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A NARRATIVE INQUIRY OF HOW
PEOPLE IN MANAGEMENT
POSITIONS IN A SINGAPORE
INSTITUTION OF HIGHER
LEARNING (IHL) LEARN AND HOW
THEY DEVELOP THEIR
PROFESSIONAL IDENTITIES

By

Hee Soo Yin

A thesis submitted for the degree of

Doctor of Education

School of Education

University of Durham

2007



- 8 AUG 2007

DECLARATION

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ABSTRACT

This narrative inquiry investigates how ten people in management positions in a Singapore institution of higher learning (IHL) learn and how they develop their professional identities. Learning is defined as sense or meaning making (Bruner, 1990; Greenfield, 2004; Mezirow, 2000; Simkins, 2005; Weick, 1995) and development of professional identity is defined as how these ten people in management construct meaning in narratives of their life and professional experiences (Connelly and Clandinin, 1999; Olesen, 2001).

The uncertainties and complexities of a rapidly changing external environment make sense and meaning making vital in leadership and management in education. Research questions relate to how meaning is constructed of significant learning experiences over time; the internal mental structures or frames of reference used to construct meaning; and the internal dialectics involved in meaning construction. Narrative constructions of significant learning experiences over time obtained in in-depth interviews of ten people in management positions in the research site were analysed using a synthesis of narrative analysis approaches relevant to the research questions.

Narrative analysis of the narrative constructions showed the construction of a distinct self by each interviewee and the development of agency over time. Frames of reference used in meaning construction comprised inter-related dimensions of cognition, affect and conation and were found to be adaptable in different contexts. The internal dialectics of meaning construction involved an "outside-in" process of internalisation of knowledge and an "inside-out" process of self construction. Research findings also showed the inter-relationships of the development of consciousness and self-responsibility in agency development in narrative constructions; how self-construction is involved in meaning construction, the use and adaptation of frames of reference in different contexts, and the internal dialectics of meaning making. Implications of the research findings for practice include the need to use narratives and create contexts for learning from experience to focus student learning, staff professional development and management development in higher education on the development of consciousness and self-responsibility; and self-construction in agency development, the use and adaptation of frames of reference and internal dialectics of meaning making.

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Finally, I dedicate this thesis in loving memory of my mother who left a wonderful legacy of bountiful love and confidence in her daughters. By making it possible for me to have opportunities she never had, an enduring passion for learning was ignited which gave me the courage to embark on this challenging and enriching journey.

What I learnt on this journey has made me more convinced that learning does make a man and plays a vital role in leadership. I am awed by how man is wonderfully made and the mystery that resides in a man's conscious and unconscious mind as he makes meaning and sense of his life experiences.

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Chapter 1

INTRODUCTION

Thesis and chapter introduction

The uncertainties and complexities of a rapidly changing external environment make learning and the development of professional identity vital in leadership and management in education. This narrative inquiry investigates how ten people in management positions in a Singapore institution of higher learning (IHL) learn and how they develop their professional identities.

At the outset, I designed a two-part in-depth interview for this research. Part 1 of the interview was an unstructured in-depth interview when interviewees were asked to tell stories of their significant learning experiences both before and after they took on a management appointment in the Singapore IHL (research site). Part 2 of the interview was semi-structured to facilitate their telling of their experience in their management positions in specific areas such as how they conceptualised their management roles and purpose, learn to manage staff, change and power. In the course of narrative analysis of the extensive data collected for Parts 1 and 2 of the interviews, I decided to sharpen the focus of the investigation to focus on the more



fundamental question of how the interviewees learn or construct meaning in narratives of their life and professional experiences in Part 1 of the interview as I found that the data collected for both Parts 1 and 2 of the interviews were too extensive to be analysed meaningfully and at adequate depth within the scope of this doctoral research. The research questions were re-developed to provide depth of view of how ten people in management positions in a Singapore IHL (research site) construct meaning of their significant learning experiences over time, the frames of reference used in meaning construction and the internal dialectics of meaning construction. As suggested in Chapter 5, the data collected in Part 2 of the interviews can be analysed in a subsequent research to focus on meaning construction specifically in their experience in a management context in the Singapore IHL (research site) to build upon the findings of this research.

In this Chapter, key terms like “learn” and “professional identities” used in this thesis are defined. I also review the literature to paint the landscapes of leadership and management in education and learning and show how my research questions were developed to address an important need for research highlighted in the literature review.

Chapter 2 sets out why phenomenological research is highly appropriate as a research method for my research questions. In

particular, I set out reasons why narrative inquiry as a phenomenological research method is used in this research. I also set out how I designed and conducted the phenomenological interview. Criticisms of narrative inquiry are addressed, while ethical issues related to this research and the criteria for evaluating narrative inquiry are also discussed. I also discuss how I developed my narrative analysis approach.

Chapter 3 presents the overarching theme and themes emerging from narrative analysis of the narrative constructions. The frames of reference used in meaning making by each interviewee and the internal dialectics of how meaning is made in each narrative construction derived from narrative analysis are also presented.

Chapter 4 presents the meta-analysis across the narrative constructions and discusses meaning construction, frames of reference and the internal dialectics of meaning construction.

Chapter 5 crystallises the findings of this narrative inquiry. The strengths and limitations of this research are highlighted which includes how this research has illuminated and expanded knowledge of the phenomenon of meaning making and suggestions for further research. I conclude with a discussion of the implications of the research findings.

Personal motivation for research

My primary motivation for embarking on doctoral studies in education is a desire to critically reflect on my practice in a Singapore Institute of Higher Learning (IHL) after more than eight years in seven different management positions. During these eight years, I have acquired different knowledge and skills in new professional areas and disciplines. I also worked with different people from different disciplines in a variety of contexts. I observed that the capacity to learn is critical in leadership and management as internal and external changes continue to be part and parcel of everyday management practice in the IHL. In my current management position I am responsible for the professional development of management staff. In view of my personal and professional interests, I decided to focus my research on how people in management positions in higher education learn and how they develop their professional identities.

Brown & Posner (2001) writing in a context outside education explored the relationship between learning and leadership. Responses on the learning tactics inventory and leadership practices inventory compared for a managerial sample indicate that more active and versatile learners consider themselves more frequently involved and engaged in leadership behaviors. They would even go as far as to say

that in the present world, leadership is not learned but rather that leadership is learning. In my management practice, I observed that how I learn affects how I lead and manage. I therefore wanted to investigate empirically how people in management positions in education learn.

Definitions

Different terms have been used in the literature ranging from "educational administration" (Greenfield & Ribbins, 1993; Murphy & Louis, 1999), "educational management" (Bush, 1999; Fitz, 1999), "educational leadership" (Beattie, 2002; Hart, 1999), and "educational leadership and management" (Glatter & Kydd, 2003; Heck & Hallinger, 2005). For the purpose of this thesis, I will not be entering into the leadership or management debate or venture a definition of what educational leadership and management is as this is an area of contestation. Instead, I will adopt Ramsden's (1998) point of view that both leadership and management are involved in leading higher education in practice. My research avoids this contested area by focusing on the "lived" experience (Knights and Wilmott, 1999) of people in management positions in a Singapore IHL. "People in management positions" will refer to leaders, managers and

administrators in education in this thesis. However, when I am referring to literature which uses other terms, I will use the term that is used in the literature referred to.

I define "learning" as meaning making or sense making for the purposes of this research. The meaning that is drawn from Bruner's (1986, 1990), Greenfield's (2004), Mezirow's (1991) and Simkins' (2005) works is that it is a cognitive or mental process to make sense or meaning of experiences. I will use both sense making and meaning making interchangeably.

Weick (1995) defined sense making literally as the making of sense. Active agents construct sensible, sensible events. They structure the unknown. How they construct what they construct, why, and with what effects are the central questions. Baillie (2003) in his introduction to Hegel's *The Phenomenology of Mind* explained that for Hegel, experience is the inseparable and continuous interrelation of subject and object. The interrelation takes the form of conscious awareness of an object. The moments are distinct, and the unity of these factors is simply the mental process of holding them together in a single mental situation and distinguishing them from each other within that situation.

Sense making according to Weick (1995) is less about discovery than invention. He also said that to engage in sense making is to construct, filter, frame, create facticity and to render the subjective into something more tangible. When people make sense of things, they "read into things the meanings they wish to see, they vest objects, utterances, actions and so forth with subjective meaning which helps make their world intelligible to themselves."

How an individual makes sense or constructs meaning can also be said to be how the individual constructs his or her identity. Connelly & Clandinin (1999) defined professional identities as stories of how administrators become "knowers" of their narrative life histories, their professional knowledge landscape as constructed in narratives and their personal practical knowledge in the stories of their practice. According to Olesen (2001), professional identity should be seen as learning processes in life histories.

When referring to how people in management positions learn, I am therefore referring to the cognitive or mental process of how each of them constructs or makes meaning. When referring to how people in management develop their professional identities, I am referring to how they construct meaning in their life and professional experiences in narratives.

Literature review

The landscape of leadership and management in education

A literature review shows that the field of leadership and management in education is highly complex, contested and changing. I will set out current literature which supports this picture of the landscape. First, leadership and management in education as a concept is complex and contested (Lumby, Foskett & Fidler, 2005). Second, there is less agreement today about significant problems or priorities that should be addressed (Heck & Hallinger, 2005). Third, there is diversity and fragmentation in the variety of roles and specializations (Robertson, 1998), multiple and complex activities and differences in philosophy, world views, ideology and politics (Willower & Forsyth, 1999). Fourth, there is complexity and uncertainty in the contemporary environment and the complexity of the change process required for implementation (Connolly, Connolly & James, 2000; Glatter & Kydd, 2003). Fifth, as an applied discipline, educational management is ever changing as policy changes and theory and research develop (Bush, 1999). This involves an expanded knowledge base that is more grounded in cognitive psychology (Hart, 1999). Sixth, new paradigms contest traditional paradigms or models (Boyd,

1999). Examples of this given by Boyd (1999) include the contest between the traditional, input and control-oriented paradigm and the new outcomes-oriented paradigm and the contest between an individualist, market-driven and communitarian models.

My literature search also supports what Greenfield (2004) said, that the field still knows relatively little about how educational leaders and managers actually make sense of their worlds. He also said that an understanding of their worlds, the sense they make of their experience, is a critical guide to how they respond to the events and circumstances in which they find themselves. This relates to Simkins' (2005) sixth dimension of a leader's sense making or the understanding of sense making itself. Management practice in this highly complex, contested and changing landscape therefore requires the ability to make sense and meaning of complexities, ambiguities and uncertainties. It also requires an ability to act as one is making sense or meaning of complex social environments in the world as problems are defined, solutions found and decisions made.

Many writers have highlighted the need for research to shed light on how leaders and managers in education learn and how they make sense or meaning in complex social systems. Without being exhaustive, these advocates include Boyd (1999), Fitz (1999), Foskett

& Fidler (2005), Glatter & Kydd (2003), Greenfield & Ribbins (1993), Greenfield (2004), Hart (1999), Mulford (2005), Murphy and Louis (1999), Ramsden (1998), Robertson (1998), Simkims (2005) and Southworth (2002).

Hart (1999) also highlighted the need for research into how educational leaders think, what they think about, and how they tie their thinking to their actions or core intellectual functions of problem finding, problem solving and decision making in their everyday activities. He argued that research must focus on developing a better understanding of these cognitive maps and ways in which they help educational leaders make sense of their complex worlds. Fitz (1999), Robertson (1998) and Southworth (2002) also highlighted the need for research into how tensions and dilemmas are dealt with in practice. Boyd (1999) also called for research to shed light on how educational leaders deal with changing paradigms, roles and seemingly conflictual situations in their practice.

Southworth (2002) said that it is important that school leaders are able *inter alia*, to deal with complex issues both systematically and creatively, make sound judgments in the absence of complete data and demonstrate self-direction and originality in tackling and solving problems (Glatter & Kydd, 2003). He therefore highlighted the need for

research on how educational leaders develop their ability to make decisions in the context of complexity, uncertainty and even paradox.

In criticising those who seek to make educational administration into an objective science as not being seriously concerned with the real world of administrators, Greenfield & Ribbins (1993) argued for research that looks at social reality from a variety of perspectives, particularly from the perspectives of different actors in a given social situation.

Foskett & Fidler (2005) also argued that research needs to be re-conceptualized, as a critical stance is adopted for knowledge making, and as the understanding of the neurological process of creating knowledge grows. Murphy & Louis (1999) said that the nature and understanding of knowledge and learning are changing from knowledge as an external entity to knowledge as internal and subjective, closely connected to the learner and the situational context and as a social phenomenon.

Simkins (2005) identified six dimensions of sense making as he contrasted the traditional approach and the emergent view of leadership as a property of social systems. His sixth dimension of how leaders make sense relates to the understanding of sense making itself. He called this the greatest sense making question of all: the

nature, potential of and limitation of agency in this complex and messy world. He said that it is important for leadership to explore the interaction between structure and agency in particular contexts and how this is mediated by individuals' values, personality and personal history.

There are also those who highlighted the need for research into how educational leaders develop their professional identities (Beattie, 2002; Busher, 2005). Southworth's (2002) reflections on school leadership suggested that leadership is socially constructed and varies from setting to setting. He also observed that school leadership theorising suffers from lack of differentiation as too little is known about how leaders and leadership change over time as individuals mature and increase their experience. Beattie (2002) also argued for research to investigate how leaders and leadership change holistically over time as individuals mature and increase their experience.

Beattie (2002) identified two themes outlining the boundaries and obstacles encountered in everyday educational leadership practice. They are learning from and with others and are developing an authentic voice and identity (Beattie, 2002). Identity is not just the product of the individual but is a socialized and socializing process in

which identities can be received as well as shaped (Gunter & Ribbins, 2002).

In exploring professional identities of middle leaders, Busher (2005) found that at the core are values that guide their interactions with colleagues, students and senior management when seeking to shape and implement departmental and school policies. People develop their professional self-identities through interactions with other people in a variety of milieu through time. These identities are grounded in people's individual histories, personalities and work-related experiences, including their experience as students in various institutions.

The close co-relation between learning and the development of agency and identity of an educational leader was also spelt out by Ramsden (1998) who said that leadership in higher education is a dynamic process involving *inter alia*, the leader's learning and constant transformation of understanding, drawing from personal experience, theory and research about universities as organisations. This is best achieved through an ability to learn and, if necessary, constantly change (Mulford, 2005).

In summary, the literature review of the landscape of leadership and management in education reveals that there is a dire need for research on how educational leaders learn and how they develop their

professional identities. Given my definition of learning as sense or meaning making set out at the beginning of this Chapter, research into how people in management positions learn or make sense or meaning will also include how they develop professional identities over time (Beattie, 2002; Southworth, 2002). This includes how they make sense or meaning in complex social systems, the cognitive maps used in sense or meaning making and knowledge construction as well as their development over time.

My literature search has not shown any empirical research in this area notwithstanding it being identified as an important area for research in the landscape of leadership and management in education. Van der Mescht's (2004) research is the only educational leadership case study that I found which uses a phenomenological approach. However his research does not investigate how educational leaders learn.

I will now review the literature on learning as this is a landscape that my research into the phenomenon of learning as meaning making is also located.

Literature review of the landscape of learning

A literature review of the landscape of learning reveals a field that explores different perspectives of learning in different contexts in different areas in order to serve different needs. Examples of areas relevant to my research topic include student learning in higher education, adult learning and management learning. There has been little attempt to have these different perspectives in these different areas dialogue with each other. I will show that an investigation of the phenomenon of meaning or sense making from the learner's perspective calls for dialogue between these different perspectives to shed light on the very complex, individualized and situated process of learning.

Research into student learning in higher education is suggesting that learning is, in reality, hard to measure, control and understand even with research into approaches of learning and conceptions of learning models (Biggs, 1999; Marton & Säljö, 1984; Prosser & Trigwell, 1999). What research of student learning in higher education is suggesting is that learning is a situated and complex process and there can be surface or deep approaches to learning in different contexts. Brockbank & McGill (1998) suggested that there is a need to

look inside the “black box” to describe the teaching and learning which take place as a situated process from the learner’s perspective.

In adult learning, the works of Knowles (1990) and Lindeman (1989) which focused on the learning characteristics of adults, adult learning processes and principles of adult learning seem to suggest that how adults learn is homogenous and unproblematic. Their work however is not based on empirical research on learning from the learner’s perspective.

Boud, Keogh & Walker (1985b) described association, integration, validation and appropriation as the elements of learning from reflection. They pointed out that the elements of reflection are not stages but elements of a whole and the complexities of the learning process in real situations may see a continual cycling back and forth between elements or even their omission or compression. They also recognised the involvement of feelings, goals and intent in learning. This description whilst helpful also leaves many questions unanswered such as when, how and why these elements take place for a particular person in a particular context when he or she makes meaning or sense of experience. This again points to the need to explore how learning or meaning making takes place in the experience of the learner.

Brookfield (2000) suggested that there are four forms of learning that are visible in a more heightened form in adulthood. They are the capacities to think dialectically in trying to resolve these contradictions between ideals and actuality; employ practical logic in a specific context; know how we know what we know and to adjust these according to situations and critically reflect on the accuracy and validity of assumptions, beliefs and values assimilated during childhood and adolescence, for the contexts of adult life. What is distinctive about adult learning is the search for meaning in complex, contradictory and ambiguous realities, and the process in which critically reflective capacities are developed in this search. This is another argument for research into learning from the learner's perspective.

Mezirow (1991) pointed out that psychological theories like behaviorist or psychoanalytical theories seldom communicate with each other as each starts with a different frame of reference. He also said that a missing dimension in these theories is meaning. He goes on to argue for a learning theory that can explain how adults make sense or meaning of their experiences, the nature of their structures that influence the way they construe experience and the dynamics involved in modifying meanings. He proposed that adult learning is

transformative and described learning as meaning making. He was influenced by ideas from Habermas' (1984) theory of communicative action. However his work was not supported by empirical research. This again argues for empirical research from the learner's perspective.

The art of management in complex and uncertain situations has been described by Schön (1983) as a form of "reflection-in-action" which describes how professionals learn from experience. Professional managers learn from experience with a capacity for reflection on their intuitive knowing in the midst of action as they cope with unique, uncertain and conflicted situations of practice. This description of learning from experience relates to management generally. It would be useful to examine whether this is how people in management positions in education also learn from experience. Schön's (1983) structure of "reflection-in-action" as a reflective conversation with a unique and uncertain situation comprises the bringing of past experience to bear on a unique situation, on-the-spot experiment and hypothesis testing in a constructed representation of the real world of practice with a stance toward inquiry. This is a helpful description. However the question of how the learning happens in a particular learner's experience in a situated context remains.

My brief review of the above writers of the different perspectives of learning in higher education, adult learning and management learning show that they take a constructivist perspective of learning. A constructivist perspective takes the view that different elements of learning interact in complex ways which are not possible to predict and that individuals act according to the meanings which they attribute to their experiences and that such meanings are continually created and recreated through interaction with the social context and that meaning at any moment in time is unique to each individual (Glaserfeld, 1995).

I will now examine the works of four major writers of the constructivist perspective of learning to paint the constructivist landscape in which my research is located. Dewey's (1916, 1920, 1933) influential works paved the way for the epistemological belief that knowledge is not absolute but relative to the developmental interaction of man with his world as problems arise to present themselves for solution. Piaget (1969) advanced a biological or genetic epistemology in explaining the process of learning. Vygotsky (1962) advanced a social interactionist explanation of learning. Bruner (1990) proposed that culture, not biology, shapes human life and human mind and that culture gives meaning to action by situating its underlying intentional states in an interpretive system.

All four are developmental theorists. A comparison between them shows similarities and differences. Dewey (1933), Piaget (1969) and Vygotsky (1962) shared a similar starting point of a disjuncture being experienced by the learner. They described this experience of disjuncture differently: a felt difficulty or lack of coherence (Dewey, 1991), disequilibrium (Piaget, 1969) and a sense of being puzzled by what is being encountered (Vygotsky, 1962). This leads to a making of meaning whether by reflection (Dewey, 1991), assimilation or accommodation for equilibration (Piaget, 1969), and re-negotiation of meaning mediated by tools like language (Vygotsky, 1962). Bruner (1990) started with the premise that meaning making should be central to the cognitive revolution but did not explain the starting point or the process for meaning making.

As regards social interaction in meaning making emphasised by Bruner (1982) and Vygotsky (2002), Dewey (1948) in *Reconstruction in Philosophy* conceptualized experience as the interaction of organism and environment resulting in some adaptation using the environment. Gruber & Vonèche (1995) rebutted Piaget's critics who criticised Piaget for neglecting social factors by saying that Piaget published sociological essays which were collected in *Etudes sociologiques* (English version edited by Leslie Smith, 1995). They said that Piaget

presented a general model of social exchange that is structural in nature. Piaget said that people exchange values of different kinds. This exchange of values is based on the idea that all social agents share common scales of qualitative values by which they can order objects and experiences according to different criteria. Chapter 6 of Piaget's (1950) *The Psychology of Intelligence* dealt with social factors in intellectual development.

As regards consciousness in meaning making, there are some differences between them. McDermott (1973) said that Dewey in the *Experience of Knowing* saw consciousness as a symbol, an anatomy whose life is in natural and social operations. Vygotsky (1962) clearly emphasised the internalisation of knowledge into an individual's consciousness. For Bruner (1990), the "Self must be treated as a construction that proceeds from the outside in as well as from the inside out, from culture to mind and from mind to culture." This involves a dual landscape of consciousness and action. Although Gruber & Vonèche (1995) said that Piaget examined consciousness and causality and states of consciousness in his paper on *The Multiplicity of Forms of Psychological Explanations*, consciousness was not mentioned by Piaget in *Toward a Logic of Meanings* (1991). Gruber & Vonèche (1995) said that in Piaget's *Grasp of Consciousness*,

awareness is not transparency of action to consciousness but a conceptual reconstruction of one's own actions according to the level reached by the growing organism. Success or failure is independent of awareness.

As regards the mediation of language which was emphasised by Bruner (1982) and Vygotsky (2002), Dewey (1933) also described thinking as what happens in the cognitive dimension with language as a tool of thinking in *How We Think*. Piaget appeared to have been silent on the use of language.

The differences between these four developmental theorists relate more to their different perspectives and different emphases or lack of emphasis of certain dimensions in their descriptions of the process of meaning making. These differences do not however mean that they are inconsistent. In my view, they shared sufficient similarities to co-exist together to paint a composite picture of constructivism as relating to a process of interaction between man and the environment which sees cognitive conflict or disequilibrium as a trigger and which results in an internalisation, adaptation, growth and self creation. Together they illumine the very complex and to some extent "hidden" phenomenon of learning or meaning making which involves the inner consciousness of unique individuals.

These accounts of constructivism, taken together with their distinctive perspectives and similarities of constructivism indicate that areas to examine in empirical research into learning include: the learner's descriptions of how meaning is made in "lived experience" as the learner internalises knowledge whether through cognitive development or through social interactions and culture as well as how the learner creates self as he or she interacts with a new experience or situation. This includes examining what happens in the inner consciousness of the individual learner as meaning is made of new experiences or situations and how self and culture are created in the process.

Greenfield & Ribbins (1993) said that the individual human being is the necessary unit for analysing self and society. This is because all explanations of social and personal phenomena must rest upon subjective meanings that appear "adequate" to the individual. The task of those who would explain human action and social forms therefore becomes the "interpretation" of human meanings. They were influenced by the social psychology of Mead (1934) who provided a rationale in which thinking becomes an internal dialectic whereby the human organism adapts to its environment. Thinking and being are thereby adaptive responses to environment, and primacy for

explanation rests with the internal dialectic rather than the objective conditions (Greenfield & Ribbins, 1993).

The research questions

The literature reviewed both in leadership and management in education and in learning indicates that there is a need for research on how people in management in education make sense or meaning in complex social systems in a changing external environment over time. This includes how they make sense or meaning of their learning processes in their narrative life histories (Connelly & Clandinin, 1999; Olesen, 2001).

My research questions can be stated as:

1. How do people in management positions in a Singapore IHL learn or make meaning or sense of their significant learning experiences in their narrative life and professional histories over time?
2. What are the internal mental structures or frames of reference used to construct meaning of significant learning experiences in each interviewee's narrative life and professional histories?

3. What are the internal dialectics involved in how meaning is made of significant learning experiences in each interviewee's narrative life and professional histories?

Chapter summary

In this Chapter, I define essential terms used in this thesis, set out my motivation for this research and describe how the research questions were developed in the light of a literature review of the landscape of leadership and management in education and learning. In Chapter 2, I set out the reasons why I chose phenomenological research and narrative inquiry as my research method and describe how I designed and conducted the phenomenological interview. I also address criticisms of narrative inquiry and discuss the criteria for evaluating narrative inquiry and ethical issues related to this research before showing how I developed my narrative analysis approach to answer the research questions.

Chapter 2

RESEARCH METHODOLOGY

Chapter introduction

In Chapter 1, I define learning and professional identity, review the literature on leadership and management in education and learning and set out how I developed my research questions. This Chapter sets out why phenomenological research and narrative inquiry in particular is appropriate as a research method to investigate my research questions. This Chapter also sets out how the phenomenological interview was designed and conducted, and addresses the criticisms of narrative inquiry. I also discuss the criteria for evaluating narrative inquiry, the ethical issues related to this research and how I developed my narrative analysis approach.

A phenomenological approach

In setting out different writers' arguments for phenomenological research into leadership and management and learning, it will be evident why this approach is highly appropriate as a method to investigate my research questions.

In their examination of the state of the field of educational leadership and management, Heck & Hallinger (2005) noted that scholarly directions seem to be changing and an increasing number of scholars are approaching it as a humanistic and moral endeavor rather than a scientific one. Greenfield & Ribbins (1993) criticised the scientific approach and observed that major scholarly reviews of research in educational administration had demonstrated the inadequacy of the scientific approach to understand and control the problems of an organisation. They pointed out that although positivistic science may conveniently separate fact and value, administrators cannot as they are inextricably intertwined in the world that administrators deal with. The traditional positivist-oriented and behaviorist approach based on quantitative analysis is also ill-suited to understand social constructions of school life as it fails to consider how contextual, moral, and ethical issues influence administrators' thinking and actions. Whilst there is still scope for empirical study that demonstrates the impact of strategies to alleviate educational problems (Heck & Hallinger, 2005), the potential for quantitative empirical data to provide definitive answers to the sort of questions they pose may have been overestimated (Donmoyer, 1999). In their reflections on key criticisms made of research in educational leadership and

management, Foskett et al (2005) argued for an expansion of the range of methodologies to include particularly, qualitative studies.

