximity to teaching and engineering. Engineers generally move to occupations that require some form of project management or operational responsibilities or occupations that resonate with their abilities to problem solve and analyse methodically. Teachers move to occupations that require interaction with others and entail a greater degree of literacy, leadership, problem solving, influencing, teamwork, planning, numeracy and emotional labour skill areas. In relation to future consideration of professional conversion programmes, there may be value in charting the skill proximities between specific occupations.

Second, it is inferred that skills cannot just be taught in isolation. The best place to teach generic skills should be within specific contexts. In this case, a teacher's and an engineer's experiences provide them with competences that could be applied to

other occupations; which suggest that generic skills first need to be taught within context. The subsequent ability for recontextualisation allows skills learnt in one context to be used in other areas and may be the real challenge during occupational mobility. Moreover, some occupations may provide better contexts for the acquisition of skills than others and that what starts out as specific occupational skills may end up feeding the development of broader skills for general applicability.

While skills are provided for in many of the formal learning and workplace contexts, my research does not disregard the fact that individuals may have picked up these skills in other non-formal contexts as well. This implies the consideration of skills learnt within such non-formal contexts too.

Generic skill development really needs to be reconsidered since as this chapter has shown, generic skills are first acquired within specific contexts, implying that the way in which generic skills are developed could possibly be occupationally specific before they become more generally applicable after recontextualisation in different contexts. In response to an earlier question in the concluding section of Chapter Two, then, this analysis has shown that generic skills are not really generic and specific occupation-related generic skills have to be taught within context before they eventually change into generic skills for other contexts.

In the next chapter, I bring the discussions in Chapters Seven and Eight together so that I can address the overall research question that directs this research. Chapter Nine also presents the conceptual model that has been developed as a result of the research.

CHAPTER NINE: OCCUPATIONAL MOBILITY WITHIN THE SINGAPOREAN CONTEXT AND BEYOND

Individuals act towards things on the basis of the meanings that things have for them... The second premise is that the meaning of such things is derived from, or arises out of, the social interaction that one has with one's fellows. The third premise is that these meanings are handled in, and modified through, an interpretative process used by the person in dealing with the things he encounters

(Blumer, 1969:2).

9.1 Introduction

This chapter presents the key implications of the analysis to the Singaporean context. It addresses the research question, "How do professional workers negotiate occupational mobility" by drawing upon the various features and factors that have emerged from the analysis of data related to how individuals are making decisions to change occupations; the organisational, situational and personal factors that influence occupational mobility and the role of generic skills in sustainable occupational change. The characteristics of the mobile professional individual within an Asian context are presented and the perceived process of negotiating occupational mobility discussed, before the establishment of a conceptual model in the final section of this chapter.

A sociological perspective was adopted when exploring the occupational trajectories of individuals within specific social contexts. This approach is differentiated from the more psychological orientation that most studies exploring professional identity take. In line with the symbolic interactionist stance that underpins my research, the assumption is that individuals act in a way that is based on their interactions and encounters with others. These interactions may alter reactions and behaviours when individuals perceive "self" as viewed by others. The analysis of the research data further demonstrates that there is an uncontrollable element of age considerations and opportunity, which adds a layer of complexity to the decisions that Asian individuals are making about their occupational mobility and transitions.

In relating the research to how individuals negotiate occupational mobility, this study likens the process to that of a commuter attempting to navigate the UK

underground network. Like the commuter attempting to make their way from Zone 4 to Zone 1, they would be required to identify a space within the field so that they can determine the most efficient way of navigating the network of train routes and minimise the number of platform switches they would have to make; all the while observing the time that they have to complete their travel and the speed at which they have to get to their destination. Individuals may not move if they fail to see the value of the move to their career life-course, just like the commuter standing at a train platform would not, if the train before them is not perceived to be going on the efficient route to their destination. In relating this metaphor to occupational movement, the move will only be made when personal sense is made to individuals based on their prior experiences, their ideological beliefs, perception of risks and whether they recognise it to be a valuable opportunity. Also it assumes that individuals generally have an overall idea of how their journey or career trajectories would look like. My research therefore identifies with this metaphor in so far as that of individuals seeking to interact with and manage the social, cultural and institutional struggles that may present tensions within the context when negotiating mobility. These struggles may present themselves within a web of policies, social expectations and cultural diversity.

9.2 The Perceived Process of Occupational Mobility

The analysis of the empirical data reveals that there are two dimensions, which break down into four broad kinds of occupational mobility in which individuals have participated. These two dimensions relate to destination and motivation for the mobility. The mobility on which my research has focused relates more specifically to the two right quadrants, as presented earlier in Figure 4 of Chapter Six; Forced External Mobility and Voluntary External Mobility.

<p><i>Forced Internal Mobility</i></p> <ul style="list-style-type: none"> • Redundancy • Closure of company 	<p><i>Forced External Mobility</i></p> <ul style="list-style-type: none"> • Recession • Declining Sector
<p><i>Voluntary Internal Mobility</i></p> <ul style="list-style-type: none"> • Transfer • Posting often within the same field 	<p><i>Voluntary External Mobility</i></p> <ul style="list-style-type: none"> • Resignation from the field entirely

It is observed that the interview participants move into other occupations on their own accord. Their participation in occupational mobility depends largely on the occupational association that is defined by individuals making sense of the information, which is presented within the community and by the government pertaining to that occupation. Their participation depends on the perceived opportunities that are available, and the ways in which individuals react to such opportunities. It is aligned to career capital research on 'knowing-how' and 'knowing-when' as discussed earlier.

The Singaporean economy as explained in Chapter One had successfully emerged from the 2008 economic recession and has been operating at a double digit GDP growth rate in the following four years (Department of Statistics, 2011). However economic conditions notwithstanding, occupational mobility seems to be a feature of the modern society. As reported in a study conducted by Kelly Services (2011), more than half of all 900 Singaporean participants expect to switch careers within the next five years. Additionally, current career development discourses cite that "a career is for life" (Greenhaus, et al., 2010) mentality is vanishing.

The government had taken advantage of the existing features of the modern society and donned a role akin to that of a farmer when they conceived of professional conversion programmes to circumvent the potential of mass redundancies. This analogy is befitting because like a farmer who plants seeds and waits for the crops to grow before harvesting them, the government sets out to provide subsidies to incentivise specific mobile behaviours. As a farmer who plants apple seeds would expect apple trees, the government is convinced that in providing such incentives, specific behaviours will be cultivated and guaranteed. However, they fail to acknowledge that apart from merely planting seeds, there is a need for additional follow-up work like soil and environment analysis in ensuring that the seeds are planted and crops, cultivated in the most conducive climate and manner. In this case, identifying and acknowledging the presence of social and contextual factors that prevent these professionals from reverting to their original occupations, may be missing from the conversion programmes introduced in 2008.

Apart from formal training in support of occupational change, there exists a key role for learning in the workplace; labelled workplace affordances (Billett, 2011), in relation to actual work practices after the move is made. As referred to previously, workplace affordances refer to the elements that support or inhibit individuals' engagement in work after they move into the new occupation and are constituted within work practices. Such affordances may take the form of sharing by mentors and peers, or be conceived as the frequent sharing of knowledge related specifically to job functions and roles so that personal meaning making of work and internalising of the requirements of the new occupation can occur. This allows individuals to identify patterns from prior experiences and knowledge so that meaning is constructed in the new occupational context.

Bourdieu's idea of professionalisation within the political fields where power underpins the struggle for power among professionals is key since power is viewed as a central organising dimension of all social life. The narratives resonate with this idea of power within the fields, because the ease of mobility for teachers and engineers are directly attributed to the acceptance they encounter when moving to other occupations and this is based on the value that these individuals themselves are perceived to bring to occupations. This implies the symbolic struggle within social life, of the power that employers have in allowing entry into the occupation, signalling the role of employers as gatekeepers who provide the opportunity for entry into new occupations. This is evident from Tim's experience when his employer approached him directly, as his potential was recognised through their tennis lessons.

With reference to Table 10 the analysis reflects the political, social and cultural influences in which individuals perceive themselves as having to engage. It needs to be stated that the material that is presented, is gleaned from the information provided by the individuals directly. This is in line with the symbolic interactionist perspective since individuals conceive of their behaviour and actions through the value that is accorded to the symbols and the interpretative processes that undergird human interactions as understood and rationalised by individuals. It reinforces that the focus of my research is on individuals and how they perceive these influences as affecting them. The information that is provided on the government and community

levels of influence are gleaned from individual accounts and the analysis of findings therefore, relate more specifically to how individuals make sense of occupational mobility across such levels of influence that they believe they exist within and have to manage.

TABLE 10: THE PERCEIVED PROCESS OF NEGOTIATING OCCUPATIONAL MOBILITY

Occupational Mobility occurring at these levels:	Individual	Government	Community
Interactional Mechanism is:	Self-agency Identity Personal Knowledge Belief about learning Prior Experience and Skill-sets Personal Aspiration Professional idealism	Control through power Governmentality Performative structures	Support through trust Support from community/Work Context Advice and favours Social Networks History/Prior Experience Expectations
Control exercised over:	Self-governing Frameworks	Regulatory Frameworks	Social Frameworks
Perception of what is exchanged during mobility	Reflexivity and confidence Occupational associations	Performativity and governmentality Government Support structures Agencies of control	Family support structures Support in the workplace and mentors/peers Regionalisation of knowledge
The perception of what it results in:	Self-dependence	Dependence, Conformity, stability, predictability	Interdependence, cooperation
Individual perception of range of control	Rationalising abilities, prior knowledge, age, gender, self-esteem, generic skill recontextualisation	Policies, political technology, incentives and subsidies	Social status, work context, social networks, history, relationships
Factors affecting mobility			
Factors sustaining mobility	Learning Related factors Recontextualised learning Informal Learning Ascribed meaning to learning	Perceptions of transition Skill-related Factors Degrees of skill proximity Contextualised skill development Resonance among occupations	Professional-related Factors Professional idealism Professional association
Determinants of occupational mobility	<u>Personal belief systems</u> <ul style="list-style-type: none"> • Personal emancipation • Career perceptions • Ideological beliefs • Weak work associations • Risk taking behaviours 	<u>Non-controllable features</u> <ul style="list-style-type: none"> • Age barriers • Opportunity and chances 	<u>Job related Features</u> <ul style="list-style-type: none"> • Prior experiences • Degrees of proximity • Generic Skills
Decision making factors	<u>Personal considerations</u> <ul style="list-style-type: none"> • Reflexivity and confidence • Initial occupation • Regionalisation of knowledge • Occupational associations • Risks and safety 	<u>Situational/Circumstantial</u> <ul style="list-style-type: none"> • Happenstance and opportunity 	<u>Organisational/Institutional</u> <ul style="list-style-type: none"> • Support in the work place • Prior Experiences

Occupational mobility is conceived as being effected across three broad levels by the individual. The government and community levels define the Asian Singaporean background and serve to inform understanding of the contexts within which individuals move. The government and community influences underpin much of what occurs within the Asian context, shaping where appropriate, individual behaviours and actions. The information stems from the narratives that individuals have provided and presents the unique landscape which individuals assume they have to negotiate.

It was previously explained in Chapter Six that the self is at the centre of the person's state of consciousness and interacts with the "me" or the self as the object, as conceived by individuals to be reflective of the perspectives of their community. It appears too, that mobile individuals possess a degree of self-managing autonomy, personal knowledge and reflexivity, and are governed by their own beliefs about learning that brings about the confidence for self-dependence. This influences their personal aspiration and professional idealism. As individuals are perceived as possessing self-governing frameworks, which are influenced by their perceptions of "me", their perceptions of transitions, prior knowledge amassed from previous experiences and learning, and the ability to recontextualise their skills for application within the wider work contexts are important factors that affect mobility.

Occupational mobility is seen here as occurring at two levels; the first comprises making the move and the second, sticking to the move. Individual behaviour in relation to making the move is dependent on their ability to first, rationalise the consequences of the movement while sticking to the move is dependent on the opportunities for regionalisation of prior knowledge amassed from previous work experiences, practices and community influences. This is further affected by the individuals' age, gender and self-esteem because the analysis of the interview data reveals that the propensity to move reduces with age and personal commitments.

The impact of community over the individual's career trajectory can further be seen from a comparative study conducted by Bian and Ang (1997) of job mobility patterns in China and Singapore, where the pair found that community networks and strong ties helped job movement, even when job changers (those seeking to change

jobs) and helpers (those helping with the move) were seemingly unconnected, that both groups tended to be connected in some distant or remote way. Their study reinforces the strength of Asian community influence and reliance on community and networks that underpins job mobility in the Singapore context. It is further notable that in the Singapore context, the government plays a strong role in promoting such collegiality and inculcating a sense of community. This is a crucial point because Singapore's history and multi-racial make-up necessitates indirect government intervention in the promotion of a culture of tolerance and racial cohesion, where the emphasis is to create communal cohesion along ethnic lines so as to avoid a possible ethnic and religious divide, often evident in neighbouring countries and some other post-colonial societies.

The Singapore government's position is that they should not try to solve individual social problems through centralised government departments. Yao (2007) observes that it is more effective for the community to take an interest in such issues, as the community is better at giving warm, emotional support than impersonal, efficient bureaucracy. After all, as mentioned at the start of this research, the Singapore government's underlying national ideology of nation before self and community before family, underpins the government strategy hence using the community to solve individual problems may be most viable since it reinforces the value of the community.

The individual perceives government control to be exercised through power, where the government employs political technology and sets out different agencies of control that warrant performative cultures and behaviours. Performative structures, which provide the regulatory framework, bring forth the need for performativity, political support and agencies of control. The interview participants recognise that this results in dependence and indirectly leads to national conformity and control of populations, so that human resources can be utilised and manipulated to bring about greater national benefits. As highlighted earlier in Chapter Five, Foucault (2003) explained that governmentality emerges at a particular moment within the modern state as a coherent political technology based on disciplinary power as a concern for the human species and interest in the body as an object to be manipulated. The Singapore government attempts to mould their citizens into a specific way of

thinking and behaving. It appears therefore that individuals are aware that non-welfare governments like Singapore's, assert their political control through policies, financial incentives and subsidies, thereby warranting specific behaviours from their people so that what the government perceives as national good, is attained. What is also notable is that individuals appear to have faith that their government will do the right thing in this complex world where there are numerous risks to manage. Referring back to the agricultural metaphor, the seeds, in this case the individuals are dependent on the government to ensure that they are planted in the best allotment, where there is ample sunlight and where they are watered religiously. There emerged from the subtleties of the interview; a strong belief and reliance on the fact that the Singapore government will do its utmost to ensure national good and perhaps there is room for future research on how such legitimacy to state power is determined, seeking for an understanding of governmental rationalities as specific forms of state reason in terms of how collective power is exercised over individuals.

The analysis of the interview narratives also reveals a reliance on community and social influences as critical in effecting mobility. This is reflective of the government's underlying national ideology of nation before self and community before family. This reinforces the symbolic interactionist theoretical device that is employed in my research, which stipulates that the way we learn to interpret and give meaning to the world is through our interactions with others; and includes the activation of various modes of individual reflexivity (Archer, 2012). These are provided for through trust within the community and workplace contexts and may to a certain degree, challenge individual habitus. A conducive environment that favours the exchange of advice, shared experiences, role modelling and social expectations exist and are perceived as providing a degree of influence over individuals, and define the Asian context. As observed from the narratives, the Asian community presents support through trust that is often exchanged across social settings with the individual attempting to make sense of the control that is enacted within these relationships. The control within this level of influence is exercised through the social frameworks that are perceived to govern each social context, and sets out the background for action within the new capitalist environment. These involve familial, community and workplace support so that there is effective regionalisation of

knowledge for meaning making by individuals, resulting inherently in interdependence and cooperation, therefore challenging individual habitus and behaviours.

The analysis of findings also reveals a key role for the regionalisation of knowledge (Bernstein, 2005) which as explored in Chapter Five, refers to the bringing together of singular knowledge structures from different knowledge sources so that new knowledge is created in larger units. Recontextualisation (Evans & Guile, 2009) is referred to earlier as the process which sees the movement of knowledge from one context to another through the embodiment of knowledge in curricula, pedagogic, workplace and personal practice. The movement of knowledge is an important idea because it facilitates sustainability when moving from one work context to the next, particularly when sustained occupational mobility in the new workplace is the ultimate goal. It helps simplify the acquisition of new knowledge especially when prior knowledge structures are tapped upon and amalgamated, thereby making new knowledge more meaningful.

The individual's range of control involves the establishment of new knowledge when bringing together the diverse knowledge units from the community in which they operate. This new knowledge is conceived as important since it requires the establishment of social status for relationship building, and results in cooperation between individuals and the community for effective meaning making. This is an important idea that relates to symbolic interactionism since it refers to the meaning making by individuals when interacting with the community, and provides the basis of meanings that individuals accord to the situation based on their interpretation of other human beings or situations. The community therefore influences individuals' decision making by presenting the landscape and rationalities for individuals to be reflexive about the potential move.

Individuals seem to possess a degree of flexibility and adaptability once their skill development is contextually developed, so that when recontextualised, these skills can be used in other contexts. Consequently, it is observed that subsequent occupational destinations have some degree of skill proximity to the initial occupation, suggesting that skills should not be taught in isolation and that

occupational destinations may be dependent on the resonance of individual skills across specific contexts. It also signals the need for the more deliberate consideration of labour movement from areas of decline to areas of related emerging skill needs.

There exist professionally related factors that affect occupational mobility. This is influenced to a certain extent, by individuals' previous backgrounds, perceptions of themselves and prior experiences during career development. Arising from the individual "I and me" tensions, social expectations could either hinder or enable mobility.

The association that individuals have to their occupations influences occupational mobility where the propensity to move is inversely associated to occupational association. The likelihood of movement is greatly facilitated by lower levels of association with the occupation. Two sides of the argument can be presented here; that interventions intending to encourage people to make the move, should consider fostering weaker professional associations so that individuals are enticed to make the move. On the other hand, interventions which encourage people to stick to the move, could foster greater occupational associations with the new job.

The opportunities for learning also appear to affect occupational mobility. It seems that in encouraging people to remain in their new occupations, there may need to be scaffolding learning opportunities, whether formal or informal, presented as workplace affordances because it provides the necessary context for information sharing. The analysis of the data suggests that individuals have widely differing dispositions towards learning. The provision of a variety of learning affordances can facilitate smoother occupational change and in providing a spectrum of learning opportunities, the expansive manner in which workplaces are organised can ensure sustained employment. Conversely, the lack of such learning opportunities may encourage individuals to move since there are no workplace support structures in place to support sustained employment.

The ability for the key agents within the institution to acknowledge past experiences and the opportunity for the regionalisation of knowledge arising from individuals' prior work experiences help to innovate workplace practices and assist individuals in

understanding their new role in amalgamating past skill-sets from their previous occupations to new workplace knowledge. The recognition of the value of recontextualised application of generic skills appears to facilitate sustained occupational mobility and provides the basis for work preparation. At the same time, there is a huge role for informal learning in the workplace where innovative negotiations of personal learning constructs influence work transitions either by enabling or preventing the move. Individuals have cited more instances of informal than formal learning within their new work occupations.

The non-controllable features of age and happenstance seem to be important determinants of occupational mobility too. These features are beyond the individual's control but are perceived to be crucial enablers of or barriers to occupational mobility. While the propensity for mobility seems to decrease with age, the ability to recognise and react to opportunities when it occurs, are important too. This has some bearing on the social expectations within an Asian culture that emphasises providing for the family and placing the family before self. In this regard, the older the individual, the greater the family commitments, hence the less likely they would engage in occupational mobility, having established a comfortable wage that provides security for the continuity of family and group life.

It can be concluded that job related features like the ability for the workplace to acknowledge prior experiences and diverse skill-sets, and for interventions to consider that individuals move into occupations with closer proximity to their own skill-sets seem to provide the conditions for more sustained occupational mobility. Personal empowerment can also drive or hinder occupational mobility and invariably provide the rationale for the non-conventional treatment of learning behaviours, careers and mobility. It seems that weaker work associations and higher risk taking behaviours drive occupational change and could be determinants of more successful professional conversion.

9.3 Defining the Mobile Individual

Before the conceptual model is presented, the mobile individual is sketched and their behaviours characterised in relation to making the move and sticking to the move. My research focuses on ensuring that individuals stick to the move, but recognises

the value in determining what propels individuals to make the move so that rational behaviours can be demonstrated, and understood.

From the analysis of the data, it appears that for mobile individuals to make the move in the career landscape, what Bourdieu conceptualises as a field, they need first, to possess an ability to recognise the opportunity for movement when it presents itself. This concept resonates with what Lamb and Sutherland (2010) call 'knowing-when'. Whether individuals remain in their new occupations after they recognise the opportunity is dependent on the support that is perceived to be provided in the new work context and the degree to which their prior work experiences support their ease of entry into the new occupation. The provision of or perceived lack of support could determine or undermine occupational mobility. The tendency for individuals to make the move may increase if they are unable to recognise and attain the workplace support that results in sustainability in the work context. This has much to do then with what research refers to as 'knowing-whom' and context management and adaptability.