To investigate what Simkins (2005) has identified as the heart of the sense making agenda, it is necessary to inquire by appropriate qualitative studies how people in management positions in education make sense or learn and develop over their life and professional histories. A suitable research method must be chosen to investigate how the interviewees construct meaning of how they learn and develop their professional identities.

In arguing for an alternative perspective of perceiving organisations as a social invention of the social reality within which people make decisions and take actions which seem right and proper to them, Greenfield & Ribbins (1993) argued for research which takes the phenomenological perspective. The aim of such a perspective is not to confirm theory but to explain and clarify the experience of people in specific situations. In selecting a qualitative approach which seeks to illuminate how people in management positions in a Singapore IHL learn and how they develop their professional identities, I adopted a phenomenological approach as it is a method well suited to exploring perspectives that look inward to the mind.

Research which takes account of the internal representations of meaning as reflexively revealed or exteriorised through and in ethnographic research, is properly called phenomenological (Hannabuss, 2000). Van der Mescht (2004) pointed out that the distinguishing feature of empirical phenomenology is the fact that it focuses on the meaning human beings make of their experience which is what my research questions relate to. In empirical phenomenology, the researcher contemplates the meaning others make of objects, or experiences.

Van der Mescht (2004) saw empirical phenomenological research as a powerful way of making sense of sense making which can lead to insights into the uniquely complex processes of learning, leadership and management in education. The phenomenological method is sensitive enough to articulate nuances of human experience and reflection and is grounded in the philosophical traditions of existentialism and phenomenology (Pollio, Henley & Thompson, 1997). Empirical phenomenologists like Giorgi (1985) examined consciousness to see the workings of meaning and interpretation in one's perception of the world. He also said that by careful and skilled questioning, one could come to see how others tackle the same task.

Writing in the context of education, Curtis & Mays (1978) pointed out that whilst phenomenologists have differed on major issues and even different versions of phenomenology, the distinguishing features of this philosophical viewpoint generally agreed upon are a belief in the importance or primacy of subjective consciousness, an understanding of consciousness as active and meaning bestowing, and a claim that there are certain essential structures to consciousness of which direct knowledge can be gained by a certain kind of reflection. This kind of reflection upon consciousness, upon the way in which, for example, the experience of seeing presents itself in consciousness, is central to phenomenology.

Most forms of phenomenological qualitative research follow the empirical approach which is interested to see how people interpret their worlds, and how their interpretations can be interpreted. When it comes to examining an individual's subjective experience of meaning making, there is no better source than the individual concerned. The choice of a phenomenological approach can be said to be highly appropriate as a research method to investigate my research questions.

Narrative inquiry

Phenomenological research which seeks to understand "lived experience" (Knights & Wilmott, 1999) must consider how this "lived experience" and meaning is expressed or constructed in narrative forms. Bruner (1985) said that narratives operate by constructing the two landscapes of action and consciousness simultaneously. Clandinin & Connelly (2000) said that narrative inquiry is a form of phenomenological inquiry. A brief summary of what different writers said about narratives provides ample justification why narrative inquiry is appropriate and well suited as a research method to investigate my research questions.

First, how an individual constructs narratives is how the individual naturally functions cognitively when constructing meaning and creating the self in a representation of experience or construction of reality. Dhunpath (2000) affirmed the reality that lives are intrinsically narrative in quality and that the world is experienced and experience is represented in narratives. Research on human intelligence has found that studying the structure and use of stories can provide important insights into the roots of self and the nature of thinking (Herman, 2003). Bruner (1985) said that there are two irreducible modes of cognitive functioning that can be considered to be of a "natural kind." Each

provides a way of ordering experience or constructing reality. These are the paradigmatic or logico-scientific mode and the narrative mode. The paradigmatic mode is focused on the narrow epistemological question of how to know the truth whereas the narrative mode focuses on the broader and more inclusive question of the meaning of experience. Bruner (1990) posited that a primary way individuals make sense of experience is by casting it in narrative form.

For Clandinin & Connelly (1998), life is a story we live by and people should make meaning of their lives through stories. du Toit (2003) saw the self as creating meaning and knowledge through the sense making process. It is from the material of everyday life that narration creates and assembles the self. The stories individuals tell about themselves is part of their becoming. These stories hold the possibilities of who one might become. The self is given content, is delineated and embodied primarily in narrative constructions or stories.

Second, narratives allow for an investigation of an individual's development and the development of his or her self identity over time. Wolf (2005) said that the narrative holds the schemata of a life lived which is invaluable for longitudinal in depth perspective. In the narrative, identity is pronounced, named, explored and even reconstructed. It is essentially a psycho-socially constructed narrative

that integrates the reconstructed past, perceived present and anticipated future in a story of the self.

Chase (2005) saw narratives as retrospective meaning making, the shaping or ordering of past experiences. Narrative is a way of understanding one's own and others' actions, of organising events and objects into a meaningful whole, and of connecting and seeing the consequences of events and actions over time. Narratives are also verbal action. Whatever the particular action, when someone tells a story, he or she shapes, constructs, and performs the self, experience and reality. Their actual narration of experience will also be an act of construction of their selves, experience and reality.

Third, an individual's narratives provide access to his or her meaning structures that they construct to make sense of experience and reality over time. Rosenthal (1993) said that the narrated life story represents the subject's overall construction of how his or her past and events, actions, and experiences are connected with other events, actions, and experiences according to substantive and temporal patterns. These patterns do not necessarily follow the linear sequence of the "objective time" but rather conform to a perspectivist time model of subjective or phenomenal time. The assumption is that the process of selection being carried out by the interviewee while presenting his or

her life story is not haphazard or arbitrary. It is a process which takes place simultaneously against the backdrop of a biographical structure of meaning which determines the selection of individual episodes presented within the context of interaction with a listener or imaginary audience.

Bruner (1987) argued that culturally shaped cognitive and linguistic processes that guide the self-telling of narratives, achieve the power to structure perceptual experience, organise memory, segment and purpose-build the very 'events' of a life. In the end, a person becomes the autobiographical narratives by which he or she tells about his or her life.

Fourth, narrative inquiry has become accepted as part of the discourse in the field of educational studies as it provides the "best" way to understand and expand knowledge about experience, practical knowing and meaning making in a situated social reality. Clandinin & Connelly (2000) argued from a review of the last twenty years that narrative inquiry has become part of the discourse in the field of educational studies as it has been for disciplines like anthropology, psychology, psychiatry and the humanities. They also argued that as the world is understood in narratives, it makes sense to study the world in narratives. They were following Dewey (1916) for whom life is

experience. To understand experience, Clandinin & Connelly (2000) saw their research problem as "trying to think of the continuity and wholeness of an individual's life experience." This brought them to narrative as the best way to understand experience in educational studies. The process of storytelling and re-telling of change and continuity is a means of personal and social growth because it helps construct meaning and make sense of new life experiences (Clandinin & Connelly, 1998). Explorations of stories provide a window into what people in management positions value as knowledge and provide insights into their intuition and the factors that influence their beliefs about a certain role, organisation, or event. The contribution of a narrative inquiry is more often the creation of a new sense of meaning and significance with respect to the research topic than the yielding of a set of knowledge claims that might add to knowledge in the field. It offers readers a place to imagine their own uses and applications.

Ospina & Dodge (2005) said that narrative inquiry assumes that narratives convey meanings, intentions, beliefs, values, and emotions that reflect situated social reality, rather than reflect an "objective reality" *per se*. Narratives also carry practical knowing that individuals have gained through their experience. Narratives are constitutive,

which means that they are not only shaped by individuals, but they also shape individuals.

Fifth, there is a dearth of research into the psychology of thought in narratives. Bruner (1990) observed that so far, the psychology of thought has concentrated on the paradigmatic at the expense of narrative. Bruner (1987) also said that he cannot imagine a more important psychological research project than one that addresses itself to the development of autobiography or how a person's way of telling about himself or herself changes and how these accounts come to take control of himself or herself. He also observed that there is not a single comprehensive study on this subject.

The five justifications earlier set out argue persuasively that narrative inquiry is highly appropriate as a research method for my research questions. In the specific context of leadership and management, Quong, Walker, & Bodycott (1999) said that leaders demonstrate the principles that guide or influence who they are, and how they act in the process of storying. Telling and analysing stories allows leaders and others to examine their own filters or biases in order to get a more complete understanding of what is important to them and how this influences how they handle problems and situations. Leadership stories also hoard knowledge, influences and

understandings developed throughout an individual's personal and professional life. The process of storytelling and re-telling stories is a fundamental method of personal and social growth because it helps us to construct meaning and make sense of new life experiences.

The phenomenological interview

Whilst formalists begin inquiry in theory, narrative inquirers tend to begin with experience as lived and told in stories (Clandinin & Connelly, 2000). Clandinin & Connelly (2000) also advised that for narrative inquiry, it is more productive to begin with explorations of the phenomena of experience. It is important to keep in the foreground a narrative view of experience as the theoretical methodological frame.

According to Brookfield (1990), phenomenological research into learning to learn seeks to enter the existential reality of learners so that the assumptions, reasoning processes and belief systems informing their perceptions of the world can be appreciated and understood. The purpose is to enter another's frame of reference in such a way that the learner's structures of understanding and interpretation, and the perceptual filters through which the learner apprehends reality, can be experienced and understood by the researcher as closely as possible to the ways they are experienced and understood by the learner.

Phenomenology is not so much a method as an epistemological orientation, a way of thinking about how knowledge is known and realities are constructed. Something as complex and sophisticated as understanding someone else's meaning schemes and meaning perspectives can be accomplished only through talking to them intensively and at length. Giorgi's (1985) empirical phenomenological method as described by Van der Mescht (2004), accesses the lived experience of participants through the use of loosely structured interviews.

From the foregoing, it is evident that an in-depth interview is a primary method for phenomenological research. As the intent behind my research questions is to discover the interviewees' structures or logics with which they would naturally connect their significant learning experiences, Stroobant's (2005) approach to in-depth interviewing was chosen. His approach stimulates the interviewees to tell their stories without interruption of the flow of the story. The focus is on the dynamic dimension of the conversation and interviewees are encouraged to say as much as possible about experiences, events and feelings in their life and work. This is to discover their biographical structures or logics with which they connect specific experiences to one another.

Selection of research site

Given the nature of the in-depth interviews and the small sample size, a single research site was chosen. A single research site will provide sufficient similarity of context without institutional differences complicating the research.

The Singapore IHL in which I have worked for more than ten years was chosen as the research site for reasons of accessibility and familiarity with the context. There is also the added advantage of having developed good rapport and trust with the people that I will interview. This rapport and trust makes it more likely for them to tell me their personal stories more fully and freely than if I was a complete stranger. I am aware that this familiarity with the interviewees and the context may also be problematic in that there may be issues involved in interviewing those whom I know in a different role. Later in this Chapter, I discuss why such issues did not arise in my research. As my approach to the in-depth interviewing is to allow the interviewees to tell their stories without interrupting the flow of their stories, there is very little risk that I will impose my own understanding of the context in the interviewing.

Selection of Interviewees

I conducted in-depth interviews with ten people in management positions in the IHL (research site). A larger sample size will make this research impracticable, considering the extensive data that is generated in a qualitative research of this nature. The interviewees were selected from a sample of convenience from people in management positions in the IHL (research site) who consented to be interviewed after being briefed of the purpose and details of the interview. I endeavored to draw from a cross-section of people in management positions in the IHL (research site) in terms of management appointments, years in management in the IHL (research site) and age. I also ensured a balance of male and female interviewees to obviate any allegation of gender bias. Table A presents biographical data of the interviewees generalised to protect their identities. To avoid having to address complexities involved in issues of ethnicity, all the interviewees I approached were Chinese, the ethnicity constituting the majority in Singapore.

	Gender	Age range	Management appointment	Years in management in IHL (research site)
1. Ang	Male	30s	Middle management	3
2. Bee	Female	40s	Senior management	9
3. Cate	Female	30s	Middle management	4
4. Ding	Female	50s	Senior management	12
5. Eng	Male	30s	Middle management	6
6. Fook	Male	50s	Senior management	14
7. Goh	Female	30s	Middle management	10
8. Han	Male	50s	Senior management	11
9. Ian	Male	40s	Middle management	10
10. Juan	Female	40s	Middle management	5

Table A: Biographical data of the interviewees

I originally considered if data saturation (Glaser & Strauss, 1967) is applicable in the decision of the sample size for this narrative inquiry. Given that the individualised nature of learning would make it difficult to know when to stop my interviews, I adopted Janesick's (2003) suggestion. Instead of asking "how many interviews should I do?" the question I posed as a qualitative researcher is "what type of interview

and with which actors would be most sensible given the purpose of my study and the exploratory questions that guide my study?"

The interview approach

After explaining the purpose of the interview and getting my interviewees to sign written consent forms indicating their agreement to be interviewed, I asked the interviewees to tell me in any way they choose, stories of their significant learning experiences in their life, educational and professional history before they took on a management position in the IHL (research site). I also asked the interviewees to tell me in any way they choose, stories of their significant learning experiences since taking on management positions in the IHL (research site). This is to discover the biographical meaning structures or logics they use to connect specific experiences to one another as they construct meaning of these experiences.

As far as possible, I did not interrupt the flow of their narration. The only interruptions I made were to clarify their meaning. I elicited fuller descriptions by using questions such as "What was that like?" or "How did you experience...?" I incorporated the participant's own vernacular when asking questions to clarify their meaning. I avoided "Why"

questions as such questions shift dialogue away from describing to a more abstract, theoretical discussion (Pollio et al, 1997).

To encourage the interviewees to say as much as possible about their experiences, I listened empathetically and responded to their narrative constructions of their experiences by mirroring their expressions of emotions such as enthusiasm, pleasures and anxieties as appropriate. I was careful not to interject with my perspectives or to ask leading questions so as not to distract or distort the stories which the interviewees tell me. The climate I set for the interview was invitational and open enough to encourage interviewees to talk freely and spontaneously and to draw out the phenomenological world of the interviewees.

The Interviews

Hannabuss (2000) cautioned that if I as the researcher am known to interviewees in my organisational role, it may be impossible to change the mindset of interviewees that I am now researcher. This may mean that interviewees will disclose only what they would disclose to me in my normal role, disbelieving my assurances that the interview is confidential and anonymous. My experience of the interviews that were conducted showed that what Hannabuss (2000) cautioned

against did not happen. I attribute this to the pre-interview and start-of-interview formalities I adopted. Before all the scheduled interview sessions, I sent each of the interviewees who agreed to be interviewed, an information sheet setting out the title and purpose of the interview and the consent form approved by the University's Ethics Committee. The information sheet also informed the interviewees that they have the right to withdraw at any time.

Before the start of each interview, opportunity was given to each interviewee to ask me any questions about the interview before they gave me their signed consent form. I explained to them that I was audio-recording the session to facilitate an accurate transcription of the interview and assured them of the confidentiality of the interview. I also explained that the audio-recordings made will be destroyed after the entire project has been completed and that no further use will be made of the interview without their consent.

Another important factor was the rapport and trust I had built with them as their long-time colleague in the research site. My observation was that all the interviewees were comfortable enough with me and my assurances of confidentiality to tell me their life histories and their experiences. These included experiences which were very personal in nature and included crises, failures and negative experiences.

I also adopted Habermas' (1984) approach of a way of being with another that is aimed primarily at mutual understanding instead of success or efficiency or power relations. Just to be sure however that power relations do not influence the interviews, I did not include as interviewees any one who reports to me as a subordinate in my current management position. I also informed all the interviewees that I will give them an opportunity to confirm the actual transcript after their interview. Only one interviewee mentioned being uncomfortable with speaking into an audio-recorder but was nonetheless able to move on with the interview after I assured him about his being able to verify and correct the transcript after the interview. As the interview with him progressed, I found that he was comfortable enough to tell me his personal experiences, both positive and negative. During the interview he expressed some reservations on how the interview will be reported. I again assured him that the identity of my interviewees will be kept confidential in any published write-up and that no one will hear the actual recording or see the actual transcript which could identify him except me. He was then comfortable enough to continue with the interview.

The interviews were all scheduled during office hours. Seven interviews were conducted at the interviewees' offices to make them as

comfortable as possible for the interviews. Two interviews were conducted in my office as their offices were too noisy for audio-recording. These two interviewees expressed that they were comfortable with this. Another interview was conducted at a neutral meeting room at the request of the interviewee.

I explained the purpose of the interview at the outset to prepare the interviewees and invited their questions for clarification if any. I explained that the interview is free-flowing and they are free to narrate in any way they should choose, their significant learning experiences in their life, educational and professional histories both before and after taking on management positions in the IHL (research site).

As to the duration of the interview, Shank's (2002) recommendation is that it depends on my interviewees and me. Each interview session seems to have its natural length and that as energy begins to dip, the interview should move towards conclusion. His advice is not to force an interview beyond its natural zone of energy. I projected that each in-depth interview should not take more than two hours. To facilitate a rich description of their life histories, I need to give sufficient time for the interviewees to relate their learning experiences in their life histories without feeling that they need to hurry and therefore miss out on accounts and details. If the interviewees took less time than

anticipated, it was perfectly fine as each of them will have different experiences to tell. On the other hand, if the time taken is too long, interview fatigue could set in. Four of the ten interviews took about one hour and forty minutes, three interviews took about two hours, and only three interviews took slightly more than two hours.

The interviews were digitally audio-recorded and carefully transcribed. I asked the respective interviewees to confirm the accuracy of the transcriptions as soon as practicable after the interviews to give them an opportunity to clarify points where necessary.

Decisions after the interviews

I must point out that I originally designed a two part interview. Part 1 investigates the interviewees' biographical mental structures or logics with which they would naturally construct meaning of their significant learning experiences and professional histories. These comprise stories my interviewees choose to tell me of their significant learning experiences which include their professional experiences before and after taking on management positions in the IHL (research site). Part 2 investigates the interviewees' experiences in specific areas in management to investigate how they develop their personal practical

knowledge and construct their professional knowledge landscape. Both Parts 1 and 2 of the interview as originally designed investigate the original statement of my research questions.

I completed both Parts 1 and 2 of the interview with all my interviewees. After a prolonged period of intensive analysis of the extensive qualitative data generated for both Parts 1 and 2 of the interviews, I realised that my original research questions were too ambitious given the scope of a doctoral research. If I stayed with my original research questions, I will not be able to examine any specific area at sufficient depth for the purposes of a doctoral research. I decided to sharpen the focus of my research questions to concentrate only on Part 1 of the interviews. This is to allow me to examine at greater depth how my interviewees make sense or meaning of their significant learning experiences which include their professional experiences. My re-stated research questions set out in Chapter 1 focus on the phenomenon of meaning making from three different perspectives to provide depth of view viz., how meaning is made in narrative constructions of significant learning experiences over time, the mental structures or frames of reference used to construct meaning, and the internal dialectics of how meaning is made.

In Chapter 1, I defined the development of professional identity as how meaning is constructed of life and professional experiences in narratives (Connelly & Clandinin, 1999; Olesen, 2001). My research into how people in management positions learn and develop their professional identities therefore investigates the cognitive or mental process of how each of them construct meaning in narratives of their life and professional experiences.

The rich data generated in Part 2 of the interviews can be analysed in subsequent research as I suggest in Chapter 5. Part 2 of the interviews was originally designed to focus on specific areas of management practice to illumine how the interviewees make meaning and develop personal practical knowledge and construct their professional knowledge landscape in areas that include the *Verstehen* of the phenomena of power and value in practical realities, how leadership is conceived, how the role and purposes of the organisation in a dynamic and conflictual environment are conceived, and how they deal with the exigencies of present situations in the context of a rapidly changing external and internal environment.

Criticisms of narrative inquiry

Whilst biographies, life histories and other modes of narrative research are enjoying increasing popularity as an alternate research genre, Dhunpath (2000) acknowledged that its status as a legitimate research method continues to be challenged by the positivist or empiricist tradition and the artificial dichotomy between qualitative and quantitative approaches to research. Despite the "depth of field" narratives offer the world of research, a major criticism against narrative research revolves around the epistemological significance of life histories. A counter argument to this criticism is that education must go beyond both the empirical-analytical and historical-hermeneutic to become a form of self-knowledge. By making individuals more consciously aware of the social and ideological roots of their self-understanding, they are able to alter, reject, or make more secure their tentative views of the world.

In examining the potential of biographies in understanding the lives of educators, Dhunpath (2000) said that life histories challenge the fetish about the certainty and objectivity of knowledge and the quest for universal truths. Therefore Dhunpath (2000) argued that educational research has to focus on the self as a living contradiction, acknowledge the essential fallibility of human beings, and empower individuals to

theorise about their own professional practice as they attempt to improve the quality of their own and others' learning.

Another major criticism of life history research is that it is not objective enough because of the relativism of truth associated with the construction and analysis of biography (Hannabuss, 2000). The notion that there is no truth in narrative research except for a series of subjective views can be challenged by the counter argument that particular kinds of truth are lodged in people's narratives. Given the isolated character of the environment in which most educators work, Dhunpath (2000) said that it is not surprising that not much is known about what educators know or how they come to learn what they do know. Yet what educators know is crucial to understanding and changing the educational process. If one considers learning and professional identity development as a lived accomplishment linked to the way one lives one's life and which relates to people and deals with patterns acquired earlier in life, unique insights into the inner consciousness of individuals studied are arguably ample compensation for alleged methodological drawbacks of subjectivity (Hannabuss, 2000).

Hannabuss (2000) also pointed out that another perceived limitation of narrative research in education is that it is confined to a small

sample of educators. The counter argument is that this achieves a richness of depth which empirical research involving a large sample is unlikely to yield. Narrative research as an alternate form resides on the cutting edge of inquiry as a research method. However it would be naive not to acknowledge that it is extremely contentious and there remain several unresolved contradictions and tensions in this craft.

First person methodologies have also been criticised for their inability to arrive at reliable and verifiable knowledge of the contents of conscious experience (Petranker, 2003). Consciousness, however, is not its contents, but the cognitive capacity that makes those contents available. Pollio et al (1997) answered the objection that such reflections of the participant's perspective on his or her experiences as they emerge in the context of an interview are not the real phenomena by saying "Just where else is the real to be found?" That capacity is directly and uniquely accessible to first person inquiry with a suitable method like narratives or stories. When narratives are told, stories are inhabited and stories are fundamental to conscious experience. In place of the reductive objectivity of third person science, first person inquiry can cultivate an engaged objectivity, immersed in the story that makes the phenomenon of consciousness available to be known.

In the context of this research, my interview approach described earlier is one of engaged objectivity in data collection in which I did not interrupt the flow of the interviewees' story-telling. I also did not interject with my perspectives or ask leading questions, allowing the interviewees to tell me their stories in any way they chose. This is to draw out their subjective realities. When they told me their stories, they constructed narratives which were carefully transcribed as texts which became their communicative action or their subjective realities in narrative constructions that I interpreted as objective texts in my narrative analysis as presented in Chapter 3. To limit my subjectivity in interpretation, I supported my interpretation by using the actual words of the interviewees as much as possible.

Questions of legitimacy of a subjectivist-interpretive approach connected with issues of truth and rationality can also be answered by Conle's (2001) argument that narrative inquiry can be considered as a rational endeavour, capable of withstanding questions and challenges when considered through the lens of Habermas' (1984) theory of communicative action. The rationality of narrative inquiry assumes that in communicating for mutual understanding, those communicating can challenge one another whether the things said are true; whether feelings and wishes are truthfully expressed; whether what is said is

socially or morally appropriate; and whether what is said is clear enough (Conle, 2001). After all, narrative, more than other types of communicative action, highlights an inner world of subjectivity to which the inquirer has privileged access. Listeners have to assume that the narrator was telling the truth about the contents of his inner world as he perceived them at the point of telling and as he constructs them (Conle, 2001:28). Stories about those memories can change with a more informed now-perspective (Conle, 1999). As Bruner (1990) said, "The truth that mattered was not historical truth but narrative truth."

Another major issue concerning phenomenological interviews is whether interview data can be trusted because of the constructed nature of interview dialogue (Pollio et al, 1997). If experiences are constructed, at least partially, in social discourse, what guarantee is there that different constructions will bear any resemblance to one another? While admitting that no guarantee exists, existential phenomenological philosophy provides grounds for believing that reflections emerging in one dialogic context will be commensurate with, even if different from, those emerging in another context. One basis for this belief is that a person's experiential field is organised rather than chaotic. In the day-to-day flow of experience, change is experienced against the stability of one's social surroundings, activities and self-

awareness. The relative stability of the personal field provides the basis for expecting personal meanings to bear coherent, if not identical, inter-contextual relations. While specific meanings may change across contexts, such changes are likely to bear systematic relations that can be understood within a holistic interpretive framework. A second reason for believing in the inter-contextual coherence of experience concerns the temporal dialectic between a person's history and the present-centered nature of remembering. The meaning of one's past is shaped by the present context and the past that is remembered is mutable. The usual situation is that the act of remembering brings about a temporal fusion of the present and past in which a personal historical understanding is revised to accommodate a present perspective, and in which the present perspective is contextualised by one's history.

In the final analysis, notwithstanding the criticisms of narrative research discussed, as the subject of inquiry for this research extends to the inner consciousness of individuals such as learning, meaning making and the development of professional identity, narrative inquiry is highly suitable as a research method.

Criteria for evaluating research

Lieblich, Tuval-Mashiach & Zilber (1998) argued that the criteria for evaluating quantitative research of reliability, validity, objectivity and replicability are difficult or impossible to maintain in narrative research as they contradict the very nature of the narrative approach which starts with an interpretive viewpoint. Narrative materials like reality, can be read, understood and analysed in extremely diverse ways. The possibility of alternative narrative accounts does not indicate inadequate scholarship. Rather, it is a manifestation of the wealth of such material and the range of sensitivities of different readers.

Multiple methods or triangulation have been used in qualitative research not as a strategy of validation, but as an alternative to it in an attempt to secure an in-depth understanding of the phenomenon in question. The constructivist paradigm which is the paradigm of this narrative inquiry, assumes a subjectivist epistemology and of necessity, has different criteria for evaluating research instead of the usual criteria of internal and external validity, reliability and objectivity (Denzin & Lincoln, 2003). I would agree with Richardson (1998) that for now there can be no single, or triangulated, truth.

An alternative metaphor is the crystal which is more appropriate of postmodern projects as it recognises the many facets of any given

approach to the social world (Janesick, 2003; Richardson, 1994). Crystals are prisms that reflect and refract, creating ever-changing images and pictures of reality. In the crystallisation process, the writer tells the same tale from different points of view. I agree with Denzin & Lincoln (2003) that crystallisation extends the concept of triangulation where multiple refracted realities can be displayed simultaneously, inviting readers to explore competing visions of the context, to become immersed in and merge with new realities to comprehend. In my narrative analysis, I investigate the phenomenon of meaning making in my interviewees' narrative constructions from the three refracted realities of meaning making over time, frames of reference used in meaning making and the internal dialectics of meaning making. The possibility of other points of view does not invalidate or render my presentation of the three refracted realities as unreliable or lacking in objectivity.

As regards claims of validity, the argument is that a narrativist in education can claim that stories told or written are comprehensible in the sense that symbolic expectations have been produced correctly (Conle, 2001). Bruner's (1990) perspective of validity in narrative is that it is subjective as an interpretive concept rather than objective and that the plausibility of the conclusion is what counts. An interpretive

psychology is not unprincipled or without methods. His guide to narrative analysis is literary and discourse linguistics. He also argues that the interpretation of meanings and meaning making in a principled manner is possible in the degree to which the structure and coherence of the larger contexts in which specific meanings are created and transmitted can be specified. Later in this Chapter, I set out how I developed my narrative analysis approach to investigate my research questions. Chapter 3 presents my narrative analysis and Chapter 4 my meta-analysis of the interviewees' narrative constructions. Both Chapters show the principled manner in which I interpreted how meaning is constructed in the narrative constructions.

As regards the issue of integrative validity, Pollio et al (1997) agreed with Giorgi (1985) that the key criterion of validity in qualitative research is "whether a reader, adopting the same viewpoint as articulated by the researcher can also see what the researcher saw, whether or not he agrees with it." They were of the view that for a phenomenological study to be judged valid, it would have to be rigorous and appropriate in terms of methodological concern, and be plausible and illuminating in terms of experiential concerns. My narrative analysis and meta-analysis set out in Chapters 3 and 4

present evidence of how I arrived at my research findings. Chapter 5 presents how I crystallised my research findings.

Denzin & Lincoln (2003) suggested the criteria of credibility, dependability and confirmability to evaluate qualitative research. Credibility in qualitative research is different from that of quantitative research and has to do with whether descriptions and explanations are credible. As a qualitative researcher, I do not claim that there is only one way to interpreting an event or that there is a correct way. Rather, I present what I consider as a credible interpretation of the narrative constructions derived from my narrative analysis. Riessman (1993) also suggested the criteria of persuasiveness, plausibility and coherence which ask whether the interpretation is reasonable, convincing and coherent. I adopted a reasoned approach throughout my research and interpretation and present a coherent account supported by evidence from the narrative constructions of my interpretation in Chapters 3 and 4.

Riessman (1993) pointed out that validation and the limits of narrative analysis are unresolved dilemmas for the field. When writing about validation in narrative work, she stated that there is no canonical approach in interpretive work and there can be different validation procedures better suited to some research problems than to others.

She suggested the criterion of dependability or confirmability which is the possibility of confirming the interpretation by auditing the written documentation of the research and interpretation process in field notes, research texts and research journals. It is possible to examine the written documentation of my research and interpretation by auditing my field notes, research texts and research journals. Riessman (1993) also suggested the criterion of correspondence, where the researcher takes the results back to those studied. I provided each of the interviewees the opportunity to confirm the transcripts of their interviews. As Riessman (1993) pointed out, in the final analysis, the researcher must take responsibility for the truths and distinguish between the researcher's views of the subjects' lives and their own views. This is what I focused on doing in my writing of this thesis and I set out the interviewees' voices by using their words in the interviews as much as possible.

As Riessman (1993) pointed out, any methodological standpoint is by definition, partial, incomplete and historically contingent. Nonetheless, narrative analysis allows for a systematic study of personal experience and meaning and how events have been constructed by active subjects. Even as I use the different criteria suggested by different writers in qualitative research to review my

research, I reiterate Reissman's (1993) conclusion that validation in narrative studies cannot be reduced to a set of formal rules or standardized technical procedures.

In writing about interpretive biography, Denzin (1989) categorically said that the meanings of experiences are best given by the persons who experience them. It makes sense therefore that the preoccupation with the validity, reliability and generalisability and theoretical relevance of the biographical method must be set aside in favour of a concern for meaning and interpretation. Janesick (2003) is of the same view. I conclude as Lieblich et.al., (1998) concluded, that each approach in narrative studies is more suitable for some purposes than for others as reading and interpretation can be conducted in myriad ways. It is therefore important to bear in mind that the processes of analysis, evaluation and interpretation are neither mechanical nor terminal. They are always emergent, unpredictable, and unfinished (Denzin & Lincoln, 2003).

Ethical issues

Earlier in this Chapter, I addressed the issue raised by Hannabuss (2000) about the risk and difficulty of changing the mindset of potential respondents that as the researcher is known in one role and now seeks

to change that role to researcher. Other ethical issues relate to ownership and confidentiality of the transcripts of interviews collected. Ownership of the transcripts of each interviewee will reside jointly in me as researcher and the particular interviewee. No data of any particular interview will be released without the particular interviewee's consent. The presentation of the narrative constructions in this thesis will be generalised to protect the identities of the interviewees.

Narrative as communicative action

As Ricoeur (1992) pointed out, the narrative constructs the narrative identity of the character in constructing that of the story told. It is the identity of the story that makes the identity of the character. It is as the interviewees construct their narratives that the way they make sense or meaning becomes "performed." Habermas (1984) argued that our ability to communicate has a universal core of basic structures and fundamental rules to speak a language. Communicative action is not just about producing grammatical sentences. It is about relating the world and other subjects to one's intentions, values, feelings and desires. Habermas' (1984) notion of ego identity centers on the ability to realise oneself in communicatively-shared intersubjectivity. The moment of universality requires the maintenance of a reflective relation

to their affective and practical natures and acting in a self-critical attitude. The interviewees' narrative constructions can be said to be their communicative action which becomes "performed" in the course of their interviews. A narrative analysis of their narrative constructions will illumine their meaning construction over time, their mental structures or frames of reference used in meaning construction and their internal dialectics of meaning construction as at the time of the interview. It should be borne in mind that the meaning construction in the narrative constructions presented in Chapter 3 is time related and situational and has not been revisited with the interviewees. The interviewees have, however, been given the opportunity to verify the accuracy of the transcripts after their interviews.

Narrative analysis approach

Clandinin & Connelly (2000) described narrative inquiry as a dynamic process of living and telling, and reliving and retelling stories in which the criterion, which is of utmost significance for narrative inquirers, is that of maintaining wakefulness. After conducting the in-depth interviews, the question arises as to how the qualitative data collected should be analysed and interpreted.

Lieblich et al (1998) pointed out that as a life story develops and changes through time, when a particular story is recorded and transcribed, we get a text that is like a still photograph of the dynamically changing identity. In narrative studies, there are usually no a priori hypotheses. Specific directions of narrative studies usually emerge from reading the collected material and hypotheses may be generated from it. The work that is carried out is interpretive and an interpretation is always personal, partial and dynamic.

Riessman (1993) agreed with Cortazzi (1993) that there is no one method of doing narrative analysis but a spectrum of approaches to texts that take a narrative form. Reissman's (1993) and Lieblich et al's (1998) advice is to look at the research questions when deciding the approach of narrative analysis. The narrative analysis approach and research methods chosen must serve the research goals. As my research questions relate to the internal mental or meaning structures of the interviewees used in making meaning or sense, the method of narrative analysis chosen must be suited to investigate the research questions.

Cortazzi (1993) said that a psychological approach to narrative focuses on cognitive structures and processes used in comprehension, recall and summarising of narratives. Crucial processes of memory

which are more constructive, abstractive and integrative are likely to be involved in such narration rather than reproduction. The construction of narrative is usually according to self-concepts, repeated events and the way things are typically seen. Just as narrative organises, re-organises and reconstructs the meaning of experience, the telling of stories allows a rehearsal, re-definition and regeneration of personal and professional selves.

Chase (2005) said that a sociological approach is based on inquiry in intensive interviews about specific aspects of people's lives and that the psychological approach emphasises the formative effects of narratives and life stories which embody a person's identity as it develops and changes over time. Therefore the approach that is suited to investigate my research questions is a psychological-sociological approach as defined by Cortazzi (1993) and Chase (2005).

Lieblich et al (1998) could not locate, nor did they try to come up with any comprehensive models systematically mapping the variety of existing methods of reading narratives in their literature review. Different methods appropriate to the investigation of my research questions are discussed. I also set out my rationale for developing and using a synthesis of these different methods of narrative analysis appropriate for the purposes of investigating my research questions.

Riessman's (1993) advice is to start with the structure of the narrative to avoid the tendency to read a narrative simply for content and the equally dangerous tendency to read it as evidence for *a priori* theory. Labov's (1972) structural analysis examines structural units of narratives based on recurrent patterns. This method of structural analysis emphasises the referential and evaluative social functions of narratives. The referential function of a narrative gives information through a narrator's recapitulation of experience in the order it happened. Labov (1972) maintained that speakers rarely give a straightforward report without evaluation. The evaluative function communicates the meaning of the narrative by establishing some point of personal involvement. The way subjects narrate their stories draw attention to their perspective on the narrative content and the meaning it has for them. This is a natural and even unconscious part of narration. Labov's (1972) structural analysis is a good place to start narrative analysis to locate the meaning of individual narratives in the narrative constructions. Although many of the interviewees' narratives may not be fully formed according to Labov's (1972) six part structure, they are still narratives as they are life sequences reflected upon in an interpretive spirit (Christman, 2004). I take Riessman's (1993) view that

what is most vital in Labov's (1972) structural analysis is the evaluation as it points to the meaning of the narrative.

Denzin's (1989) interpretive strategies as a biographical method is also appropriate as a narrative analysis method as it relates to the interpretation of the consciousness of the person that is simultaneously directed to "an inner world of thought and experience and to an outer world of events and experience." In particular, it is useful to investigate the formative effects of narratives and life story which embodies each interviewee's identity that both develop and change over time. This will provide the field of view relevant for my first research question. Narrative segments are subject to careful reading and interpretations, and patterns of meaning and experience are sought. The individual's biography is reconstructed and the factors that have shaped his or her life are identified. An analytic-abstraction is written which focuses on the structural processes in the subject's life and the unique and general features of the life. Thereafter comparisons and theoretical generalisations are developed.

Giorgi's (1985) empirical phenomenological method, used to investigate psychological insights into a subject's experience is appropriate to investigate my third research question of the interviewees' internal dialectics of meaning making. First the entire

description is read in order to get a general sense of the whole. Then the text is read once more from the beginning to discriminate "meaning units" or narratives from within a psychological perspective focusing on the phenomenon researched before the psychological insight regarding the interviewee's experience in the meaning units or narratives are synthesised. In the phenomenological method, semiotic reading refers to reading for essences or structure of the lived relations in the descriptions and emerging patterns of meaning and experience. Semiotic reading directs attention to oppositions and the key words and terms that organise a text (Denzin, 2001). It asks the analyst to perform both static and dynamic, or processual, readings of narratives.

Lieblich et al (1998) posited two dimensions of narrative analysis. The holistic-categorical dimension can be represented along a continuum with the two extreme ends represented by the holistic mode and the categorical mode of narrative analysis. The content-form dimension can be represented along a continuum with the two extreme ends represented by the content mode and the form mode of narrative analysis. These two dimensions can be depicted as intersecting to form a matrix of four modes of reading a narrative. The holistic-form mode of reading looks at the plots or structures of life stories to examine how the interviewee constructs his or her evolving life story. This is relevant

to investigate my first research question. The holistic-content mode of reading allows for a global impression of the narratives with specific focus on the themes that emerge from the narratives. The categorical-content mode of reading examines categories of content in order to draw a conclusion related to the category. Both the holistic-content and categorical-content modes of reading are relevant and can be used to investigate my third research question relating to the internal dialectics of meaning making. The categorical-form mode of reading examines the stylistic or linguistic characteristics to learn something which may not be apparent from the examination of the content itself. The categorical-form and categorical-content mode used together allows for the investigation of the cognitive functioning or the frames of reference of the interviewees which is relevant for my second research question. I found all of Lieblich et al's (1998) four modes of reading to be relevant to my research questions.

I started narrative analysis by initially using all the different approaches I have discussed in my investigation of my research questions. In the process of narrative analysis, I found that there is considerable overlap in the perspective or view afforded by Lieblich et al's (1998) holistic-form mode of reading with Denzin's (1989) biographical method. There is also considerable overlap in the

perspective or view afforded by Lieblich et al's (1998) holistic-content and categorical-content modes of reading with Giorgi's (1985) empirical phenomenological method. In these instances, I chose to use the approaches which offered the more encompassing perspective or view. In particular, I chose Denzin's (1989) and Giorgi's (1985) approaches over Lieblich et al's (1998) holistic-form, holistic-content and categorical-content modes of reading as they also looked at patterns of meaning and experience which are compared and synthesised.

My narrative analysis approach developed as a synthesis of different methods to narrative analysis relevant to my research questions is briefly set out as follows:

1. I used Labov's (1972) structural analysis to get at the point or meaning of each individual narrative in all the narrative constructions. This heeds Riessman's (1993) advice set out earlier to start with a structural analysis. This is a preparatory step before using the next three narrative analysis approaches to investigate my research questions.
2. Denzin's (1989) biographical method was used to examine the development of the narrative constructions as a whole to determine the factors that shaped each interviewee's development in his or her experiences over time. Patterns of meaning and experience in

- overarching and emerging themes in the narratives are sought, highlighting the unique and general features of the life before making comparisons and developing generalisations in each narrative construction and across the narrative constructions. This is to investigate my first research question of the interviewees' meaning construction over time.
3. Lieblich et al's (1998) categorical-form and categorical-content modes of reading were used to examine the cognitive functioning and thought process or frames of reference of each of the interviewees. Although Lieblich et al (1998) did not envisage making comparisons and developing generalisations, I went beyond their modes of reading to make comparisons and to draw generalisations in each narrative construction and across the narrative constructions. This is to investigate my second research question of the interviewees' frames of reference used in meaning construction.
 4. Giorgi's (1985) empirical phenomenological method was then used with a semiotic reading to examine each narrative construction as a whole to find psychological insight relating to the internal dialectics of meaning making before making comparisons and developing generalisations in each narrative construction and across the

narrative constructions. This is to investigate my third research question of the interviewees' internal dialectics of meaning making.

Chapter summary

This Chapter sets out why narrative inquiry as a form of phenomenological research is highly suited as a research method for this research. I also describe how the phenomenological interview was designed and conducted and addressed the criticisms of narrative inquiry. I also discuss the criteria for evaluating narrative inquiry and ethical issues related to this research and describe how I developed a synthesis of different methods of narrative analysis relevant to investigate my three research questions.

In Chapter 3, I present my narrative analysis which shows the development of the themes emerging from narrative analysis. These themes embody how each interviewee constructs meaning of significant learning experiences over time, the use and adaptation of frames of reference, and the process or internal dialectics involved in each interviewee's meaning making in different contexts.

Chapter 3

NARRATIVE ANALYSIS

Chapter introduction

In Chapter 2, I describe the methodology chosen for this research which includes the narrative analysis approach. In this Chapter, I present my narrative analysis of each narrative construction under three sub-sections to investigate my three research questions. First, the overarching theme and emerging themes as they are developed in each narrative construction will be presented to show how each interviewee uniquely constructs meaning of significant learning experiences over time. Second, the internal mental structures or frames of reference involved in the meaning making of each of the interviewee in different contexts will be presented. Third, the internal dialectics of how meaning is constructed in each narrative construction will be presented.

Definitions

Overarching and emerging themes

Before presenting my narrative analysis, it is necessary to define some terms that I will use.

The overarching theme in each narrative construction refers to the overarching theme of the whole narrative construction which describes the individualised and unique narrative construction of each interviewee. Emerging themes are distinct themes emerging from the narrative constructions as generalised patterns of meaning construction of learning and professional development over time. These include agency development, development of consciousness and self-responsibility which I shall go on to define with reference to Nixon, Martin, McKeown, & Ranson's (1996) definition of agency as amplified by patterns observed in the narrative constructions.

Agency development, consciousness and self-responsibility

Nixon et al (1996) defined agency development as learning which results in action which affects one's capacity to shape oneself whether in one's thinking or action. This includes the capacity to shape the world with others. Agency development as defined by Nixon et al (1996) and observed in the narrative constructions as a generalised pattern comprises a development akin to what Curtis & Mays (1978) see as being involved in growing up: acquiring of beliefs, knowledge and rationality, developing communication with others and coming to act with and toward others, the slow growth of self-consciousness and

self-responsibility. Although Curtis & Mays (1978) did not use the term agency, what I observed in their explanation of growing up comprised two dimensions observed in the narrative constructions which I shall call consciousness and self-responsibility. Consciousness refers to self-consciousness, other-consciousness and environmental-consciousness. Self-responsibility refers to an individual's awareness of the need to know, decide or act which results in or leads to his or her finding answers, making decisions or finding a way for himself or herself or finding a way for others.

Frames of reference

I use frames of reference to refer to the internal mental structures of an individual when he or she makes meaning. The narrative constructions of the interviewees are meaning constructions of their experiences using their respective frames of reference whether they are conscious of it or not. For the purposes of clearly presenting the frames of reference of each interviewee observed in the narrative constructions, I will use a framework comprising of three categories observed in all the narrative constructions which I refer to as cognition, affect and conation. I developed this framework from what I observed as a pattern in all the narrative constructions. Every narrative included

what is learnt and how it is learnt; feelings about the experience; and why something is learnt (which include personal, intentional, motivational, purposive, attitudinal aspects of behaviour, beliefs, values and self-concept).

Instead of attempting an abstract definition of frames of reference as Mezirow (2000) did, I will clearly define the categories I observed in the narrative constructions of cognition, affect and conation and present the inter-relationship between these categories observed in the use and constitution of each interviewee's frames of reference in meaning construction in my narrative analysis. This is to avoid the many difficulties I found with Mezirow's (2000) definition of frames of reference. These difficulties arise mainly because he used too many different terms. He also failed to define the different terms used and failed to describe the inter-relationships between the different terms used. He also used the same terms in different ways in different descriptions. The difficulties with Mezirow's (2000) definition also arise because of the complexities involved in each individual's unique way of meaning making which adapts to different contexts. This defies an abstract definition of an individual's frames of reference. I define cognition, affect and conation in terms of categories of meaning observed in the narrative constructions as follows:

Cognition refers to the process of coming to know and understand knowledge and is generally associated with the question of "what is learnt and how is it learnt?"

Affect refers to the emotional interpretation of perceptions, information, or knowledge and is generally associated with one's feelings about people, objects or ideas and asks the question "How do I feel about ...?"

Conation refers to the connection of cognition and affect to behavior and is generally associated with the question of "why is something learnt?" It relates to the personal, intentional, goal-oriented, purposive, motivational, volitional and attitudinal aspects of behavior. Beliefs about our world, values and sense of self or self-concept also come under conation as they also answer the "why?" question.

Internal dialectics of meaning making

I use internal dialectics of how meaning is made to refer to the process that takes place in the inner consciousness of an individual as he or she makes meaning.

Narrative analysis

The presentations of my narrative analysis will use the interviewees' actual words in their interviews as far as possible. This is a useful procedure designed to pre-empt the researcher from imposing personal meanings onto the interpretation of the narrative constructions (Pollio et al, 1997). The interviewees' narrative constructions as transcribed from the interviews, are set out in the Appendix for reference. To protect the identity of the interviewees, pseudonyms have been used in the narrative constructions in the Appendix and in narrative analysis. Biographical or other information which may identify the interviewees has been omitted. Where it is necessary to provide adequate details to assist in understanding the meaning in the narrative accounts, they have been given in generalised form. I indicate where I have omitted words with the use of "...." I also indicate in italics where I have generalised details to protect the identity of my interviewees. A Table of biographical data showing the cross-section of the interviewees (generalised also to protect the interviewees' identities) has been set out earlier in Chapter 2 under the section *Selection of Interviewees*.

1. Ang

Meaning construction

The overarching theme in Ang's whole narrative construction relates to the development of his capacity to learn over time as he learns about his inner self and as he learns to deal with his inner fears.

In his first narrative about school, he says,

"School was largely uneventful. All through school, it was very much the same... Never topped but never had any difficulties either. I never felt much stress to excel, never quite feared that I will fail miserably. So it was largely uneventful... Some other significant learning experiences will be learning for the first time that I need to learn how to think outside the school context. This was taught to me by my pastor. It had to happen outside the school context. My pastor taught me this through his own talking and through the way he processed things."

By saying "my pastor taught me," he considers his pastor as his teacher. He is developing consciousness as he becomes other-aware of how his pastor talked and processed things. He also becomes self-aware that he needs to learn how to think. By describing himself as the one being taught, he conveys the sense that he is being acted upon. This indicates limited self-responsibility as well as limited agency.

In his second narrative of his first work experience, he says, "Significant learning also had to occur when I took on my first job ... as I had to do cases entirely on my own within a month of graduation against my classmates' bosses. It was sometimes very intimidating and I really had to ... learn quickly for my own survival. In the process I over compensated my own fear in my own intimidation. I was really having to learn and not finding the comfort for a year or two, if ever at all. I just figured it out on my own when I was ... handling the case. I had to make decisions all the time ... as there were no seniors around. I also learnt about my own heart, gaining greater self-awareness, learning about the spiritual side of learning, about myself, that to me becomes very valuable, beyond the intellectual learning. Again this is impossible to learn in school. It is a process of learning to understand what limits my effectiveness and how I limit my own effectiveness. There are things from the past that I might need to deal with, like intimidation. I had to learn how to deal with this on my own."

Here is evidence of a development of agency or capacity to learn. Whilst he did not have to fear failing in school (his first narrative), in this second narrative he is aware of his fears in having to deal with his classmates' bosses. This indicates a development of consciousness

as he gained greater self-awareness and other-awareness. This leads to his development of self-responsibility as he has to learn to deal with intimidation on his own and make his own decisions. His awareness about what he learnt in the process indicates that his consciousness resulted from his self-responsibility. Progression is observed in agency development, the development of consciousness and self-responsibility.

His third narrative about his Masters experience overseas continues the theme of agency development when he increased his capacity for learning by developing a new way to learn by reading. He says that this experience

"... started a hunger for learning, growing and reading. It's a major source of learning. I gain a lot from my reading. That was quite a major change to how I learnt as I have never been a reader before that."

This narrative puts the emphasis on his developing consciousness as he becomes self-aware of his "hunger for learning." This leads to self-responsibility as he reads to satisfy his inner "hunger for learning." There is also a recognition or consciousness in his narrative that he had changed in how he learns as he learns a new way to learn.

Progression is observed in his agency development and his development of consciousness and self-responsibility.

In his fourth narrative about the IHL (research site) he says,

"A big learning experience is my movement to a *new department* where I have to provide the answers and decide what the answers are. It was a personal victory when I gain a willingness to move to a department where I feel lost and do not know the answers. It's the willingness to start all over again as a recruit. It is a significant learning experience because I faced with the fears and insecurity of a learner almost amidst the learned. It is this willingness that will put me in good stead for future situations when I start anew. Situations are new and uncertain. It increased my capacity for learning. My capacity for learning has been stretched."

There is development of agency in this narrative as Ang recognises that his capacity for learning has increased. His description of his move to the new department as "a personal victory" implies a conscious choice after some struggle. This indicates a development of consciousness which leads to self-responsibility. That he is aware that this puts him in good stead for future situations when he starts anew indicates his growing awareness of his being more ready to take on self-responsibility in future. Here a development of self-

responsibility leads to a development of consciousness. Progression is observed for agency development, development of consciousness and self-responsibility.

Frames of reference

The meaning Ang makes of learning and the development of professional identity is an increase in personal practical knowledge that is focused on dealing with his inner self and fears. This indicates a predominance of affect in his frame of reference when he encounters new situations or challenges. Cognition is also present in his frame of reference as he describes how his pastor taught him how to think in his first narrative. His struggle with his fears can also be said to be based on his conative self-concept about himself. This interpretation is supported in Ang's narrative of his first professional job when he uses "intimidation" twice and then goes on to speak about the "spiritual side of learning" in describing "learning about my own heart" and "gaining greater self-awareness."

His liberal use of words drawn from his Protestant Christian faith shows that his frame of reference is one which draws on his spiritual beliefs. For example, his use of "personal victory," "dying to self," "a leader needs to be humble ... the meek will inherit the earth" involves

the conative dimension in which his goal-orientation is tied very much to the goal orientation and values of his religious faith.

Ang's narrative construction shows that his frame of reference in different contexts involves cognition, affect and conation of which affect and conation (religious beliefs and values) are very prominent in his narratives of professional experiences.

Internal dialectics of how meaning is made

Of the internal dialectics of what happens when he says that he learns from reading, his "major source of learning," he says

"It's a major source of learning. I gain a lot from my reading. That was quite a major change to how I learnt as I have never been a reader before that. When I read, I pick up things that strike me, that are very insightful, things that I find potentially usable in future context. I make notations as it helps me to interact with what I am reading... When something strikes me, it becomes an acquired truth that I personalise and internalise through reflection which influences my thinking or stirs my action. It results in both a change of thinking and concrete actions."

He describes a process of internalising when what strikes him becomes acquired truth that changes his thinking and actions. What is

clear is that this description involves both consciousness and self-responsibility even though it is not entirely clear when something "strikes him" and what happens in this process of internalising of the something which "strikes him" which changes his thinking and actions.

To better understand and illustrate the internal dialectics of Ang's meaning making, a detailed analysis of a concrete example of the internalisation process involved in his learning is presented. In his fourth narrative, he describes his experience of moving to a new department in the IHL (research site) as a "personal victory" and a "big learning experience." This shows that he is aware of his fears and insecurity about a new environment (consciousness: self-awareness, environmental-awareness). By deciding or choosing to be willing to move to a new department (self-responsibility), he faced his fears which relate to his affect and conation (beliefs and values). In so doing, he found that his capacity for learning has "been stretched" which he says will stand him in good stead in the future (consciousness: self-awareness).

2. Bee

Meaning construction

The overarching theme in Bee's whole narrative construction shows Bee's agency development over time as she learns from her different experiences about herself and how to deal with people and apply knowledge in context in practice.