The degree of individual job association also contributes to occupational mobility whereby it is observed that the greater the association to the job, the lower the propensity for movement. On the other hand, if individuals feel a sense of defocused association then feelings of mobility can be easily encouraged, thereby creating opportunities for mobility. The idea of defocused association suggests a state where the individual has veered off the original association to the job, but does not infer a lack of association or a disassociation with the occupation as the analysis of the interview narratives have shown. Such feelings of defocused association can result from the lack of institutional support, lack of acknowledgement of prior experiences within new fields and/or the inability to regionalise knowledge across both fields.

It appears that the opportunity to regionalise knowledge facilitates greater sustainability in occupational mobility. If individuals are able to draw on prior knowledge when creating new knowledge so that resonances are created, then the likelihood of remaining in the new occupation is enhanced as context management and adaptability are attained. The mobile individual displays a reflexive ability in knowing how and recognising opportunities for skill recontextualisation in their

subsequent occupations. This helps foster movement since individuals are able to recognise the degrees of skill proximity and resonances to prior experiences and knowledge.

From the analysis of findings, it appears that self-managing autonomous individuals are acutely aware of their own concerns and issues related to occupational mobility; and they possess degrees of career mobility capital. The primary area of operation exists at the individual level. Depending on the context and decision making factors that affect them, individuals negotiate occupational mobility based on how much their governing personal belief systems makes sense to them, and their ability to relate prior knowledge to new contexts. The individual responds depending on their perceptions of transition. The confidence that individuals possess, and the degree of risks that they are willing to partake, underpin their ideological beliefs about occupational mobility. It seems too, that the propensity to move increases when individuals attain success in their first mobile activity. Thus the individual's ability to rationalise the move, their age, gender and self-esteem contribute to their decisions on occupational mobility based on the conditions and limitations that are presented within the context that they exist in and the field within which they operate.

Finally, the definition of the mobile individual also aligns with the concept of movement capital (Forrier et al., 2009) which acknowledges that for that mobility to occur, there has to be some fundamental enablers which take the form of autonomy, flexibility, adherence to risks and reflexivity. Other researchers like Finsden et al. (2011); Lamb & Sutherland 2010; and McNair (2009) have also explored various different models of career capital which are predicated on a strong individualistic perspective that focuses on self-awareness and knowledge.

9.4 The Conceptual Model

With that in mind, the mobile individual is placed within the following conceptual model:

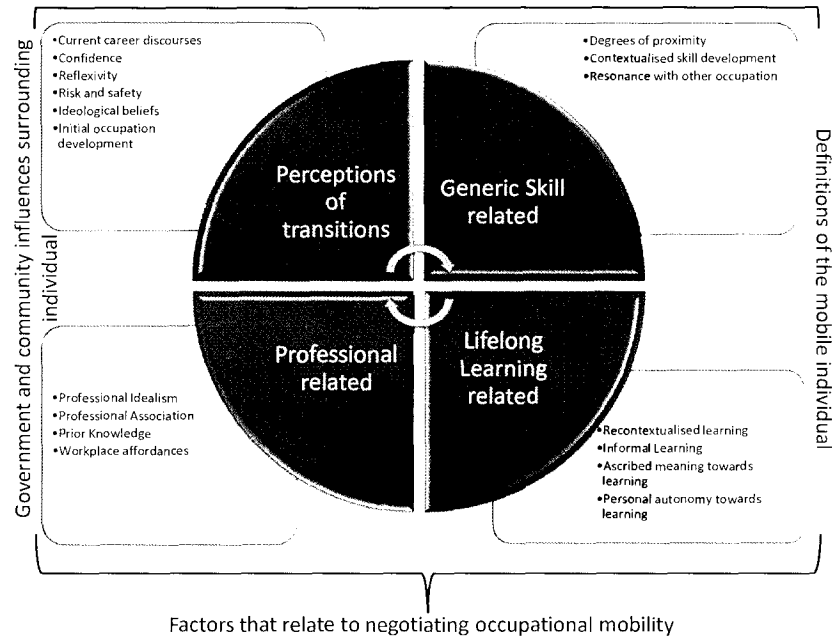


FIGURE 6: THE CONCEPTUAL MODEL

In relating the research to the larger research question, the conceptual model attempts to explain how professional workers negotiate occupational mobility within a context that is influenced by government ideologies that place nation before self, and community before family. This section attempts to shed light on the negotiation process, which occurs during occupational mobility. The conceptual model presents the career mobility capital by defining the perceived factors that influence and underpin occupational mobility within four broad areas. It is presented in a cyclical fashion because of the ways in which these factors interact with each other. So the factors are all equally important in providing the conditions for individuals negotiating occupational mobility. Like a commuter, there are many factors that the occupational transitor considers before a move onto the right platform and tube line is made. While 2-dimensional in nature because of the limits in presenting complex models in print, there are no overriding factors that supersede the other. The

conceptual model does not stand on its own and needs to be understood with reference to this accompanying chapter.

Clearly, these individuals have perceptions of transitions that are aligned to current career discourses. These perceptions are consistent with protean and boundaryless beliefs (Greenhaus et al., 2010) that careers are disconnected from single employment settings, and are highly individual-driven with strong degrees of self-responsibility over career choices. Contemporary career development discourses signal that careers are self-directed and values-driven with individuals making career decisions based on personal values and goals. It seems that there exist degrees of reflexivity of individual abilities, which contribute to greater successes in the negotiation of these factors. Individuals seem to display an ability to recognise opportunities when it presents itself. It also suggests a degree of risk taking attitudes that underpin their ideological beliefs when they participate in occupational mobility.

The value of their initial occupational development contributes to their subsequent occupational movements too. This is because their initial occupational training had provided the contextualised site for the recontextualisation of knowledge to subsequently occur; and allows for reflexivity that brings forth the production of new knowledge including the opportunity to draw together disparate knowledge structures through the regionalisation of knowledge.

Another key aspect that the conceptual model highlights is that the professional idealism of individuals contributes toward their mobile behaviours. The professional idealism of individuals as described in Chapter Seven, guides the rationality of individuals when determining what a professional actor should look like. This argument is underpinned by the perceptions of “me” vis-à-vis the social contexts that individuals exist within. It has direct implication on the perceived professionalism that the “I” sees in each occupation, thereby affecting the behaviours that define the individual “me”. On the other hand, the degree of professional association influences and shapes individuals as they move into new occupations. As discussed earlier in Chapter Seven, individuals were often found to refer to previous teaching and engineering experiences when attempting to rationalise existing skill abilities. This suggests the lack of disassociation from the original occupation but a defocused

association arising from their constant reference to previous experiences as crucial in shaping existing skill sets. These two factors are conceived as interacting concurrently to provide the basis for mobility.

Another segment of factors that enable occupational mobility is skill-related. It was found in the analysis of the data that individuals often acknowledged the value of generic skills in facilitating mobility. These skills are contextually acquired and underpin the ideology that individuals are able to transfer skills and competences between jobs in the interest of flexibility. This invariably implies the degrees of proximity across occupations that individuals have moved into. These resonances enable individuals to become more successful in their subsequent careers and may be the lynchpin in ascertaining sustained occupational mobility in new workplaces.

The growing interest in the commodification of generic skills may however only be limited to areas that relate to explicit forms of personal knowledge and skills but have been less successful in areas that require the codifying of tacit forms of personal competence. These tacit forms may include leadership or creativity type competences that could be difficult to codify. While there is value in disengaging generic skills from domain disciplines for application in subsequent occupations, it is important to acknowledge contextualised skill acquisition at the start. There may be more value in drawing on the range of contextualised skills, which individuals have acquired in their initial occupation, and using that knowledge in consideration of subsequent occupational destinations instead.

Lifelong learning related factors also present areas for consideration when negotiating occupational mobility. Individuals often reshape their mental frameworks for understanding practice as they go along in their careers and use this recontextualised learning to make sense of and facilitate their occupational movement. Individuals also refer to informal learning as a means towards forging quick and real-time learning on the job. This results in individual responsibility on the innovative negotiation of learning constructs that support work transitions and ownership in identifying knowledge gaps. The recognition of prior learning experiences helps foster informal learning that supports occupational mobility too. There are benefits in understanding individual autonomy towards learning especially

if the learning plans are transparent so that learning and development needs are clearly identified. Ideally, there is a need to acknowledge the widely differing dispositions that individuals have towards learning. As Knowles (1970) explains, adults learn because it is a reaction towards having to deal with real change. The pragmatism of adults underpins the ascribed meanings that they accord towards learning and influences their personal inclinations and reactions towards learning. So, if one were observed to be more receptive towards face-to-face formal learning, then the learning affordances for them would differ from another who may be more accustomed to peer learning or mentorship by their superiors.

The conceptual model is underpinned by the assumption too that the individual has less control over community and government influences even though these factors are always present within the contexts that they live and work. The social influences may take the form of familial, community and workplace contexts in which the individual operates. Placed within the wider context, the individual is now at the mercy of the system, and individual decision making and sense-making will change, depending on the way the individual views his or her position within the field (Bourdieu, 1988). While the individual is unable to solely affect change, and can only passively contribute to change through participating in collective group consensual behaviours or altering his/her job associations, the individual can navigate through the unwritten system of rules that are laid out by the community within each situated context and eventually find a comfortable place of existence.

Apart from the Singaporean context where nation and community is placed before self, the Asian nature of my research similarly adds an additional layer of cultural complexity that may be overlooked in western contexts. As previously explained by Bian & Ang's (1997) research on job mobility, the Asian context is one that is often represented by a strong community-driven Confucian-nature, and wrought with expectations of mutual trust and obligation. As Willetts (2011:6) aptly observes, "In parts of Asia for example it is still assumed that if one member of a large extended family gets a good job his responsibility is to distribute the benefits to his relatives and ideally get them a similar job in the same organisation". His illustration accurately sums up the complexities that surround individual perception of "I and me" within an Asian context because it emphasises reciprocal obligation (Bian &

Ang, 1997), and reinforces the symbolic interactionist view of individual perception towards what is socially, and in Singapore's case, nationally expected.

My research posits that individuals are able to negotiate through this system as long as individuals are self-managing and autonomous, and reflexive about their abilities. They possess career mobility capital that is defined by the reflexivity, rich prior experiences, self-awareness of recontextualisation for application in new and fairly related occupations and support from immediate societal surroundings. It is notable that while many countries are moving into small governments, Singapore is one of the few with one single big government that oversees the enacting of political control through the power that is invested in them. The government is perceived as affecting occupational mobility, through the incentives and subsidies that are provided, which serves to encourage (or dissuade) individuals from navigating through occupational change if it is perceived for the greater national good.

9.5 Looking Beyond: Applicability to other Occupations

The teachers and engineers who participated in the study are particularly mobile and have been able to move successfully into other occupations as long as their destinations resonate with the skill sets that these individuals possess. There also appears to be a pattern in the range of subsequent occupations that these professionals move into at later stages of their lives, that is, those which resonate with their initial skill development. On the other hand, inherent in this realisation is an understanding that there are some high status occupations, which offer no second chance entry points, for example medicine. The nature of specialisation for doctors warrants a highly regulated qualifying system and rigorous continuing professional development programme that makes it difficult for anyone intending to enter the occupation at mid-career point. And even if they were able to, the mid-career switchers would have to start right at the bottom of the medical hierarchy, slowly working their way up. Chefs within the culinary sectors similarly operate within a hierarchical structure with their movement up the hierarchy, contingent on their humble beginnings as a sous-chef. There is a huge requirement for mastery through apprenticeship and practice before performance in real situations for both doctors and chefs. It is interesting to note that while there are conversion programmes for chefs, i.e. allowance for mid-career shifts into the profession, there are not such mid-

career entry options for doctors. One can only assume that the prestige and monetary rewards of the occupation directly links to the barriers for entry. There is the potential for some follow-up research that could be done in understanding the role of initial occupations on subsequent occupational destinations, particularly since entry into the initial occupation relates to assumed and perceived dispositions and skill competence. Another related point which the analysis brings up, is that the rhetoric of key performance indicators (KPI) is operationalised differently within different occupations, and while dispositional traits are crucial for an occupation like teaching, these matters less in technical and competency based occupations like engineering or sales. The criteria for being judged as successful in a sales-related occupation, is often by the amount of sales targets that are hit. The contextualised skill development of the person may not matter as strongly as long as the KPIs are met. In this case, performance in a job could be a more important criterion for determining recruitment for a sales role, and has indirect implications on the individuals' career trajectory. In other words, occupational mobility may not result from the expectations of specific contextualised skill development and subsequent recontextualisation, but is dependent on individual ability to meet other performative indicators instead.

9.5.1 Recontextualisation within the New Industry

Related to the issue of degrees of resonance between the skills acquired in the initial occupation to that of subsequent ones, there appears to be a need to acknowledge the recontextualisation of skills across occupations, so that individuals are provided with an assumed confidence of competent performance in the new occupation. It assumes degrees of reflexivity and self-awareness. In the new occupation, it is necessary for the mastery of sectoral-specific dynamics and discourse of the industry, suggesting the need for individuals to engage discretion in the recontextualisation of their prior generic skill set. The narratives of the sample suggest that many of these interviewees were unaware that they are capable of skill recontextualisation until they had participated in it. This implies that on the one hand, the sample that was embedded in an unfamiliar context were fortunate enough to be able to perform because they were reflexive about their abilities and hence eluded the confidence that was necessary for success.

On the other, there is the possibility that in embedding these new entrants into new occupations, there exists the possibility of failing to remain within the new occupation for a sustained period of time because of their inability to cope with the new work context. As the findings have shown, the factors that impinge on this could be the lack of mentors, peer support, institutional structures or even the lack of opportunities for regionalisation of prior knowledge within the new work contexts.

The concept of reflexivity could present current research on recontextualisation with the dimensions of individual meaning-making, and attempt to codify the career-related decision making process more clearly. The ways that recontextualisation is achieved appears to have much to do with the ways in which individuals are able to process their career capital and are reflexive of their abilities. It may well be that recontextualisation is a key idea that is often under-represented in research pertaining to reflexivity and career capital development. My research suggests a strong link between the two and seeks to present additional epistemological considerations to career capital theories and concepts.

9.5.2 Domain Specific Languages

It is also observed that the official occupational mobility programmes focus largely on the provision of Bernstein's concept of public domain language and not the esoteric language that surrounds the discourses of occupational mobility. This is because of the urgent need to quickly prepare entrants for the next occupation. The use of internal language specific to the domain, would ironically serve to hinder, be problematic and time-consuming especially when the expectation is to convert workers within a short period of time to fulfil a labour force gap. The intention is to avoid imminent social and economic issues of unemployment, so clearly; this manner of resource development seems most effective and responsive.

Hence, there is a need to consider if PCP training should exist only in the form that provides the public domain language without consideration of the provision of domain specific knowledge so that immediate participation in the new occupation is ensured. Conversely, what if PCP training provides the domain specific knowledge and that interactional competency is assumed from the workplace context instead? This brings to light, issues that surround the provision of affordances, which support

this interactional competence to ensure efficacy in the new occupation, and could be an area for future research.

Perhaps the issue resides with job design. Assuming that the skills and competencies provided from the PCP training differ from job performances expected in the workplace, then the problem for the lack of job sustainability may result from the fact that the jobs which PCP participants are entering into, are not designed in a way that utilises the specific competences taught. From an individual perspective, the PCP appears to be a scheme that forces participation in external mobility and is not perceived as being a voluntary move.

9.5.3 Formation of Weak Occupational Associations

The self-reflexivity that occurs within individuals has ironically created weak associations to their occupation. The tensions, which arise from the “I and me” conflicts, reveal that individuals are increasingly ambivalent about their affiliations with occupations. Their malleable association results in the creation of weak professional identities that challenge the work ethos of contemporary workers and suggest the widening employment boundaries. This subjective paradigm reinforces mobile behaviours and results in the lack of sustained employment in any occupational context. This tension reinforces individuals’ subjective interpretation of action and expectation in the social world, and results in the ambiguous reactions of individuals towards occupational associations. An unintended consequence is therefore the manifestation of short work stints and short-termism which are often referred to in the literature surrounding boundaryless and protean careers. This presents challenges to career capital and development theories since such self-reflexivity ironically contributes to the creation of weaker work identities that facilitate mobility. There is a growing need to explore how weak work identities, which result from stronger individual reflexivity, affect career development in our contemporary world of work.

9.5.4 Generic Skills Commodification

The rhetoric of generic skills ranges from it being an abstract concept to the other end of the spectrum where there is the commodification of skills for subsequent reproduction. At the abstract end of the spectrum, generic skills appear to be a vague

concept regarding the skills, which are embedded in occupations that facilitate transfer from one occupation to the next. On the other end, it seems that the commodification of skills arises from the need to create indicators of an individual's competence and performance. This allows for greater justifications in making decisions regarding the employment of individuals from other sectors. It also allows these indicators to act as proxies for job suitability and provides a frame for the classification of specific skill-sets, which could, at the most fundamental level, be traded for income.

9.6 Conclusion

Occupational mobility is still an individual activity and while the government through national professional conversion programmes provide the broad incentives as a springboard for change, it cannot guarantee permanent change because just as there exists ease of entry into the programme, individuals can simply move out of these programmes without any penalties. The key is now in ensuring that individuals, who participate in occupational conversion, remain in their new occupations so that the costs of retraining them for new occupations are not wasted.

In line with current career discourses, individuals now possess greater autonomy in shaping their own careers and despite the fact that the government can facilitate the wider contexts; the area of operation and control rest primarily with the individual who is influenced by the national ideology and community rhetoric. Therefore my research postulates that the degree of autonomy that self-managing reflexive individuals have, is dependent on and shaped by the factors that surround them; that while individuals are able to negotiate the challenges, the challenges have become more complex when they involve government and community structures.

Inevitably, the individual's social capital within an Asian context seems to be pertinent in effecting occupational mobility because it is from this social capital that the individual is able to recognise (or not) the value of the opportunity that is presented, whether it is through hearsay or the sharing of personal experiences. Indeed, the perception of the "me" supersedes the value of the "I" in this Asian context, because the community plays a huge role in influencing the value of the "I" since the socially perceived "me" is more important.

The challenge in understanding mobile behaviour has to do more specifically with the negotiation process that individuals have to undergo as does a commuter, seeking the best route on the underground network. It involves an iterative process of negotiating the personal, social and government expectations of the right behaviour or “me”. Sometimes these iterations may not result in any mobile action at all because individuals discover that it may be more worth their while to remain in their original occupation. This then distinguishes those who are able to recognise the value of the move in spite of their fleeting circumstances, from the ones who conform to social expectations of commitment to family and community, and are seen to contribute to national good.

In the next chapter, I present the key implications that have arisen from the discussions in this chapter. It highlights the different practice, policy, skill and learning related implications and presents them as useful considerations for moving ahead. It also draws the entire thesis to a close and highlights the key messages and contributions that my research has made.

CHAPTER TEN: CONCLUSION

Not everything that counts can be counted and not everything that can be counted, counts.

Albert Einstein

10.1 Introduction

This chapter returns briefly to the research questions and identifies the ways in which this has been addressed. It then provides an overview of the thesis and highlights the practice-, policy-, generic-skill- and lifelong learning-related implications, before explaining its overall contributions to academic research and limitations of the research. Finally, a summary of my thesis and what this means for the way ahead is presented.

10.2 The Research Questions

I explored empirically, through the collection and analysis of biographical interviews, first, what professional workers recognise as enablers of occupational mobility; second, the factors that influence career movement; third, how individuals negotiate these factors and finally, if there exists a role for generic skills in facilitating occupational mobility. I adopted a symbolic interactionist approach in making sense of reflexivity, which occurs while individuals are negotiating and navigating their occupational fields. I used symbolic interactionism as an overarching theoretical device to understand how social perception and expectation affects individuals' association with their occupation and decision-making processes.

My research presents the social considerations and operates on the understanding that individuals react in a manner most suitable to themselves whilst accommodating to the changes within the context that they exist. I attempted to humanise the 'human resource' and present through individual narratives, the individual's perspective on the changing nature of work, the need to participate in boundaryless work contexts and their involvement in occupational mobility. My thesis further illustrates the intricacies that surround mobile behaviours of former teachers and engineers within an Asian context through engaging in biographical interviews; and presents other ways of considering how the needs of such professional workers can be better understood so that they can negotiate the contemporary advanced economy

landscape more effectively. In contrast to other studies in this area, my research focused on looking at successes and where things work instead of looking at the failure of programmes to foster occupational movement. My research also explores the mapping of generic skills from initial training onto other occupations.

10.3 The Implications of the Research

I presented the Asian individual with a voice by capturing their career narratives so that a better understanding of their personal aspirations and individual reflexivity can be sought when managing personal careers. Situated within a context where quite literally, the governing rhetoric is nation before community and society before self, these individuals explained how they negotiated their own career trajectories.

Their experiences varied from interactions with individual and broader social factors. These issues whilst sometimes presented negatively can be viewed positively and used to build a more conducive field for mobile individuals entering new workplaces, so that sustained employment in new occupational contexts can be attained. My research could well result in different ways of considering the implementation of regulated professional conversion programmes. The policy, practice, generic skills and lifelong learning implications are presented in the following sections.