She starts her first narrative about school with,

"My learning experience was not so much from textbooks. I learnt a lot through all the CCA (*co-curricular activities*). I didn't know that they are going to be so useful to me today ... through this ... I learn all the softskills, how to deal with people, how to apply technical knowledge to the context. Different experience is good. I didn't know why I was picked by teacher to give speech, all the embarrassment when I forget something and how I cope with the situation. When I had to do a dance and choose costumes, I had to deal with my friends and learn how to negotiate for what I want and how to give way. As a monitor or prefect ... I was being trusted and given the confidence. When I went around to beg people to give me money for charity and people stare at me and I learnt to deal with it ... These non-curricular activities are the things I value most. It is

through all these that I learn. They really help me a lot as you cannot learn these things from textbook."

She ends her first narrative by linking it to the present as follows,

"At that time, I didn't know that twenty, thirty years later, that I have to deal with a world that has all sorts of personalities ... I didn't know that the experiences that I had dealing with uncertainty, different types of situations, and different types of people would be so useful to me today. This realisation that these are very rich experience came when I was given leadership position. I can read a lot from management books but that is theory. It is when you look at some of the case studies and you had that experience, then you can really really agree with them and that is how that particular situation has helped."

Bee's school narrative indicates that on hindsight, she now realises that her CCA experiences are useful for her in her management role even though she had limited awareness of this when she was experiencing them in school.

Her second narrative is about how she learnt from her experiences in the University overseas.

"I remember the moment I took the flight and left the airport, I was crying...That first ten hours, it was a shock in my life. I feel that I

was disconnected. And I realised that I was all alone. I have to be depending on myself for everything. I never had that experience in my life. I have to build new relationships, learn how to do the laundry, go to the supermarket, and stock up my own milk and everything... That made me independent... and I learn to make a lot of decisions myself. What to spend, what to do, who to trust, who not to trust. In Singapore I consult my parents and they set certain restrictions. I became very independent after I went *overseas* as I am all on my own... I was *overseas* for almost five years... I realise that I do not necessarily listen to other people's advice. After that I grew up and became very independent. I realised that I am responsible for myself. Everything I do, there are consequences and implications. That's when I became very independent."

Her University narrative about her adjustments overseas indicates a developing agency as she develops in consciousness (self-awareness, other-awareness and environmental-awareness) and self-responsibility when she learnt by necessity to be independent of her family and to take responsibility for herself. There is progression in this narrative of both consciousness and self-responsibility. Her developing consciousness that she was all alone and had to depend on herself for

everything leads to her developing self-responsibility. That in turn leads to her self-awareness or consciousness that she became independent.

The narrative describing her University experience in Singapore also indicates a growing consciousness (self-awareness, other-awareness & environmental awareness) of what she did not like as well as self-responsibility as she decided to leave this University to go overseas. Chronologically, this narrative should be sequenced before the previous narrative. This departure from a chronological ordering of narratives explained the reason why she decided to go to a University overseas.

"... I was in the University in Singapore for a few months... it was a horrifying experience... One experience that I never forgot is that at lecture in a huge lecture theatre, one professor ... brought in a stack of notes... The staircase was full of people. When the professor said 'all of you pick up the notes', there was a stampede. I sat there stumped. And I 'switch off'.... I wanted to leave that place as I didn't have a good impression of the University. So I left and went overseas."

Her University experience overseas was then contrasted with her University experience in Singapore.

"It is at the University (*overseas*) that I fell in love with my studies. I think it is the environment. I never enjoyed studying in Singapore. What I didn't like is that people compete. Even your friends may not help you. The environment is not so nurturing and helpful as there is too much competition. In *my University overseas* it is a very different learning environment. People help one another because we are competing against ourselves, not our friends."

Her narrative about what she likes (self-awareness) in terms of the nurturing and open environment and the stimulation of the academic environment (environmental-awareness) as she interacted with her classmates, her professor (other-awareness) and the media (environmental-awareness) indicates her developing consciousness. As she developed consciousness, she also developed self-responsibility as she learnt in discussions, debates and discourse with others to formulate her own views instead of taking the views of others.

"... I found a lot of freedom. I really really enjoy the University. I mixed with people from different backgrounds. It is very interesting to have classmates from all over the world... there are so many things to talk about. There is a lot of political critique. The media is very open... Then I learn in life that there are a lot of views... You can have your own views. I found the learning experience there

very nurturing... You put in your heart and your soul. I found that I excelled... I didn't know that I could do so well and enjoy my work. In Singapore I study for study sake to please my parents. Over there I really study for myself. I really wanted to excel because I found that you are challenging your brain and your mind to do something well. Your friends will help you. I think it was very good. I think it is the attitude of the people. It's the learning attitude of the people that we help each other to excel."

...

"The professors don't talk down to you. They come to the lecture theatre and say this is the research that I am doing. Give me your views. You can disagree with me. They embrace your views. We respect them a lot because they are really really very good. They have no airs and they are very easy going. That is where I start to fall in love with studying and researching deeper into a particular topic. I will go to the library to borrow books to find out more because I wanted to discuss with my classmates. We have a lot of debates in that sort of environment. More debates, more exchange of ideas. You got to prepare yourself. That is where I realise that that environment really challenge me. I feel very good when I can prove that my professor is wrong. They are very open about it and

they won't mark you down or look down at you as very threatening. I like that sort of environment very much. Maybe it suits me. I like that sort of environment."

Her third narrative of her Masters' experience also saw her learning and developing agency from her different experiences interacting with different people. It was so significant that she says it changed her. In her learning from experience, she was also learning from her classmates' maturity and experiences.

"It was my Masters that totally change me. I did my Masters immediately after my undergraduate studies... in the Masters programme, we study a lot of *real life* case study why things fail, why things are successful... I was one of the three who didn't have working experience. The rest of my classmates came with years of experience... So when they speak... I learnt from their experience and I know it's real because they were talking about their experience... Masters is a totally different group of classmates, all the mature adults. They talk about their lives. That's when I found it very exciting."

She developed consciousness (self-awareness) when she realised that her learning was different in her Masters as compared to her undergraduate studies and that there was so much more to learn. It

was so different that she says it “totally” changed her. Again, she learnt self-responsibility in her interactions with her classmates as she realised she could have her own definition.

“... in my degree, everything is logic, technical. So you go deep but very narrow... It stretched my mind in more macro manner... in my first week, one professor came in and walked out after ten to fifteen minutes and gave us a few books to read ...and gave us an assignment ... What I learnt most in the following week’s discussion ... that people really defend their position. You can check ten dictionaries and you can disagree with them and they have their own definition. What I realise after the Masters is that you can have your own definition... I thought I did quite well in the degree ... But it is in my Masters that...wow, there’s still so much more.”

Her final narrative about her experiences in the IHL (research site) also continues with the theme of agency development and learning from experience.

“I was *lecturer* for about three years. Then I *moved to different management appointments every three to four years*... I have the opportunity to learn and then take the position, learn and then take the position. In the fourteen years with the organisation, they really

put me through all the experience before they put me to the next level. So I really learn from the ground."

Even when expressing her wish that there was a formal structured training programme for her in her formation years, it was because she thinks that

"That's where you learn best you see. You can learn from each other's experience and you can also import your own experience. You know, I think that is very important."

She also describes her learning from the experience of being mentored in the IHL (research site).

"Besides the inspirational leadership of the previous Principal, there is another important person in terms of my academic development. He actually mentored me a lot in terms of how to look at situation. When he disapproves any of my papers, he explained and I think that is very important."

She concluded her narrative with a description of her experience of being put into a management position in the IHL (research site) and how she developed consciousness (self-awareness) in the process of deciding to stay on to do the job (self-responsibility) despite not wanting it initially.

"I wanted to be a lecturer for the rest of my life. I thought I had enough challenges in the industry... luck was not on my side because my *supervisor* ... put me back into a management position... in industry I was made manager after two years... I was always monitor, prefect, so I am always happy in that sort of position. I was very determined when I joined that I shall hide myself. That was what I did in the first three years. Then ... all of a sudden I received an e-mail to say that I shall be *supervisor* of a group of engineers. I have to be very honest with myself. I thought about it, either I quit or continue. But I love my teaching job so much how can I quit. And it was a good job. But I guess what went through my mind and my heart was that if I was to be responsible *supervisor*, I got to be the best that you can be... If you decide that you will take a manager or leadership role, then you really have to put in your heart and your soul. If not, I think that you will be unfair to the people who report to you. So that's my personal philosophy."

Her narrative about the IHL (research site) evidences the development of agency, consciousness (self-awareness) and self-responsibility when she decided to accept a management position thrust on her instead of quitting after realising that she was always happy in a leadership role.

Frames of reference

The cognitive is very prominent in Bee's frame of reference. Her description of how she learnt to have her own views and definitions in her studies overseas indicates a cognitive frame of reference. It is also observed that as she related her past experiences, she repeatedly formed new connections by relating them to the present. For example she says of her school experiences, "I didn't know that they are going to be so useful to me today." This indicates a frame of reference that is cognitive in that it is able to draw connections between the past and present experiences in order to apply what she had learnt in past experiences to new situations.

Affect and conation (self-concept, beliefs, life philosophy) are also prominent in her frame of reference. Examples of this include: how she decided to quit the University in Singapore because she did not like the environment and she believes that people should help each other; and her description of how being aware that she had always been happy in a leadership position helped her make her decision to take on a management appointment in the IHL (research site). She mentioned her "personal philosophy" to do her best in her management position once she decided to take on the management position in the IHL.

(research site). This indicates the importance of conation (life philosophy) in her frame of reference.

She also used strong emotive words liberally to describe how she feels about different experiences. Examples include using "horrifying experience" to describe her experience in the University in Singapore; "I fell in love with my studies" to describe her undergraduate studies overseas; and "... I love my teaching job so much how can I quit" to describe her decision to take up a management position in the IHL (research site). This indicates the importance of affect in her frame of reference.

Her narrative construction shows that affect, cognition and conation (self-concept, beliefs, life philosophy) are very important in her frame of reference.

Internal dialectics of how meaning is made

Bee describes what she does when faced with a new situation as follows:

"When I am put into a foreign environment or new situation, there is uncertainty. I like uncertainty. It makes me focus and that is where I draw my learning. You give me something that I have not handled before. That's where I tell myself I have to be very focused because

I am dealing with something that I am not familiar with. I draw from my past experience and I research and look at what other people in a similar position do. That's how I learn. I don't straightaway go to the library to take ten books. I learn from my own experience. I also learn from role model. See what they do and learn from them."

The internal dialectics of how meaning making actually happens is not entirely clear in her account except that she realises that there is uncertainty (consciousness: self-awareness and environmental-awareness) which leads her to decide on what to do (self-responsibility) in her new situation using her past experience (consciousness: self-awareness), research and observation of what other people do in a similar situation (consciousness: other-awareness, environmental awareness).

To better understand and illustrate the internal dialectics of Bee's meaning making, a concrete example of Bee's last narrative when she was given a management position in the IHL (research site) which she initially did not want, will be examined more closely. It is observed that she first clarified who she is and how she had been happy in leadership positions in the past (affect and conation: self-concept) and her love for her job (affect) in the IHL (research site).

This describes a consciousness (self-awareness) of who she is and how she feels in response to the management position which leads to self-responsibility when she decides thereafter to take up the management position instead of quitting. Once she made the decision, she says that she has to put in her heart and her soul to be "fair" to the people who report to her as it is her personal philosophy (conation: values, personal philosophy).

3. Cate

Meaning construction

The overarching theme in Cate's whole narrative construction is Cate's development over time as she learns about people, about herself, how to deal with people and how to apply knowledge in context by doing and from different experiences.

She starts her first narrative about school with,

"I had some bad memories of teachers who were very unfair to ... me in particular ... which made me very reluctant to go to school ... in particular I remember this form teacher of mine in Primary 4 ... after teaching me for one year, she decided that she didn't like me ... she became very critical of things that she perceived was

happening in class... I will be scolded for no good reason, accused of a lot of things. That really made me very miserable to go to school and I didn't like the days when I have her classes in the timetable... Somehow it didn't affect my grades because I still managed to be first in class in that year and of course she wasn't happy about it... in my report book, she wrote negative comments. I was not given my report book in class like everyone else. I had to see the principal to get my report book. So I did my studies in spite of her ...”

Cate's school narrative of doing well in her studies despite being miserable at being treated unfairly by her teacher indicates consciousness (self-awareness, other-awareness, environmental-awareness) and self-responsibility.

Her second narrative starts with,

“In University, there were some lecturers who influenced my thinking... I changed my view on things after going through certain courses. For example I had this lecturer who was an Englishman... in my fourth year. Before that my views *about a particular issue* was quite in line with what our government espouses ... after going through the course I realised that there are flaws in my thinking and he was able to make me see that, and that permanently changed

my views on some things... I also saw in University very much the differences between lecturers who cared and didn't care. Because at that time I think the approval of the lecturers was more on publication and not on teaching ... so the lecturers did not bother to put too much into their teaching. There were one or two lecturers who really bothered to do that and that stuck out because I knew that they were doing it for us and not for any gain of their own. That was quite significant. Also during this period there were a couple of lecturers who spent one on one time with me because I was wanting to leave *University*. So they were quite good in that sense. They went out of their way to talk to me... In terms of appreciating certain subjects in the University, ... *being* involved in *work on* a publication then, helped to fuel my interest in certain subjects as well, because I used to write in the journal about ... what was happening and so on, well I felt that I learnt a lot from there which I was able to share with my class as well."

In her narrative about University, it was evident that she was developing consciousness (self-awareness, other-awareness) as she recognises that there are different types of lecturers and those who influenced her did so by engaging and interacting with her. She was also developing consciousness (environmental-awareness, other-



awareness) of how the University system functioned and that the University then rewarded lecturers on the basis of publication and that the lecturers who put in effort to teach well did so for the sake of their students. She also learnt self-responsibility when she was involved in *work on a publication*. Here this self-responsibility leads to consciousness (self-awareness, environmental-awareness) as she realises that this helped to fuel her interest in certain subjects that she was writing about in the journal. Her sharing of what she learnt from her experiences by doing with her classmates indicates a developing self-responsibility which extends to others.

Her third narrative about her Masters experience overseas starts with her being conscious (self-awareness, other-awareness) that she was learning about people being motivated differently and having different goals as well as where she "stood" in relation to her peers. She also learnt independence as she had to learn to do things on her own (self-responsibility). In this narrative too, the theme of her learning things on her own from experience by doing is also evident as she describes her involvement as a member of an institute concerned with juvenile delinquencies and visits to penal institutions to learn more. This indicates a developing agency, consciousness (environmental-awareness) and self-responsibility.

"... a few months after graduating from *University*, I went overseas to study During my Masters ... I realised that different people did the course for different reasons... Some who just didn't care what happened. They weren't prepared for class and they didn't mind being humiliated by the professor. It's ok with them kind of a thing. So I suppose your goals before you start a course, they will drive your behaviour ... I won't be able to do that but that's what they did. I learnt independence I guess, 'cos things were pretty unstructured and limited contact time. So a lot of things we had to do on our own. And there were many opportunities ... to learn things on our own, like for instance I signed up as a member of this institute which was concerned with juvenile delinquencies. It was quite fun because we could visit all these penal institutions to learn more... I also learnt from that and actually from *Junior College* onwards until my Masters, I learnt that I am not very academically inclined. It is usually the case that in primary or secondary school you top the class easily. But of course if you gather into a more central institution, then you realise where you are in the scheme of things. And you realise that wow, you are probably only in the top 20% of the cohort or something like that. So that was in a way a humbling

experience. But I think I am much more realistic now about what I am good at and what I am not good at."

In her fourth narrative about her first two professional jobs, she continues to develop the overarching theme of learning to apply knowledge in context in practice and learning about people, herself and how to deal with people by doing and from her experiences. It also evidences a development of consciousness (self-awareness, other-awareness, environmental-awareness) and self-responsibility when she realised that theory is different from practice. Her decision to leave her first job because of gender discrimination also indicates a developing self-responsibility.

"... in *my first job*... I learnt that theory is very different from practice and I also had to deal with quite a lot of conflicts of principle. Because of *my training*...I am always very concerned about due process. You know, you must do things properly and all that. But when it comes to operational matters, you may not always be able to do so and there needs to be a compromise somewhere. And it will be very difficult to grapple with and also to battle the institutional behaviour. Its either you go with the flow or you stick out and then you have to leave. That's one thing and I also learnt to deal with discrimination *in my first job* because there was a gender bias at that

time firmly set in policy... for example, I was told I could only be promoted in my fifth year in service because I am a lady so that was quite hard to accept. Eventually I left because I felt it was just too unfair. But also when I was working there, I learnt a lot about life in general because of the cases that I handled... its very eye opening. I learn a lot about dealing with people definitely."

"... *my second job* is a good testing ground, in a sense to see what kind of a person you want to be. Because you encounter *fellow professionals* of many shapes and sizes and some who are very horrible ... you begin to ask yourself what kind of a person you want to be ... I used to observe how my boss used to behave and I think he is a great person because he ... is always gentlemanly when it comes to his dealings like 'your word is your bond' kind of thing. I think it is something that is quite rare these days. You try to model that if you can."

Here her experiences of different kinds of people both horrible and trustworthy cause her to ask who she should model herself after. This is a defining moment for her in her narratives as she describes a decisive moment when she has to decide who she wants to be after

experiencing that there are very few absolutes in life in practice. That this is defining for her is also supported by her definition of learning.

"I define learning as things that shape your values... Knowledge is one aspect but I think the values are more important. Because that is like what will drive your learning... a lot has to do with experience rather than theory. And over time you realise that there are very few absolutes in life. Because when you start out you tend to have certain basic principles but then you find out that "oh, it doesn't hold true."

She places more importance on values than knowledge in learning. Her decision to model after her boss after encountering different types of professionals is a choice of values. The meaning in this defining narrative can also be said to be defining of the meaning of her narratives taken as a whole. The crux of learning about others, learning about herself and learning how to deal with others from experience for Cate is defined by how she chooses to allow her values to be shaped. It is this that drives her learning. Here Cate's developing consciousness (self-awareness, other-awareness, environmental-awareness) leads to her self-responsibility or choice of her values and who she wants to be.

In her last narrative about her experiences in the IHL (research site), the theme of learning about other people and learning about herself

and how to deal with people from experience by doing is again repeated when she recounts how she learnt to handle students and staff. She develops consciousness (self-awareness, other-awareness) which leads to self responsibility in that she found her own way to handle students and staff after she realised from practice what works for her and what does not.

“a lot of people give you advice and then you try to use it and you realise that it doesn't work. Because you have to come up with your own way of handling students ... I was talking to one of the lecturers and I was told to be very strict with the students in your first lesson, otherwise they will climb all over your head you know. But when I went in there and I tried to do that, many of the students hated me and I learnt later that in the end you have to really find your own way. What works for one person may not work for another person... I also learn about managing people by observing people in management position... you see what you think is good and something you could adopt, and maybe certain methods that you think probably won't work for you. I learnt about management that way.”

Frame of reference

Cate's first narrative brought back "bad memories" about her being unfairly treated in school. She describes how she felt "very miserable." Her second narrative related to lecturers who influenced her and those who cared to spend time with her. These first two narratives relate to the affect.

Her third narrative about her "humbling experience" when she realised during her study of her Masters degree that she was not academically inclined as compared with her classmates, relates to affect and her self-concept in relation to others or conation.

The narrative that is defining for her is her second professional job when, after encountering different types of professionals, she asks what kind of person she wants to be. This question involves cognition and conation (purpose, values, volition). Her definition of learning as things that shape her values, relates to conation. Her frame of reference with which she constructs meaning, involves cognition, affect and conation of which conation is most definitive for her. The crux of learning about others, learning about herself and learning how to deal with others from experience in Cate's frame of reference is defined by how she chooses to allow her values to be shaped. Her choice of

values in her frame of reference will set the direction for her actions in future.

In her summary about what happens when she learns from practice or experience, she says,

"... depends on your priority... if your priority is to be more efficient with time, through fumbling through and making mistakes you learn what is important, what is not important. You go for the jugular. And of course in dealings with people you get to know people more or you get to read more. In one sense you can say that it's both good and bad. And you learn to deal with them."

This highlights that her concern is with issues which pertain to value judgments of what is important. She also recognises that the choice of one's priorities makes a difference to what is learnt. This also indicates that in her narrative construction, although her frame of reference involves cognition, affect and conation, it is conation (self-concept, volition, values and purpose) which is predominant, followed by cognition.

Internal dialectics of how meaning is made

Cate describes how the process of learning for her starts with observation of what is happening (consciousness: self-awareness,

other-awareness, environmental awareness), reflection or thinking (cognition) about what is learnt from what has happened and practicing what is learnt the next time it happens (self-responsibility).

“The process of learning: I suppose it will start with observation of things that are happening, then reflection, to think about why this particular outcome happened or how something was averted for example, and then I suppose you practice it the next time it happens.”

She describes learning as a process of thinking through what is important in the course of making mistakes in experience and discerning what is most important for her. She also realises that she gets to know people more and “read more” which can be viewed as “good and bad.”

Although it is not entirely clear how she decides what is important in her description of learning, what is clear is that the internal dialectics of meaning making involves a process of observing what is happening and what others do (consciousness: other-awareness, environmental-awareness) and deciding (self-responsibility) cognitively what is important (conation: values) and what will work for her.

For a better understanding and illustration of the internal dialectics of Cate’s meaning making, two concrete examples will be examined.

The first example is when Cate encountered different kinds of professionals in her second professional job (consciousness: other-awareness). She was confronted with a decision of the kind of person she wants to be (self-responsibility). She describes how she observes her boss' example of always keeping his word in his dealings (consciousness: other-awareness) and decides that he is a "great person" (cognition, conation: values) whom she will model after (self-responsibility). When she says that values drive learning and that learning shapes your values, she recognises that causal relationships between learning and values can go both ways (consciousness: self-awareness). Her choice to model after her boss instead of other "horrible" professionals she had encountered, clarified her own values (consciousness: self-awareness) whilst shaping her values (conation: values) for the future (self-responsibility).

The second example is in the IHL (research site) when she acted on the advice of other academic staff on how to deal with teenagers as it was a new experience for her. She subsequently changed that as she found (cognition) that it did not work for her (consciousness: self-awareness, other-awareness) and that she had to find her own way to handle students and in deciding (self-responsibility) what is "good"

(conation: values) that she could adopt when handling academic staff (cognition).

4. Ding

Meaning construction

The overarching theme in Ding's whole narrative construction shows who Ding is (highly motivated to do well) and how she develops as a self-directed learner over time.

Ding's narratives are not organised chronologically. Instead, they are organised around the theme of who she is and how she developed as a self-directed learner over time. Her narratives serve as illustrations of this theme. She starts with a description in her opening narrative of who she is and how she is a self-directed learner. Ding's first narrative indicates a high level of consciousness (self-awareness, other-awareness) and self-responsibility in that she describes herself from the start as being always interested in doing well, and being self-directed and self-motivated as a learner who always learnt by inquiry. This high level of consciousness and self-responsibility is also observed in her next two narratives as she describes herself as highly conscientious, always inquiring and having to take more responsibility.

"I realise that I am always learning by myself. I am one person who

has an interest in wanting to do a good job in whatever I do since young. I think that carries me throughout. Even when I first started to work at the age of 21 ... I never had anyone to handhold me and taught me what to do. All the while I have been doing things by using my own initiative, solving a problem, going and talking to people, learning from people. I am always telling people that I do not know what I am doing can you please tell me... this is what I think I want to do and how about that? Even in the University, I remember this lecturer once told me, 'how come you are the only one who always come and see me after the lectures? ... you are the one who always have so many questions?' So I told her, I said, 'maybe I am not so smart you know so I have a lot of questions.' Any way I know that I was always a nuisance to people, when I am in a new situation or when I go for a new job."

"In my previous job, ... I know nothing about baking. There was this master baker ... I was sticking to him everyday, everywhere we go. Until one day he said 'you are such a nuisance!' ... At that time I was already a manager and yet I was very thick skinned. Perhaps I was able to be honest to say 'I don't know' and 'teach me'. People were willing to even though they found me a little bit of a nuisance."

"I really do not know how I developed this. I think it's my make up. I have a sister who was much smarter than me. She didn't need to work very hard and she always topped you know. I worked very hard and I was never top... I was always very conscientious I must say. My mother always liked me because I was very conscientious. As the second daughter I was always taking more responsibility."

Her narrative about her Masters experience overseas continues her theme of being motivated to do well and doing well. She was developing in consciousness (self-awareness) that it changed her by helping her open up to rely on other people. She says that by being in a new environment overseas (environmental-awareness), she learnt to ask for help from other people when she needed help. This indicates a developing consciousness (self-awareness, other-awareness) as she found that if she did not ask people for help, she would be in trouble.

"I went for my Masters *overseas*... under a scholarship I did well ... at that time, my programme, we didn't have distinctions. One year after that, *my* Professor wrote to me... to say that ... they are awarding distinctions for Masters degree graduate and should you be a graduate now you would be given a distinction... It changed a lot in terms of my outlook, the way that I see things. Because in the

past I was very sheltered at home, always ... at home, never really went out with friends... Everyday I went from home to school and school to home... Even in secondary school I think I only went once to a classmate's house. So when I went *overseas* for that year, I was forced to communicate with people. I think it really changed my outlook, my ability to connect with people. I had no choice. I was overseas. If I need help and I don't talk to people, I would be in trouble. So that one year helped me to be a changed person. I felt a change in myself. In the past, if I walk on the road, if I don't know where to go, I won't ask people. I just want to depend on myself. But after *going overseas* I felt the need to rely on other people. I was a very shy, closed person before. I couldn't remember much about my technical area. I know that I have to be successful... At that time I was getting a scholarship and salary. I couldn't come back if I did not do well. It's the same way of working. I am a very focused person. If I were to do something I will do my best and make sure that I achieve."

In her narrative about her job in manufacturing, her organising theme of who she is and how she developed as a self-directed learner is repeated. This narrative indicates a developing agency or consciousness (environmental-awareness) as she learnt about the

business aspect and re-framed her boss' perspective (self-responsibility) that her department is really a profit center instead of a cost center. She also describes working hard and persistence as being her character trait, indicating consciousness (self-awareness).