10.4 Practice Related Implications

10.4.1 Dissemination and Information Sharing

The lack of dissemination of information and knowledge within new workplaces, where existing workers appear to be unwilling to share knowledge due to bad chemistry or disillusionment within the workplace, suggest that such workplace affordances warrant attention by the employer if sustained employment is an intended outcome. From the funding perspective, offering incentives which encourage workplaces to set up systems or infrastructure that support conducive workplace environments, may be a more viable government intervention since it encourages a more open culture of sharing. This may take the form of reimbursements for fixed costs incurred during the preparation and conduct of mentorship or coaching and induction schemes for new workers. Also performativity in terms of outputs should be reconsidered since it can drive selfish and opaque behaviours. Affordances, which encourage the creation and maintenance of enabling

institutions, may better encourage internal growth, engagement of the new contemporary worker and occupational effectiveness.

10.4.2 Cooperation and Teamwork

Related to the point above, cooperation and teamwork within new workplaces appear to be a determinant of occupational mobility too. For example, it seems difficult to pass and share information with those whose values are different from your own. This seems to be exacerbated when one is expected to work in remote locations, where the only form of communication, is virtual. The need for the institutionalisation of networking and interaction for workplace efficacy may drive sustainability within new workplaces and should be considered as part of workplace affordances that facilitate sustained occupational mobility. This may take the form of funding for allocated communication sessions within or across different workplace venues, which stress the sharing of important work related information; the parameters for funding may include the submission of detailed communication plans and schedules. Again the issue of performativity comes to the fore since the unintended consequence of allowing new entrants into the workplace results in more competition for work and rewards. If employers can design jobs around the skills that each individual brings to the organisation, then there could be room for greater employee engagement and assimilation. The implications for employers could be for them to promulgate a complementary skills strategy where every individual is valued for their unique skill and experiences brought to the team, hence breaking down the perceived notion of competing for the same rewards just because everyone possesses the same skill sets.

10.4.3 Membership in New Workplaces

The lack of perceived membership within the new workplace acts as a serious constraint in embedding individuals within work contexts thereby affecting feelings of belonging. This has some bearing on individuals' associations with the occupation. There exists a need for greater efforts at building the intermediate workplace contexts, and conscious attempts at fostering professional associations with new occupations so that it is conducive and supportive of individuals who enter the workplace. Governments intending to move individuals from declining to growth economies could use this information to their advantage. However from the

employers' perspective, there is a need to create a greater sense of membership and belonging to the workplace if sustained employment is an intended consequence. Employers could consider introducing deliberate orientation and targeted sharing sessions that emphasise the institutional objectives in an attempt to induct workers into the larger institutional intent. In fact, employers should be responsible for ensuring that there is shared understanding of an individual worker's contribution to the larger business from the onset. Often times, workers lack information on how their work directly impacts the organisation, with such information residing only with management or longer serving members of staff. Providing information about the systemic complexities may create a greater sense of worker ownership and responsibility for the work produced since they are able to see how their work impacts the other; thereby tapping on the collective mind-sets that these workers possess.

In terms of workplace management, governments may find greater successes in moving workers from a fragmented and distinct work environment through providing incentives that encourage sustained employability in the new sector. For governments able to afford it, incentivising worker behaviours so that there is greater participation in prolonged employment in the work place may be key. Moreover as my research has shown, a skill strategy that focuses on creating jobs that tap on the skills that individuals bring, may be more viable and conducive towards sustained employment since individuals are empowered when their personal skill-sets are utilised and are seen to add value to the organisation.

10.4.4 Valuing Informal Learning Opportunities

It may be problematic and limited to think of learning at work as formal learning in educational settings and learning as acquisition of specific knowledge and skills. Issues arise when learning is viewed as a product that comprises specific sets of knowledge and skills rather than being acknowledged as a process. Assumptions are often made that knowledge has stability and is replicable. On the contrary, the analysis of the interview data shows that knowledge is malleable and that learning exists, as a process and is not a specific product that occurs through lived experiences. There is a greater need for workplaces to recognise the value of informal learning as contributing towards knowledge building and establishment too.

Government funding has been limited to where learning is measurable and often conducted within a face-to-face classroom environment. As my research has shown, the bulk of learning occurs in informal settings where the individual is empowered to take charge of their own knowledge acquisition. Government funding may take on a payment for performance slant so that informal learning is recognised. Rather than paying for specific outputs (more often the case since it is measurable) like training hours, government schemes that acknowledge efforts at informal information acquisition may constitute part of funding if performance directly related to benefits to the larger organisational system, is displayed. The demonstration of specific work-related competencies not acquired from formal classes could be funded since it requires deliberate efforts by workers, at seeking out information that would enhance worker performance. The funding in this case will be dependent on displayed performances and not tied to training hours. This may require the detailing of job competences to ensure that workers demonstrate the required competencies.

Our system may have reached a level of maturity where there is a need to recognise that learning occurs outside the classroom and to acknowledge the value of an individuals' learning outcomes in those environments than through traditional classroom participation. The emphasis should now be on rewarding learning outcomes however these are attained; that way, the individual is more empowered to seek for specific learning consequences and will seek to arrest knowledge gaps wherever and whenever it is identified instead of waiting to be sent for formal training courses.

10.4.5 Opportunities for Skill Recontextualisation

There currently exist problems with applying available individual skill-sets to skill requirements in new occupations because of the tensions that result with field (social contexts) and habitus (set behaviours/dispositions). Conversely, new entrants should be encouraged to bring in new practices from previous workplaces to enhance the intermediate working contexts. Employers should devise ways of recognising these innovations as acknowledging such practices within workplaces could result in ground resistance towards change even if it results in longer term improvements to work practices. For a start, perhaps employers could acknowledge the prior experiences that workers bring with them and seek deliberately, to allow workers the

opportunity to regionalise this knowledge to existing workplace practices. In explicitly stating that there is an opportunity to improve work practices, the induction of new workers may don a more consultative tone of seeking for improvements. Funding employers, who are able to demonstrate regionalisation that results in the recontextualisation of knowledge, could motivate workers and employers to be more receptive to innovative practices.

As my research has shown, there is certainly value in fostering a culture that embraces organisational change management. After all, the government recognises the skill resonances of engineering across a variety of different sectors. In that same way, prior work and initial training experiences shape the individual worker, providing the habitus which defines them and in allowing opportunities for the regionalisation of knowledge and skill recontextualisation, employees can potentially bring improvements to work practices, workplace affordances and productivity. Rewarding instances of effective regionalisation of knowledge to improve practices may empower the individual worker and create sustained employment for more efficient workplaces instead.

10.4.6 Recognising Social Relations

There are problems when the existence of the institution, in Bourdieu's sense of any relatively durable set of social relations that endows the individual with power, status and resources, is neglected. It is with reference to such social institutions that individuals move and experience. The Professional Conversion Programme in Singapore neglects to address this and assumes the objectification of a set of actions, which is the product of a complex set of social and historical conditions. There is a need to consider the institution as it affects the individual perception of self, which contributes to the association with the occupation. Within this Asian context, the institution defines much of how the individual behaves and thinks. It scopes the personal aspirations of the individual and if the intended outcome of the Professional Conversion Programme is for sustained employment then structures that encourage and acknowledge the influence of such institutions, matter. The symbolic interactionist "I and me" appropriately captures the tension, which arises within the individual when they attempt to reconcile the socially expected version of themselves with the individual "I".

Encouraging the set-up of social affordances or support systems, which assists in steering the individual into socially acceptable behaviours, could be powerful since within this Asian context, the value of social perceptions and influences are extremely important. Tapping on social relations to improve the perception and value of less popular occupations may be an important strategy in workforce management within the emerging and less popular growth sectors. After all, it is quite clear that governments can play a large catalytic role in seeding specific outcomes and behaviours. In the same way, this strategy that taps on social relations, may also be effective in moving workers out of declining sectors and keeping them out especially when the movement is perceived by individuals as voluntary.

10.5 Policy Related Implications

10.5.1 Stronger Policy Frameworks

The analysis of the findings reveals the need for a stronger policy framework that would help to motivate and inspire individuals to take action at different stages of their life course. This can be considered within a context where autonomy is given to these individuals through affordances which assist in the conscious and continuous exploration of both the self and their social contexts where the eventual aim is to achieve synergy between the individual, their occupational association and the occupational context. So far, most policies have targeted individuals but for regulated professional conversion, there needs to be structures that assist employers of transitors too. Workplaces should create conducive environments that welcome and facilitate transitors when they come into the occupation. In this case, government funding could cover the infrastructural costs incurred by employers in setting up workplaces that promote and encourage collegiality and support. Funding could cover workplaces that demonstrate structures that encourage opportunities for regionalisation of knowledge or where there is deliberate effort at demonstrating how new workers are assimilated into the workplace. Funding the appointment of mentors or buddies, could ensure that such affordances are provided to the new worker. A plan that spells out the mentorship or buddy scheme may be warranted for the funding too. Indeed, support structures that aid easier transitions may be a crucial link to sustained employment. An all-rounded collaborative skills strategy, which

includes meeting the needs of employers' and employees', may also be key in prolonged employability.

10.5.2 Multi-departmental Occupational Association

The design and development of structures within the organisation that support and encourage the individuals' association with their occupation in such ways that occupational mobility is facilitated (or avoided), and managing individuals' occupational association through strategies that frame new occupational associations may be important too. The closer alignment between personnel and HR departments can help to effectively induct and orientate these individuals into their new roles, contributing in part to the creation of more appropriate fields of support in the workplace. The role of the personnel and human resource departments should extend beyond just processing job applications. Greater thoughtful orientation and induction can go further in anchoring individuals in their new occupation thereby contributing towards the individual's association to the occupation. The person who is responsible for the individual, should not only be the direct supervisor but also include peers and colleagues within the larger organisation. There is a greater role for the larger organisation in facilitating the individuals' associations to the occupation.

10.5.3 Synergies between Employers and Government

There appears to be a need for greater collaborations between the state and the organisation in ensuring that support systems exist and address gaps in career assimilation, readiness and interoperability. Governments can consider incentivising the building of conducive environments for sustained occupational participation within the new workplace. Empowering the employers by giving them a small role in labour market development and giving them the responsibility of developing the global worker may result in longer-term benefits for the workforce. Thinking creatively about how employers may help individuals scope their footprint in the labour market eco-system and hence take on the responsibility of developing their workers not only in areas related to their immediate work, may be essential. That way, workers become more aware of their contributions to the labour system and may have more exit options when their job becomes redundant or are required to leave. The possibility of jobs becoming increasingly redundant is a reality in this

knowledge-intensive and fast-changing technological environment. Workers need to be adaptable and possess flexible skill-sets that allow them to move from one sector to the next.

10.5.4 Recognising Reflexivity and Discretion

Reflexivity is not a codified competence that can be passed from one individual to the next. Governments, employers and society could instead play a role in setting up structures that encourage reflexivity and greater self-awareness, since they can act as the mirror that reflects social expectations or shapes aspirations for specific jobs. Much can be done through the media in encouraging buy in and acknowledgment of the perceptions of contemporary jobs. Further, public education that attempts to promote the value of the emerging occupation or sector may be relevant in changing overall mind-sets regarding certain less popular occupations. Using social media to raise the awareness of desired reflection on personal skill-sets may also be critical in creating a reflexive workforce. As my research has shown, recognising opportunity when it arises also contributes to mobile career trajectories. Public support, for instance through the provision of more career counselling or guidance, that help workers regroup and identify appropriate opportunities when it arises may be critical in encouraging a more mobile and flexible workforce. In the long run, helping workers become more aware of their own abilities and skill-sets may also help nudge individuals on the verge of making the move.

10.6 Generic Skills Related Implications

10.6.1 Provisions for Contextualised Skill Development

The analysis of my research findings suggests that successful transitors are characterised by those who possess more personal and general skills that can be situationally adapted when required. It speaks of a certain degree of transformational learning and career adaptability that warrants the individual's successful mobility into a new work context. Therefore more could be done to facilitate the development of such skill adaptability. It has been established that skills cannot be taught in isolation. The best place to teach dispositional and technical related skills like problem solving and analysis are in specific occupations. The general idea is that skill development should be contextualised and practised before it can be

recontextualised. Generic skills development may well have started out as occupational specific skills, which mature and grow into generality. The ability for recontextualisation allows skills learnt in one context to be used in others and implies some degree of reflexivity within individuals during the translation. Currently, skill development seems to be incidental and given the revelations of my research, more thought should go into the conscious development of occupational specific skills that may lend itself to subsequent generality and operability across the workforce.

10.6.2 Skill Proximity of Occupations

As far as my research goes, the subsequent occupations that those interviewed have gone into were observed to possess degrees of proximity to teaching and engineering. Engineers from the sample generally end up in occupations that require some form of project management coordination responsibilities; resonating with their abilities in problem solving and methodical analysis. On the other hand, teachers from the sample, end up in occupations that require interaction with others. The skills index of teachers and engineers and occupations are mapped in the table below:

TABLE 11: MAPPING GENERIC SKILLS INDEX TO RANGE OF SUBSEQUENT OCCUPATIONS

	Generic Skills Index	Range of Occupations
Engineers	Literacy Skills, Leadership skills, problem solving skills, influencing skills, teamwork skills, planning, numeracy and Emotional Labour	University, polytechnic lecturer, higher education teacher, teacher, trainer, financial analysts, human resource managers, education managers, finance and administrative managers, senior government and statutory board officials, curator, legislator, trader, banker, managing director
Teachers	Literacy Skills, Leadership skills, problem solving skills, influencing skills, teamwork skills, planning, numeracy and Emotional Labour	Finance and Admin manager, Management and business consultant, nursing, bank teller, communications officer, curator, Retail and Wholesale Manager, Religious professional, Secretaries, Librarian, Data entry clerk, Social Welfare Manager, Legal Clerk, General Office Clerk, Shop and store salesperson, day care centre manager, Human resource manager

My research recognises that there are certain resonances that reside across occupations; hence the random movement of workers from declining to emerging areas of need should not be done in a haphazard manner. There needs to be clear mapping of skill articulation from one sector to the next so that there are greater benefits and sustainability in the larger labour force manipulation. In terms of future professional conversion programmes, policy makers may want to consider a more targeted migration of workers from one sector to the next since my research has shown that skill resonances affect sustained employability and ultimately, may contribute towards the creation of innovative work practices.

10.7 Lifelong Learning Related Implications

10.7.1 Sustained Career Development

Existing career conversion policies seem to be discrete and isolated without follow through once the economy improves. If lifelong learning is indeed the intention of

the government and not viewed as a mechanism to relieve economic tensions, then the opportunities for up skilling and reskilling should be sustainable and continue in helping the individual throughout their career life-course, even when the economy improves. A follow-up study could be done to ascertain the amount of training that workers generally participate in. Such a study could inform the skill development strategy since it helps to understand the motivations for participation in training. Since lifelong learning is a feature of the 21st century workforce, then more needs to be done in terms of encouraging individuals to see lifelong learning as a means towards a larger end. The relationship between lifelong learning, occupational flexibility and mobility needs to be explicitly stated so that it corroborates with the current discourses of career development. Efforts at public education become important in this case when reflexivity, recontextualisation and career re-development are now the key ideas that define and reposition the contemporary worker.

10.7.2 Concerted Learning and Preparation Opportunities

Individuals from the 2008 PCP cohorts, participated in lifelong learning only when they had been identified for regulated mobility, or as described in my research, forced external mobility. The buy-in was not gradually developed, and the individual was thrust into learning for the sake of a new occupation because it was what was required to keep national unemployment figures healthy. Lifelong learning should be perceived as the vehicle that prepares individuals to do better in their jobs, to look for better jobs or for movement into new jobs throughout their career life-course.

Lifelong learning should encompass the gradual development of career adaptability competences that would prepare individuals for a change in career if indeed the objectification of humans as resources underpins many of the government's policies. It should not only be limited to specific occupational skill development. Such learning may also involve the development of reflexivity and are grounds for personal awakening and awareness, and could be embedded within occupational skills training.

10.7.3 Labour Eco-System

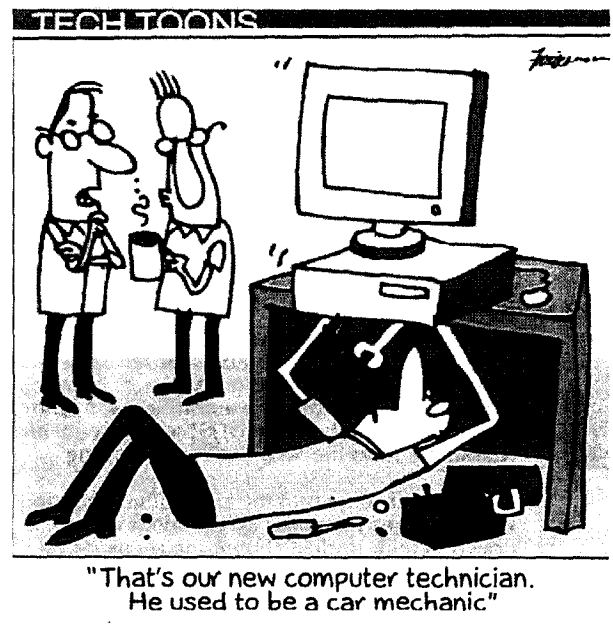
Employers need to recognise that a career is no longer for life and to adopt the mindset that training of employees should not only be for the preparation of current job responsibilities but for other future job scopes as well. The mind-set that all employers are part of a larger labour ecosystem should be promulgated to better augment the development of workers who are more employable and ready for shifts across related sectors. It is important to emphasise that employers now have the responsibility of preparing their workers for their career life-course, thereby contributing to the larger labour eco-system. Individuals need to understand their role in the greater labour eco-system and similarly, organisations need to understand their role in broad skill development. With greater clarity about their role within the labour system, employers will be better placed to advise and facilitate the development of workers for the 21st century labour market and workforce.

10.7.4 Expansive Areas of Training Development

As my research has found, there are grounds for encouraging expanded training in areas that go beyond current job related skills. Institutions may have a greater role to play in encouraging employees to take on training within areas that resonate with current job requirements so that the expanded worker competences may act as a safety net should opportunities arise for employees to move into other extended areas of work. This helps cushion the worker if they are made redundant, allowing them to tap on job opportunities in other broader related job areas too. The government can provide funding incentives that creatively, allow workers to go for professional development training that extends beyond their current occupational requirements. This may take the form of deliberate training for enhanced job competences beyond the workers' current level. This idea is underpinned by the knowledge that everything changes and nothing remains constant. While jobs are designed to suit the individual's skills for current jobs, there may come a time when technology and automation could replace such capabilities. In line with the ideas that surround job proximity and skill resonances which have emerged from my analysis of generic skills, there may soon come a time where the individuals' jobs could change or where employees are presented with expanded job options. It may be radical for employers to even think of preparing employees for future job roles since

it may result in staff turnover. Conversely, a forward-thinking and proactive employer may see that their nature of businesses could change rapidly in this contemporary era and in helping with the deliberate expansion of employees' job competences, organisations may reap the benefits of moving ahead with business transformation which results from the expanded knowledge acquisition that workers are bringing back into the organisation. The onus then falls on the employers to entice workers to remain in the organisation; a requirement and responsibility not uncommon for employers in this era of boundaryless and protean careers.

10.8 Contributions to Knowledge



(Source: Tech Toons in Digital Life. The Straits Times, 2010)

My research findings are consistent with the existing literature in the fields of occupational mobility and career capital and development. However, the fundamental value that my study presents, lies in the identification of a relationship among occupational mobility, generic skill utilisation, occupational association and lifelong learning within an Asian context that is driven by ideologies, which place the nation and community before self.

10.8.1 New Ways of thinking about Lifelong Learning

The first contribution relates to the way in which the analysis of generic skills signals that skill formation is a continuous process with skills acquired in different ways, formally and informally and reconstituted through time through reflexivity and re-positioning. My research has shown that generic skills function to guide a worker into a limited range of possible new jobs. This has severe implications for changes in the way work is perceived and for future movement within the labour market and individual personal development. In addition, our understanding of skill formation is challenged since there is now a need to explore the implications for education, CET, government programmes, careers guidance and the workplace. This will set the stage for revisions and a re-conceptualisation of what existing institutions deliver and how they deliver it.

10.8.2 The Value of Individual Perception of Government and Social Expectations

The second contribution relates to the different levels of influences that affect individual occupational mobility. The interplay of governmental and community influences as illustrated by the social mechanisms and the range of political control on individuals, provide the foundations for, and implications of occupational mobility and association. In effect, the social construct is made up of family, friends and colleagues; and the governmental construct, regulations and policies. While my research does not rank the influences in terms of order of significance, its constituent parts as recognised by individuals, play a larger role in affecting mobility and occupational association since it has direct implications on the individual "I". It also presents the possibility of using symbolic interactionist theory as a means of understanding the forging of weaker occupational identification thereby contributing to occupational mobility.

10.8.3 Defocused Association with Occupation

The formation of defocused job associations that arise from the ways that the individual perceives their surrounding government and community influences on their own occupational mobility is also another contribution that my research makes.

Inherently, this leads to the creation of weakened job identities, which in turn affect occupational movements. While other studies such as Kleiner's (2009) exploration of the formation of self-consciousness in ballerinas, or Plummer's (2011) examination of self-identity in gay subjects in his exploration of symbolic interactionism within queer theory; have used symbolic interactionism as the theoretical device to understand the strength of professional identities, my research specifically explores how perceived social and government expectations have played a part in weakening individual associations to the occupation, creating a weaker "I" and a stronger "me". The individual "I" is challenged by the perceived "me" thereby creating a social self who more easily participates in mobile action and behaviours.

10.8.4 Personal Emancipation within the New World of Work

The fourth contribution of my study relates to the increasing value and malleable aspects of the individual in the new world of work. It considers the current discourse that surrounds a career not being for life anymore. Successful mobile behaviour is characterised by the empowerment that individuals achieve from their first transition, which as I have found, spurs the individual on in seeking for subsequent occupational movements. Successful mobile behaviour is also contingent on the individual's prior experiences, dispositional traits, range of skills recontextualisation and ability to be reflexive about how far these generic skills can take them. Successful transitors are therefore identified as those who possess unique characteristics and traits. These individuals welcome the challenge of a new occupation even though it may result in a change to their self-concept and professional identity. They are unafraid and more resilient towards risks because they are more able to deal with challenges that a new occupation brings. From a policy perspective, differentiated interventions and investments are warranted for securing positive outcomes for these groups of people. Policy systems that encourage greater empowerment of these individuals may also be an important consideration in the new world of work. From a research perspective, my research seeks to challenge current career theories in that there are now grounds for considering the value of reflexivity and skill recontextualisation in career mobility theories. Perhaps research into mobility capital needs to consider how reflexivity and skill recontextualisation can help individuals reposition themselves in the

contemporary workplace. The value of career adaptability in the contemporary field of work should seek to develop career adaptability competences, and challenge habitus such that ideas that revolve around reflexivity and recontextualisation are incorporated.

10.8.5 Understanding Occupational Mobility within an Asian Context

My research also addresses the gaps that relate to occupational mobility within an Asian context underpinned predominantly by Confucian values, which places seniority and hierarchy at the core of its existence. Much of the current research has been conducted within Western settings and is not set up within an Eastern context. With the rise of the Far East and protean careers, there is greater impetus for understanding the behaviours of the Asian worker so that they can also be included in the global workforce. Invariably, focusing my research on a professional level of workers would provide greater understanding of how this level of workers operates and are reflexive, and can contribute towards the knowledge economy. After all, as explained in Chapter One, the Singaporean workforce context is unique as the government plays a large role in intervening for the larger social and economic good; and the governing core ideology places the nation and community before the family and self.

10.9 Limitations of Research and Future Work

I am aware that conducting the research in my capacity as a member of a government funded organisation may result in constraints in raising critical questions about the broader cultural and institutional issues that frame the everyday thinking of those interviewed. This has resulted in my resolve to maintain silent during the interview particularly in instances when I am unable to make certain types of statement that contradict the rationale behind, or clarify the rationale of professional conversion or government policies; I have had to adopt a passive receptive stance during the interviews in order to ensure that I do not unconsciously skew the narratives with my inputs. This certainly places limits on the scope of my research.

Furthermore, I can identify two other broader areas of limitations of my research; research design and breadth of focus. In terms of research design, the sample selection places constraints on my research. There is a need to focus on people's experiences in greater depth and in this case, I have not been able to engage a larger sample which was sufficiently wide, and which could represent the different trajectories more comprehensively. There is often a trade off in research like this on the sample size and depth of analysis. However, given the limits placed on doctoral research, the decision had to be made to limit the research sample and aim, within this sample, for data saturation. Future efforts could see the establishment of larger research samples and greater in-depth analyses of participants' biographies. I also acknowledge that my research sample is focused on only two distinct groups and may not be sufficient in providing a more generalisable conclusion for wider professional groups. The conclusions may however be scalable and applicable to ex-teachers and ex-engineers more broadly and, used as critical cases to inform common understanding of other groups. In terms of future research, there could be grounds for more work on the exploration of how other flexible professional groups manage mobility. Whilst my research adopted an appreciative inquiry method, there could be value in examining the rhetoric of the specific participants of the professional conversion programmes to ascertain their personal aspirations and draw conclusions on why these professionals had not remained in the new occupation. There may also be the potential for the investigation of the impact of professional conversion programmes for workers at the lower end of the earning spectrum.

In terms of breadth of focus, I was unable to look more specifically at gender issues, which surround the differences in male and female negotiation of occupational mobility and could be an area for further research. There may also be value to focus on the differences that occur across ethnicity too, since the current sample is only of a predominantly Asian group within a country with strong top-down governmentality, and who come from two key state-driven former occupations. Due to the multi-racial makeup of Singapore and the cosmopolitan nature of most developed cities, there are grounds for future work that account for ethnic distinctions and their effects on occupational mobility. In addition, as limited by the research objectives of the study, I was unable to explore the impact of the different

types of learning and attitudes towards learning, which supports occupational mobility. My research has shown the value of informal and non-formal learning instances which I hope to explore further in future. This could include the exploration of individuals' experiences on the interplay of formal and informal learning in terms of its impact on occupational mobility. There is growing interest in the social ecologies of learning and given the strong social influence over individual rationalities within this unique Asian context, there is potential for collaborative exploration of the direct impact of such social ecologies on occupational mobility.

There may also be scope to examine the impact of compulsory education on occupational mobility; to conduct a more exploratory study on the impact of meritocracy on occupational mobility, and ascertain if there are links between social and occupational mobility within the Singapore context. I have covered many future possibilities in the course of my research and the next step would be to pick up on all of these, including to conduct a more in-depth study of generic skill provisions for a more diverse occupational group, and to perhaps also evaluate, if information is subsequently made publicly available, the national professional conversion programme of 2008 in its entirety.

10.10 Future Directions

Ironically, the establishment of the PCP scheme may not have resulted in public investment wastages of S\$40 million (£20 million), as many in the field fear, since there is, as this research illustrates, the likelihood that people leaving one sector, are taking their skills to other parts of the economy. It indirectly reinforces the discourses, which surround the current flexible global workforce and questions the importance of establishing broad reskilling programmes, which create the flexibility that provides for a vast skill, knowledge and dispositional base instead. Perhaps the PCP reflects the pragmatism of the Singapore government and may just have simply been conceived as a form of hidden welfare-ism within a 'non-nanny' state; where the intention of the programme was merely to protect its workers from the brunt of the recession so that upon economic recovery, they can return to their original occupations.

What seems clear is that ties have emerged between the discourses of lifelong learning and occupational mobility, suggesting that occupational mobility that involves reflexivity, recontextualisation and repositioning have now become a part of active citizenry and is an expected consequence of the new capitalist landscape. Clearly, governments who are keen on mobility schemes may find that these schemes have not worked even when lifelong learning structures to support the movement are provided because of the ways in which lifelong learning schemes have been conceived.

In this new era of global capitalism, governments may be required to think about funding policies for disparate skill development to support the growth of more diversified intellectual capital and to shape occupational identity so that economic advantage is sustained. Similarly, as more and more educated professionals come into the workforce, the expectation is that there is greater support from government to facilitate their continual intellectual growth in the lifelong learning society. The establishment of a reciprocal relationship amongst key stakeholders, for example, the individuals and the state, could be integral to greater longer-term economic growth and the proliferation of lifelong learning in the new knowledge economy. The Singapore government may first, need to consider if support for lifelong learning is indeed the responsibility of the state, and if so then perhaps greater concerted efforts to encourage voluntary occupational mobility whereby individuals are responsible for their own lifelong learning, is necessary.

Internationally, we are now dealing with an increasingly skilled workforce so policy systems, which help in designing and developing support levels both within and outside the workplace, could be vital in building a resilient workforce. There is a need to acknowledge the emergence of the knowledge worker, who brings along a wealth of prior experiences and knowledge and who requires more opportunities for the recontextualisation of occupational-specific generic skills training in support of the development of adaptability and flexibility competences in the new economy.

The challenge for us now is to educate individuals and employers so that they understand that occupational development is multi-faceted and is no longer a unitary establishment within a single field. The creation of the global citizen who is

adaptable and flexible, and who is empowered enough to step up to social or institutional movements initiated by policy makers (or not) may be key to future success in workforce management.

The analysis of the 16 narrative biographies of the ex-engineers and ex-teachers reveals that the actual experiences of employment, learning and mobile episodes can contribute over time, to the development of reflexivity and reinforce mobile behaviours. It signals the role that learning plays in facilitating this process and suggests that such learning may occur informally and causally. The implication for education systems is that learning occurs more often during instances when no funding is provided. This sheds light on the various other forms of non-regulated lifelong learning that may assist and support individuals during occupational mobility and suggests value in acknowledging and potentially, funding such non-formal learning opportunities.

This research presents, within an Asian context, evidence of the ways in which individuals are using their generic skill repertoire to facilitate occupational movement. Clearly, there seems to be some jobs that provide better contexts for the acquisition of generic skills of particular kinds. It also explains how generic skill provision should be contextualised and given time for practice before individuals are able to recontextualise it in a different setting; one that preferably offers some semblance of skill proximity. It presents a story of the reflexive individual who is capable of recognising their personal skill-sets and who are able to apply these skills in a variety of different contexts that are aligned to their personal aspirations.

In the larger scheme of things, if governments are intending to regulate occupational mobility for workforce management, then there is a need to consider how they can first encourage the recognition of prior employment development and practice experiences. They would also need to consider how to maintain learning that supports the shift through the funding of workplace provisions and affordances so that certain workplace cultures are created; one of which that preferably welcomes and allows for the regionalisation of knowledge across the different sectors. It suggests the potential of incentivising associations to occupations, which could lead to longer occupational sustainability within the new workplace too.

It seems as if there needs to be a shift in the way that the Singapore government considers its role in the labour eco-system. Instead of viewing themselves as being directly responsible for stability through top-down governmentality where the “throwing of money at the problem” underpins the standard problem solving rationale, they could begin thinking about ways in which they can bring themselves down to the level of individuals and employers, and consider a more empathetic approach that fosters inclusive work environments which promote and acknowledge greater flexibility. Funding can still be used as an incentive that encourages the establishment of an enabling workforce environment, which allows individuals the space to embark on occupational mobility that is supported by lifelong learning schemes. After all, the Singapore government prides itself on being progressive and Acting Minister of Manpower Tan did say that Singapore is not averse to change (Tan, 2012), so the implications for Singapore seem clear. The focus should be now on developing the individual since the profile of workers is different.

As the knowledge economy and workforce skills qualification system matures, there is a need to acknowledge that workers are also growing up and are now more autonomous, reflexive and mobile. They come into particular sectors of the workforce at different points of their career life-course so employers need to consider how jobs should be redesigned in order to capitalise on the capabilities and skills that these workers are bringing with them. Perhaps it is time to empower employers in developing their own skills strategy; one that is aligned to the national skills development efforts. Preferably, the policy makers in Singapore may want to relinquish their tight rein and move gradually away from being solely responsible for managing workforce systems but to consider synergies with employers instead, as the UK is also gradually doing, and to establish a collaborative skill strategy that encompasses contributions across the entire system. The Deputy Prime Minister’s metaphor in Chapter Two, that likened Singapore’s national productivity drive to a multi-year marathon, which will see concerted efforts by companies, industries, associations, unions, branches of unions and individual workers supported by the government should be reconsidered since it suggests a relay where the baton is passed from one stakeholder to the next with the government sponsoring the race.

Instead a collaborative skill strategy more akin to that of synchronised swimming perhaps?

So, in terms of negotiating the occupational landscape, individuals are increasingly governed by their own rationalities and are capable of being reflexive and making their own decisions so policy and funding provisions need to be reflective of the public acknowledgement and support of discourses that surround an individual career not being for life anymore. Policy makers should publicly recognise that in our midst exist individuals who view occupational mobility as the norm, and that the failure to be occupationally mobile is alas, a negative reflection of the individual. Indeed, this information can be used for the state's benefit since in now understanding how individuals are negotiating occupational mobility, there are more holistic ways of coercing individuals into moving when and where appropriate, so that governments can continue to maintain their grasp on individual careers as they move resources around within the labour market.

All, for the national good. Of course.

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APPENDIX A: The Preliminary Study

The preliminary research study was conducted ahead of the main research, with 2 ex-teachers and 2 ex-engineers. Their details are listed below:

Details of the Research Participants

PAR TIC I-PAN T	Basic occupation	G	Current occupation	Year resigned	Age	No of transitions	No of years since resignation from initial occupation
1*	Teacher	M	Trainer	2008	39	3	3 yrs
2*	Teacher	F	Deputy Director, Training Institute	1994	42	4	17 yrs
3	Engineer	M	Research officer	2007	28	3	4 yrs
4	Engineer	M	Director, Training Institute	2000	56	6	11 yrs

*To note at this point that both Participant 1 and 2 are currently in an educational role, but in the main study, the teacher sample would be more diverse and would comprise of ex-teachers in an unrelated educational role.

Participant Transition Patterns

(Participant 1): Teacher → Innovation Officer → Lecturer (IHL) → Trainer

Participant 1 is a 39 year-old a trained secondary school teacher. He was trained by the NIE to teach the English Language and English Literature. He had spent 12 years as a teacher before he resigned in 2008. His disillusionment with the teaching service resulted in his resignation without a job. However it took him only 2 months before he found himself another job at a local institution of higher learning. He has since resigned from his position as a lecturer and is current employed as an Adult Educator (trainer). He attests that his calling into the teaching profession was that of idealism, where he had wanted to make a difference in the lives of others, and felt that because he was not by nature, ambitious, that he would only be able to contribute substantially back to society as a teacher.

(Participant 2): Teacher → Bank Trainer → Lecturer → Deputy Director (Admin; IHL) → Deputy Director (Training Agency)

Participant 2 is a 42 year-old trained secondary school teacher. She was also trained by the NIE to teach the English Language and English Literature. She had spent 5 years as a teacher before she resigned in 1996 with another job in place. Her reasons for resigning was largely due to the fact that teaching was taking a lot more time than she had expected and had resultantly created a strain on her family and social life. She was also young at the time and believed that there was more out in the world than teaching. She was inspired to join the teaching profession because of the influence that her mother, a fellow teacher had on her. She was also offered a government scholarship that led her into the profession. Her ideals about teaching are also similar to participant 1, where she felt she wanted to make a difference in the lives of her students and she was consumed by the thought that teaching was a gratifying career option at the time. Participant 2 is currently a deputy director of a training agency, where she manages the curriculum development, delivery, assessment and trainers.

(Participant 3): Engineer → Translator → Civil Servant (Manager; Recruitment) → Research Officer

Participant 3 is a 28 year-old trained mechanical engineer, who had had 10 months engineering related experience before he decided to leave the profession. Having graduated from engineering in 2007, he had spent the first 4 months in Germany on an internship programme and the remaining 6 months in a local Singaporean engineering company as a translator of engineering technical jargon. He had resigned formally from engineering in 2008 without a job but shortly found one in the Foreign Service. There, he spent another 11 months performing largely managerial duties before he resigned and is currently employed as a research officer in a government agency that focuses on workforce development. His reasons for choosing engineering as a career were largely that of pragmatism at the time. His perception was that engineering would be the most lucrative career for him, and that his area of mechanical specialisation was a result of his inclination towards the domain. He was subsequently unable to find an affiliation with the discipline

particularly because he was only keen in the research and development aspects of mechanical engineering that was not an area that existed locally since Singapore is a manufacturing-inclined country. He was unable to secure continued employment at the German firm where he would have greater access to research and development related work.

(Participant 4): Engineer → technical office (Branch Head) → Head of training institute → Training Manager → Director of own consultancy firm → Deputy Director (Statutory Board) → Director (Statutory Board)

Participant 4 is a 55 year-old trained electronic and electrical engineer. He had spent 22 years in engineering related work before he retired from engineering and is currently the director of a training agency. Participant 4 is Participant 2's boss. He started his engineering career within the military and had retired from service at the age of 45. Of his 22 years in the military, he spent 14 years involved in engineering related work and the next 8 years as a technical manager, which tapped on his engineering background and expertise. Of the 8 years, he spent the last 4 as the commanding officer of the training institute, where he ran a technical school that trained mechanics. His venture into engineering was like Participant 3's, largely pragmatic. He felt that a career in engineering would provide him with the benefits of a stable career and income that was crucial for a young man, who had just come of age and was, required to support his family. Participant 4's mentality was largely shaped by the industrial economy that Singapore was in then and engineering viewed as a prominent occupation at the time. Participant 4's career trajectory was unlike the other participants largely a result of happenstance. Participant 4's departure from engineering was a result of forced retirement that was necessary for one within a military career. His venture into the other subsequent professions was that of chance, prevailing conditions and opportunity presented.

Discussion

As explained, instead of looking at specific PCP participants to examine why the regulated programme lacked longer term sustainability and continued employment in the emerging sectors, I will look instead at a separate group of professional workers who have themselves participated successfully in self-initiated and

independent occupational mobility. It intends to understand the decision making processes that enable or hinder occupational mobility from a group of autonomous professionals who have made the move, in the hopes that this can inform future policy development for PCP related initiatives. The types of theory that will be used to understand the movement process have been derived from discourses that surround occupational mobility, lifelong learning and career development within the new capitalism. I also acknowledge that while the workplace affordances may sometimes play a part in influencing mobility, this discussion will focus only on the individual's perspectives of occupational mobility so that the personal occupational mobility experiences and career decisions can be captured and made sense of. Details of which will be explored in the main thesis.

However, some of the more initial themes that have started to emerge from the preliminary study are discussed in this section and will serve to shape the form that is taken in the main empirical study.

In an effort to shape the discussions, the following section will discuss first, themes that relate to facilitating, and second, themes that relate to sustaining mobility that have emerged from the analysis of the initial interviews:

Facilitating Mobility

The New Capitalist Environment

The new capitalist landscape provides an ideological frame and context for conflicts between character and experience, resulting in disjointed experiences in their career life course, threatening the ability of people to form long term careers into sustained narratives. As Participant 2 said,

Looking at other older teachers as well at the time, I saw some of them very drained depressed and depleted teachers. I told myself that I wasn't going to wait till that point and leave because it will be very sad. And I think that is one problem with teaching that the process itself is not a very renewing one. Because it can get very repetitive.

Similarly Participant 1 said that,

Then I kick back for two years in (name of IHL), relax but then I realise, it was a bit too 'nuah' (relaxed), it's too laid back and (name of IHL) to me is an elephant. So much tradition and you can't move. It's such a big elephant. I can do whatever I want to change in my little world when I go to class, again I couldn't see myself becoming an old time lecturer, passing time and also the environment wasn't very good.

The engagement with short work stints results in the formation of weak work associations. In reality, the participants view learning within specific work instances as a necessary practice to function in these jobs. The outcomes from the learning processes and varying interpretations that result from these different outcomes affect professional associations with the occupation. At the same time, learning is largely self-directed and is realised through an individual's interaction with what is perceived as the rational affordances around them. These affordances may exist in the form of social experiences, social relations and dynamics. These affordances are interactional, and take on an active, unpredictable quality because it results from the critical reflexive engagement with personal and social life-worlds, in which individuals draw on these resources in varied, autonomous and boundary-less ways. The different individual experiences, cognitive abilities, malleable aspects of self, personal goals and aims (Hallam, 2005) affect the individual's negotiation of occupational mobility.

Therefore, the samples' responses suggest that occupational mobility is a specific modality of active participation in society. Chisholm (2008) explained that this is a capacity that the second modernity increasingly demands, due to complex and dynamic social and political formations; reflexive engagement with self, others and social environments are the bedrock of democratic civil society. Individuals then increasingly participate in non-formal, informal and formal stretches on the learning continuum, exposing themselves invariably to the learning that supports occupational change.

Agencies of Control

Another theme that has emerged which relates to facilitating mobility is that of the workplace, which are viewed as agencies or institutions of social control. They focus

largely on dimensions of power at play within a work context than on what employees bring to this context. What this means is that the workplace are seen as institutions that are marked by the same complex contradictory cultures that characterise dominant society; defining, for the participants in this case, the specific view of reality and ignoring the element of individuality and personal choice.

Hence the careers of the teachers were determined by the larger institutional order and the individual career development was not left to them, as Participant 1 said,

...they sort of decide if I was good enough to go to NIE [National Institute of Education]. So I was teaching for one year as an untrained teacher, then went into NIE then got posted this school in woodlands.

Similarly for Participant 3 who left engineering because of his inability to remain in engineering R&D,

...if given chance to stay on in Germany, I would have stayed on as engineer, because my interest in engineering is in R&D, it is investigative in nature, you need to do lots of research into it, what I enjoyed in the 4 months.

Exposed to these ideological structures of institutional control, the individuals' interaction with the environment (Hallam, 2005) shapes and facilitates mobile behaviour. Behaviour is influenced by the individual's interpretation of situations and events; their expectations and the goals that they have which mediate and regulate behaviour (Mischel, 1973). These results in larger scale implications for employee sustainability within jobs thereby providing conducive conditions that encourage mobility. Agencies of control also challenge professional associations with the occupation and create defocused associations thereby encouraging diversifications into different occupations.

Perception of Transitions

An emerging rhetoric prevalent in our modern career culture, suggests that failure to move occupationally is taken as a sign of failure, and stability is seen as a living death (Sennett, 1999). Indeed, one of the participants pointed out the existence of this short-term society when he said people of his generation (Y) do not see being in a job as a long-term commitment. As Participant 1 asserted,

I didn't think long term in my whole career; if I did I would be in a different place now. I run my whole life with very short-term perspectives.

Participant 3 similarly had this to say about the short-term job prospects and sustainability,

At my age, staying long term in a job is not something that you associate with anymore (...) of course ultimately you need a job to pay the bills, as a means of living.