"... I didn't have anybody to handhold me to tell me how to do what to do. I just think about how to do it and just went to do it... I felt that I learnt a lot more about the business aspect. What actually is important in terms of the bottom line? I think my boss appreciated me because I was able to do different projects and convince him that I am saving him money. As *my department was in Research and Development (R & D) and Quality Control*, I should be cost centre. But I was telling him that I am actually a profit centre... I told him, this project cost is \$x. After this product, how to produce this product, every month the ingredients cost is \$x, the processing cost is \$y, the disposal of the byproduct is \$z, and now after this project, I reduce it to so much. What is saved, he could see... I said if I were to do product development, the people go and sell, it's the marketing people who will get the limelight and the *R & D* people are no where to be seen. People can't see it because there is no direct translation to money. Now if I were to reformulate for you, you have been spending \$1,000 to buy ingredients, now you only spend

\$400, that's \$600 straightaway. If marketing people are having a turnover of \$2,500, how much is the margin you still have to calculate and in the end you may not even get \$600 in the pocket."

...

"I always ask some people you know. I was not smart. I was just average. I work hard. I always try to find answers first if I do not know anything... I will always make sure that I will leave no stone unturned... If I have a problem, I always try to solve it. Maybe I try once, two times I fail. But if I have choice I will always come back. Sometime I try to give some suggestions to people and people don't do it. After trying two times three times, people don't move, I will go and do it. I want to show people it can be done. Persistence is my character, that's me."

She then interjects with a narrative about her playing the piano and being in a Chinese school and reading in both English and Chinese. She says that having different experiences and different perspectives helps. She then says,

"... the very essence of what I am like as a learner and how I actually learn... I will describe myself as a focused, persistent, wanting to know to the bottom of everything."

Her description of who she is becomes fuller now with the additional description of "persistent" and being thorough. She refers to her own background and varied experiences which helped her to have different perspectives and says that all these helped her "to see things a little bit more complete." This is a description of developing consciousness (self-awareness, environmental-awareness) of different perspectives helping her shape her own perspective.

She continues to develop the theme of who she is and how she is a self-directed learner in her narrative about her experiences in the IHL (research site). Her narrative also presents her developing agency, consciousness (environmental-awareness) and self-responsibility in a different context of education, having moved from business to education. She sets out to learn about the value system in education (consciousness: environmental-awareness) by asking questions. When she learnt after three years that no one can provide her with a satisfactory answer to her question of what is a quality course, she decided to provide her own answers to her own question. This is both a development of consciousness (environmental-awareness) and self-responsibility.

"In *the IHL (research site)*, again I felt that no one guided me. But I am a very willing to learn person... in the first two years... my

question was, this student wants to take leave to go for his driving licence, should I give leave or not? Such a small thing. Because I knew that the value system changed completely from a business perspective to education. So I would ask even very unimportant question. The first 2, 3 years ... I had a lot of questions in my mind. And I couldn't find answers. I guess I always ask myself, 'what is a quality course?' So much so that I was very distressed.... because I want to do a quality course. 'What is a quality course?' So at that time everybody was supposed to go for this ...quality training... I met the GM (*General Manager*) there and I said I want to ask you a question which is very important to me... 'what is a quality course?' ... He couldn't tell me. So I had to draw my own conclusion... that you can only see in the outcome of the whole thing. Because the course is made up of so many subjects, so many components, there are so many aspects of training students, it is the collective influence. Hopefully you have more positive than negative things that go into the programme in influencing students. So my conclusion is, in every decision that I make for education, I will make the decision more right than wrong... in every decision that we make, there is no absolutely right or absolutely wrong decision. So I would say that more right than wrong. That was my conclusion

after three years. I was quite stressed myself because I was searching for answers. And no one could give me answers."

She then gave an example about what is "more right than wrong."

"*more than ten years ago...* I interviewed students who wanted to come into the ... course... I came across this girl, actually dropped out of another course a year ago, I asked her what problem she had and after talking to the girl, then I realised that this girl had a problem. She was ostracised by people and nobody helped her. So I said, 'didn't you talk to your *Care Person (CP)*?' 'I don't think the CP even knew who I am. People won't help so what's the use?' So I realised that our CP system had some weaknesses. At that time... Every semester you change CP. How can you ever build relationship? ... It takes time to develop a relationship and if you want CPs to influence or to help the students whether academically or non academically, you really need to have a certain relationship. So I said, 'can we have *the same CP* for three years?' ... And since *then*, ... students in *my course* have been having *the same CP* for three years... I was very very glad to know that when *the IHL (research site)* decided later to ... have CPs for three years. I felt good that we did the right thing from the beginning..."

This example also presents a further development in agency, consciousness (self-awareness, other-awareness) and self-responsibility as she successfully persuades her staff to adopt her solution which was later validated when the IHL (research site) decided to adopt her solution.

Frame of reference

Ding starts her narratives with a summary description of who she is and how she learns. She describes how she learns by herself in a new situation by inquiry, by asking people many questions and she describes herself as being "not so smart"; "nuisance to people"; "just average"; "focused, persistent, wanting to know to the bottom of everything"; and "I am a very willing to learn person." This indicates that cognition and conation (self-concept, motivation and volition) are dominant in her frame of reference.

In narrating her experiences in the IHL (research site), she describes how she asked the question "What is a quality course?" for three years before she drew her own conclusion that in every decision that she makes, it will be "more right than wrong." The use of "right" and "wrong" indicates an exercise of value judgment in decision

making which indicates a frame of reference that involves cognition and conation (values).

She also makes reference to her values and says that "... as a Christian, the values and the teaching from the Bible is always the guiding principle." Her narrative construction indicates that her frame of reference with which she makes sense or constructs meaning relates predominantly to cognition and conation (self-concept, motivation, volition, purpose and values). Affect appears absent in her narrative construction except for her description of being "stressed" because she could not find answers to her question of "What is a quality course?" Her frame of reference is predominantly cognitive and conative.

Internal dialectics of how meaning is made

Ding describes the process of learning thus:

"We need to learn from what other people have to say and try to integrate with what you are, your thinking, and your value system."

Beyond Ding's description of learning as a process of integration (self-responsibility) of what she learns from other people with who she is (conation: self-concept), her thinking (cognition) and value system (conation: values, consciousness: self-awareness, other-awareness), what happens in the process of integration is not totally clear. She also

describes Christian values and principles as her guiding principle (conation: values).

Right from the start of her narrative however, who Ding is and what she is like as a person provide the integrative framework for her description of past learning experiences and the process or internal dialectics of how she makes meaning in new situations and experiences. She learns in a new situation by framing and asking questions (cognition) and when she received no satisfactory answers from anyone for three years, she formed her own conclusions by drawing on her own values (conation: values) to answer her own questions. For example, in her description of her being in a new environment in the IHL (research site), she says that she asked a lot of questions as she knew that there is a change in the value system as she moved from a business perspective to education. When she could not get the answers to her question from others, she drew on her own value system for her own answers. This indicates that cognition and conation (values) are very important to her in her meaning making of new situations. She is self-aware, other-aware and environmentally-aware (consciousness) as well as self-responsible.

5. Eng

Meaning construction

The overarching theme in Eng's whole narrative construction relates to his learning and development in different experiences over time. Except for the last two narratives of his Masters experience overseas and his narratives of his management appointment in the IHL (research site), his learning is mediated by significant persons in his life which includes his mother, teachers and mentors.

His first narrative about his being scolded by his mother describes how he first started to take learning seriously. This presents a developing consciousness (self-awareness) and self-responsibility mediated directly by his mother's scolding and indirectly by his grandfather's memory.

"... I never really understood what learning was or what going to school was all about ... it was not until late primary that I had a very major scolding from my mother that I started to take learning seriously. I was not really interested in studying, and I will just get by with the minimum. It was five years after my grandfather died. In my mind, my grandfather was the greatest person... my mother pulled my grandfather out in the argument, saying that my grandfather will want you to study, and cited examples of how he

will always want people to study... 'why are you not doing so? You will be breaking his heart.'"

In his school narratives, his significant learning was again mediated, this time by two teachers. His narrative about secondary school saw him developing consciousness (other-awareness) that despite his chemistry teacher's "meanness", she actually was very kind as she went beyond the classroom to teach him how to learn. Likewise... his English teacher went beyond the classroom to teach them critical thinking skills and more.

"... in *secondary* four, I had one chemistry teacher whom we were all afraid ... because we have heard of her meanness... It wasn't until the middle of secondary school... that we begin to see *that* ... behind all the meanness was actually a very kind heart... We begin to realise that by giving us all the extra lessons, it was taking a toll on her health. She was not only able to help us learn her subject; she was also able to help us to learn in general... how to take notes and how to identify the critical learning points in any given subject, contexts or passage... learning to summarise, learning to identify and ways to remember things. So those were very critical learning skills, which ... helped me even till today. Likewise... the English language teacher... showed a lot of passion ... she experimented

with lessons beyond the classroom. She goes beyond the usual grammar, to make us ... love the language... She also made us do debate as well... I remember very vividly that I was in this debate, and I was like going in almost circular argument, and she stopped the whole thing and he said, 'class, do you see that he is digging a grave for himself?' ... At the end... when 'O' level results came out, all seven classes got A1 except for one student, who got A2. ...She was quite a significant influence."

In Junior College however, his experience with teachers who were not passionate made him decide to leave school. This consciousness (other-awareness) about his teachers led to self-responsibility as he persuades his parents to let him study overseas. He says,

"the two Maths teachers ... were the worst teachers there can ever be... that totally put me off... I wanted to quit, but my parents said 'don't quit!' It was a pretty emotional time... it was back and forth...until one day, my parents said 'okay, if you want to quit, quit. If you want to go abroad, ... Go!'"

His University narrative continues the theme of developing agency and consciousness (self-awareness, environmental-awareness) mediated by his professor as he realises that he became interested in his studies because he was given the freedom to study. This leads to

the development of self-responsibility when he finds that he worked harder for this subject because he was studying because of interest instead of studying for grades. He also developed consciousness (environmental-awareness) by learning how to learn by inquiry. By having to take humanities subjects, he becomes aware of and is more open to different ideas and points of view (environmental-awareness). He also had to learn beyond his textbooks, something he did on his own accord to maximise the opportunities afforded by the University. This was a development of self-responsibility.

"What stood out for me in my *studies overseas*, was ... the mathematics teacher ... who was very unique, because he experimented with different ways to run a class... I went to the class and he said, 'in this class you do not get a grade. There is no exam, so there is no grade... I would still give test, but there will be no grade. I will still give homework that you do not have to do'... for the first time I was studying with no intention of getting a grade. But I study really for learning's sake. I found that I ended up working harder for the subject than for any other subject... I found that very liberating... the first thing that came to me was an interest in the subject... The interest grew because I knew it was not going to affect my grade... It allowed me the freedom first of all to do what I

want. So how much time I put in is also totally within my control... He will bring in a ball and then he will ask, 'I am going to drop this ball onto the floor, can you write out the equation to calculate the speed of this ball? What if now it bounces off, what kind of equation? And now if I were to use some strength in throwing, what then would it be?' So we were on an inquiry mode, asking 'what if' and 'what if'. Then another time he would bring in a can and he punctures holes in the can and he pours water into the can. 'What if I were to release this hole, how far do you think the water will go? Can you write an equation that model that?' He basically made us think about what we take for granted. What we see in nature, of course, instinctively, we know that the water will flow out. But how do you show that mathematically. Can you apply that? ... He probed and showed us how things could be done. Then he probed further... he wants us to apply it to everyday life... we began to ask more questions... I ask a lot of 'what ifs?' I can also see that today, when I learn things, I also asked a lot of 'what ifs?'"

"... came as a shock to me that I have to take so many non engineering subjects... a quarter or a third of the whole curriculum. Psychology, philosophy, sociology, history... Perhaps the most

significant thing that I learnt is that, after all is said and done, more is said than done. In the sense that after a lot of research... people actually still do not know how things really work, and that there are many different schools of thought, and nobody agrees with each other. All the schools of thought are important, to help us explain some things, but it definitely cannot help us to explain all things. So, we are supposed to write a lot of papers ... to propose different arguments... and we have to see how some arguments can be very weak, and I'll be pointed out. It was a humbling experience. And in there, I also begin to see different points of view. All along, I had a very singular point of view. And through that experience, I can see that there are different points of view, depending on where they begin, their thinking or the model that they have. That does not mean that my view is more correct than theirs. So that made my mind more open to different ideas... I began to see a lot of things beyond the textbooks, because all the extra credits were beyond the textbooks..."

His narratives of his first two jobs continue the theme of agency development and development of consciousness (self-awareness, other-awareness, environmental-awareness) and self-responsibility mediated by mentors.

"My first job ... for only three months... was a family owned business... the highest education that they had was only secondary one or two... they never had a degree holder ... wanted to expand *their* company. So *they* are taking two *graduates*... he didn't know how to deploy us. So I sat in the office with really nothing to do. ... I learnt the most from one of the site manager...*he* said, 'you are sitting here doing nothing. Why don't you just come along with me?' So I will go along with him and he will explain things to me... he had a lot of experience. And I learnt quite a lot from him... his experience and his knowledge... it opened my eyes to different things, something as simple as, 'do you know why the road in most places, you see is black colour, and this side you have this grey colour, the concrete? Do you know why they make concrete there and not there?' He explained all these to me. He also explained to me about working life as well, because it was my first job. I do not know how to relate to people... He was a mentor."

"My second job ... the first two weeks was fine, and after that I began to wonder if I was in the right place. The boss ... was a very harsh man... a lot of scolding and reprimanding. But I stuck to there because I knew I was learning something. I put up with it for 3 1/2

years... there was another guy that came in for a short while. He was sort of like a mentor. This guy gave me a challenge beyond that. He said, 'it is not enough to come up with the right answers. You must have a feel. When you say one ton, do you have a feel of how much is one ton? When you say 250 feet, do you know how long is 250 feet? Do you have a gut feel when you look at all your answers, all your working looks correct? But looking at the answer, do you have a feel that this is the correct answer?' So that opened my eyes to different things and that this world is not about formulas. That intuition or gut feel, and then matching it to what you work out on paper and if it doesn't match then what went wrong?"

His narrative about his developing agency and consciousness (self-awareness, other-awareness, environmental-awareness) and self-responsibility in the IHL (research site) is initially also mediated by a mentor who opened his eyes to "see a bigger picture." This led to his decision to stay in the IHL (research site) as he was inspired by the vision his mentor helped him see and he wanted to be a part of its realisation. We see him developing agency, consciousness (self-awareness, other-awareness, environmental-awareness) and self responsibility on his own later when he describes his Masters

experience overseas in a different discipline and in his later narrative about the IHL (research site).

"Then I came to *the IHL (research site)*... Again in the first few months, I thought I came to the wrong place. And I remember telling my *supervisor* then, I think I am in the wrong place... a lot of these things, I don't know... they give you a timetable and they gave me a *subject to teach*, and I wonder what this is... a few weeks into the lesson, I felt so small, so small, so small, because the students will ask me, and I don't know... I told *my supervisor*... to put me out of this subject otherwise, I'm not doing the students a service. So I focused on those things that I was better at. And then he gave me room to grow. So slowly again, I began to pick up all the new technology and practices. Then, the truth be spoken, I came to *the IHL (research site)* with an ulterior motive... to re-learn a lot of things that I have forgotten... then go away for my Masters. Sort of like a stepping stone. But I was very inspired by *the previous Principal and my Deputy Director then*... both of them opened my eyes again, and I see a bigger picture now, bigger in the sense that now it is not just about me, what I can do, we're talking about collaboration, different models of collaboration for win-win or mutual success. It's also about the strategy, where you position yourself,

what skills you need to pick up so that you can collaborate with other people who are setting the pace. I guess we wanted to be number one and we will get there. So that really inspired me. And I changed my mind. This is the place I want to be in. I got a lot of mentoring from *my Deputy Director then*. I spent a lot of time with him... After that he spent time and showed me what was possible. He showed me what other people are doing, not just in *the IHL (research site)* but beyond..."

His narrative about his experience when he was studying for his Masters degree saw him developing in agency as he develops consciousness (environmental-awareness) about the different ways of looking at things, a more holistic point of view and new things other people were researching. This time there was no mediation from a significant person unlike in his earlier narratives. This can be said to indicate a development of self-responsibility as he was developing consciousness by being aware of others and the environment on his own.

"My Masters was in a different discipline which is very fascinating. Again it opened my eyes to many many different considerations...it has a more holistic point of view. ... Why some things are done in a certain way...I learnt to understand what people want. I think the

psychology of people... At graduate level, there were a lot of opportunities to interact with other graduate students and I guess its quite fascinating what other people are looking at. I found out that that this other guy was modeling the human brain in the psychology department, basically they want to create a model so that they could predict how human behave under different circumstances... Robotic are quite common. Nanotechnology, at that time was quite new... its very exciting there because new frontiers are always being discovered, things that I never knew possible became possible there or things that I never dreamed people will ever do, they are doing there. So the learning environment ..."

When he returned to the IHL (research site), he found out to his disappointment that his mentor had left.

"... when I came back, my previous Deputy Director had left and my previous Principal announced his leaving. And my heart was broken."

His later narrative of his experiences at the IHL (research site) can therefore be said to be one in which he had to make his own decision whether he was staying even when his mentor had left. His narrative of his experiences in the IHL (research site) can be said to show a development in agency or self-responsibility as he now decides to stay

and in taking on management responsibilities, he learns to decide for himself.

"When I started *to take management responsibility for a course*, the same thing happened as all my experiences. When I take on a new job it was always a loss in the beginning. In this case the lostness was, now I have nobody to consult with. I have to decide myself... what am I going to do next? ... all of a sudden there were a lot of demands from different people, ... the most challenging part was how to handle staff... older than me and more years of experience than me... My quest at that time was how to get *my management staff* to move with me and how to motivate the people and galvanise them so that we moved together in one direction. I think it took me up to only today that things are moving together in one direction."

Frame of reference

Eng's repeated use of the "heart" and "eyes" metaphors in his narrative construction indicates the dominance of both affect and cognition in his frame of reference.

In his first narrative of school, when his mother told him that he is breaking his grandfather's heart, the heart metaphor is first used. In his

second narrative about his secondary school, he discovers that his chemistry teacher had "actually a very kind heart." He also tells of his English teacher who "showed a lot of passion." "Passion" is a word strongly associated with the heart. In his third narrative about his College days, he tells of "the worst teachers ... who did not have passion" that caused him to quit school. In his fourth narrative about his studies in the US, he mentions "a number of passionate professors." When he returned after his Masters overseas to the IHL (research site) to find that his mentor has left and that the person who inspired him and made him stay in the IHL (research site) was leaving, he says, "My heart was broken." His repeated use of the heart metaphor in his narrative construction indicates the affect is an important dimension of his frame of reference.

He begins to use the "eyes" metaphor in his University narrative. His study of humanities subjects helps him "see that there are different points of view depending on where they begin, their thinking or the model they have" and he "began to see a lot of things beyond the textbooks." The use of the "eyes" metaphor in his University narratives relates to his cognitive development.

He continues to use the "eyes" metaphor in his narratives about how three different mentors "opened" his eyes. He says that his mentor

in his first job "opened my eyes to different things," and explained to him about working life. His mentor in his second job "opened his eyes to different things ...". His first two mentors helped him develop personal practical knowledge about life and work. His mentor at the IHL (research site) opened his eyes to "see a bigger picture now..."

Although he did not use the word "eyes" when he says that he learnt a more "holistic point of view" in his Masters and that "things that I never knew possible became possible there or things that I never dreamed people will ever do, they are doing there," the phrase "point of view" also relates to a way of seeing and cognition.

It was only in his last two narratives that conation was observed in his frame of reference. In his narrative of one of his experiences in the IHL (research site), he says that his mentor helped him see a bigger picture and inspired him. This caused him to decide to stay on in the IHL (research site) as a matter of choice as his mentor helped him develop a sense of motivation, volition and purpose (conation). In his narrative about taking on management responsibilities in the IHL (research site), he says that he had to learn how to decide what he is going to do (conation: volition, purpose). This indicates that Eng's frame of reference involves the affect, cognition and conation (motivation, volition and purpose). Cognition and affect are dominant in

Eng's frame of reference. It is only in his last two narratives that conation is observed.

Internal dialectics of how meaning is made

Although Eng did not describe how learning takes place for him, his reflection of the interview shows how he makes meaning of his experiences. Reflecting on the interview, Eng says that he learnt something.

"....it is a rare opportunity for me to reflect on how I learn and therefore how I will be learning and I guess I understand myself a little bit better, I guess I understand my practices a little bit better. Sometimes I just do it maybe without too much of thinking, more instinctive, maybe stamping from my own values and just act upon it. This is an opportunity for me to think through. I see why I am doing things this way and therefore whether there might be better way to do it. Maybe there is a better way to do it eg., in terms of staff, if they understand my values more, maybe they can see where I am coming from."

This description indicates that he develops consciousness (self-awareness, other-awareness) as he reflects and as he becomes more self-aware of his values for his actions (conation: values), he also

becomes more other-aware. As he develops consciousness, this leads to self-responsibility as he thinks of whether there is a better way to do something (cognition).

An example illustrating the internal dialectics of what made him decide to stay on in the IHL (research site) when he originally intended it as a stepping stone is when Eng was challenged by the new perspective (consciousness: environmental-awareness) his mentors helped him see (cognition). His decision to stay indicates his choice to take on this new perspective for himself. He clarifies for himself (consciousness: self-awareness) what really inspires him (conation: motivation and purpose) and decides (self-responsibility) to stake his future in the IHL (research site).

6. Fook

Meaning construction

The overarching theme in Fook's whole narrative construction is his focus on and pursuit of his interest and what he does well in the opportunities given to him. This focus helped him learn and develop in different experiences over time despite difficult family circumstances.

Fook's narratives started chronologically. The chronological order was broken as he follows certain themes developed in the course of his narrative construction. He went backward and forward in time in order to develop these themes. He returns to a chronological order after his narrative about his University experiences.

The point of his first narrative about being kicked out of primary school experience is that it gave him his "first deep impression of the importance of education." His parents' and his grandmother's frantic search for another school for him made him say that "when small, we don't realise... that my parents put a lot of emphasis on education." Fook develops consciousness (other-awareness, environmental-awareness) here.

His school narratives show his developing consciousness (self-awareness) of what he is good at and how that motivates him to work hard to do well (self-responsibility). He discovers his "passion" for Mathematics (consciousness: self-awareness). He also discovers the importance of interest in learning when his literature teacher inspired him to enjoy and do well in literature even though it was a subject he was not very good at (consciousness: self-awareness, other-awareness, environmental-awareness). He concludes from this experience that "once you get interested, it doesn't really matter what

area you go into.... As long as you're interested enough, you will find ways of learning it." This consciousness makes him discover that he will find ways to do well (self-responsibility) once he develops an interest in the subject. This evidences a development of agency, consciousness and self responsibility.

"... the learning for me, the encouragement comes from doing well. I seemed to be able to do mathematics quite well. So you get good results, you get encouraged. The school also encouraged competition and you are able to solve riddles, puzzles and things like that and you get prizes... I was especially proud in primary six, after PSLE (Primary School Leaving Examinations), the teacher gave a lot of puzzles to occupy time ... and they gave prizes. I was quite proud to solve one of the more complicated puzzles which I have not come across before and was able to think out of the box and managed that particular puzzle. I was given quite a good prize. That helped me put a lot of effort into the learning of mathematics. That passion continued into secondary school."

...

"... in Secondary three ... I realise that teacher plays a very very important part in your learning... we had an excellent literature teacher... we were inspired to really read ... analyse it and answer

well in terms of the literature questions... I was surprised that ... I got an A1 for literature... because I have never been good in this area. But because of the teacher, because she generated interest, because she spent time with the subject, you can do well... that also tells me that ... when you say that this is an arts person and a science person, it is not really true. It's just that you have not been motivated or stimulated in that area sufficiently to get interested... As long as you're interested enough, you will find ways of learning."

In his Pre-University narrative, he continues the theme of doing well and pursuing his interest. This time, besides his new and different interests, purpose enters his narratives. This shows developing agency, consciousness (self-awareness) and self-responsibility.

"Because I tend to get good results, I continued to put in a lot of effort in preparing for exams... At that time I spent a lot of time in the Chinese Society... harmonica group. I was also interested in photography...I was also a prefect ... so in *Pre-University* I was quite occupied... we were also preparing for National Service... we went running and so it was quite purposeful in a sense. It was a good two years for me because it was very directed and purposeful."

His next narrative departed from a chronological ordering with a narrative about his difficult family circumstances and how he was "fortunate" to be "screened" from these difficulties by focusing on what he did well, his studies. His consciousness (self-awareness, environmental-awareness) about his family circumstances and the difficult neighborhood he lived in led to self-responsibility when he focuses on doing well in his studies and the opportunities offered when he was serving National Service. His attribution to his being "screened" from these difficulties to "fortune," is more likely because of modesty rather than a reliance on "fortune."

"... the family quite difficult, but I had the support of my grandmother. She said that as long as you can study, don't worry about other things. So I was quite fortunate in that I don't have to worry about other things, not even whether the family can afford to send me to University or not... My mom never worked and so it was only my dad was working. My grandmother's business wasn't doing well. So there were a lot of issues at home. But I was fortunate that I was screened from all these things. In fact we were quite bad at that time; we had to move from the pre-war ... flats to ... rent a small place. We have eight brothers and sisters. All of us just stayed in one room. So times were not that good. But I didn't have

to worry. Maybe I didn't worry. Don't know why. But I must say that I was fortunate that there was National Service. National Service allowed me to ... save enough money to pay for my ... University education. I sometimes say I am very fortunate because where I stayed; a lot of my neighbors actually gave up school very early. Some of them fight. In fact I heard of murder cases. After a fight, you can't control yourself and somebody may just die. So those things do happen along that kind of street. So during the early days, it was quite a notorious area. So I was quite fortunate. I seem to be screened from all this. Maybe I have a world of my own... When I do things in full concentration, the rest of the world can be shut off. So I don't have to worry about a noisy environment because no matter how noisy the environment is, it doesn't matter. I can hear and I don't listen. I am able to focus quite well. So that helps. During my school days I was quite focused on my study because I know that if I study, I can do well. And then you feel good about it."

This break in the chronological ordering draws attention to the significance of this narrative to the whole narrative. Here Fook repeats "fortunate" four times. This significance is reinforced when Fook again uses "fortunate" in his reflection about his experiences at the end of the interview. "Looking back at my whole stint in education I would say that

I am fortunate. I was given opportunity to do things. I think that helps a lot... because I was given the opportunity to be in charge of a laboratory, in charge of people, training people, I develop that passion for it..." The repeated use of the word "fortunate" in the break in the chronological ordering of his narratives and later at the end, indicates its importance in his narratives.