The destination therefore matters less than the act of departure, and this perceived necessity for mobility brings to light the argument by Sennett (1999) of the lack of opportunity, which arises from short job stints. It further implies that such constant shifts bring about the development of a culture of risk-taking and fluidity that results invariably, in the inability to develop a suitable, sustained narrative, which captures identity and life history. It creates instead people who treat uncertainty and risk-taking as challenges at work. They therefore develop ways of interpreting and negotiating their learning environment to cope with their short job experiences; and these affect not only their understanding of, and behaviours and attitudes towards, career mobility but their lifelong learning patterns and needs too.

Governmentality and Performativity

The current public sector reform has subjected teachers to a myriad of judgements, measures, comparisons and targets (Ball, 2003), resulting in a high degree of uncertainty and instability amongst teachers. Shain & Gleeson (1999:456) referred to this as a shift towards "a managerialist approach with its reductionist values and audit culture". Such acts of institutional performativity parallel the national governmental efforts; which are accorded to effect social order. As Participant 1 explained,

I was supposed to be on the leadership track, and then they have this programme where they are suppose to send you for leadership programme, to become VP, P, but very quickly I realised that is not what I want to do 'cos there is a lot of admin work and I don't enjoy that.

There was a sense of constant judgement and need to prove oneself that made remaining in the profession, challenging. As Participant 2 said,

I remember two Malaysians in my class who did not clear General Paper (GP) at General Cambridge Examinations (GCE) A levels and had Grade D7. But I was hauled into the Principal's office regarding this ONE guy who had (grade) D7. Completely disregarding all the other good work I had done. Which made me think about the role of a teacher and the role of education. Was the role of a teacher to get them (the students) through assessment or to educate them? 'Cos quite seriously if you were to plot with all these students, how much further you brought their ability to write and think more than anything else, world views, you think to yourself, we might preach that the larger dimensions of education are so much greater but at the end of it, what counts in the profession is how many you can get through a certain line so that made me cynical about the enterprise of the education machine that I was in.

This struggle over visibility and the requirements of the system to satisfy performativity (Ball, 2003) requirements have flooded the teaching practice with a baffling array of figures, indicators, comparisons and forms of competition, thereby creating an air of uncertainty about the reasons for actions and conflict of values, as highlighted by Participant 2. As Bernstein (2000: 1942) calls, 'mechanisms of introjection' whereby 'the identity finds its core in its place in an organisation of knowledge and practice' are here being threatened by or replaced by 'mechanisms of projection', that is an 'identity is a reflection of external contingencies' (Bernstein, 2000:1942). In the case of the Participant 1 and Participant 2, they were clearly having real problems in thinking of themselves as the kind of teachers who simply produces performances, resulting in doubts on the discursive resources which had made them effective teachers initially. Faced with such post-modern conditions (Lyotard, 1984:4), the clash of personal and institutional ideologies creates conditions for transience. Participant 1 explained that she did not see herself being a teacher forever,

I was starting to engineer, a way out of this because I can't see myself being a teacher forever" and "I got restless, 'cos I thought there was a whole world out

there and till that point I had only been to schools, I just swapped sides in the classroom. I thought I should give myself a chance before I got too entrenched in the system of teaching and would never have a chance to go.

This occupational mobility was spurred and is underpinned by the recognition of a determination to never reach the phase of ‘disenchantment’ and ‘disinvestment’ in any career. Their restlessness had created the discipline that was necessary in motivating a change in careers, because their encounters with performativity have created the exposure to “managerial professionalism” required for mobility into other occupations that require such skills too.

Individual Autonomy in Learning

The modern society is viewed to be multi-dimensional and drives individual and societal innovation and change (Castells, 1996). We exist in a society where individuals not only take responsibility for their own occupational development and informally of their own learning but are also self-directed, taking charge to pursue individualised learning pathways so that workplace efficiency is fostered. As Participant 4 said,

I want to do something different from what I used to do. So maybe that is the kind of train of thought that you have done all that is related to engineering, and auxiliary type of support work (...), I want to do things that I have never done before, experience differently.

Individuals are architects of self and subjectivity; they are sociological adults who are autonomous and responsible shapers of their highly-differentiated career life-courses. As Participant 1 said,

I was starting to engineer a way out of this because I can’t see myself being a teacher forever.

And in the case of Participant 2,

I got restless, ‘cos I thought there was a whole world out there and till that point I had only been to schools.

Their prior experiences and mindsets contribute significantly to the shift in public

discourse on career transitivity. As Participant 3 an engineer who is now a social science research officer, said about his engineering experience,

Engineers in Singapore just basically took care of the transfer in that they look at how to translate the product back to the country that was producing the particular thing (product). So it was not what I was interested in. So I did not think I would find it appealing to be an engineer in Singapore.

Sustaining Mobility

Recontextualised Learning Experiences

The participants view learning as recontextualised. The sample identified the learning practices from their occupational history as comprising of a series of prior experiences, work preparation processes, years of experience and processes of continuous reconstruction of different individual experiences. It seems that these former teachers and engineers continually reshape their mental frameworks for understanding practice as they go along in their careers, and subsequently use this recontextualised learning to make sense of and facilitate their occupational movements. The influence of the teacher coming first into school as a student, then interacting with teacher training programmes, orientation and early career experiences within the school, all contribute to their beliefs about the role of teachers in relation to students, parents and school personnel. This provides a layered process of exposure to different forms of learning and learning contextualisation that have, in turn, been necessary in equipping them with the skills for dealing with subsequent movements to other industries. Participant 1 explained,

I started out as a [sic] untrained, non-trained teacher. At that point in 1996 there were too many people who applied for NIE 'cos they became a lot more attractive and a lot more people applied for NIE so they pushed me to the school first for one year, as an untrained teacher to get experience.

The layered process of learning consists first of her experience from pure work experience in the school as an untrained teacher before formal teacher preparation training which she later attributed as integral in her subsequent occupational mobility.

Teaching does give you some very good skills. It led me to capitalise on some

skills that I had. I don't know if you would traditionally call these skills but things like, I engage well with people, people of different ages, I was great with teenagers; I really enjoyed working with them, even though I was very young.

Similarly, Participant 3 took the initiative to identify gaps within his knowledge and sought for development opportunities to address these gaps, suggesting that learning can be broken down, recontextualised and addressed,

It was interesting for me, 'cos for the first time I thought about what I think the job is like. So what would be the [sic] skills that I need to do the job. Then having an assessment of my own capabilities at the time, identifying the gaps and then drawing up my own development plan (for future occupations). That is actually something that was quite new to me and that is actually something that I would like to take ownership (sic) and responsibility on my own learning (sic).

Taking ownership of one's own learning suggests the existence of a learning mindset that underpins and supports the conditions for subsequent transition and the unregulated career shift. It also suggests that there is some value in breaking down learning so that it is recontextualised and provides opportunities for the individual to arrest gaps through the learning of specific skills for sustainability within a new occupation. Current literature has also begun to suggest that modern employers should be focused on providing the essential skills and training to their employees to ensure heightened levels of employability among employees, allowing for future opportunities in other workplaces (Gardner, 2005), confirming the value of recontextualised experiences in encouraging occupation mobility in the long run.

Informal Learning

Apart from the recontextualisation of learning, it seems that the informal learning is another inevitable consequence of normative systems at all levels of society (Chisholm, 2008:142). This results in the innovative negotiation and personal sense-making of learning constructs that influence the practice of work transitions. With such informal learning affordances in place, occupational mobility is thus not governed by strict learning requirements, making it easier for career courses to be negotiated individually. Participant 3 explained that his learning needs are largely

determined informally by himself and subsequently taken on by the larger community of teachers if he found it beneficial,

A lot of it originated from my own needs, then I asked if there were other existing classes for this, if yes then it will be arranged for me, if no then I raise it up and if it turns out to be beneficial for the rest who are also aware that they need the kind of course/training as well.

The sample mentioned the affordances of workplace training which are often “on the fly” and informal, for example Participant 2 mentioned,

OJT (On-the-job) type training. Very much OJT. On the fly, I guess it also helped that this place had just started and I could lay down certain practices, I was the one who could put in certain expectations and certain standards, processes;

suggesting that learning need not now be within formal contexts but that it could exist informally, as and when needed. After all, as Participant 1 confirms when asked about having to deal with the changes in requirement of different jobs, that “what I have had to learn is to grapple” suggesting the informal managing learning.

Ascribed Meanings to Learning

Adults have widely differing dispositions towards learning. The meaning and the language used to describe the value of such learning and the thoughts that they have for such learning, differs from individual to individual. For many, it may merely be a reaction towards having to deal with changes in their lives than as learning per se. It is interesting to note that Participant 2 and Participant 4 are both embarking on a post-graduate course of study despite currently not facing any occupational change at this stage, which could be testimony of their lifelong learning inclinations, possibly as an important part of their identity and effort to stay employable. Yet the associated meanings and interactions that Participant 2 and Participant 4 have with learning and the value of a post-graduate qualification surround them in their jobs thereby providing them with the meaning and thought that is associated with attaining such qualifications so that their positions within their organisation are strengthened.

Participants 2 and 4 currently work within a national agency that promotes and encourages lifelong learning therefore their participation in continuing education

may be viewed and argued as reactions to the functions of their job, which leads to the next concept of positioning. The existence of Bourdieu's concept of field is a useful way of conceptualising positions, dispositions and structures. It may be argued then that their positioning influences their meanings of learning since positions within wider social and economic contexts determine behaviours. As defined by Bourdieu, a field is "a network or configuration of objective relations between positions" (Bourdieu & Wacquant, 1992:97). Positions in the field reflect for Bourdieu, the interplay of people's resources (social, cultural and economic capital) and their habitus on the one hand, and the rules of the field on the other. All the interviewees show the impact of such affordances on influencing lives and learning within specific fields. Of course such influences and affordances vary from person to person, and can play a more or less significant part in a person's life.

Learning Generic Skills

The complex interactions that occur between the environment and the individual can influence the choices, motivation and ultimately behaviour (Hallam, 2005). The ideology that individuals are able to transfer skills and competences between jobs in the interests of 'flexibility' has come to the fore as an instrument of lifelong learning policy. Various forms of competences have been portrayed as generic or transferable which are highly significant for individual effectiveness, flexibility and adaptability within the labour market (Kelly, 2001). The learning that has been identified by the participants as particularly useful in enabling their mobility has been generic in nature, and are gleaned from the initial occupations from which these individuals exist. The international literature in generic skills suggests that the origins of generic skill development arose from school education in the form of compensatory programmes to assist the young people moving into work from schools. As explained by Hayward & Fernandez (2004:119), the emergence of the generic skills movement in the UK during the late 1970s and 1980s reflects that the deficiency of these skills and if they were to develop a set of common skills, that it would make them more employable. The implications of this were that the emergence of generic skills resulted as a measure to address the schooling deficit. This paper focuses on the value of engaging generic skills during occupational mobility. After all, while there has been documented success in codifying and conveying explicit forms of

personal knowledge and skills, there has been fewer successes in codifying tacit forms of personal competence. The growing interest in their codification stems in part from a growing recognition that the tacit dimensions are very important in the performance of individuals, organisations, networks and whole communities (Evans, Kersh, & Kontiainen, 2004). The analysis of the interview data shows that while there is value in disengaging generic skills from the domain disciplines for application in subsequent occupations, there has to be contextualised skill acquisition at the start so that inference and recontextualised application can occur in a different context during occupational mobility. It is not about the initial ideas of how learning can be transferred from one setting to another, usually from theory into practice (Evans, Kersh, & Kontiainen, 2004); it is as Evans & Guile (2009) now posit, a multi-faceted concept that refers to the idea that concepts and practice change as we use them in different settings.

As explained by Hallam (2005), the conceptual categories which experts adopt in problem solving are semantic and principle-based, as compared to those of novices. In the case of engineers and teachers, they are able to draw mental representations from the engineering and teaching practice, infer relations and apply them in the new occupational setting in which they exist. Participants 1-4 all testified to having attained skills that were particularly useful for their future jobs, “People skills, (...) so that became a very reflective and very experimental kind of competency that you bring into your life every day. And as a result as a person you change. You become better listeners, observers then you will filter the data you have into real action into next week’s lesson. It is tremendous”, said Participant 1. “I engage well with people, people of different ages”, “Lots of skills, the ability to stand in front of a class, the ability to deliver a certain teaching point” said Participant 2. “I think in engineering, no matter what you will have some form of systematic thinking, analysis of problems”, “and it gave me the idea that I can do project management, although like I said, a lot of the content may not be applicable to the non engineering things but there are some basic principles behind it, Actually I think the most valuable one is the problem solving and analysis”, and “I believe the supporting aspects of the training, involving things like people management, leadership, and system appreciation, etc, or even down to soft skills, involving negotiations, some of the

communication skills, potentially have more impact on us so that these are what we call generic skills which are perhaps transferable, but quite easy to apply to other aspects of work” said Participants 3 and 4 respectively.

In relation to such procedural skill development, there is a move from a conscious to unconscious performance where automaticity is developed and internalised thereby allowing for application in a variety of contexts (Fitts & Posner, 1967). This aspect was similarly identified by the participants during their interview. As Participant 3 explained,

...some form of systematic thinking, analysis of problems, like you know, I believe that my mantra is always the simplest solution, and I always take that approach when it comes to problems, for me, when I did my product design specialisation, there were aspects of project management that helped in some ways, and even though you don't remember the content, but somehow you know you have done project management, somehow gives you the feeling that you can project manage.

This was also reiterated by Participant 4,

you tend to become more mature in outlook and (how you) see things, the other change is from exposure more to systems and people, you get to see how you manage situations in general, looking back, you can probably see how we handle incidents and events are different looking back at the way you grow and mature, looking at bigger picture, short span of picture, decision making also guided by bigger terms.

The teacher participants acknowledged the importance of generic, transferable skills that assisted their adaptability into their new occupation too, as Participant 1 explained,

I found from teaching that the skills from dealing with many types of people, the kids who are in your face who are not tainted by anything (...) so I find that that kind of learning is pretty immerse. You have to deal with 40 personalities at one go and you have to see what gets to them” and “the room to keep trying new things is a disposition that I keep honing over the years which I have also

brought into all aspects of my life now (...) a very reflective and very experimental kind of competency, that you bring into your life every day. And as a result as a person you change. You become better listeners, observers, then you will filter the data you have into real action into next week's lesson (...) It makes you better communicators and understand people faster, clearer.

Similarly Participant 2 also identified such skills,

I engage well with people, people of different ages, I was great with teenagers; I really enjoyed working with them (...) A lot more adaptability in this role then, perhaps innovation as well.

There seems to be a recurring element of meta-cognitive monitoring of one's own abilities too, with quite a lot of reference to learning through reflection on the experience. For instance Participant 3 found that he was able to reflect on problems in the way that he had previously been taught, even though he was not aware of its value at the time,

I think it depends on the individual as well. Some people are more reflective than others, some people don't know how to be reflective till they reach a certain point in their lives, or people open their eyes.

Similarly Participant 1 found that his teaching experience had provided him with a reflective element,

You have to deal with 40 personalities at one go and you have to see what gets to them. You are accountable for their learning and passing and making sure they get somewhere in life. So that kind of perspective, keeps me on my toes all the time. That makes me want to look at my own craft. So every time I come out of a lesson, if that didn't work so what can I do better? So that became a very reflective and very experimental kind of competency that you bring into your life every day. And as a result as a person you change. You become better listeners, observers, then you will filter the data you have into real action into next week's lesson. It is tremendous.

The transfer of these skills into their new work contexts through adaptive learning will be explored more in detail in the main thesis.

Professional Idealism

The present ideology that guides the rationality of a professional is relatively conservative; it is primarily concerned with what a professional actor should look like and does not question nor distinguish among the knowledge and behaviour of different professionals. In other words, questions concerning the specific roles of the professional as an actor within the current knowledge economy tend to ignore the history, visions and experiences that each professional actor brings to individual career development. Against this shortcoming, it is difficult to separate the concept of professionalism from this investigation into professionals (the actor). Suffice to say, it is not sufficient in just considering a professional as one who possesses proper and adequate theoretical knowledge and skill without considering the appropriate behaviour towards in this case, a pupil or client. As Carr (1999) explained, there exists many different definitions of professionalism, of which he identified, more specifically related to this research where professions that have distinct ethical dimension which calls for expression in a code of practice, require organisation and regulation for purposes of recruitment and discipline, that is, a high degree of individual autonomy - independence of judgement - for effective practice. And from the interviews, it seems that these were emerging issues, for instance as Participant 2 questioned,

Was the role of a teacher to get them (the students) thru assessment or to educate them? ‘Cos quite seriously if you were to plot with all these students, how much further you brought their ability to write and think more than anything else, world views, you think to yourself, we might preach that the larger dimensions of education are so much greater but at the end of it, what counts in the profession is how many you can get through a certain line so that made me cynical about the enterprise of the education machine that i was in”.

Similarly, Participant 1 said this when considering the disjoint between what he believed in and the reality of what training was about,

and when I joined (training programme) I was frankly very disappointed by the trainers that I had. Homework doing session, assignment doing session, come in everyday to complete assignments. So to me that wasn't how training should be. So I was quite disappointed.

Participant 3 also had this to say when he realised that engineering in Singapore was not what he had thought it would encompass,

I realise that the role of engineers in Singapore, especially within a MNC, were (merely) more of transfer, meaning the know-how and the patents were always back in the parent company, and engineers in Singapore just basically took care of the transfer in that they look at how to translate the product back to the country that was producing the particular thing (product).

And since he felt very strongly that being an engineer was about contributing to the research and development phases, he decided that he could not compromise on the professional beliefs that he had accorded to being an engineer. When probed though about how these participants arrived at the professional idealism for which they hold, they were unable to articulate the emergence of it. The main study will explore in greater depth, the development and disentangling of professional idealism and consider what this means for sustaining occupational mobility.

Professional Associations

Arising from the earlier discussion on professional idealism and when asked about their professional associations, the ex-teachers and ex-engineers in this preliminary study defined themselves as teachers and engineers respectively. Throughout their interviews they referred constantly to their initial training as either a teacher or an engineer, suggesting that ideological occupational associations had much to do with their initial career development. And it is this professional association or lack of, that created the impetus for further and future professional development and movement. Teacher professionalism is defined by Hargreaves & Goodson (1996:20-21) should mean "a self-directed search and struggle for continuous learning related to one's own expertise and standards of practice, rather than compliance with the enervating obligations of endless change demanded by others". As participant 1 said; "Actually I have been toying with that idea (of going back into teaching) because I

think i am fundamentally an educator but MOE would never take me back, because that is MOE". Similarly, Participant 2 stressed that even though he would never go back to teaching that he will always work in areas related to education. The ex-engineers kept referring back to the core functional engineering skills as useful in helping them in their current careers too, indicating that there has not been a disassociation from their initial identity as engineers. As participant 3 reiterated,

I think in engineering, no matter what you will have some form of systematic thinking, analysis of problems, like you know, I believe that my mantra is always the simplest solution, and i always take that approach when it comes to problems, for me, when I did my product design specialisation, there were aspects of project management that helped in some ways, and even though you don't remember the content, but somehow you know you have done project management, somehow gives you the feeling that you can project manage.

Similarly, participant 4 identified a change in him as he progressed from a young engineer, many years ago to the person he is today,

Apart from aging, natural progression toward professionalism, the nature of work, the opportunity as we progress from young engineer to acquiring experience, you tend to be more mature in outlook and see things, the other change is from exposure more to systems and people, you get to see how you manage situations in general, looking back, you can probably see how we handle incidents and events are different looking back at the way you grow and mature, looking at bigger picture, short span of picture, decision making also guided by bigger terms. The implications, the bigger environment.

The main study will further explore the perception of individuals' occupational mobility and professional association patterns, thereby making sense of the meaning that these individuals accord to navigating their occupational terrain.

APPENDIX B: Profile of Interview Participants

Erica is a 48 year-old ex-engineer who works in a local Institute of Higher Education's Department of Staff Development. She currently works as a director there and manages the staff development requirements of the IHL and facilitates the development of learning programmes for lecturers within the IHL. She started as a control and IT engineer in the air-force and gradually worked her way up the career and qualifications ladder. She currently possess 2 masters degrees; in Engineering and Design Thinking. Following her experience in the air-force as a control and IT engineer, she joined a local IHL as a lecturer and used education as a means to promote her craft. She started as a lecturer in 1993 and engaged in the teaching of control and IT control-related technology, like computer and internet control. She was exposed to the use of equipment related to industries like programmer logic controllers so all these systems are used in big companies like oil petrol chemicals.

She joined engineering because it had sounded quite interesting and was practical-based. She felt strongly that it was something that would allow her to see the end results because she didn't feel as inclined to the theoretical aspects of engineering. Engineering empowers her and allows her to look at thing differently. At the same time, she feels that the choices that have presented themselves to her are largely to do with her religion and her belief in God. She recognises opportunities which present themselves and strives to make best use of these opportunities. She had participated in forced internal mobility.

Evana is a 49 year-old engineer who currently works as an engineering lecturer. She started as an engineer from the onset and has never really deviated much from her original craft even though her responsibilities are now that of a Subject Head that requires her to tap on her administrative abilities. She started as an engineer because she had felt that she had the aptitude for it. Her first role as an engineer was in a trading company where she remained for about 3 years. She subsequently left and pursued her computing engineering degree before returning to the IHL where she has been for the past 23 years. Her initial role as a lecturer has morphed and she now manages specific subjects and lecturers under her. Lecturing engineering-related modules is not the only responsibility she currently has and her role is more administrative and managerial now. She admitted that she had often at specific moments during her career sought for alternative opportunities because she felt that teaching during term time, had been too

taxing on her personal life. The limits of pay were a great push factor whilst the long school holidays were a pull that eventually emerged triumphant and resulted in her long career in the IHL. She had joined engineering because she liked the hands-on experience that the profession brings, as she enjoys seeing things move. She felt that her experience as an engineer had contributed to her teaching abilities and has been integral in providing the worldly experience that any engineering lecturer needs. She feels that movement in occupations is largely determined by the passion for the job and not the pay. She feels that health is of greater importance and that the occupation should not compromise on the quality of life. She values spending time with her family and is not actively seeking for an alternative career due to her age and prefers spending time with her family instead. She had participated in voluntary internal mobility within the field.

Edmund is a 37 year-old electrical engineer who recently joined the lecturing profession. His ambition had always been to go into engineering education and he had tried on many occasions to get into the education sector to no avail. Whilst awaiting a suitable opportunity to arrive, he had moved from being an IT network engineer for two years before he went on to software engineering for another three years. He then went on to become an IT security engineer before finally securing a position as an engineering lecturer. He had started with a diploma in Engineering in 1981 and subsequently applied to further his studies, securing an engineering degree in 2000. While he was trained as an electrical engineer, he had explained that all the different engineering positions that he had gone into had been very different from the initial electrical engineering that he had been prepared for. His motivations for selecting engineering were because of the limited choices that were available in 1981 and also the prestige that came along with being an engineer. He attributes his move in to engineering education as a lack of ambition on his part. He prefers a stable job that does not deal with the politics of rewards, recognition and promotions. In his case he found it more desirable to leave than to comply with the performativity that is required. He was nonchalant about the pay-cut which he had to endure in moving into engineering education. He feels that the job satisfaction was something that the pay cut was able to justify. His disillusionment with the engineering profession was the lack of recognition that was accorded to the work that he had put into solving problems. His mobility in the engineering field had been circumstantial with opportunities for him to engage in different areas of engineering. He

sought to pick up relevant opportunities to engage in training as he felt that that would be a good alternative to the engineering education, which he had been waiting to enter for a while. He had participated in voluntary internal mobility within the field.

Edwina is a 29 year-old administration manager who started her career with an engineering diploma in 1999 from a local polytechnic. She started as an engineer for a year before she decided that engineering was not a job for her. Her motivations for taking up engineering were the expectations that her family had of her. She decided to move into something completely different from what she is used to, and went into the coffee business. She joined an international coffee chain and was trained as a barista. She eventually moved up the rungs of the business and soon became a trainer of young baristas. She enjoyed the human development role that she had gone into and subsequently remained in the coffee chain for 10 years before she decided to pursue a more formal career in learning and development. She had by the time earned her local Advanced Certificate in Training and Assessment (ACTA) – and was working at a local training agency as an administration manager where she dealt with customers enquiring about training as a career, at the time of my research. Her venture into administration was not what she intends as a long term career hence she is keeping her options open and is not averse to moving into a more training related occupation instead. She has since, more recently moved into an international training manager role that required her to develop and monitor training for her company internationally. This role allows her to tap on her penchant for a more training-related profession. Edwina had participated in voluntary external mobility.

Earl is a 40 year-old financial advisor who started out as an engineer in his first career. He was interested in computers as a teenager and had enrolled in engineering because electronics engineering was the most popular programme in the late 80s. He had preferred to go straight into vocational training after his GCE O Levels even though he was able to progress into GCE A Levels. He had also at the time, wanted a work qualification so as to minimise the burden that he would otherwise create on his parents. He is a trained electronics and communications engineer. Apart from his internship stints as an engineer, he decided after compulsory military service, to venture into sales of audio-equipment, which tapped on his prior training as an engineer. He spent three years in the audio-visual industry before he decided to try his hand at the insurance and

financial planning industry since he had done well as a sale executive. His engagement within the industry was the best thing he had done because he has gone on to win the Rising Star, Shinning Star, Million Dollar Club, Sunrise Club awards for group and personal lines. Earl has also gone on to attain the Diploma in Life Insurance and has been conferred with prestigious industry titles like the CFP and FIFP (Singapore). He has also started side businesses in conference planning and financial training and regularly conducts free workshops for local undergraduates on financial planning. Earl participated in voluntary external mobility.

Eddie is a 35 year-old ex-engineer who now teaches at a local secondary school. He studied science in Junior College and because of his science-based education; he felt that the natural progression was to proceed to become an engineer. At the time, engineering was perceived to be a job that paid well and garnered a sound reputation. Acknowledging the herd effect, he followed everyone else into the profession. He went into NTU to do a 4-year engineering degree. He started as an engineer in 2003 with a hard-drive developer. He was in the company for 2 years and soon realised that there was no promotion opportunities. He then decided to venture out and applied for other jobs namely to the education sector for a teaching role and a sales role in an engineering company which provided a car allowance. He decided to take up the job with the car allowance because it was also more related to his initial training as engineer and was with the company for two years but again realised that there were no opportunities for movement ahead (promotions etc) so decided to look for another job. He then found a job as an installation engineer with a company that was based in Israel, which required him to travel around globally to Japan, China, Korea, and Taiwan. There, he encountered a very macro-supervisory style, so he had the autonomy to do what he wanted as long as he got the job done. He was with the company for about two years before he was made redundant in Nov 2008. This is the shock event that Forrier, Sels, & Stynen (2009) referred to, which they defined as distinguishable events which lead an individual to make judgements about remaining with or leaving their current labour market situation. He then moved on to help a friend in a lighting business until Feb 2009. Meanwhile, he also applied for a teaching role with MOE again. In March 2009, he found another engineering job dealing with MRI and CT scan machines. He was there for one month before he left because he was constantly micro-managed. At the same

time, MOE called him up for an interview and he eventually opted to join MOE as a teacher after he was accepted. He had participated in forced external mobility.

Ervin is a 38 year-old corporate communications manager who was trained as an electrical engineer and despite having being trained as an engineer, practiced engineering only during his internship initially. He did not feel compelled to pursue this line of work so he took his time to look for a job and eventually stumbled into journalism. He studied engineering because he was not aware of what else was available, and at the time the main social expectation was that engineering was a very marketable discipline for a man. Since he was generally good at the science subjects, he decided to pursue a degree in engineering. He believes that “just because you are able to put into practice what you have learnt at school effectively, does not mean that you enjoy doing it”. He describes an aptitude and interest in debating that helped focus his attention away from the engineering route. His venture into journalism helped open doors for him in the media sector and he moved subsequently into public relations-related work before finally settling into the corporate communications role within a semi-government agency. Ervin had participated in voluntary external mobility.

Edison is a 37 year-old male electrical who spent 4 years in real engineering practice related to automated guided vehicles, before the opportunity came for him to venture beyond his core engineering training. Despite his transition out of engineering he was still in touch with the practice albeit, indirectly. His latest job is that of an internal business consultant where he focuses his efforts on improving the business processes within the organisation. The practice requires tapping on his prior engineering training because he is still dabbling in theories that are engineering related, to make sense of his current responsibilities, e.g. workflow diagramming, solutioning and queue theory. His motivation to commence his career as an engineer is largely related to the fact that his father and uncles are engineers, themselves. He admitted to having only listed engineering related courses in his university entrance form. His father also laid the foundation for an early engineering start because Edison was taught about electrical circuits from a very young age. His transition out of engineering was interesting because of his long-term engagement with the occupation but is now operating almost completely in an environment that is unrelated to engineering. He admits though, to

tapping on his prior engineering training for logic and reasoning in his current occupation and had participated in voluntary external mobility.

Edgar is a 48 year-old trained electrical engineer who decided to venture out the practice in his thirties because he wanted the opportunity to try something different. He admitted to being acutely aware of his abilities and the extensions, which his engineering training had brought. His foray into auditing and business development was purely by chance. He had applied for an engineering position after his first job but was offered an auditing position instead. He reflected on his abilities and decided that it was something that he could extend his competences to. He subsequently moved into business development as part of the Info-Technology team and has since been in the business of assisting his organisation with IT related business solutions. His initial entry into engineering was because the profession was at the time, well regarded and since he was good at the science-related subjects, felt it was a natural progression. He had participated in forced external mobility.

Eton was a trained computer engineer who spent 6 years in engineering before he resigned to take up a position in sales. He currently works as a regional sales consultant whose key task is promoting business products across 9 countries in the APAC region. He had joined engineering with the intention of it being a long-term career option. However he soon realised that he could diversify his technical expertise by focusing on sales of these technical products. He was able to tap on his engineering knowledge to complement his current business. He does not rule out the possibility of returning to pure engineering practice since he has not moved too far away from the practice and still keeps himself very current with engineering developments as a requirement of his current job. He participated in voluntary internal mobility.

Tim is a 46 year-old corporate manager who started career as a teacher in 1988. He graduated with a degree in Economics from the National University of Singapore 1986 and joined the College for Physical Education for two years after that to train as a Physical Education teacher. He formally completed his training as a PE teacher in 1988, and commenced his 9-year career as a teacher in a local junior college after that. He was subsequently posted to the education ministry as a specialist for two years before he resigned from the government service. He then took on short work stints before he

decided to take on a full-time employment at one of the local Institute of Higher Learning as an Education Advisor. He was with the institution for another 6 years before he decided to start his own education business and dabbled in all sorts of part-time consultancy work before he finally decided to take up full time employment as a corporate manager in an oil company. His main role now is to work on organisational development and implement change processes for the betterment of the organisation. He concurrently runs his own companies dealing in consultancy for change management. His motivations for joining teaching were purely out of his love for sports and he had envisioned a long-term career as a PE teacher. However he was disillusioned by the requirements to conform to the rigidity that being in a bureaucratic system brings. He identifies with being an iconoclast and refuses to consider himself as anything else professionally. He often feels the need to diversify his skills and abilities because he is afraid of what the changing economic landscape would bring. His strategy for survival in the global economy is to pre-empt change and to change himself before the system does. Tim participated in voluntary external mobility.

Tara is a 39 year-old ex-early childhood education teacher who had ventured into administration work. She started as a teacher in 2002 and spent 5 weeks teaching before moving into doing childhood-related administration work, in the Sunday school of a Christian organisation for another 5 and a half years. She eventually left for another administrative role at an optical shop. Her responsibilities involved HR related matters, purchasing and general administration. She was there for two and a half years before left her this administration job in July 2011 and has been unemployed since. She was motivated to join teaching because of her passion for children. At the time, a lot of her friends were also having children so that exposed her to the reality working in a child friendly environment. In addition, she had opted to take on the training as an early childhood education because of the incentives, which were provided to attract job seekers like her into the profession. She was provided a stipend as she pursued the qualification. She had left the profession however because of the low wages. She went into administration because she had wanted a higher pay and opted for the change. Tara participated in voluntary external mobility.

Theo is a trained psychologist and was a classroom teacher for two and a half years before he was sent back to the Education government to perform a role as an education

psychologist. He spent 4 years there before eventually leaving to set up his own training company for 7 years. His training company focused on the development of cognitive abilities of teachers and students. After having to deal with managing his own business for a while, and because he had to provide for a young family, he decided to seek for a more permanent job role that would bring in more consistent pay. He is now currently employed as a middle manager in a training management capacity within a government statutory board. He has spent the last three and a half years there and engages in training occasionally though his role is largely administrative management. Theo participated in voluntary external mobility.

Tina started as a trained English teacher in 1988. She was teaching for three years before she eventually resigned and joined a local institution of higher learning as an adjunct communications lecturer for a year. She was motivated to join the education industry because she was very keen on teaching as a craft and in children. She decided to leave teaching because she felt that it was a stagnating option and wanted to try something new. She then joined the hotel industry and spent another three years as a training executive, which required her to plan the company's training and conduct orientation. She also administered and managed the training development funds for the company and did some English training for foreign workers. She had to leave the job because the hotel had subsequently closed down. She then joined the manufacturing sector for two and a half years and engaged in training and quality management before she left to join a government office that had a focus on manpower development. She felt that her prior experiences had well prepared her for her role in national human resource development. She spent 1998 to 2011 in a variety of related government departments and eventually resigned in mid 2011 because she felt that she needed a break. She currently is enrolled in a local art school and spends her time drawing. Tina participated in voluntary external mobility.

Tenny started as an English teacher at a primary school in 1996. She spent 6 years teaching before she took sabbatical leave and went on to pursue her masters. She decided to leave teaching because she could not get back into it after her sabbatical leave as she had been sent to MOE headquarters to do policy related work instead. She joined teaching because it was what was available and her parents were not too keen for her to join the corporate world. She eventually managed to join a local institution of higher

learning and started a role as an administration manager. She was also afraid of becoming too stifled as a teacher and did not see herself as a teacher all her life. She currently manages the administrative aspects of staff development. She arranges and manages workshops and events within the institution and dons a supervisory role with a team of two admin staff under her charge. Tenny participated in voluntary external mobility.

Tia started as an English teacher with a specification in Elements of Office Administration in 2003. She spent 3 years as a teacher in a secondary school and another year on a teacher exchange programme teaching in Japan before she decided to leave teaching completely. She had resigned without a job and eventually found one as a recruitment consultant for Japanese-speaking positions at a Japanese organisation. She was there for one year. She subsequently sought a variety of different options as a third career, one of which was as a teacher in an Institution of Higher Learning, the other being an administrative manager in a government department. She took the latter option and is currently an administrative manager who deals with literacy training and development within a local statutory board. She started in this statutory board on a different team focused on Workplace Safety and Health but because of the challenges that came with being unfamiliar with the technical knowledge, had moved after twelve months into an English-related development policy team instead. She has been there since. Tia participated in voluntary external mobility.

APPENDIX C: The Interview Schedule

TABLE 12: SAMPLE OF INTERVIEW SCHEDULE

A: Biodata and participant history	
Age:	
Gender	
Years in Teaching/Engineering	
Year started as teacher/engineer	
Year resigned from teaching/engineering:	
Time period from resignation to new job:	
Resigned with Job/Resigned without job	
Current job title:	
Describe what you do now:	
You are trained as a + Teacher/Engineer	
Please share your Job History [from the beginning of career to present] – (Interviewer to ask: (1) length of time in each position-in years, (2) the direction of each move (up or lateral) or downward (decreased responsibility) – also can use pay as indicator	
B: Teaching/Engineering related (Ascertain influencing factors)	
What motivated you to join teaching/engineering as a profession? What were the conditions that led you to join teaching/engineering as a career? (Government policy? Community/society? Individual motivations?)	
Was teaching/engineering a long term career option for you then?	
Why did you leave teaching/engineering? What motivated you to leave teaching/engineering?	
What were the benefits of joining teaching/engineering as a profession?	

C: Current Job (amalgamating learning from previous experiences)			
Can you explain how you decided to become a...? (measuring chance, opportunity)			
Were there specific influences that led you to this occupation? Society? Government? Personal motivations?			
Are there any transfer of skills learnt as an teacher/engineer to your current job? Would someone not trained as a teacher/engineer be able to do what you do now? Describe what you think these are. (general teaching/engineering skills)			
What are the conditions that would entice/enable the movement? What enabled the movement into your new job? (Measuring Coincidence/chance)			
What are some formal learning that you had to go through in order to be able to do your new job? (training related)			
What about on-the-job training and workplace learning opportunities in your new job? (training)			
What is the initial image of the field that you are engaging in? What are the concepts that you have made sense of? How is it different from what you had originally envisaged?			
D: Perception of what will affect occupation movement			
What is most important for you? (Self motivation factors)			
Societal perceptions organisation/peer perceptions, self perceptions Value of company benefits Motives for moving: fear of stagnation, acceptance of career plateauing, career impatience,		The importance of job security Career path factors level of exposure, visibility Family, (spouse, kids, self) [Herzberg's motivation hygiene factors: achievement, recognition, advancements, responsibility, work itself, salary, co-workers, supervisor-human relations, supervisor technical competence, company	

		policies and practices.]	
Would you ever go back to teaching/engineering?			
Would you consider going into a different area and why?			
<p>Areas of functional competence: finance/accounting, personnel/human resource relations, marketing/ sales, production/manufacturing, research and development, teaching.</p> <p>(Measures Fluid professionalism)</p>			
Were there occupations that you would like to move into but feel that you are not equipped for the move? What do you think you would need to do in order to make that a reality? [perceived accessibility of careers]			
E: Perceived Professional Identity			
How would you describe your professional identity now?			
What do you think, in your opinion is the relationship between learning, occupational mobility and professional identity for you?			

APPENDIX D: Mapping Teacher Preparation Curriculum to GSI

TABLE 13: MAPPING TEACHER PREPARATION CURRICULUM TO GSI

Module Title	Description of module	GSI mapping
The social context of teaching and learning	This course will introduce student teachers to the Singapore education system. Student teachers will learn how the school system functions to socialise citizens for economic, political, and social roles in the context of a multi-ethnic and multicultural society. They will also have the opportunity to study the rationale of major education policies and to appreciate the impact that such policies have on school leaders, teachers, students and other stakeholders. At the same time, they will be made aware of the diverse and multiple roles that are played by teachers in the education system.	Influencing Skills, planning, emotional labour
Teaching and managing learners at the primary/secondary level	<p>Mainstream schools in Singapore attend to learners of various needs and abilities across their different stages of development. This requires relevant classroom management skills and pedagogical approaches to effectively meet their differentiated learning needs.</p> <p>This course aims to equip student teachers with relevant knowledge and skills in relation to creating productive and supportive learning environments, and managing learning and behavior in the classroom. The theory-practice link to strengthen competencies of student teachers with respect to classroom management challenges will be emphasised. Student teachers will also be provided with opportunities to reflect on their personal pedagogy/philosophy for classroom management.</p>	Planning, problem solving, emotional labour,
ICT for meaningful learning	This course prepares student teachers to engage learners in meaningful learning with the use of ICT. Student teachers will learn how to analyse the affordances of ICT for promoting dimensions of meaningful learning, i.e. learning by doing, engaging students' prior knowledge, using real world contexts, collaborative learning and self-directed learning. Student teachers will also analyse critical issues related to designing technology-enabled lessons, such as integration of appropriate instructional strategies and cyber-wellness issues. Student teachers will be assessed for their skills and knowledge in designing meaningful ICT-enabled	Literacy Skills, leadership skills, problem solving skills, planning, influencing skills emotional labour

	teaching and learning activities.	
Educational Psychology	<p>This course provides the foundation for understanding learners, learner development, and the psychology of learning. The ways in which these aspects influence the processes of learning will be considered, and proactive approaches to enhancing student motivation, learning, and thinking explored.</p> <p>Theories with a focus on students' psychosocial and cognitive development will be introduced and its implications for classroom-practice considered. In particular, the course will consider areas such as why and how some students learn or fail to learn, how students' intellectual, social, emotional, personal and moral development occurs, as well as the role of assessment in teaching and learning.</p>	Planning, leadership skills, influencing skills; emotional labour
English Language	<p>This course will equip student teachers with the knowledge of processes and strategies in the teaching of reading and writing at the primary level. Student teachers will acquire knowledge of how language is learned at home and in school, and how oracy, reading and writing can be integrated and taught in the lower and upper primary classroom. Student teachers will become familiar with the learning outcomes of the Primary English Syllabus, methods of monitoring, evaluating and diagnosing pupils' language skills. They will learn how to use children's literature as a significant resource for teaching reading and writing.</p>	Literacy Skills
Mathematics	<p>Overview of the Singapore Primary Mathematics Curriculum; NE infusion; Preparation of Scheme of Work and Lesson Plans; pedagogical Strategies and Psychological Theories; Teaching Problem Solving and Investigations; Mathematical Communication; Teaching of Whole Numbers, Fractions, Decimals, Percentages, Ratio and Direct Proportion, Rate and Speed, Geometry, Money and Measures, Mensuration, graphical Representation and Statistics, Algebra. [ICT, use of calculators and common pupils' errors will be dealt with in the teaching of various topics.]</p>	Numeracy Skills
Science	The nature of science and scientific inquiry for	Doman