The overarching theme of pursuing his interest and purpose continues in his next narrative when he discovers a new interest and purpose whilst attending a seminar by inventors (consciousness: self-awareness, other-awareness, environmental-awareness) in his Pre-University days. His choice of a University course which allowed him to pursue his interest and new found purpose also shows developing self-responsibility.

"... showing things that were invented by men to help men live more comfortably. I was quite interested. I would say that it will be great if I can build something for people that would simplify their life, to automate it, to make things easy for you and to make the environment more controllable. So I applied for a *course which allowed me to do this in University.*"

His next narrative about University continues the overarching theme of pursuing his interest. It also describes his developing agency,

consciousness (self-awareness) and self-responsibility. He learns independence. He discovers that he enjoys learning by discovery and experimentation. His discovery that the course he originally enrolled for was not what he was interested in led him to change his course. Here a developing consciousness led to developing self-responsibility. He also describes his University experience as changing how he learns and how he does things later in life.

"University was quite a different experience... There were a lot of friends; lots of things to do ... the subjects were the subjects that I liked. So I really enjoyed my University. And also because we joined the University after National Service, we were a lot more mature. We were able to do a lot of things, very independent... life was quite fun. Of course there's a lot of hard work and study. But we also do a variety of other things ... University experience was more an experience of independence. You really do things that you really wanted to..."

"... in the first year, every ... student ... take part in a competition... to design a packaging system, fill up with a certain volume of sand and drop down 1.2 m and make sure that the packaging stays and not burst open. You suggest what materials to use. So it's

extremely challenging. While there are parameters, the scope is really wide. So the challenge is to find out things that you don't know... While there are some subjects that you'll learn what is established ... more of *it concerns* discovery ... because a lot of time... there are a lot of ways of reaching the same results... So the learning is also very different. The learning is by experimentation. It doesn't work, you try again. It doesn't work, you try again... there is a lot of trial and error... lots of experimentation... you don't just do what is already known. You try and discover them in a sense. You are supposed to solve problems. While it may be the same methodology, there's always another question to say, is there another way of doing it? ... Can it be improved? ... Is this solution the optimum solution? ... the critical thing I learned ... is that for most processes and procedures and systems, there's usually an optimum level. If you do too little, it is not efficient. If you do too much, you are not getting more for what you put in... there is a mathematical way of deriving that optimum... I think the discovery of that fact is quite a break through in the way I think and do things later on in life, realising that there is really an optimum way of doing things..."

"... *after* one week of classes... I realised that I am not so fascinated by ... *my chosen discipline* ... I am more fascinated with ... things ... you cannot see, things that you have to imagine... I decided to shift ...*to another field of my discipline*... All those things were really exciting because I enjoy learning through experimentation... because of that kind of learning my mindset is also very different...*people in my discipline* tend to be more experimental... because of the development of the discipline at that time. There are so many new things. And because of so many new things, a lot of things are not understood. So there's a lot of trial and error... that shaped the way I think, and the way I learned later on. I am more the experimental type. I am more the type that don't mind if the thing doesn't work... we will have to learn how to drop it and just move on. The other aspect is the amount of knowledge and the refreshing of knowledge...You know the concept; you have the basic understanding... You may not know the intricacies... But you know how the basic principles that make it work. And that sometimes will be sufficient because you have to move on to go to the next level. So I think that has shaped how later on in life how I do things. I think the discipline also shaped my learning style."

His narrative about his first professional work experience continues the theme of pursuing his interest. It also shows a development of agency, consciousness (self-awareness) and self-responsibility as he quits his job because he finds that he is not keen to be a manager and pursues his interest in teaching instead.

"... a good experience for me. Everything is so new. We learnt new technology... The only regret I had was that after year one... you become supervisors and you have less time to do the investigative part of the problem. You now consolidate problems... After one year, my expatriate boss had to go back. So I was covering his duty for a while. The manager's duty is a lot of meetings... concern of the volume, the stock and all those things ... I find that I am not very keen in that kind of role. I always wanted to teach so I applied to *an IHL* to teach..."

His narrative about the IHL he first joined continues his overarching theme of pursuing his interest in teaching. It also shows development of agency, consciousness (self-awareness, other-awareness, environmental-awareness) and self-responsibility in the many new initiatives he introduced even as he assumes management responsibilities. There seems to be a change in his attitude towards a management role in the IHL from his earlier attitude of not being keen

on a manager's role. This evidences a developing consciousness (self-awareness, other-awareness, environmental-awareness). He sees the manager's role now with new eyes when he discovers that management could be a "really a great experience" and now considers that he is "fortunate to plan out all the laboratory and expansion ... do ... the budget...monitoring the expenses" and that it is "a great opportunity." This leads to a developing self-responsibility as he assumes more management responsibilities and discharges them in his own way. He develops consciousness (self-awareness, other-awareness, environmental-awareness) as he discovers the people development aspect of management and how he can use what he is developing in his management projects to teach his students and improve things for staff.

"... I had fun teaching... it was really good because I have all this experience ... to teach the new students... teaching was good... Even when I was *in a management role* at that time, I was still teaching... I enjoy teaching more than anything else. I also introduced a lot of new things in teaching... I revamped quite a bit of the way of learning ... I started the programming labs. Instead of doing normal lecture, I do the teaching in the lab itself. That was a new concept at that time. I do projects for subjects. At that time

there was only one project for every course, the final project. But I create the subject into projects because I felt that *in the discipline*, ... project ... is more effective and more interesting. That is exactly what the industry do ... At the end you don't just learn. You also see some physical results. So I was happy that I was able to revamp quite a bit of this."

"I moved more into the management area because I was selected. At that time *the IHL* went into some strategic planning ... got into organisational learning ... adopt a new concept of ensuring that every teaching staff understand more about themselves so we do transactional analysis and team building... I trained quite a lot of staff in that area ... you understand about yourself, the child, the parent and the logical part of yourself and how you interact with another person. You look at personalities. You look at team work... leverage on the strength of the different people in the team ... interact with a lot of lecturers from other departments. That also made me realise that there are a lot of talents in an institution like this. Not necessarily just academic talent but also other talents... It was really a great experience. I was a facilitator for two or three years. I had a lot of teaching and other responsibilities. I think

another aspect of my learning also came because *the IHL* was then expanding very rapidly ...*I was given the task* to help co-ordinate the expansion plans... I was fortunate to plan out all the laboratory and expansion ... I also do ... the budget...monitoring the expenses ... That helped me to get a very good picture of the running of a department in the *IHL*. So that was a great opportunity for me. Because I use a lot of spreadsheet to collate all this that prompted me to introduce practical software application as a subject to the students... later on I was made in charge of all lab technicians. I re-organised them into different groups and I also re-organise the component purchase process and all the other processes... put in place a lot of processes to help lecturers in supporting the final year project in supporting their lab requirements... I also put in an in-house printed circuit board line so that we can actually produce our own printer circuit itself... we also created a teaching programme from that. So I created a lot of new subjects based on what I do and then I converted it into some form of learning into new subjects..."

His narrative of his experiences in the IHL (research site) continues the overarching theme of pursuing his interest, this time in the people and team development aspect of management. There is also development of agency, consciousness (self-awareness, other-

awareness, environmental-awareness) and self responsibility in his management practice.

"I joined *the IHL (research site)*... I realise that when you move beyond the teaching of the students, you move into the so-called educational leadership, you are really about developing people ... my work has always been ... to see how I can provide the support for growth of the various lecturers and staff, even the non-teaching staff... Only when they are able to discover for themselves and stretch themselves then will they be able to translate them into things that will be able to help the students to learn and grow. So when I took over *management* of two courses, the main thing that I wanted to build up was this environment where the staff themselves can play a major part in the development of the course as well as their own personal growth... I also told the non-teaching staff ... you may be a support staff but you should also develop that teaching element because ... you need to understand the students in order to support them well... Similarly also for lecturers having to do other things other than teaching..."

...

"We want to create an environment when we don't segregate people but we create teams... One of my main emphasis during

that time was how to integrate the people and how to make them work together to create the team spirit together. And then we will use that as a basis to launch new areas, new subjects."

In his concluding narrative of the different things he did to develop and support people, he said he developed a "passion" for it.

"... because I was given the opportunity to be in charge of a laboratory, in charge of people, training people, I develop that passion for it... So the way I do things is that I allow people to do things... The more opportunity I give to people, I believe the faster and the wider and deeper they can go..."

This again evidences development of consciousness (self-awareness) as he discovers that he developed a passion for management as people development. This led to self-responsibility which is extended to others.

Frame of reference

Fook uses "fortunate" to explain what he does not or cannot explain about how he was "screened" from the bad influences in the notorious neighbourhood he lived in when he was young and how he was given opportunities as he focused on what he did well. It is more likely that his attribution to "fortune" for his success notwithstanding difficult family

circumstance is an attitude of modesty or a sense of gratefulness rather than a reliance on fortune and indicates Fook's values or attitude (conation).

His first narrative about being kicked out of primary school experience gave him his "first deep impression of the importance of education." He discovers his "passion" for learning mathematics in different narratives in the Primary and Secondary schools when he did well in the subject, felt good and was proud of it. He also discovers the importance of interest in learning when his literature teacher inspired him to enjoy and do well in literature. In his Pre-University narrative, he continues to do well and pursues his interests in co-curricular activities. He also found his preparation for National Service purposeful. These narratives evidence cognition, affect and conation (interest, motivation and purpose) of which affect and conation are more dominant.

His narrative about his difficult family circumstances and how he was fortunate to be "screened" from these difficulties by focusing on his studies is a lengthy narrative which concludes with

"... My parents never had to tell me that I have to do my homework. As far as I can remember, I will always do my homework. I was very proud that I could complete everything and pass up on time. It seems to make you feel good that you were able to do it."

Fook also repeated "fortunate" four times in this narrative. This lengthy narrative set out earlier involves cognition, affect and conation (attitude, motivation) in his frame of reference. Again, affect and conation are more dominant.

He continues the themes of pursuing his interest and purpose in his next narrative about his attending a seminar by inventors when he was in the Pre-University. He became interested in building things for people that would make things easier and the environment more controllable. This relates to conation (interest, purpose) So he applied for a course which will allow him do this in the University.

His next narrative about University saw him continue the theme of interest as he finds that he enjoys learning by discovery and experimentation. He changes his course of study after one week also because of his interest. His interest here is again related to conation. That he enjoys learning by discovery and experimentation relates to cognition and affect.

In his first professional work experience when he became a supervisor after one year and covered his boss' duties, he discovers that he is not keen on a manager's role and he moves to teaching. This again relates to conation (purpose, interest).

In the IHL he first joined, he describes how he had fun and enjoyed teaching. Even when he describes training staff as he moved into management, he describes it as "really a great experience." When given the task to co-ordinate plans for laboratory expansion, he again says that it "was a great opportunity." His change of attitude towards a manager's role can be attributed to his realisation that educational leadership is more about developing people and supporting the growth of staff by giving them opportunity to experiment and discover for themselves. His narrative construction indicates cognition, affect and conation (purpose).

Cognition is also evident in his description of how he learns by experimenting but his reflective summary at the end of his narrative construction indicates that affect and conation (attitude, values, interest, motivation, purpose) are more dominant in his frame of reference when he said that he developed "passion" for management, especially in people management. "Passion" indicates both affect and conation.

Internal dialectics of how meaning is made

Fook learns by experimentation (cognition) in the University. He says that it shaped how he learns later in life. He also describes how

he learnt from experience in his management role as learning by experiment (cognition).

“The way learning from experience applies to an educational leader is quite different... My concept is that I don't really lead, I support. So my concept is to allow people to do. I help. I say you cannot run away from letting them try it. So their learning will be that experiment. Of course I will be learning also. If that method works, fine. If that method doesn't work, then I have to go back and say why it doesn't work. Is it because of the person? or maybe the person is not ready for this kind of responsibility... Then I will learn.”

In his reflection of his “whole stint in education” over the years, he says that he was “fortunate” that he was given the opportunity to do things which helped him develop a passion (affect, conation) for management (consciousness: self-awareness). This he says led him to also give his staff opportunity to do things as he believes (conation: belief) that is how they will “discover for themselves” (consciousness: other-awareness). This is consistent with his learning by experiment.

The internal dialectics of how Fook moved from being “not very keen” (conation: interest, motivation) on taking a manager's role as he “always wanted to teach” to developing “the passion for developing people” (affect, conation: purpose, interest, motivation) which indicates

that he has changed to love his management role will be examined. What helps him to change was a re-framing of his perspective of the manager's role as one which deals with inventory and stocks and meetings to one of people development. When he trained staff in the first IHL in transactional analysis and team building, he found that it was "really a great experience" as he realises that it was more about developing people. In his summary reflection, he says that he developed the "passion" for taking charge of people, laboratory and training people because he was given the opportunities to do. What enabled him to change was a developing consciousness (self-awareness, other-awareness, environmental-awareness) of a different way of viewing management as he took the opportunities for management given to him in the first IHL and in the IHL (research site). As he re-framed (cognition) how he views the manager's role in the light of his experiences, he finds that management was actually in line with his interest, motivation and purpose (conation). This enables him to develop "passion" for being in management (affect, conation, consciousness and self-responsibility).

7. Goh

Meaning construction

Goh's narratives appear to be organised around the overarching theme of her developing agency as she is given many opportunities to lead. Most of her narratives describe her being given many opportunities to lead. On closer analysis however, there is the unresolved tension in many of her narratives describing how she was expected to lead. In contrast, her narratives which did not require her to lead and which see her interact with different people, conveyed enthusiasm. This shows that the overarching theme of Goh's whole narrative construction is her preference for developing agency in her interactions with different people as opposed to being expected to lead.

Her first narrative describes her being given the opportunity to lead in her family or rather, it describes her being expected to lead as the eldest child in the family. She is also expected to help her intellectually handicapped brother. This narrative ends with her wishing that the government can do more to help her handicapped brother. This conveys a sense of inadequacy in the role she is expected to play with respect to her brother. This indicates her limited agency. Self-responsibility is also limited as leading is not a free choice that she exercises but something she does because she is expected to. Here

also, her need to exercise self-responsibility is beyond what she is able to handle as the sense of inadequacy at the end of the narrative conveys. As she tries to exercise self-responsibility, she realises that what she is capable of doing is not good enough (consciousness: self-awareness, environmental-awareness) to help her brother.

"... being the eldest in the family, allow me that kind of opportunity to lead ... my parents ... are Chinese speaking ... they rely on me for ... anything that requires them to understand the English language... from young... I grew up with the understanding that I am to lead the family in different areas. And also, the other thing is that I've got a brother, who is ... intellectually handicapped... I'm expected to lead the way, to bring my parents to various agencies to get help."

After describing the lengths to which she went to help her intellectually handicapped brother which included writing to the minister, she ends this narrative with,

"... I wish that the government could do more to help the handicapped. I grew up in that kind of environment that expected a lot out of me to support my siblings."

Her second narrative about her primary school describes how she developed self-responsibility by learning to be independent at a young

age. She says, "I was left very much on my own. So I became much more independent." She also describes how circumstances made it such that she again was given opportunities to lead. She was made Head Prefect when she was in Primary Three. A bad experience with the older girls also led to her ending this narrative with a sense of inadequacy as she describes her difficulties in getting the older prefects to do what she wants them to do. Her self-responsibility here can be said to be limited as she was given responsibilities beyond her years. Here again, the need to exercise self-responsibility that is beyond her ability at that time led to her consciousness (self-awareness, other-awareness, environmental-awareness) of her inadequacy for the role of Head Prefect then.

"... my parents could not get me into the primary school ... near my place... my other siblings were sent to a school just next to my house... my mother took care of them ... Also she spent most of her time taking care of my handicapped brother. So I was left very much on my own. So I became much more independent... I was in ... a Malay girls' school. But I was the first batch of Chinese there...When I was Primary Three, I was made the Head Prefect... the older girls... were quite upset with this."

The bad experience she had in the course of doing her duties as Head Prefect was when one of the girls threw a sweet at her which hit her on the head. She says, "I was very upset... from that experience, I knew that it was very difficult for someone very young to lead." Her learning point is that

"I learnt that you've got to win people over. I guess I learnt it the hard way, despite the fact that I was the Head Prefect in Primary Three... because I was younger than them... I had a lot of problems trying to get the other prefects, to do what I want them to do."

In her third narrative, she again starts with the fact that she was given a lot of opportunities to lead.

"... in secondary school, my principal ... gave us a lot of opportunities to lead in the school... we have the assembly sessions in school, my principal would allow every class, one assembly slot... to take charge of the entire assembly... for four years ... every year we had one opportunity... I found myself leading most of these sessions."

Her evaluation of these experiences is that "those were very good opportunities for me to organise." A comparison with how she ends her previous narratives indicates developing agency, consciousness (self-

awareness) and self-responsibility as there is now no sense of inadequacy at the end of this narrative.

Her narrative about her Junior College days starts with, "I was more passive in college.... maybe I was very active in church..." Again she describes how she also had a lot of opportunities to lead in church.

"... there were a lot of younger people who came. Again there were a lot of opportunities for us to lead, to organise sessions for these younger people."

In her University narrative, she says that she was also more active in church. She repeats the same theme of being given a lot of opportunities to lead in her narrative about church as well as her narrative about her initial five years in teaching.

"After that I went to *Institute of Education* (IE), and then I became a teacher. I was bonded for five years... Then I was given a lot of opportunities to lead. Spearhead quite a number of clubs. After that I quit."

After completing teacher education and serving her five year bond, she quit teaching for journalism. After one year, notwithstanding her saying that she loves her job as a journalist, she decided to return to teaching and says that she found out that she preferred teaching. This indicates both development of consciousness (self-awareness) and

self-responsibility.

"I decided to go back to teaching. I guess after that experience, I realised that I prefer the teaching environment."

Her development of self-responsibility here is marked as she now makes the decision to move to another career only to decide to return to teaching when she realises that she prefers the teaching environment. This self-awareness (consciousness) led to her development of self-responsibility. It is significant that in this narrative, there is no description of her being given opportunities to lead, the recurring theme of her earlier narratives.

Her narrative about her University experience which did not include her being in a leadership role also indicates development of consciousness (environmental-awareness of different perspectives) and self-responsibility ("shaped the way I am"). She says,

"... that kind of lecturers I was exposed to helped develop my ability to think. Most of my lecturers were Caucasians. They brought with them a very different aspect of life. They were much less conservative, more liberal. Their ideas, I think at that age when you were growing up, it was very appealing. They also made us question a lot. That kind of shaped the way I am. Most of them taught us to challenge existing norms. In literature, we were made

to question a lot. There was a paper called Practical Criticism. I felt that that really trained the mind. It helped you to see things from various perspectives. It helps you to learn that in life there are many other perspectives, not just one single perspective..."

In her narrative about the IHL (research site), she says,

"I was given a lot of opportunities in various departments through the various committees that I sat in *and in the new department I moved to...* There were a lot of opportunities to lead and to learn..."

Before continuing with her narrative of her experiences in the IHL (research site), she describes her University and Junior College days which did not include any reference to her being given opportunities to lead. These descriptions of her University, Junior College as well as her journalism experiences are fuller and conveyed more enthusiasm and excitement in terms of the descriptions both of her experiences and especially of teachers and or peers who influenced her than in her narratives of experiences where she was given many opportunities to lead.

Many of her narratives which describe her being given many opportunities to lead also convey unresolved tension. The tension level in her whole narrative construction can be traced as follows. Her first two narratives ended with a sense of tension and feeling of

inadequacy. This tension seems to have eased in her school and church narratives even though she was also given opportunities to lead. Tension however returned when she ends her teacher training narrative rather unexpectedly with "I quit" after saying that "I was given a lot of opportunities to lead." This begs the question why she quit teaching. This tension increased dramatically with her exuberant description of her one year as a journalist which starts with "I love my job a lot" but ends with her deciding to go back to teaching after one year, saying that she prefers the teaching environment. Her IHL (research site) narratives start with some tension in her first narrative describing a "struggle" with a domineering fellow *supervisor* when she first took on a management appointment. This struggle was resolved when she developed consciousness (self-awareness, other-awareness) which leads to the development of self-responsibility. Her description of her being empowered to make certain decisions in her current management role also indicates developing self-responsibility and that she is now feeling more comfortable with respect to her current management role.

The ebb and flow of tension in her narratives evidences a resolution of Goh's inner tensions associated with being thrust into leadership roles since young. It is only when she chose in self-responsibility to quit

teaching (which includes leadership roles) that she discovers that she prefers teaching (developing consciousness: self-awareness, environmental awareness). Her last narrative of the IHL (research site) also ends with her resolving the initial tension she experienced in her first management role.

There is evidence in Goh's narratives that a need to exercise self-responsibility which precedes and far exceeds the individual's development of consciousness leads to inner tensions which seek a resolution. Goh resolves this inner tension by quitting teaching (which includes leadership) only to return to it after she discovered that she preferred teaching.

Frame of reference

In Goh's first narrative, she describes how she tried to help her intellectually handicapped brother by writing to the Minister and her feeling of not being able to do enough to help her brother is evident in the way she ends the narrative. She says, "... I wish that the government could do more to help the handicapped. I grew up in that kind of environment that expected a lot out of me to support my siblings." In this narrative, cognition, affect and conation (intention) are involved.

In her second narrative, she describes how she became Head Prefect in Primary Three and had a very bad experience in the course of doing her duties as Head Prefect. She says, "I was very upset... from that experience, I knew that it was very difficult for someone very young to lead... I learnt that you've got to win people over." In this narrative too, cognition, affect and conation (will, intention) are involved.

In her third narrative about her secondary school, she found herself taking charge of assembly sessions for her class every year. Her evaluation of these experiences was that "those were very good opportunities for me to organise." She was not active in Junior College and University as she was then very active in church. She went to the *Institute of Education* (IE) and became a teacher. After serving her bond of five years, she quit teaching. In her next narrative about her stint as a journalist, she says, "I love my job a lot because it gave me a challenge." After describing her high pressure job, she ends the narrative with, "Then after that, I decided to go back to teaching. I guess after that experience, I realised that I prefer the teaching environment." This narrative construction indicates that cognition, affect and conation (motivation, interest) are involved in her frame of reference.

The development of her narratives conveyed in the way she constructs her narratives with the use of unresolved tension provides a clue that whilst she appreciates different opportunities to lead, there are leadership situations that she is uncomfortable with. She really prefers not to be in a leadership role and she prefers to be learning and interacting with different types of people. This indicates the dominance of the affect and conation (motivation, interest) in her frame of reference when it relates to situations when she is interacting with different people. In contrast, cognition is dominant in describing situations when she has to lead. Her affect and conation (will) are almost hidden in her inner tension.

Internal dialectics of how meaning is made

Goh learns from interacting with people as they make her examine (cognition) her own perspectives (consciousness: self-awareness, other-awareness, environmental-awareness). She says,

“... people influenced me more. I enjoy working with people who are different ... in that they think differently. I like to listen to their views... I like intellectual stimulation ... When I interact with them, it makes me examine my own attitudes, my own perspectives. It allows me to understand that, a similar situation can be read in so

many ways. And it surprises me all the time. Even a very simple thing, can be seen in so many different perspectives. It may not be as simple as what you make it out to be. It can be something quite complex.”

She also learns from other people’s examples by visualising herself in a particular situation and questioning (cognition) how she will handle that situation (self-responsibility) using what she learnt from her past experiences as well as how other people do things (consciousness: self-awareness, other-awareness, environmental-awareness). Relevance (cognition) determines if she learns something.

“... I will visualise myself in a particular situation and question how I will handle myself in that particular situation. How a particular training course will advise me to handle the situation? Whether it will be useful for me? If it is useful, then I guess it will create some impression on me, for me to remember, and that’s how I learn... I learn from examples...*if*... I saw another person handling a *situation* in the way that ... may be very successful... I remember it. Or it could be a negative example... I will tell myself, okay, if I encounter similar situations, I will not repeat the same mistake, or I will try to avoid that kind of decision or mistake.”

".... initially, I learn more from stories. I read a lot. I get exposed to more people, different ways of doing things, how different people do things, I get intrigued by new ways of doing things, so I begin to learn from real examples. And as I get more exposure to different situations in life, then I guess I learn from the different situations ... I learn better *when things...* are relevant for me to learn. If that is not relevant to me, maybe I don't learn as much."

The example below of how she learns in the IHL (research site) illustrates how she becomes self-aware and tries to appreciate and relate to people with other perspectives and ways of doing things (consciousness: self-awareness, other awareness, environmental-awareness).

"When I *first joined the IHL (research site)*... I was made *supervisor*. At that point, I didn't quite like that experience, initially at least because I was working alongside another *supervisor*, who was quite domineering. ... I had a little tussle within myself. On one hand, I don't like to be dominated. On the other hand, I don't like to create disharmony... I felt that when I am given a section to lead, I would like to do a good job. I would like to lead. I wouldn't like another *supervisor* to speak for my group.... But I think eventually, I learned to cope with that. I also realise that this person is a very

nice person. And when I learned to see things from her perspective, when we became good friends, she was also more willing to allow me to have more say in how I run the section... we were given a lot of leadership training.... One of the more significant training was one on personality types.... confirmed certain personality traits in me. It also helped me to understand other personalities... you realise that there are all these kinds of people. We were taught to relate to people with different type of personality traits. That helps a lot."

Her difficulties with her colleague caused Goh to learn more about herself and her colleague's perspective (cognition). This relates to consciousness (self-awareness, other-awareness). It also caused her to learn (cognition) about the different types of personality traits (consciousness: environmental-awareness) as well as to learn how to deal with people who are different (self-responsibility).

8. Han

Meaning construction

The overarching theme in Han's whole narrative construction is how he learns and develops from experience over time by doing and discourse.

Han's narratives start with his first work experience because he could not recall his school days. He orders his narratives chronologically until he suddenly recalls his secondary school days in the middle of the interview. He then embarks on a brief narrative of what he remembers in his secondary school before returning to his chronological ordering of his narratives.

In his narratives about his work experiences before he joined the first IHL, he learnt through doing. Han describes how he had to learn an area which is outside his expertise in his first job,

"Actually the first few years were learning through doing. It was actually the blind leading the blind. Because at that time there was no computer science course... I was a fresh Maths graduate. The first job I had in a government agency required a lot of algorithmic knowledge. So I had to read ... I didn't really go through a degree program. I went to training courses. But as I said, it was the blind leading the blind at that time. So the learning was really on the job, and with people. And I also picked up business domain. The business domain had to be learnt."

This indicates developing self-responsibility as he has to find answers on the job in an area he is not familiar with. Again this was learning by doing. There is development of consciousness (self-awareness,

environmental-awareness) which leads to a development of self-responsibility in his narrative about how he joined a private firm and left after he realised that it "clashed with my values." After a brief narrative about his short time in a private firm, he went back to his previous employer,

"... that was the boom time when they were coming up with their project management standards. So we had a fun time, developing these... I had to train. That's when I found out that I really liked teaching. I...*joined an IHL*... So the learning, as far as I was concerned was in the picking up and doing it..."

This indicates a developing consciousness (self-awareness) of what he likes which led to his self-responsibility in deciding to teach.

In his second group of narratives, he starts with a description of his having joined an IHL. This narrative indicates developing consciousness (self-awareness). He says that he enjoyed teaching and that he went overseas for his Masters shortly after joining. His Masters experience also shows developing consciousness (self-awareness, environmental-awareness) and self-responsibility. He says,

"*it* made a difference, a vast difference to how I see things.... prior to *that*, was very structured systematic, very objective, yes or no and nothing in between. *Overseas postgraduate studies* opened an

avenue, which I never regretted. You recognise the grey areas... I developed more critical thinking skills. As a postgrad student, you were really on your own... professor ... idea of semiotics ... gave me a very different perspective about how information is used. That made the real difference to the way I see things... it gave a different perspective... At that time people were not quite aware of those sorts of issues... these were the two things that I think influenced how I see things today."

He also went for three months of training in pedagogy overseas before returning to the IHL. His description of his experience indicates that he learnt through debates and discourse. It also indicates developing agency, consciousness (self-awareness, other-awareness) and self-responsibility. He says,

"...the three months were good, because I had to immerse myself with a whole bunch of "ang mo" (*colloquial expression for "Caucasian"*). We were training together. One thing I like ... was that they debate a lot... It was fun. I also had to do practicum. I had to teach a bunch of "ang mos." And you had to face people who really ask questions. Asian students tend to be a bit more quiet. We really have to answer questions, and it was enjoyable. They'd ask questions and challenge things."

When he broke the chronological ordering of his narratives with his recollection of his school days, the structure of his narrative differed from the structure of his earlier narratives. This narrative of his school days is structured as an account of what he liked or loved and what he did not like and why. It indicates consciousness (self-awareness) when he ponders about his own love for literature and offers the reason that it is because it is connected with life in general. His consciousness (self-awareness) leads to self-responsibility when he describes how he chose to do Mathematics in the University because he was good in Mathematics. He says that Mathematics trained him to think logically and systematically. As it is a sudden recollection, this account was more to complete his chronological account of school. It departs from his theme of learning and developing by doing and discourse. A plausible reason for this departure can be because his learning in school differs from his learning from experience by doing.

The narrative of his experiences in the first IHL when he returned after completing his Masters degree, also indicates the development of consciousness (self-awareness, other-awareness, environmental-awareness) which led to the development of self-responsibility as he learnt from debating, discourse and a culture in which staff challenged each other. He also learnt by doing as he had the opportunity to design

an Advanced Diploma and year co-ordinatorship. He describes it thus,

"The learning was really through, I think mentorship. My *supervisor* was a very good 'expat.' There was good guidance given, so mentorship. They made sure that we always have meetings in the initial years, when we were developing courses. Everybody was involved somehow... When the paper was put up, there was a great debate. Therefore, we learned different points of view. And in such academic settings, there was no such thing as hierarchy... everybody spoke up their mind... Still, the learning was more the culture that was being set up... learning on designing of courses, implementation was really on the job. But still, there was guidance from the 'expats.' They created a culture of learning, which ... I appreciated very much... whereby people were free, and did not feel offended if you challenge them on their thinking. And the willingness to have that free and open exchange."

His narrative about the IHL (research site) also indicates progression in the development of consciousness (self-awareness, other-awareness, environmental-awareness) which led to a development of self-responsibility. After describing a "cultural shock and difficulty in adjusting in my earlier days *in the IHL (research site)*," he went on to describe how he took responsibility to put in place what

he thought was important. He also describes how he learnt to manage in an area that he did not know anything about. He describes an incident when he allowed his staff to make mistakes as he believes from personal experience that people learn best from mistakes. He says,

"This is my personal philosophy because I made mistakes. My mentors always were there to fish me out of it. We had to redesign our Advanced Dip. after a while. There was that the areas which we felt industry needed. It didn't pick up at the time. We had to re-vamp. So mistakes are made. But you learn from it. ..."

Even though he says that, "Because of the way that I have been brought up, more than 10 years in *the first IHL*, I can't unlearn", this is still an exercise of his way of thinking especially as it relates to drawing a clear distinction between academic and non academic issues. His concluding definition of learning is

"something that you may not have explored before in your life, and you really have to pick up things... learning occurs when a person has to find out things in a very unfamiliar environment and how he will adapt to that sort of environment..."

This indicates that he sees learning as agency development and the development of consciousness (environmental-awareness) and self-responsibility.

Frame of reference

In his narratives about his work experiences before Han joined the first IHL, he learnt through doing. He also read about areas that he had not learnt before. This involves cognition. After a short time in a private firm, he went back to his previous employer as he realised that it involved a clash with his values. This involves conation (values). When he returned to his previous employer, he discovered in the course of developing project management standards and training, that he liked teaching. He says, "... we had a fun time, developing these... I had to train. That's when I found out that I really liked teaching..." Besides cognition, affect is also involved.

His second group of narratives after joining the first IHL involves his postgraduate studies overseas. He describes it as follows: "*it made a difference, a vast difference to how I see things.... prior to that, was very structured systematic, very objective, yes or no and nothing in between. Overseas postgraduate studies opened an avenue, which I never regretted. You recognise the grey areas... I developed more*

critical thinking skills." This involved cognition. He describes his three months of training in pedagogy overseas before returning to the IHL as "good, because I had to immerse myself with a whole bunch of 'ang mo' (*colloquial expression for "Caucasian"*). We were training together. One thing I like ... was that they debate a lot... It was fun. I also had to do practicum... We really have to answer questions, and it was enjoyable." This narrative construction relates to the cognitive and the affective.

In his recollection of his school days, he says,

"I love literature... there was a poetry contest. And I was very proud, because my poem was exhibited... I hated Chinese... I was quite good in Mandarin, until secondary two. In Sec. Three, I had a Chinese teacher, I didn't like him..."

He then ponders about his own love for literature and offers a reason that it is because it is connected with life in general. He also describes how he chose to do Mathematics in the University because he was good in Mathematics. That, he says, trained him to think logically and systematically. His narrative construction here relates to cognition, affect and conation (interest).

Of his first IHL experiences, his frame of reference pertains to the cognitive. He says,

"The learning was really through, I think mentorship. My *supervisor* ... There was good guidance given... we always have meetings in the initial years, when we were developing courses. Everybody was involved somehow... When the paper was put up, there was a great debate. Therefore, we learned different points of view... there was no such thing as hierarchy... everybody spoke up their mind... the learning was more the culture that was being set up."

Of his experiences in the IHL (research site), his frame of reference also pertains to the cognitive. He puts into practice the personal practical knowledge he learnt in the first IHL. He says,

"Because of the way that I have been brought up, more than 10 years in *the first IHL*, I can't unlearn. I'm still very clear, between academic and non academic issues."

His dramatic use of language in all his narratives indicates an affective frame of reference. Examples include: "blind leading the blind"; "smooth their feathers"; "They 'whack' each other you know... pulled out our teeth"; "...when I looked at some of the practical tutorial handouts, I almost fainted"; "... rub off some of my thinking"; "... let them fly"; and "marketing...is a dirty word." He also uses personal statements which express how he felt about his experiences. "I got tired of ciphering and deciphering kind of work"; "One thing I learnt

about industry which clashed with my values is that even if the product is not good, you must say that it's good"; "I found out that I liked teaching"; "I really enjoyed that"; "... one of the exercises they gave us, I nearly fainted"; "They created a culture of learning which I think I appreciated very much." Although he emphasises higher order critical thinking (cognition), his use of language and personal statements here indicate a frame of reference in which affect and conation (values, interest) are also dominant.

Internal dialectics of how meaning is made

Han's definition of learning relates to finding out things in an unfamiliar environment (consciousness: environmental-awareness) and adapting (self-responsibility) to that environment.

"... learning is ... something that you may not have explored before in your life, and you really have to pick up things... learning occurs when a person has to find out things in a very unfamiliar environment and how he will adapt to that sort of environment. So in a broad sense I will take learning as that."

As regards what happens when Han says that he learns from experience, he describes it as "learning by observation, listening to arguments." In the concrete example of one of his narratives in the first

IHL, he says that there were a lot of meetings. So he sat and listened to what people said, what their proposition was, and also whether the person who articulated it has some standing with him. (consciousness: self-awareness, other-awareness). He refers to it as the "Socratic way of thinking" or "dialogue and debate." This relates to cognition. He sees experience as "when you learn through observation, learn through discourse or debate, and whether the things are delivered." He attributes most of what he says about his belief (conation) as being

"based on experience, and the things that I've gone through. I think it's sort of an internal absorption over time from the things that I've seen."

He alludes to an internalisation process in learning from experience. How that happens is not clear. An example to illustrate this relates to his narrative about not being able to unlearn in the IHL (research site) what he learnt in the first IHL. Han's narrative construction shows that he drew on his past experiences in the first IHL (consciousness: self-awareness, environmental-awareness) as he faced a new context in the IHL (research site). He chose (self-responsibility) not to "unlearn" what he had learnt in some matters (cognition, conation: belief) and only learnt things which he did not learn in the first IHL.

"In the first IHL... If you fail a sup, you go...family problems,

financial issues... don't mix up with the results...there was a clear dichotomy, between academic and non-academic matters... Because of the way that I have been brought up, more than 10 years in *the first IHL*, I can't unlearn. I'm still very clear, between academic and non academic issues...I think the learning aspects in *the IHL (research site)* were in the things that I did not learn in *the first IHL.*"

9. Ian

Meaning construction

The overarching theme in Ian's whole narrative construction relates to how he learns and develops as he "journeys" through different experiences over time.

The "journey" metaphor runs throughout his narratives. In his first narrative of school, he says that he did "well enough to move on to a good school." He also uses different derivations of "move" to describe his experience. Besides the first "move on" in his first abstract, he uses it three more times in this first narrative: "moved on to *secondary school*"; "We just move along, we help each other"; "Those of us who didn't do that well, we just move along"; "Nobody gave us any counseling, so I just went along". When he reflected on how he learnt

and developed over time, he says, "I guess along the way, it comes from feedback from people." When he started his narrative of his fifteen years at *the IHL (research site)*, he says, "It is an interesting journey." He also uses "a learning journey" in the middle of his narrative accounts about *the IHL (research site)*. He also uses "along the way" at least seven times in his narratives about the *IHL (research site)*: "I think along the way, we learnt all this things"; "so these were some of the things I learnt along the way"; "Along the way other things came on"; "So along the way I learn"; "Along the way I learnt as the focus changed"; "So along the way these were some of the things"; "I think along the way you ... I think some things are beyond us." This metaphor conveys a sense of journey and movement throughout his narratives. As far as Ian is concerned, learning is a journey. He learnt as he went along his different experiences.

Ian's first narrative indicates a development of consciousness (self-awareness, environmental-awareness of his background and school environment) as well as self-responsibility ("learn on our own"). Even though he could not afford tuition, he did well enough to go to a good school. He describes it as,

"We worked hard, we also played very hard... I came from that kind of background where we learn on our own. Teachers were not our

counsellors at all... We just move along, we help each other... My classmate was good in Maths, he would help me in Maths and I would help him in something else. There was a lot of self-help, a lot of helping one another... part of the learning in this part of my life was my *Extra-Curricular Activities* (ECA). I was in the Scout group... We did a lot of learning through, in those days we call it ECA... You just did your best and you just learnt..."

The point he makes in his first narrative is that "we learn on our own." He also says "we help each other" four times. He describes learning equally from his school work and from being a scout and says that "those six years of scouting were really wonderful. We spent so much time, we did so many things." Although he says he had no regrets, he says that the lack of counseling made him choose the wrong stream. He describes how he just went along to the double Mathematics class even though he "was not very good" in Mathematics because the better students in his cohort did that. Because of that, his 'A' level results were not as good.

In his next narrative about National Service, he describes officer cadet school as being very tough physically and mentally. His evaluative statement or the point of his narrative is that he learnt by "self-discovery." His National Service narrative also indicates

consciousness (self-awareness) and self-responsibility. He describes it as "a lot of learning, a lot of self-discovery about myself and all that... Whatever I do, I try to do it well."

He seems to have learnt from his *Pre-University* experience that his Mathematics is not good. So he chose a course which did not require Mathematics. He says that he "did enjoy" his course at the University but because he did not have working experience, it was more to get the qualification. In contrast, he describes his experience during his studies for his Masters degree after six years of working experience as being so much more enjoyable because of his maturity and his ability to appreciate things better. He describes the Masters experience as "more enriching and more meaningful." He continues to be active in a Christian group in the University. His comparison of his University experience with his experience when he was studying for his Masters indicates a developing consciousness (environmental-awareness) as he says,

"my learning during *University* would be something like what our students are going through now... the subject I did ... in a way quite academic. Just like our students, after 'O' levels ... Never really worked before. So my appreciation could have been better. I say this because later on I went on to do my Masters... after working for

about six years... I enjoyed so much more because I had work experience behind me... Suddenly it is so much better..."

He says that his first year of working experience in an old housing estate "was an eye-opener for me" in terms of the many poor people in Singapore.

"... That was the time when I realised that there were so many poor people out there... It's like learning as a person. Old folks died in the house, nobody knew until the smell comes out that kind of situation. Then you get to meet people where they depend on charity... they queue up for canned food, bread... So I can see that there is a big group out there who are on social welfare."

He repeats "eye opener for me"; "opened my eyes to see"; "So that one year was an eye opener for me" leaving no doubt about the point of his narrative. He calls it "learning as a person" which in his definition of learning is the informal learning as you grow up as a person or the learning as a human being. This indicates a development of consciousness (other-awareness, environmental-awareness).

His longest narrative relates to his time at the *IHL (research site)* because he spent the longest time there. He introduces it as "an interesting journey." His narrative of his experiences in *the IHL (research site)* indicates the development of consciousness (self-

awareness, other-awareness, environmental-awareness) which led to the development of self-responsibility. As the IHL (research site) was in its pioneering years, he was involved in getting many new things started.

"So the first few years was ... the growth phase... getting things off the ground.... starting *the Student Internship Programme (SIP)*... We spent a lot of time ... getting things started. I think along the way, we learnt ... After that, we launched new Diplomas... I was also involved in *new subject development*... A group of us were trained by *an external organisation*. ... So we learnt a lot of new things to launch. So for a few years, I was in that group with *another colleague who also came from another IHL* and he was much older. So he took the lead. I was with the team that launched the *new subject* ... Along the way other things came on with thinking habits, *Strategic Quality Class (SQC)*, *Problem-based Learning (PBL)*, ... PBL, I am also one of the so called pioneers to merge ... subjects. I thought that was a good experience to merge two subject teams together... Personally I think PBL teaches life skills. Which I think final year students will appreciate it. So along the way I learn. Things happen and different focus and different emphasis in *the IHL (research site)*...I attend those training with the rest of the team, I

have to make myself learn at a more strategic focus. You go for training same with your team, you got to be more focused, you got to try to look at things from different angles. You cannot learn at the same level as your staff. You are expected to take the lead and provide some directions... initiate the implementation. Those days we also had... e-learning. Along the way I learnt as the focus changed for the Polytechnic. SQC was compulsory at one time, after that 7 Habits, then there was a special training module organised by *an external company*... So along the way these were some of the things."

His narrative about how he learnt to be a supervisor also clearly indicates the development of agency in his development of consciousness (self-awareness, other-awareness, environmental-awareness) which led to a development of self-responsibility.

"When I became *a supervisor*, there was no job description. Nobody briefed me about it...those days, no buddy system, no orientation... those early years ... the focus was on recruiting staff, getting things going...So how do I know what I was supposed to do? ... part of it was through observation *of experienced supervisors*... See what people do, then you do what they do or you

don't do what they do, if you see what they do is not too correct. So a lot has to do with modeling."

His narrative of the time when he took on a higher appointment and was involved in an IHL-wide task force also indicates agency development and the development of consciousness (self-awareness, other-awareness, environmental-awareness) which led to his development of self-responsibility on behalf of others (other staff).

"I learnt a lot being in that task force ... in the area of working with people from other departments and schools...that was a very good learning experience because I don't just look at *my school*, I also look at how other programmes and schools are managed and run. And I also think that cross school interaction, is satisfying. Trying and satisfying... that was very good learning for me. Learning to talk to different kinds of people...*from different disciplines...* wired very differently. So that was also a learning journey for me... When I manage change, I try to explain both sides of the story and I also learn to speak up in terms of explaining things ... at the risk of being misunderstood as defensive... in informal chit chats, I do try to get them to see the other side of the story ... human nature is that you only look at the negative... explain the rationale and what goes on and what happened. Try to get them to see from a bigger picture as

much as I can... after I *took on a higher appointment*... My portfolio is now enlarged... now I also need to give more guidance to the *other management staff* under my charge... to help them to see things from a broader perspective and the implications... a lot to learn in terms of Ministry thinking, the government thinking ... the thinking of Senior Management... I get to know so much more ... in terms of direction... My horizon has expanded *in my recent new management appointment.*"

Frame of Reference

The "journey" metaphor runs throughout Ian's narratives. This indicates an attitude of a traveler being open to learning from different experiences along the way. Another theme which is repeated throughout his narratives is his attitude of gratitude towards God and of doing his best in whatever situations he found himself in. This relates to his attitude and motivation or conation.

His evaluative statements in his narratives of his "learning journey" are indicative that his frame of reference relates to cognition, affect and conation (intention). His first school narrative describes what he called "six very important years in my life" when he learnt from his school work and from being a scout. He says, "those six years of scouting

were really wonderful." In his next narrative about his National Service, he describes Officer Cadet School as a time of "self-discovery" and as "a tough time" physically and mentally. He learnt from his *Pre-University* that his Mathematics was not "fantastic" and chose a course which did not require Mathematics. He "did enjoy" his course at the University but describes his experience during his studies for his Masters degree as being "more enriching and more meaningful" as he "could appreciate things much better, given the maturity and having worked for some years". His summary of his experience in his narrative about his first year of working experience in an old housing estate is that "... it was an eyeopener for me. It's like learning as a person."

His evaluative statement in his narrative about his time at the *IHL (research site)* is that it was "an interesting journey." He describes the different things he learnt along the way from teaching to the many different things that he helped get started and the things he had to learn because of the different focus and emphasis in *the IHL (research site)*. When he took on a management role, he also learnt "at a more strategic focus" as he was expected to lead and provide directions. He learnt his management role by observing more experienced supervisors and their modeling. As he took on higher management appointments, he became involved in an IHL-wide task force which he

describes as a "learning journey" with lots of challenges and cross school experiences, especially in the area of working with people from other departments and schools. He says,

"cross school interaction, is... Trying and satisfying... that was very good learning for me... the change, all the frustrations and ...the unexpected... And the promise that *the system* will work, but it didn't work, learn patience and the serenity for some of the things that you can't change. You must learn to be thick skin... you got to have equanimity, the calmness..."

He describes his recent new management appointment as

"I am learning a lot of new things.... My portfolio is now enlarged... it is challenging and interesting. It's a lot to learn and if possible if I can contribute along the way, it is satisfying ... I think I am able to help *other management staff* to see things from a broader perspective and the implications..."

At the conclusion of this narrative, he says, "A lot more to learn which I think is interesting and challenging. My horizon has expanded *in my current new management role.*" This indicates a frame of reference that involves cognition, affect and conation (interest, attitude).

In contrast to his first school narrative when he expresses some regret about choosing to do double Mathematics, the narrative which

follows shows Ian's love for culture and people. This narrative exudes passion and enthusiasm. He says,

"I am inclined towards things like geography and all that. I love culture and people. My favourite magazine is National Geographic. I love culture and places. I love maps. So when I go on holiday, I plan and that's a pleasure to me. That is something that I love doing. At one stage of my life, I was thinking of being a photo-journalist. I love culture and that kind of thing."

In this narrative construction, affect and conation (interest) are very dominant in his frame of reference.

Reflecting on his development over the years, he says,

"I learnt to be more analytical and more perceptive, to see things from a broader perspective. I guess that probably comes with maturity and exposure... having to handle different kinds of work that I have never done before, I need to be able to see the big picture. I am analytical. I can analyse things and put things into perspective. Even appreciate things from different angles. I think I am good in empathy... it is something that is nature. That's me. I take after my mother... So I look at things from different angles. Not just from the head, but also from the heart."

This description indicates a dominantly cognitive and affective frame of reference.

Internal dialectics of how meaning is made

Ian's use of the learning journey metaphor signifies his attitude of openness (conation: motivation) to learn new things (consciousness: environmental-awareness) along the way as a traveler would in his travels. As with all journeys, the present connects the past with the future. His doing in the present is connected with his past experience, but it also looks towards the future with his saying that there is "a lot more to learn" and that his "horizon has expanded." This indicates consciousness (self-awareness, environmental-awareness) which is cognitive.

Ian did not describe what is involved in the learning process. When asked to reflect on the interview, his description shows an internal dialectic that involves consciousness (self-awareness) and self-responsibility. Ian says,

"maybe some points are being crystallised. I am reaffirming myself.

For example, the last part about decision-making, I am giving

myself affirmation that I am making decisions the right way.

Sometimes I need to ask why I am doing things this way."

His reference to the "right way" indicates cognition and conation (values). For some of the questions to which he does not have a ready answer, he says it would get him thinking (cognition).

A concrete example of how he learnt in a new situation relates to his becoming a supervisor in the IHL (research site). He describes how he observed experienced supervisors (consciousness: self-awareness, other-awareness) and considered (self-responsibility) whether he should or should not do as they do. He says,

"... no job description. Nobody briefed me ... no buddy system, no orientation ... So how do I know what I was supposed to do? ... part of it was through observation of *experienced supervisors*... See what people do, then you do what they do or you don't do what they do, if you see what they do is not too correct. So a lot has to do with modeling."

How he decided whether to do or not to do what other supervisors do is not clear except that it involves a cognitive development of consciousness (self-awareness, other-awareness, environmental-

awareness), conation (since it involves a judgment whether to adopt what other supervisors do), and self-responsibility.

10. Juan

Meaning construction

The overarching theme in Juan's whole narrative construction relates to how she learns and develops as she perseveres and strives to do well in the face of challenging and difficult experiences.

Juan's first narrative indicates the development of consciousness (self-awareness, environmental-awareness) which led to a development of self-responsibility. She made her own way against the odds and succeeded in getting enrolled in a University in Singapore even though her qualifications were not recognised initially.

"I would start from the time when I come to Singapore... I finished my *Pre-University in another country*. That was the time actually quite challenging for me...there are *three countries overseas* ... that I can go...*to further my studies*... I cannot afford to go overseas....So... I came ... to Singapore."

"That was the time actually quite challenging for me" can be said to be a summary of this first narrative. She continues,

"I took my certificate ... went to *Ministry of Education* (MOE) ... to ask for admission into *University in Singapore*. They said ... "you can't come in at all"... I didn't give up. At that time, I also wrote a lot of letters to MOE and go and find out what are the possibilities that I can get into local Universities... I was taking ... 'A' level... *while working*... as a salesgirl... there was a group of students *from my school* and we got together... there were 8 or 10 of us... we ... appeal to MOE... when *the two Universities in Singapore* merged... they... open up this entrance exam... I actually took an entrance exam... there were only two persons who got in out of so many who took the entrance exams. I was one of them. So I got to *University in Singapore*..."

This is a description of her perseverance in her efforts to get admitted to a University in Singapore. However, she was given a course she did not choose and her difficulties did not stop there.

Her University narrative also indicates a development of consciousness (self-awareness, environmental-awareness) which led to the development of self-responsibility as she encounters difficulties and a personal tragedy.

"The first, second and third year was really tough because after studying Chinese, here it is totally English. And the worst thing that I

encountered was when my father passed away when I was in Year 3. That ... impacted me a lot because he purposely came out to visit me. On the way back *home*, the whole family met with an accident. My father passed away... I graduated without my father attending my ceremony."

After a brief description of how her father loved and influenced her, she continues,

"I feel that it was such a waste that my father couldn't attend my graduation and it was just one month or two months difference. After that I think over it, I wanted to do it well. I didn't do well in my University because of the struggling and whatever but I do graduate within 3 years."

At the point of relating this to me, she was visibly emotional, indicating the impact the personal tragedy still had on her. Her determination to do well helped her to graduate within the normal time.

The narrative of her first job also indicates the development of agency in the development of consciousness (wisdom) which led to the development of self-responsibility (she used adversity as an opportunity to change her career). The difficult situation she faced then was when

"there was the Gulf Oil crisis, and the company need to retrench people. I was pregnant for almost 5-6 months, so I was retrenched... I took it quite positively ... even though I feel sad because I contributed quite a lot to the company. Then because I was pregnant, I thought it was also a good time for me to do reflection and maybe plan for what is the next road I need to go."

She describes that experience as "That was also very tough because it is my first pregnancy..." With the support of her mother-in-law who passed her books on Buddhism, she describes how it became a time when she gained wisdom and inner peace.

"I actually gain a lot of wisdom and also a lot of inner peace... I really enjoyed that few months. I read the books. It changed a lot of things in terms of views about life, and my husband also encouraged me."

After giving birth, she decided to take up a Postgraduate Diploma in the discipline she wanted to get into at the University but could not. "I sold all my gold to go for this study. So I studied very hard and was awarded the Gold medalist. That changed my career line..." This continues her overarching theme of her learning by persevering and hard work in the midst of difficult situations.

Her third and fourth narratives relate to her doing well in the two jobs in her chosen area of interest before she joined the IHL (research site). She did very well in her jobs after she changed her career line and was promoted in quick succession to take on a management role. She later decided (self-responsibility) to join the IHL (research site) as she was aware that her family was affected by her long hours at work (consciousness: self-awareness, other-awareness, environmental awareness). These narratives also indicate developing agency, consciousness (self-awareness, environmental-awareness) and self-responsibility even though she describes herself as being "lucky" twice when she related that she did very well in both organisations.