	<p>young children will be the central guiding principles for learning in this course. Beginning teachers will gain an overview of the goals/objectives of the primary science curriculum from the analyses of syllabuses, textbooks, and other curricular materials with respect to present educational initiatives in Singapore. Drawing on contemporary learning theories and research findings, various methods and strategies in primary science will be taught through lectures and practical work.</p>	<p>Specific pedagogic knowledge</p>
<p>Social Studies</p>	<p>This course aims to develop within student teachers an understanding of the nature, scope and goals of Social Studies in the context of the Singapore primary curriculum. It equips them with a variety of classroom-based teaching strategies that are relevant to the Singapore Primary Social Studies syllabus. The historical, geographical and economic concepts and skills in the syllabus will be examined and effective teaching strategies for Social Studies will be explored.</p>	<p>Domain-specific pedagogic knowledge</p>
<p>Teaching Practice</p>	<p>The Practicum will comprise a 10-week Teaching Practice (TP), in which the student teachers will build up their skills and knowledge in a step-wise manner. They will develop planning and delivery skills, followed by classroom management and evaluation skills. In addition, to ensure that the student teachers have a holistic experience, they will also be provided opportunities to explore other aspects of a teacher's life besides classroom teaching, for example, observing how CCAs are managed.</p>	<p>Planning, literacy skills, problem solving, influencing skills, teamwork skills, planning, emotional labour</p>
<p>Communication Skills for teachers</p>	<p>This is a practical course designed to provide student-teachers with the oral and written skills necessary for effective communication as teachers in the classroom and in their professional interaction with colleagues, parents and the general public. Student teachers learn about vocal health care and quality, and the practice of good voice production. They are familiarised with the use of a pronunciation dictionary and online resources to help them resolve pronunciation and word stress difficulties. They become aware of the importance of considering the purpose, audience and context when communicating and learn how to communicate effectively to promote student learning. They also engage in practical hands-on</p>	<p>Literacy Skills</p>

	activities of making oral and written presentations in a variety of school contexts. Built into the tutorials are opportunities for student teachers to reflect on their practices as well as ongoing assignments and oral and written presentations to assess their application of the knowledge and skills that they acquire during the course.	
Group Endeavours in Service Learning (GESL) Project	Group Endeavours in Service Learning (GESL) is a service learning community engagement project which all student teachers will complete. Student teachers work in groups of about 20 on a service-learning project they craft together with a partner organisation or organisations. Service and learning objectives are determined before the group starts on their project. Each group has a staff facilitator who mentors and guides the group, and eventually assesses the group on their project. GESL empowers student teachers with the skills of conducting service-learning projects while getting in touch with the community around us. It is hoped that through the experience of conducting a service-learning project, each student teacher would have developed social-emotional learning competencies and practiced, among other things, project management skills, teamwork, needs analysis, decision-making, empathy, and learnt more about the community around us.	Emotional Labour, leadership skills, planning, influencing skills, problem solving skills

APPENDIX E: Mapping Teachers' Subsequent Careers' Job Competence to GSI

TABLE 14: MAPPING TEACHERS' SUBSEQUENT CAREERS' JOB COMPETENCE TO GSI

		Subsequent Occupation	GSI Mapping	SSOC Definition
1.	Tina	Operational Manager	Literacy Skills; leadership skills; problem-solving skills; influencing skills; teamwork skills; planning skills; Numeracy skills; emotional labour	<p>Finance and administration managers plan, direct and coordinate the financial and administrative operations of an enterprise or organisation, in consultation with senior managers and with managers of other departments or sections.</p> <p>Tasks include:</p> <ul style="list-style-type: none"> – planning, directing and coordinating the financial and administrative operations of an enterprise or organisation – assessing the financial situation of the enterprise or organisation, preparing budgets and overseeing financial operations – consulting with the chief executive and with managers of other departments or sections – establishing and managing budgets, controlling expenditure and ensuring the efficient use of resources – establishing and directing operational and administrative procedures – developing and implementing administrative and procedural statements and guidelines for use by staff in the organisation – providing information and support for the preparation of financial reports and budgets – representing the enterprise or organisation in dealings with outside bodies
2.	Tenny	Administrative Manager		
3.	Tara	Administrative Manager		
4.	Tia	Administrative Manager		
5.	Theo	Administrative Manager		
6.	Tim	Consultant, Business Development	Literacy Skills; leadership skills; problem-solving skills; influencing skills; teamwork skills; planning skills; Numeracy skills; emotional labour	<p>Management and business consultant assist organisations to achieve greater efficiency and solve business problems. They study business structures, methods, systems and procedures.</p> <p>Tasks include:</p> <ul style="list-style-type: none"> - assisting and encouraging the development of objectives, strategies and plans aimed at achieving customer satisfaction and the efficient use of

				<p>organisations' resources</p> <ul style="list-style-type: none"> - analysing and evaluating current systems and structures - discussing current systems with staff and observing systems at all levels of organisation - directing clients towards more efficient organisation and developing solutions to business problems - undertaking and reviewing work studies by analysing existing and proposed methods and procedures such as administrative and clerical procedures - recording and analysing organisations' work flow charts, records, reports, manuals and job descriptions - preparing and recommending proposals to revise methods and procedures, alter work flows, redefine job functions and resolve organisational problems - assisting in implementing approved recommendations, issuing revised instructions and procedure manuals, and drafting other documentation - reviewing operating procedures and advising of departures from procedures and standards
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APPENDIX F: Mapping Buchanan (2011) Study’s Teachers’ Subsequent Occupations to GSI

TABLE 15: MAPPING BUCHANAN (2011) STUDY’S TEACHERS’ SUBSEQUENT OCCUPATIONS TO GSI

	Ex Teacher	GSI	Subsequent occupation/s (SSOC Definition)
1.	Angela (T)	Literacy Skills; problem solving skills; teamwork skills; planning skills; numeracy; emotional labour	<p>Nursing</p> <p>Nursing Associate Professionals Nursing associate professionals provide nursing and personal care for people who are physically or mentally ill, disabled or infirm, in support of implementation of health care, treatment and referrals plans usually established by medical and other health professionals. They usually work under the direction of other health professionals and perform tasks of more limited range and complexity than medical and health professionals. Tasks include: – assessing, planning and providing personal and nursing care, treatment and advice to the sick, injured, disabled and others in need of care within a defined scope of practice – administering medications and other treatments and monitoring responses to treatment – cleaning wounds and applying surgical dressings under the guidance of medical doctors – monitoring and observing patients’ condition and maintaining a record of observations and treatment – assisting in planning and managing the care of individual patients – assisting in giving first-aid treatment in emergencies</p> <p>This unit group includes: <input type="checkbox"/> Assistant nurse <input type="checkbox"/> Professional nurse</p> <p>This unit group excludes:</p>

			<input type="checkbox"/> Nursing aide (clinic, hospital) (5320) <input type="checkbox"/> Health care assistant (5320) <input type="checkbox"/> Veterinary nurse (3240)
2.	Carol	Numeracy; literacy skills; influencing skills planning; emotional labour	<p>Bank teller</p> <p>Bank Tellers and Other Counter Clerks Bank tellers and other counter clerks deal directly with clients of banks or post offices in connection with receiving, changing and paying out money or providing mail services. Tasks include:</p> <ul style="list-style-type: none"> - processing customer cash deposits and withdrawals, cheques, transfers, bills, credit card payments, money orders, certified cheques and other related banking transactions - crediting and debiting clients' accounts - paying bills and making money transfers on clients' behalf - receiving mail, selling postage stamps and conducting other post office counter business such as bill payments, money transfers and related business - changing money from one currency to another, as requested by clients - making records of all transactions and reconciling them with cash balance <p>This unit group includes:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Bank teller <input type="checkbox"/> Post office counter clerk <input type="checkbox"/> Money changer

3.	Christine	Literacy Skills; numeracy skills; problem solving; influencing skills; planning; emotional labour	<p>Communications officer</p> <p>Public Relations Associate Professionals</p> <p>Public relations associate professionals promote the image and understanding of an organisation and its products or services to consumers, businesses, members of the public and other specified audiences.</p> <p>Tasks include:</p> <ul style="list-style-type: none"> - discusses issues of business strategy, products, services and target client base with management to identify public relations requirements - writes, edits and arranges for the effective distribution of press releases, newsletters and other public relations material - advising executives on the public relations implications of their policies, programmes and practices preparing and controlling the issue of news and press releases - addresses individuals, clients and other target groups through meetings, presentations, the media and other events to enhance the public image of an organisation - representing organisations and arranging interviews with publicity media <p>This unit group includes:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Press liaison officer <input type="checkbox"/> Public relations officer <input type="checkbox"/> Corporate communications officer <input type="checkbox"/> Public information officer
4.	Colin	Literacy Skills; influencing skills; problem solving; teamwork; planning;	<p>Museum curator</p> <p>Archivists, Curators and Conservators</p> <p>Archivists, curators and conservators collect, appraise and ensure the safekeeping and preservation of the contents of archives, artefacts and records of historical, cultural, administrative and artistic interest, and of art and other objects. They plan, devise and implement systems for the safekeeping of records and historically valuable documents</p> <p>Tasks include:</p> <ul style="list-style-type: none"> - evaluating and preserving records for administrative, historical, legal, evidential and other purposes - directing or carrying out the preparation of indexes, bibliographies, microfilm copies and other reference aids to

		emotional labour	<p>the collected material and making them available to users</p> <ul style="list-style-type: none"> - researching the origin, distribution and use of materials and objects of cultural and historical interest - organising, developing and maintaining collections of artistic, cultural, scientific or historically significant items - directing or undertaking classification and cataloguing of museum and art gallery collections and organising exhibitions - researching into, appraising, and developing, organising and preserving historically significant and valuable documents such as government papers, private papers, photographs, maps, manuscripts audio-visual materials - preparing scholarly papers and reports - planning and implementing the computerised management of archives and electronic records - organising exhibitions at museums and art galleries, publicising exhibits and arranging special displays for general, specialised or educational interest - appraising and acquiring archival materials to build and develop an archival collection for research purposes <p>This unit group includes:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Archivist <input type="checkbox"/> Art gallery curator <input type="checkbox"/> Museum curator <input type="checkbox"/> Conservator (art works)
5.	David	Literacy skills; leadership skills; problem solving skills; influencing skills; teamwork	<p>Small business retail</p> <p>Retail and Wholesale Trade Managers</p> <p>Retail and wholesale trade managers, plan, organise, co-ordinate and control the operations of establishments that sell goods on a retail or wholesale basis. They are responsible for the budgets, staffing and strategic and operational direction of shops, or of organisational units within shops that sell particular types of product.</p> <p>Tasks include:</p> <ul style="list-style-type: none"> - determining product mix, stock levels and service standards - formulating and implementing purchasing and marketing policies and setting prices - promoting and advertising the establishment's goods and services - maintaining records of stock levels and financial transactions

		k; planning; numeracy emotional labour	– undertaking budgeting for the establishment
6.	Denise	Literacy skills; leadership skills; problem solving skills; influencing skills; teamwork; planning; numeracy emotional labour	Administration; child care Child Care Services Managers Child care services managers plan, direct, coordinate and evaluate the provision of care for children in before-school, after-school, vacation and day care centres and services. Tasks include: – overseeing and coordinating the provision care for children in before-school, after-school, day and vacation care centres – directing and supervising child carers in providing care and supervision for young children – managing physical facilities and making sure all buildings and equipment are maintained to ensure the centre is a safe area for children, staff and visitors – reviewing and interpreting government codes and developing procedures to meet codes (e.g. concerning safety and security) – preparing and maintaining records and accounts for a child care centre – recruiting and evaluating staff and coordinating their professional development This unit group includes: <input type="checkbox"/> Child care services manager
7.	Geoff	Literacy skills; leadership skills; problem	Chaplain Religious Professionals Religious professionals function as perpetrators of sacred traditions, practices and beliefs. They conduct religious services, celebrate or administer the rites of a religious faith or denomination, provide spiritual and moral guidance

		<p>solving skills; influencing skills; teamwork; planning; numeracy emotional labour</p>	<p>and perform other functions associated with the practice of a religion. Tasks include: - perpetuating sacred traditions, practices and beliefs - conducting religious services, rites and ceremonies - undertaking various administrative and social duties, including participating in committees and meetings of religious organisations - providing spiritual and moral guidance in accordance with the religion professed - propagating religious doctrines in own country or abroad - preparing religious sermons and preaching - developing and directing study courses and religious education programmes - counselling individuals regarding interpersonal, health, financial, and religious problems - scheduling and participating in special events such as camps, conferences, seminars, and retreats</p>
8.	Hayley	<p>Literacy skills; leadership skills; problem solving skills; influencing skills; teamwork; planning; numeracy emotional labour</p>	<p>Executive assistant to CEO</p> <p>Secretaries and Verbatim Reporters Secretaries and verbatim reporters use typewriters, personal computers or other word-processing equipment to transcribe correspondence and other documents in court hearings and other official committees and meetings, check and format documents prepared by other staff, deal with incoming and outgoing mail, screen requests for meetings or appointments and perform a variety of administrative support tasks. Tasks include: - checking, formatting and transcribing correspondence, minutes and reports from dictation, electronic documents or written drafts to conform to office standards, using typewriter, personal computer or other word processing equipment - using various computer software packages including spreadsheets to provide administrative support - dealing with incoming or outgoing mail - scanning, recording and distributing mail, correspondence and documents - screening requests for meetings or appointments and helping to organise meetings - screening and recording leave and other staff-members' entitlements - organising and supervising filing systems - dealing with routine correspondence on their own initiative</p>

9.	Jacqui	Literacy skills; leadership skills; problem solving skills; influencing skills; teamwork; planning; numeracy emotional labour	<p>Entertainment venue manager</p> <p>Business Services and Administration Managers Not Elsewhere Classified This unit group covers business services and administration managers not classified elsewhere in Minor Group 121 'Business services and administration managers'. For instance, the group includes occupations such as facilities maintenance manager.</p> <p>Tasks include:</p> <ul style="list-style-type: none"> – providing operational support and advice to senior management on matters such as the management of building facilities – providing information and support for the preparation of financial reports and budgets – establishing and managing budgets, controlling expenditure and ensuring the efficient use of resources – planning and directing daily operations
10.	Jenny	Literacy skills; leadership skills; problem solving skills; influencing skills; teamwork; planning; numeracy	<p>Student administration</p> <p>Administration managers plan, direct and coordinate the financial and administrative operations of an enterprise or organisation, in consultation with senior managers and with managers of other departments or sections.</p> <p>Tasks include:</p> <ul style="list-style-type: none"> – planning, directing and coordinating the financial and administrative operations of an enterprise or organisation – assessing the financial situation of the enterprise or organisation, preparing budgets and overseeing financial operations – consulting with the chief executive and with managers of other departments or sections – establishing and managing budgets, controlling expenditure and ensuring the efficient use of resources – establishing and directing operational and administrative procedures – developing and implementing administrative and procedural statements and guidelines for use by staff in the organisation – providing information and support for the preparation of financial reports and budgets

		y emotiona l labour	– representing the enterprise or organisation in dealings with outside bodies
11.	Jillian	Literacy skills; leadershi p skills; problem solving skills; influenci ng skills; teamwor k; planning; numera c y emotiona l labour	<p>Librarian</p> <p>Librarians and Related Information Professionals Librarians and related information professionals collect, select, develop, organise and maintain library collections and other information repositories. They also organise and control other library services and provide information for users. Tasks include:</p> <ul style="list-style-type: none"> - organising, developing and maintaining a systematic collection of books, periodicals and other printed, audio-visually and digitally recorded material - selecting and recommending acquisitions of books and other printed or audio-visually and digitally recorded material - organising, classifying and cataloguing library material - managing library borrowing and inter-library loan facilities and information networks - retrieving material and providing information to business and other users based on the collection itself or on library and information-network systems - conducting research and analysing or modifying library and information services in accordance with changes in users' needs - devising and implementing schemes and conceptual models for the storage, organisation, classification and retrieval of information - preparing scholarly papers and reports - performing manual, on-line and interactive media reference searches, making interlibrary loans and performing other functions to assist users in accessing library materials

12.	Kathy	Literacy skills; leadership skills; problem solving skills; influencing skills; teamwork; planning; numeracy; emotional labour	<p>P/T data entry + parenting</p> <p>Data Entry Clerks Data entry clerks enter coded, statistical, financial and other numerical data into electronic equipment, computerised databases, spreadsheets or other data repositories using a keyboard, mouse, or optical scanner, speech recognition software or other data entry tools. They enter data into mechanical and electronic devices to perform mathematical calculations. Tasks include:</p> <ul style="list-style-type: none"> - receiving and registering invoices, forms, records and other documents for data capture - entering numerical data, codes and text from source material into computer-compatible storage and processing devices - verifying accuracy and completeness of data and correcting entered data, if needed - operating bookkeeping and calculating machines - importing and exporting data between different database systems and software
13.	Lauren	Literacy skills; leadership skills; problem solving skills; influencing skills; teamwork; planning; numeracy	<p>Youth work; management</p> <p>Social Welfare Managers Social welfare managers plan, direct and coordinate the provision of social and community service programmes such as income support, family assistance, children's services and other community programmes and services. Tasks include:</p> <ul style="list-style-type: none"> - providing overall direction and management for a service, facility, organisation or centre - developing, implementing and monitoring procedures, policies and standards for staff - monitoring and evaluating resources devoted to the provision of welfare, housing, and other social services - controlling administrative operations such as budget planning, report preparation, expenditure on supplies, equipment and services - liaising with other welfare and health services providers, boards and funding bodies to discuss areas of health and welfare service cooperation and coordination - advising government bodies about measures to improve welfare services and facilities

		y emotiona l labour	– representing the organisation in negotiations and at conventions, seminars, public hearings and forums
14.	Mark	Literacy skills; leadershi p skills; problem solving skills; influenci ng skills; teamwor k; planning; numera c y emotiona l labour	Clerical/legal work Legal Clerks Legal clerks perform support functions in courts of law or in law offices, and duties mostly connected with the keeping of office and library records with aspects of legal matters. Tasks include: – documenting court proceedings and judgements – serving statements of claims, summonses, warrants, subpoenas and other court orders – preparing legal documents including trial briefs, pleadings, appeals, wills and contracts; and preparing papers summarising legal positions, or setting out conditions of loans or insurance – preparing documents relating to transfer of real estate, stocks or other matters requiring formal registration
15.	Melinda	Literacy skills; leadershi p skills; problem solving skills; influenci ng skills; teamwor	Admin assistant, book sales General Office Clerks General office clerks perform a wide range of general duties, mostly connected with the keeping of office records and routine aspects of legal matters and personnel records. Tasks include: – recording, preparing, sorting, classifying and filing information – keeping address and mailing lists – sorting, opening and sending mail – photocopying and faxing documents

		k; planning; numeracy emotional labour	<ul style="list-style-type: none"> – preparing reports and correspondence of a routine nature – recording issue of equipment to staff – responding to telephone or electronic enquiries or forwarding to appropriate person – checking figures, preparing invoices and recording details of financial transactions made – transcribing information onto computers and proofreading and correcting copy – keeping personnel or any other office records
16.	Naomi	Literacy skills; leadership skills; problem solving skills; influencing skills; teamwork; planning; numeracy emotional labour	<p>Sales representative</p> <p>Shop and Store Salespersons Shop and store salespersons sell a range of goods and services directly to the public or on behalf of retail and wholesale establishments. They explain functions and qualities of these goods and services. Shop supervisors also supervise the activities of shop sales assistants and cashiers.</p> <p>Tasks include:</p> <ul style="list-style-type: none"> – ensuring that safety procedures are enforced – determining customers' requirements and advising on product range, price, delivery, warranties and product use and care – demonstrating and explaining to customers the establishment's goods and services – selling goods and services, accepting payment by a variety of payment methods, preparing sales invoices and recording sales using cash registers – assisting with the ongoing management of stock such as product inventories and participating in stock takes – stacking and displaying goods for sale, and wrapping and packing goods sold
17.	Pamela	Literacy skills; leadership skills; problem solving	<p>Day-care centre manager</p> <p>Child care services managers plan, direct, coordinate and evaluate the provision of care for children in before-school, after-school, vacation and day care centres and services.</p> <p>Tasks include:</p> <ul style="list-style-type: none"> – overseeing and coordinating the provision care for children in before-school, after-school, day and vacation care

		skills; influencing skills; teamwork; planning; numeracy emotional labour	centres – directing and supervising child carers in providing care and supervision for young children – managing physical facilities and making sure all buildings and equipment are maintained to ensure the centre is a safe area for children, staff and visitors – reviewing and interpreting government codes and developing procedures to meet codes (e.g. concerning safety and security) – preparing and maintaining records and accounts for a child care centre – recruiting and evaluating staff and coordinating their professional development
18.	Patrick	Literacy skills; leadership skills; problem solving skills; influencing skills; teamwork; planning; numeracy emotional labour	Financial market Financial and investment advisers develop financial plans for individuals and organisations, and invest and manage funds on their behalf. Tasks include: - building and maintaining a client base - interviewing clients to determine financial status and objectives, risk tolerance and other information needed to develop financial plans and investment strategies - setting financial objectives, and developing and implementing strategies for achieving the financial objectives - arranging to buy and sell stocks and bonds for clients - monitoring investment performance, and reviewing and revising investment plans based on modified needs and changes in markets - Providing consultancy services to individuals and organisations to advise them on better financial and investments managements
19.	Paul	Literacy skills; leadership	Workplace staff development Human Resource Managers

		<p>p skills; problem solving skills; influencing skills; teamwork; planning; numeracy emotional labour</p>	<p>Human resource managers, plan, direct and coordinate policies concerning the personnel and industrial relations of an enterprise or organisation, or of enterprises that provide human resource services to other enterprises and organisations.</p> <p>Tasks include:</p> <ul style="list-style-type: none"> - planning, directing and coordinating the personnel and industrial relations activities, policies and practices of an enterprise or organisation - planning and organising procedures for recruitment, training, promotion, determination of wage structures and negotiations about wages, liaison and consultation with workers and related personnel matters - establishing and managing budgets, controlling expenditure and ensuring the efficient use of resources - establishing and directing operational and administrative procedures - overseeing the development and implementation of management information systems - ensuring compliance with standards and legislation relating to employees rights, equal opportunity and related concerns - overseeing the selection, training and performance of staff for the entire enterprise or organisation - consulting with senior management and with managers of other departments - representing the enterprise or organisation in dealings with outside bodies
20.	Ron	<p>Literacy skills; leadership skills; problem solving skills; influencing skills; teamwork; planning; numeracy</p>	<p>Chaplain</p> <p>Religious Professionals</p> <p>Religious professionals function as perpetrators of sacred traditions, practices and beliefs. They conduct religious services, celebrate or administer the rites of a religious faith or denomination, provide spiritual and moral guidance and perform other functions associated with the practice of a religion.</p> <p>Tasks include:</p> <ul style="list-style-type: none"> - perpetuating sacred traditions, practices and beliefs - conducting religious services, rites and ceremonies - undertaking various administrative and social duties, including participating in committees and meetings of religious organisations - providing spiritual and moral guidance in accordance with the religion professed - propagating religious doctrines in own country or abroad - preparing religious sermons and preaching

		emotional labour	<ul style="list-style-type: none">- developing and directing study courses and religious education programmes- counselling individuals regarding interpersonal, health, financial, and religious problems- scheduling and participating in special events such as camps, conferences, seminars, and retreats
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APPENDIX G: Mapping Engineering Curriculum to GSI

TABLE 16: MAPPING ENGINEERING CURRICULUM TO GSI

Year 1	Course Descriptor	GSI Mapping
Mathematics	To equip students with fundamentals in calculus and complex analysis required for the upper years of studies. Complex numbers and analysis. Vectors and analytical geometry. Limits and continuity. Sequences and series. Derivatives. Applications of derivatives. Integration. Integration techniques. Application of integrals.	Numeracy Skills
Computing	This course introduces fundamental concepts in computing, with an emphasis on applications in engineering. The students taking the course will acquire the software “literacy” that is indispensable to working creatively in an engineering workplace. Initially an overview on the need of computer programming and a brief introduction to basic computer architecture would be provided. This is followed by problem solving, software development and programming techniques including the use of standard library routines. With this as background knowledge, the course focuses on algorithm design and documentation, larger program development and testing in a modular and structured manner. The student will learn how to use computer programming in solving problems in engineering contexts.	Technical Specific Knowledge
Introduction to Engineering and Practices	<ol style="list-style-type: none"> 1. To reinforce students’ understanding of physics by experiments; 2. To equip students with basic experimental skills related to physics; and 3. To equip students with basic knowledge of engineering and practices. 	Technical Specific Knowledge
Effective Communication	The course focuses on effective communication in writing and speech using the communication model. Students will engage in analytical and reflective activities with regard to academic writing, electronically-mediated communication as well as speaking tasks.	Literacy Skills
Civil Engineering and Sustainable	The objective of the course is to provide students an overview of civil and environmental	Technical Specific

Built Environment	engineering activities, the importance of sustainable built development, and engineer's role in society.	Knowledge
Mechanics of Materials	The objective is to equip the students with the basic understanding of force vectors and their operations, force equilibrium, stresses and strains of a body when the body is subjected to external loads. The subjects covered in this course provide essential technical basis for the analysis and design of civil structures.	Technical Specific Knowledge
Year 2		
Structural Analysis 1 and 2	The learning objective of the course is to teach students some fundamental concepts of structural analysis. It aims to equip the students with basic understanding of the theory and application of structural analysis of trusses, beams and frames.	Technical Specific Knowledge
Hydraulics	To introduce the basic principles of the hydraulics of open channel flows, which are essential fundamentals for the design of water resources related projects.	Technical Specific Knowledge
Probability and Statistics	At the end of the course, students will be able to understand the basic concepts in probability and statistics. In addition, students will be able to apply these basic concepts in solving practical engineering problems.	Numeracy Skills
Technical Communication	The course aims to teach students principles of technical communication for their academic and professional needs, focusing on essential written and oral skills for presenting technical information effectively.	Literacy Skills
Matrix Algebra & Computational Methods	To equip students with fundamentals in linear algebra and numerical methods required for the upper years of studies.	Numeracy Skills
Year 3		
Professional Communication	The course aims to equip students with the written and oral communication skills essential for functioning effectively in the workplace. Teaching and learning are conducted in the context of a globalised and constantly changing work environment with emphasis placed on flexibility and persuasiveness in communication. As well as written and oral communication,	Literacy Skills

	topics covered include interpersonal communication in professional settings, intercultural communication, conflict management, job search skills, professional oral presentations, and business meetings.	
Industrial Attachment	<p>Students to gain an in-depth understanding of the practical aspects of the civil engineering industry. Upon completion of the course, students should be able:</p> <ol style="list-style-type: none"> 1. Understand the practical aspects and technical knowhow of the civil engineering industry. 2. Gain valuable contacts necessary to give them an edge in the working world upon graduation 	Emotional Labour

APPENDIX H: Mapping Engineers' Subsequent Occupation Competences to GSI

TABLE 17: MAPPING ENGINEERS' SUBSEQUENT OCCUPATION COMPETENCES TO GSI

	SN	Current job	SSOC Descriptor	Generic Skill range
1.	Eddie	Teacher	<p>University, polytechnic and higher education teachers prepare and deliver lectures and conduct tutorials in one or more subjects within a prescribed course of study at a university, polytechnic or other higher educational institution. They conduct research, and prepare scholarly papers and books.</p> <p>Tasks include:</p> <ul style="list-style-type: none"> - designing and modifying curricula and preparing courses of study in accordance with requirements - preparing and delivering lectures and conducting tutorials, seminars and laboratory experiments - stimulating discussion and independent thought among students - supervising, where appropriate, experimental and practical work undertaken by students - administering, evaluating and marking examination papers and tests - directing research of students or other members of department - researching into and developing concepts, theories and operational methods for application in industrial and other fields - preparing scholarly books, papers or articles - participating in departmental and faculty meetings and in conferences and seminars <p>This unit group includes:</p> <ul style="list-style-type: none"> <input type="checkbox"/> University lecturer <input type="checkbox"/> University teacher <input type="checkbox"/> Polytechnic lecturer 	<p>Literacy Skills; Leadership Skills; Problem-solving; Influencing Skills; Teamwork Skills; Planning; Numeracy; Emotional Labour</p>
2.	Edmund	Lecturer		
3.	Evana	Lecturer		
4.	Earl	Financial Advisor	Financial analysts and related professionals conduct quantitative analyses of information affecting	Literacy Skills; Problem-solving; Influencing Skills;

			<p>investment programmes of public or private institutions.</p> <p>Tasks include:</p> <ul style="list-style-type: none"> - analysing financial information to produce forecasts of business, industry, and economic conditions for use in making investment decisions - maintaining knowledge and staying abreast of developments in the fields of industrial technology, business, finance, and economic theory - interpreting data affecting investment programmes, such as price, yield, stability, future trends in investment risks, and economic influences - monitoring fundamental economic, industrial, and corporate developments through the analysis of information obtained from financial publications and services, investment banking firms, government agencies, trade publications, company sources, and personal interviews - recommending investments and investment timing to companies, investment firm staff, or the investing public - determining the prices at which securities should be syndicated and offered to the public - preparing plans of action for investment based on financial analyses - evaluating and comparing the relative quality of various securities in a given industry - presenting oral and written reports on general economic trends, individual corporations, and entire industries <p>This unit group includes:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Risk analyst <input type="checkbox"/> Credit analyst <input type="checkbox"/> Equities analyst <input type="checkbox"/> Fund manager <input type="checkbox"/> Treasury manager <input type="checkbox"/> Financial product structure 	<p>Planning; Numeracy; Emotional Labour</p>
5.	Edwina	Training Manager	<p>Human resource managers, plan, direct and coordinate policies concerning the personnel and industrial relations of an enterprise or organisation, or of enterprises that provide human resource</p>	<p>Literacy Skills; Leadership Skills; Problem-solving; Influencing Skills; Teamwork Skills;</p>

			<p>services to other enterprises and organisations.</p> <p>Tasks include:</p> <ul style="list-style-type: none"> - planning, directing and coordinating the personnel and industrial relations activities, policies and practices of an enterprise or organisation - planning and organising procedures for recruitment, training, promotion, determination of wage structures and negotiations about wages, liaison and consultation with workers and related personnel matters - establishing and managing budgets, controlling expenditure and ensuring the efficient use of resources - establishing and directing operational and administrative procedures - overseeing the development and implementation of management information systems - ensuring compliance with standards and legislation relating to employees rights, equal opportunity and related concerns - overseeing the selection, training and performance of staff for the entire enterprise or organisation - consulting with senior management and with managers of other departments - representing the enterprise or organisation in dealings with outside bodies <p>This unit group includes:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Human resource manager <input type="checkbox"/> Industrial relations manager <input type="checkbox"/> Personnel manager <input type="checkbox"/> Training manager 	<p>Planning; Numeracy; Emotional Labour</p>
6.	Erica	Director (IHL)	<p>Education managers plan, direct, coordinate and evaluate the educational and administrative aspects of education services, primary and secondary schools, colleges and faculties and departments in universities and other educational institutions.</p> <p>Tasks include:</p> <ul style="list-style-type: none"> - determining educational programmes based on frameworks established by education authorities and governing bodies - implementing systems and procedures 	<p>Literacy Skills; Leadership Skills; Problem-solving; Influencing Skills; Teamwork Skills; Planning; Numeracy; Emotional Labour</p>

			<p>to monitor school performance and student enrolments</p> <ul style="list-style-type: none"> - directing administrative and clerical activities concerning student admissions and educational services - providing leadership and guidance to teaching, academic and administrative staff as well as to student - evaluating the work of teachers and lecturers by visiting classrooms, observing teaching methods, reviewing instructional objectives and examining learning materials - promoting the educational programme and representing the service or institution in the wider community - supervising the maintenance of educational facilities - developing and enforcing a disciplinary code to create a safe and conducive environment for students and teachers - controlling selection, training and supervision of staff <p>This unit group includes:</p> <ul style="list-style-type: none"> <input type="checkbox"/> School principal <input type="checkbox"/> Registrar (institution of higher learning) <input type="checkbox"/> Dean (institution of higher learning) 	
7.	Ervin	Corporate Comms Manager	Finance and administration managers plan, direct and coordinate the financial and administrative operations of an enterprise or organisation, in consultation with senior managers and with managers of other departments or sections.	Literacy Skills; Leadership Skills; Problem-solving; Influencing Skills; Teamwork Skills; Planning; Numeracy; Emotional Labour
8.	Eddie	Assistant Director, Planning and operations	Tasks include:	
9.	Edgar	Business Development Manager	<ul style="list-style-type: none"> - planning, directing and coordinating the financial and administrative operations of an enterprise or organisation - assessing the financial situation of the enterprise or organisation, preparing budgets and overseeing financial operations - consulting with the chief executive and with managers of other departments or sections - establishing and managing budgets, controlling expenditure and ensuring the 	

			<p>efficient use of resources</p> <ul style="list-style-type: none"> - establishing and directing operational and administrative procedures - developing and implementing administrative and procedural statements and guidelines for use by staff in the organisation - providing information and support for the preparation of financial reports and budgets - representing the enterprise or organisation in dealings with outside bodies 	
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APPENDIX I: Mapping Engineers' from 'One Degree Many Choices' subsequent occupations to GSI

TABLE 18: MAPPING ENGINEERS' FROM 'ONE DEGREE MANY CHOICES' SUBSEQUENT OCCUPATIONS TO GSI

	Name of Engineer	New occupation		GSI
1.	Chock Siew Hua	Teacher	<p>Secondary education teachers teach one or more subjects at junior college (including pre-university) and secondary school level.</p> <p>Tasks include:</p> <ul style="list-style-type: none"> - designing and modifying curricula and preparing educational courses of study in accordance with curriculum guidelines - establishing and enforcing rules for behaviour and procedures for maintaining order among students - preparing and giving lessons, discussions, and demonstrations in one or more subjects - establishing clear objectives for all lessons, units, and projects and communicating those objectives to students - preparing materials and classrooms for class activities - adapting teaching methods and instructional materials to meet students' varying needs and interests - observing and evaluating students' performance and behaviour - preparing, administering and marking tests, assignments and examinations to evaluate pupils' progress - preparing reports about pupils' work and conferring with other teachers and parents - participating in meetings concerning the school's educational or organisational policies 	<p>Literacy Skills; Leadership Skills; Problem-solving; Influencing Skills; Teamwork Skills; Planning; Numeracy; Emotional Labour</p>
2.	Teo Siew Chin	Teacher/trainer		
3.	Koh Tong Seah	Teacher		

			<ul style="list-style-type: none"> - planning, organising and participating in school activities such as excursions, sporting events and concerts <p>This unit group includes:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Junior college teacher <input type="checkbox"/> Pre-university teacher <input type="checkbox"/> Secondary school teacher 	
4.	Lucy Tan	HR Manager	<p>Human resource managers, plan, direct and coordinate policies concerning the personnel and industrial relations of an enterprise or organisation, or of enterprises that provide human resource services to other enterprises and organisations.</p> <p>Tasks include:</p> <ul style="list-style-type: none"> - planning, directing and coordinating the personnel and industrial relations activities, policies and practices of an enterprise or organisation - planning and organising procedures for recruitment, training, promotion, determination of wage structures and negotiations about wages, liaison and consultation with workers and related personnel matters - establishing and managing budgets, controlling expenditure and ensuring the efficient use of resources - establishing and directing operational and administrative procedures - overseeing the development and implementation of management information systems - ensuring compliance with standards and legislation relating to employees rights, equal opportunity and related concerns - overseeing the selection, training and performance of staff for the entire enterprise or organisation - consulting with senior 	<p>Literacy Skills; Leadership Skills; Problem-solving; Influencing Skills; Teamwork Skills; Planning; Numeracy; Emotional Labour</p>
5.	Josephine Chua	HR Manager		

			<p>management and with managers of other departments</p> <ul style="list-style-type: none"> – representing the enterprise or organisation in dealings with outside bodies <p>This unit group includes:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Human resource manager <input type="checkbox"/> Industrial relations manager <input type="checkbox"/> Personnel manager <input type="checkbox"/> Training manager 	
6.	Zuraidah Abdullah	Home Academy (Police Force) Assistant Commissioner of Police and commander of the Police Training Command	<p>Senior government and statutory board officials advise governments on policy matters, and oversee the interpretation and implementation of government policies and legislation by government departments and agencies.</p> <p>Tasks include:</p> <ul style="list-style-type: none"> – advising government and legislators on policy matters – advising on the preparation of government budgets, laws and regulations, including amendments – establishing objectives for government departments or statutory boards in accordance with government legislation and policy – formulating or approving and evaluating programmes and procedures for the implementation of government policies in conjunction or consultation with government – ensuring appropriate systems and procedures are developed and implemented to provide budgetary control – co-ordinating activities with other senior government officials – making presentations to legislative and other government committees regarding policies programmes or budgets – overseeing the interpretation and implementation of government policies and legislation by government departments and 	Literacy Skills; Leadership Skills; Problem-solving; Influencing Skills; Teamwork Skills; Planning; Numeracy; Emotional Labour

			<p>statutory boards This unit group includes:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Ambassador (government) <input type="checkbox"/> High commissioner (government) <input type="checkbox"/> Director-General <input type="checkbox"/> Permanent secretary (government) <input type="checkbox"/> Deputy secretary (government) <input type="checkbox"/> Chairman (statutory board) <input type="checkbox"/> Chief executive (statutory board) <input type="checkbox"/> Commissioner of Civil Defence Force 	
7.	Foo Su Ling	Curator at the National University of Singapore Museum	<p>Archivists, curators and conservators collect, appraise and ensure the safekeeping and preservation of the contents of archives, artefacts and records of historical, cultural, administrative and artistic interest, and of art and other objects. They plan, devise and implement systems for the safekeeping of records and historically valuable documents</p> <p>Tasks include:</p> <ul style="list-style-type: none"> - evaluating and preserving records for administrative, historical, legal, evidential and other purposes - directing or carrying out the preparation of indexes, bibliographies, microfilm copies and other reference aids to the collected material and making them available to users - researching the origin, distribution and use of materials and objects of cultural and historical interest - organising, developing and maintaining collections of artistic, cultural, scientific or historically significant items - directing or undertaking classification and cataloguing of museum and art gallery collections and organising exhibitions - researching into, appraising, and developing, organising and preserving historically significant 	<p>Literacy Skills; Leadership Skills; Problem-solving; Influencing Skills; Teamwork Skills; Planning; Numeracy; Emotional Labour</p>

			<p>and valuable documents such as government papers, private papers, photographs, maps, manuscripts audio-visual materials</p> <ul style="list-style-type: none"> - preparing scholarly papers and reports - planning and implementing the computerised management of archives and electronic records - organising exhibitions at museums and art galleries, publicising exhibits and arranging special displays for general, specialised or educational interest - appraising and acquiring archival materials to build and develop an archival collection for research purposes <p>This unit group includes:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Archivist <input type="checkbox"/> Art gallery curator <input type="checkbox"/> Museum curator <input type="checkbox"/> Conservator (art works) 	
8.	R Sinnakaruppan	Politician	<p>Legislators determine, formulate and direct government policies and make, ratify, amend or repeal laws, public rules and regulations.</p> <p>Tasks include:</p> <ul style="list-style-type: none"> - presiding over or participating in the proceedings of parliament - determining, formulating and directing government policies - making, ratifying, amending or repealing laws, public rules and regulations - investigating matters of concern to the public and promoting the interests of the constituencies which they represent - as members of the government, directing senior administrators and officials of government departments and statutory boards in the interpretation and implementation of government policies 	<p>Literacy Skills; Leadership Skills; Problem-solving; Influencing Skills; Teamwork Skills; Planning; Numeracy; Emotional Labour</p>
9.	Inderjit Singh	Politician		

			<p>This unit group includes:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Government minister <input type="checkbox"/> Member of parliament <input type="checkbox"/> President (government) 	
10.	Ho Tuck Chee	Full-time Trader	<p>Securities and finance dealers and brokers buy and sell securities, stocks, bonds and other financial instruments, and deal on the foreign exchange, on spot, or on futures markets, on behalf of their own company or for customers on a commission basis. They recommend transactions to clients or senior management.</p> <p>Tasks include:</p> <ul style="list-style-type: none"> – obtaining information about the financial circumstances of customers and companies in which investments may be made – analysing market trends for securities, bonds, stocks and other financial instruments, including foreign exchange – informing prospective customers about market conditions and prospects – advising on and participating in the negotiation of terms for, and organisation of, loans and placement of stocks and bonds in the financial market to raise capital for customers – recording and transmitting buy and sell orders for securities, stocks, bonds or other financial instruments and for foreign exchange for future or immediate delivery <p>This unit group includes:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Securities broker <input type="checkbox"/> Stocks and shares broker <input type="checkbox"/> Foreign exchange dealer/broker <input type="checkbox"/> Money broker <input type="checkbox"/> Investment broker 	Literacy Skills; Leadership Skills; Problem-solving; Influencing Skills; Planning; Numeracy; Emotional Labour
11.	Lim Suy Meng	Banker (Project Finance and Advisory Team)	<p>Financial analysts and related professionals conduct quantitative analyses of information affecting</p>	Literacy Skills; Leadership Skills;

				<p>investment programmes of public or private institutions.</p> <p>Tasks include:</p> <ul style="list-style-type: none"> - analysing financial information to produce forecasts of business, industry, and economic conditions for use in making investment decisions - maintaining knowledge and staying abreast of developments in the fields of industrial technology, business, finance, and economic theory - interpreting data affecting investment future trends in investment risks, and - monitoring fundamental economic the analysis of information obtained from investment banking firms, government sources, and personal interviews - recommending investments and investment staff, or the investing public - determining the prices at which securities are sold to the public - preparing plans of action for investment - evaluating and comparing the results of investment in the industry - presenting oral and written reports on investment corporations, and entire industries <p>This unit group includes:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Risk analyst <input type="checkbox"/> Credit analyst <input type="checkbox"/> Equities analyst <input type="checkbox"/> Fund manager <input type="checkbox"/> Treasury manager <input type="checkbox"/> Financial product structure <p>This unit group excludes:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Business consultant (2421) 	<p>Problem-solving; Influencing Skills; Planning; Numeracy; Emotional Labour</p>
12.	Chang Yong	Long	Deputy CEO Corp Group Media	<p>Managing directors, chief executives and general managers participate as members of boards of directors to formulate and review the policies and plan, direct, coordinate and evaluate the overall activities of enterprises or organisations with the support of</p>	<p>Literacy Skills; Leadership Skills; Problem-solving; Influencing Skills; Teamwork</p>

		<p>other managers. Tasks include:</p> <ul style="list-style-type: none"> - planning, directing and coordinating the general functioning of an enterprise or organisation - determining objectives, strategies, policies and programmes for the enterprise or organisation - providing overall leadership and management to the enterprise or organisation - establishing and managing budgets, controlling expenditure and ensuring the efficient use of resources - authorising material, human and financial resources to implement organisational policies and programmes - monitoring and evaluating performance of the organisation or enterprise against established objectives and policies - consulting with senior subordinate staff and reviewing recommendations and reports - representing the organisation at official occasions and board meetings, in negotiations, at conventions, seminars, public hearings and forums - ensuring the organisation complies with relevant legislation and regulations <p>This unit group includes:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Chief executive <input type="checkbox"/> Company board director <input type="checkbox"/> Company chairman <input type="checkbox"/> Chief operating officer <input type="checkbox"/> General manager <input type="checkbox"/> Managing director 	<p>Skills; Planning; Numeracy; Emotional Labour</p>
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