"I was promoted *twice rather quickly*... I have a lot of opportunity to attend a lot of leadership courses... a lot of training is provided. ...

When I was taking over as Manager, there were a lot of challenges because we had to move *to another location*. A lot of systems migration, many many things to do... I really worked day and night... In system migration, because of 24 hours service, we always have to work during the holidays. That affected my family quite a lot... I was weighing whether should I then think of changing jobs to become a lecturer which is more stable for time with my family... "

Her reflection about her learning from adversity and challenging times also indicates a developing consciousness (self-awareness, other-awareness) which leads to the development of self-responsibility.

She says,

"...The learning is how my life experience push me through to perform well in the job given to me. So I don't play a fool with my job. I really work hard ... When I was given leadership opportunity I think I also take it very seriously and I learnt. I am very keen to learn."

Her narratives about the IHL (research site) also indicate a developing agency or consciousness (self-awareness) which leads to a developing self-responsibility, particularly when she describes how she discovers her "inner voice." She describes it thus:

"When I first joined *the IHL (research site)*, I wanted just to be a lecturer. I wanted to do something good. You know my character. If I want to do something, I want to do to the best of my ability."

After describing how she learns, she went on to describe how she did not like the environment and the way things were done when she first joined.

"I couldn't stand the working environment ... I couldn't stand the view that they have. And the way they do things.... I worked as a

lecturer, but I strive to be very different from them... 1 year later, *my previous supervisor* gave me opportunity that I am very thankful for. I think he spotted me that I am very different from the rest. And he gave me opportunity... So I work hard and put ... my soul and my heart in it... The fact that I did well and put my heart in it and the results come in, I think the opportunity came by... It's my character you know. I want to do well..."

This relates to her learning in her functional role as a lecturer before she took on a management role. Here again it was learning and development by persevering and hard work and by immersing herself in doing well.

There was a change in her learning when she took on a management role in the *IHL (research site)*. Instead of figuring it out on her own, she learnt by observing her supervisors. She then describes how her supervisor handled a difficult staff situation.

"... *my supervisor* played a very important role. ... Whenever I have problem, I can rely on him... And he solved the problem with the heart. One word that he told me and I still can remember, if you have the authority, always use it to help people. In his life, I find that he's a person who really helps people... And I apply it in my family and in my work here."

In her recent higher management appointment, there is also agency development and development of consciousness (self-awareness, other-awareness, environmental-awareness) and self-responsibility.

"From the beginning *in my new management appointment*, I was doing what I was instructed to do... I am doing things but I am not very happy with the outcome yet... I learn from both *my previous supervisors* and I give staff a lot of opportunities.... I try to use my authority... to help them. Rather than telling them what to do... I give *my managers* a free hand to do things.... dealing with *managers* is very different from dealing with lecturer ... they sometimes have a better solution than you... more... consultative rather than instruction... I observed that this is a better way of doing ..."

Her Masters experience also influenced her agency development, development of consciousness (self-awareness, other-awareness, environmental-awareness) and self-responsibility significantly.

"... *my Masters course*, they said learning is a way of living. You lead and you learn. Sometimes you got to unlearn because what ever you practiced *before*, you can't practice in *new management* capacity. So I have to unlearn and relearn. That comes in very naturally and I say to myself, I think this method will not work. Better quickly change it..." She also describes how her professor

recommended a book that "tells you ... to take the courage to look into yourself ... into your weaknesses and humbly within yourself to discover your inner voice. What do you want? ... I practice that after that."

She describes the change in her learning thus:

"... I am a very disciplined person. To be frank even though I got affected, but I pick up very fast. That is my training... Since coming to the IHL (*research site*) as lecturer and then *moving into higher management appointments*, my learning is not really just to get the job done but it has shifted to another dimension. Not just analysing logically but moving towards the heart. Sometimes in terms of judgment, I do make use of the heart to think twice. Logically, I may think that this is the way to do. But I will go further to think with my heart to see if this is really what I want... I will put my heart into it and think. Especially for important decision."

She also describes her current family difficulties which I did not include in the Appendix because they were very personal in nature. In her descriptions, developing consciousness (self-awareness, other-awareness) which leads to the development of self-responsibility is also evident. She describes how she meets the challenges in her family thus:

"... I find that a lot of things I have to think not by head but by heart. I have to put my heart and my soul into it and think of the solution. Sometimes it's no longer a logical way of doing the solution any more. Sometimes, it's your heart that tells you, your inner voice that tells you I think better do this way ... From heart people can feel it. If you do it from head, people don't feel it... I do a lot of things from my heart..."

What came through in her accounts of family difficulties is again the theme of persevering in the midst of difficulties.

Frame of Reference

The difficulties and challenges Juan faced in her own summary reflection of her learning before she joined the IHL (research site) indicate that her frame of reference involved cognition, affect and conation (intention, motivation, interest, attitude).

"There is a big difference in how I learn in University or school to my professional situation. I have a very painful experience from my *Pre-University* and fight for a University vacancy and studies and from the difficult experience of losing father. Family actually thinks that I am the only one that can do very proud for them, so I think I grasp whatever opportunity comes along. So when I go to *my first*

company after I changed line, I think I had done a good job such that ... in fact whenever I want to leave, they always ask me to go back... in *my second company after I changed line*, I was really motivated by my CEO, and his mission and vision is very clear. Focus on patients. Sometimes I look at the patients, it's very sad ... especially when you have migration done at the emergency department at midnight and you see people coming in ... it affected you a lot. You find that life is so short and life is so uncertain, you better do a good job and don't take things for granted. I really relish whatever opportunities given to me... because of my functional competency... they gave me the opportunity to have leadership role..."

Her drive to do her job to the best of her ability continued in the IHL (research site).

"When I first joined *the IHL (research site)*, I wanted just to be a lecturer. I wanted to do something good. You know my character. If I want to do something, I want to do to the best of my ability."

After describing how she learns, she went on to describe how she did not like the way things were done when she first joined so she strived to be different from her peers. When she was given the opportunity, she said, "I work hard and put ... my soul and my heart in

it... It's my character ... I want to do well..." This is very much conation (motivation, intention, volition).

When she took on a management role in the *IHL (research site)*, she learnt from her supervisor as she observed him solving problems "with the heart." She remembers him saying, "if you have the authority, always use it to help people." She also observed that he lived his talk as he handled difficult staff situations. She learnt from him and "... I apply it in my family and in my work."... She also learnt from another supervisor who trusted her and gave her "freedom to do" and supported her in decisions. She also applied it and practiced it at work. She describes it as being more "consultative rather than instruction" and "observed that this is a better way of doing." This relates to cognition, affect and conation (intention, volition).

Her Masters experience was also influential to her seeing learning as a way of living.

"... *my Masters course*, they said learning is a way of living. You lead and you learn. Sometimes you got to unlearn because what ever you practiced *before*, you can't practice in *new management capacity*. So I have to unlearn and relearn."

She also describes how she learnt to discover her inner voice. This relates to cognition, affect and conation (self-concept and volition). She says,

“I think I am a very disciplined person. To be frank even though I got affected, but I pick up very fast. That is my training...Since coming to *the IHL (research site)* as lecturer and then *moving into higher management appointments*, my learning ... has shifted to another dimension. Not just analysing logically but moving towards the heart. Sometimes in terms of judgment, I do make use of the heart to think twice. Logically I may think that this is the way to do. But I will go further to think with my heart to see if this is really what I want... I will put my heart into it and think. Especially for important decision.”

This narrative construction indicates that in her frame of reference cognition, affect and conation (self-concept, intention, volition) are all prominent.

Internal dialectics of how meaning is made

Juan describes learning as a natural process of internalisation of knowledge learnt (consciousness: environmental-awareness) which results in action (self-responsibility), reflection of what she wants to

achieve, "what is done wrong" and "what is done right" (cognition & conation) and practice.

"Actually learning comes quite naturally, just like I learnt how to manage time. So when I learn how to manage time, I will actually pick up from the course, certain important things that actually in my daily job and what I have done. I use the word "embedded" knowledge. And I embedded them into and internalise them. Because if I find that if I don't practice it, I will not learn... Sometimes even I drive, I think about today what I want to achieve. I do reflection what I done wrong and what I done right. I practice it. It becomes my embedded knowledge that I internalise it and I use it."

Juan's narratives in the IHL (research site) will be examined to illustrate the internal dialectics of meaning making. When Juan took on new management responsibilities, she first did what she was instructed to do. She learns about the new areas (consciousness: environmental awareness) reflects on results (cognition), draws from what she has learnt from previous supervisors (consciousness: self-awareness, other-awareness), draws from what she has learnt in her Masters course (consciousness: environmental-awareness) "learning and unlearning" when placed in a new context (consciousness: self-

awareness, environmental-awareness) and changes her practice (self-responsibility) if it does not work.

"From the beginning *in my new management appointment*, I was doing what I was instructed to do... if I do manpower, I will learn about manpower. A lot of study...capability development ... administration ... I am doing things but I am not very happy with the outcome yet... I learn from both *my previous supervisors* and I give staff a lot of opportunities. I try to use my authority... to help them. Rather than telling them what to do... Of course dealing with *managers* is very different from dealing with lecturer ... they sometimes have a better solution than you... more ... consultative rather than instruction... I observed that this is a better way... In *my Masters course*, they said learning is a way of living. You lead and you learn. Sometimes you got to unlearn because whatever you practised *before*, you can't practise in *new management* capacity. So I have to unlearn and relearn. That comes in very naturally and I say to myself, I think this method will not work. Better quickly change it."

She also describes how her learning has changed from a cognitive functional approach to involving the affect and conation (purpose, intent, volition).

"Since coming to *the IHL (research site)* as lecturer and then *moving into higher management appointments*, my learning is not really just to get the job done but it has shifted to another dimension. Not just analysing logically but moving towards the heart. Sometimes in terms of judgment, I do make use of the heart to think twice. Logically I may think that this is the way to do. But I will go further to think with my heart to see if this is really what I want..."

She says that she learnt this from how her previous supervisor dealt with people (consciousness: other-awareness) as well as from challenges involving her family (consciousness: environmental-awareness).

"In another staff matter...the way my supervisor handled the staff, I also learned. He did it in a very different way...Rather than sack the staff, he gave him a way out... 'Even if you are wrong, and you know it but we give you a chance. But that's the final chance.'"

"... I have *challenges in my family*... I find that a lot of things I have to think not by head but by heart. I have to put my heart and my soul into it and think of the solution. Sometimes it's no longer a logical way of doing the solution any more. Sometimes, it's your

heart that tells you, your inner voice that tells you I think better do this way."

By thinking with her heart, she clarifies for herself (consciousness: self-awareness, other-awareness, environmental-awareness) what was important to her and for the situation. She calls this her inner voice which relates to cognition, affect and conation and which will indicate the solution (self-responsibility) for a particular situation.

Chapter summary

This Chapter presents the overarching theme of each narrative construction which shows the individual unique features and differences in emphases of each interviewee's meaning construction. Development of agency which relates to the development of consciousness and self-responsibility are generalised themes found in all the narrative constructions. The frames of reference of each interviewee, presented using the categories observed in the narrative constructions of cognition, affect and conation, are unique, individualised and can be different in different contexts. This Chapter also presents the internal dialectics of how meaning is made. Chapter 4 goes on to present the meta-analysis and discussion of the

overarching and emerging themes, frames of reference and internal dialectics of meaning making across the narrative constructions in the light of the literature reviewed.

Chapter 4

META-ANALYSIS AND DISCUSSION

Chapter introduction

Chapter 3 presents the overarching themes, emerging themes, frames of reference and internal dialectics of how meaning is made in different contexts in each narrative construction derived from narrative analysis. In this Chapter, I present a meta-analysis and discussion of the overarching themes, emerging themes, frames of reference and internal dialectics of meaning construction across the ten narrative constructions in the light of literature reviewed.

Meaning construction

The narrative analysis of the meaning construction by each interviewee in his or her narrative construction shows that how each of them constructs meaning is both personal and unique. Rogers (1961) however states categorically as he told his personal story of how he developed his thinking and professional philosophy, that what is most personal can be most general. Even though each interviewee is unique in that their opportunities and experiences differ and how each constructs meaning or makes sense of their experiences is also

unique, a meta-analysis of the narrative constructions shows that patterns or generalisations can be drawn about how sense is made or meaning is constructed from across the narrative constructions.

Baillie (2003) in his introduction to Hegel's (1910) *The Phenomenology of Mind* interpreted Hegel's system of experience as having both a logical and an historical aspect. "On the one hand it seeks to be a coherently ordered whole and as such must work with universals. On the other hand its facts are manifestations in time of the content and processes of conscious individual experience as historical phenomena which is the co-existence and succession in time of the appearances of living individuality. For a system of experience we must therefore combine both generality and individuality of experience." Erben (1998) said that the "self" is the performer of thought and actions. He also saw the "self" as both a singular and general term which function is to represent the subject as the object of thought. As a singular term, it is the unitary center of all possible experience. At the same time, it is a general term and becomes the name of something we all possess in common. Erben (1998) also said that an individual life emerges in the dual nature of its distinctiveness and its connectedness.

It is with this in mind that I will first set out the distinctiveness or uniqueness in each of the narrative constructions analysed in Chapter 3 before embarking on a meta-analysis across the ten narrative constructions to draw out patterns or generalisations about how the interviewees constructed meaning of their development over time, about their frames of reference and the internal dialectics of how they construct meaning in their narratives. In both the distinctiveness and connectedness of the narrative construction of meaning, the "self" of each interviewee is constructed.

Development over time

Construction of a distinct self in the meaning construction in each narrative construction

The overarching themes of each of the ten narrative constructions as derived from the narrative analysis in Chapter 3 can be said to indicate the sense or meaning that each interviewee made of significant learning experiences over time. Besides the uniqueness of each interviewee as a person and as a learner in his or her different life histories and experiences, each interviewee would have been selective of the significant learning experiences narrated and the meaning he or she would have made of each of these experiences. The selectivity of

these experiences and the meaning given to these experiences by each interviewee in their narrative constructions can be said to be indicative of what he or she uniquely values or sees as constitutive of how he or she makes meaning and how his or her distinct self is constructed in narrative.

Ang's narratives construct a self who learns from his experiences about his inner self and how to deal with his inner fears to increase his capacity to learn. Bee's narratives construct a self who learns from different experiences of how to deal with people and apply knowledge in context in practice. Cate's narratives construct a self who learns from different experiences about herself and people and how to deal with people and apply knowledge in context in practice. Ding's narratives construct a self as a self-directed learner who is focused, persevering, and always inquiring. Eng's narratives construct a self whose learning is mediated by significant persons or mentors in different experiences and who also learns from his experiences without mediators in his last two narratives. Fook's narratives construct a self who is focused and pursues his interest and what he does well, notwithstanding difficult family circumstances. Goh's narratives construct a self who has been given different opportunities to lead since young but who prefers learning from her interactions with different people. Han's narratives

construct a self who learns from experience by doing and through interaction, debate and discourse. Ian's narratives construct a self who takes the attitude or stance of a traveler on a learning journey, learning along the way from different experiences. Juan's narratives construct a self who is persevering and who strives to do well in the face of adversity.

Agency development is the generalised theme across all the narrative constructions

Notwithstanding the individual distinctiveness of the distinct and unique self discussed in the previous section, a meta-analysis of the narrative constructions also shows that there is a generalised overarching theme across all the narrative constructions of agency development which is the generalised meaning constructed across the narrative constructions.

Nixon, Martin, McKeown & Ranson (1996) saw learning as becoming,

"an unfolding through which we learn not only what makes us unique - what individuates us - but how we can learn to make that distinctive agency work in the world."

Nixon et al's (1996) view of learning is consistent with the findings of narrative analysis and meta-analysis of the narrative constructions that agency development takes place in learning and professional identity development or meaning construction. In their words, learning proceeds through

"different layers: of developing understanding of discrete events or pieces of knowledge to become aware of ourselves as persons and then, more significantly, our growing capacity to shape ourselves and, with others, the world around us. Discovering new knowledge, concepts, skills or attitudes reflects different layers of learning... Learning may at times be experienced as a specific events; yet it can, by changing how we think of and know ourselves and others, alter our horizons and thus our sense of place... Learning leads into action and grows out of the experience which action enables: it creates the capacity for self-creation... the deeper significance of learning lies, through its forming of our powers and capacities, in our unfolding agency."

Nixon et al's (1996) account of learning as agency development is also consistent with the narrative analysis of the narrative constructions presented in Chapter 3. The narrative analysis of all the narrative constructions reveals ample evidence that as each interviewee

described his or her significant learning experiences in his or her life histories, each learning experience in which the individual develops understanding of events or knowledge and becomes aware of himself or herself as persons can be said to be layered upon his or her understanding or learning from previous learning experiences. Their learning of knowledge, concepts, skills or attitudes over time constitutes different layers of learning. At times, the learning can change how he or she thinks about himself or herself and others and alters the individual's horizons or sense of place. For example, Cate discovers where she stands in relation to her cohort when she was doing her Masters overseas and says that it was a humbling experience. She also says that she now has a more realistic view of herself. Ian describes at the end of his narratives that his "horizon has expanded" in a recent management appointment.

Agency development involves the development of consciousness and self-responsibility

In the narrative analysis of each of the narrative constructions presented in Chapter 3, there is also ample evidence that each individual interviewee's development of consciousness and self-responsibility is integral to the development of agency throughout each

narrative construction. In Nixon et al's (1996) definition of agency development, learning results in action, and agency refers to the capacity to shape oneself whether in one's thinking or action which can include the capacity to shape the world with others. The development of consciousness and self-responsibility can be said to relate to what Bruner (1982) refers to as the dual landscape of consciousness and action.

The development of consciousness accompanied by a need to decide or act leads to a development of self-responsibility

In Chapter 3, the inter-relationship between the development of consciousness and self-responsibility in all the narrative constructions presented shows that in almost all the narrative constructions, a developing consciousness leads to a developing self-responsibility which in turn can lead to a further development of consciousness. The only times a developing consciousness did not lead to a developing self-responsibility is when an interviewee has no particular need to decide or act for himself or others in a given situation. These were all school or study situations when there was a need to know which led to a developing consciousness but which did not lead to a development of self-responsibility because the interviewees were not required to

decide or act. An example is Han's recollection of his early school days and the subjects he liked and hated. Even in that narrative, he related how he chose to do Mathematics in the University because he was good in Mathematics. Other examples include Cate's recollection of her lecturers at the University; Eng's narrative of how he came to appreciate the kindness of his Chemistry teacher and his development of a more holistic point of view in his Masters experience overseas; Fook's realisation of the importance his parents placed on education; Han's Master's experience and Ian's University, Masters and first job experiences.

An expectation to exercise self-responsibility that precedes development of consciousness such that it is way beyond the individual's capacity to act creates inner tensions

In all the narrative constructions, most of the narratives describe situations when a development of consciousness leads to a development of self-responsibility. Goh's narrative construction, however, is unique in that some of her narratives describe situations where she was expected to exercise self-responsibility that preceded a development of consciousness.

In Goh's primary school narrative, she needed to exercise self-responsibility and learn independence at a very young age as she was left very much on her own when her parents were busy looking after her other siblings. She was thrust into situations when she had to take on responsibility even though she might not have been ready for it. For example, when she was made the Head Prefect at Primary Three, her "bad" experience with the older girls led to her awareness (self, others, environment) or consciousness that it was very difficult for someone very young to lead. It was very telling that although her organising theme in her whole narrative construction is about being given many opportunities to lead, a sense of unresolved tension in her narratives which describes her in situations when she was expected to lead conveys indirectly her inner tensions in these situations.

Goh's decision to leave teaching suddenly without giving any reasons only to return to teaching after discovering that she prefers the teaching environment indicates that it was a move directed by a need to resolve the inner tensions she experienced when she had to take leadership roles because it was expected of her. She says, "... I went to *Institute of Education* (IE), and then I became a teacher. I was bonded for five years... Then I was given a lot of opportunities to lead. Spearhead quite a number of clubs. After that I quit." The reason why

she quit was not explained but a plausible explanation is that it is motivated by a need to develop consciousness of what she really wanted to do in order to resolve her inner tensions when she was teaching and leading because she was expected to do. This development of self-responsibility led to a development of consciousness that she did prefer the teaching environment. There was, however, no mention of her returning to teaching because of her preference for leading. This decision led her to a developing self-responsibility when she chose to return to teaching.

Another example is that of Ang's first professional job, when he had to exercise self-responsibility in taking on cases against his classmates' bosses. This also created inner tensions which he describes as "inner fears" and "intimidation." Although he managed to "survive," this "fear" and "intimidation" carried over to new situations that he found himself in where he felt inadequate to act. An example of this is his move to a new department in the IHL (research site) which he describes as a "personal victory" when he decided to face his fears by moving to the new department.

Yet another example is that of Han in his first job where he has to learn by doing in an area which he was not trained. He describes it as

"it was the blind leading the blind at that time. So the learning was really on the job, and with people."

This meta-analysis shows that learning or meaning making usually takes place when there is consciousness of a need to know, decide or act. However when the expectation for self-responsibility to know, decide or act is such that it far exceeds the individual's capability to know, decide or act, the individual faces inner tensions which seek a resolution either by the individual learning (Han) or struggling through it (Ang) or quitting (Goh). What this finding supports is that in agency development, when the need or expectation to know, decide or act is way beyond the individual's capacity to know, decide and act, the individual experiences inner tensions which seek a resolution.

Agency development over time in narrative construction does not follow distinct stages

It is not possible to observe from the narrative constructions if there are distinct stages in agency development over time as structural developmental psychologists like Piaget (1969) or Kegan (1982) have theorised. What is observed which has been described in the narrative analysis of each of the narrative construction has been a continuity of development of agency, consciousness and self-responsibility.

It is pertinent to point out that structural stage theories have been criticised for ignoring the role that certain unique contents of identity may hold in shaping any given structure (Kroger, 2007). Bradley (2005) also pointed out the difficulties of observing the process of sense making "from outside" and criticised the theorising of development as both inevitable and something that can be observed externally by the application of theoretically derived criteria of selected behaviour. He also criticised the development theorists for ignoring the experience of the individual developing, the dynamics of social groups as well as the possibility of alternative meanings in human action. He saw narratives as containing, organising or bypassing the otherwise disorderly alterations that punctuate lives. Narratives therefore do greater justice to the complexities of consciousness and the exigencies of psychological life in change as lived which will be different from development as theorised. Wolf's (2005) account of constructive developmentalism also suggested that, instead of accepting Piaget's (1969) psychological structures or stages to inform one's understanding of the world, the narrative holds the schemata of a life lived. She also said that the life narrative is invaluable for the longitudinal in-depth perspective when it is reflected on for their own differentiation, meaning making and growth.

It is not surprising that the complex, holistic picture of a developing individual that emerges in narrative analysis does not fall into neat stages of development. Instead, what is presented in each narrative construction is the individual interviewee's sense of an internally coherent identity in his or her different life experiences. Kroger (2007) pointed out that narrative analysis seeks only to understand and interpret an individual life story rather than look for important patterns of identity development over a wide range of people. It is this sense of the coherence of narrative identity that I will now examine.

Meaning construction is logically ordered, structured and coherently developed in narratives

A meta-analysis of how the ten interviewees constructed their narratives showed a construction of their significant learning experiences that is logically ordered. According to Mezirow (2000), a defining condition of being human is the need to understand and order the meaning of our experience, to integrate it with what we know to avoid the threat of chaos. Baillie (2003), in his Introduction to the second revised edition of Hegel's (1910) *The Phenomenology of Mind*, noted that Hegel's principle on which forms of experience are selected for interpreting experience, is one which does not discuss

every possible experience but only such as would serve the main idea of the discussion. The method of connecting the successive “moments” of experience is that of logical development. Baillie (2003) said that one of the things Hegel (1910) seeks to show is that various forms of experience constitute a continuous and connected series of stages of mind, and that the life of the mind is a whole and a single continuous movement. This is true also of the interviewees’ narrative constructions evidenced by the meta-analysis set out below.

A structural analysis of each of the ten narrative constructions as a whole narrative shows that they are mainly ordered chronologically except where otherwise earlier described in my narrative analysis for each of the ten interviewees in Chapter 3. Where they break away from a chronological ordering, there are usually reasons for their so doing. These reasons include following a certain sub-theme (Fook) or a sudden recollection (Han). There is also a logical order in the way they structure their individual smaller narratives. The structures of their individual narratives usually include what Labov (1972) defined as abstract or summary, orientation and or complication and evaluation or the point of the narrative and the result or resolution of the narrative. Even though not all of the six structures are present in all the individual smaller narratives of the narrative constructions, there is usually a point

that they are making through the narratives which is usually conveyed in what Labov (1972) defined as the evaluation of the narrative. The theme of the whole narrative is developed when we trace the point or meaning constructed of each smaller individual narrative across the whole narrative construction.

The narrative analysis of each of the ten narrative constructions presented in Chapter 3 shows that each narrative construction as a whole is coherent and has a discernible overarching theme or meaning. This evidences what Ricoeur (1992) called "the narrative unity of a life" in his examination of self and narrative identity. Brentano (1874) called this "unity of consciousness" and Usher (1998) referred to it as the "continuity of the self." Even though Usher (1998) pointed out that narratives are linear and that the narrative plot, structured through a narrative is largely developmental, the fact that the interviewees told their stories logically, coherently and largely chronologically to indicate development even when they were given the freedom to tell them in any other way, indicates that their sense of unity of consciousness or continuity of self is one that is innately developmental.

Frames of reference

Frames of reference of each interviewee are individualised and unique combinations of three inter-related dimensions of cognition, affect and conation

It is difficult to explain why and how cognition, affect and conation come together in different ways in different individuals even for the interviewees themselves as it requires a high level of meta-cognitive and emotional ability and self-consciousness. Sometimes different experiences may influence an individual without the individual being aware of it or the individual may not be able to articulate how they are processing their different experiences. Ding says,

"I really do not know how I developed this. I think it's my make up. I have a sister who was much smarter than me. She didn't need to work very hard and she always topped you know. I worked very hard and I was never top, nearly top but never top. I was always very conscientious I must say. My mother always liked me because I was very conscientious."

Most of the time, experience being the stimuli can be very quick and the individual really has no time to be thinking about how he or

she is responding or why. What is evident in the analysis of the frames of reference used by each individual in meaning construction in Chapter 3 is that cognition, affect and conation come together in different ways for different individuals. This means that their individual frames of reference are unique as they are unique in how meaning is made of his or her experiences and how their responses to these experiences have been constructed.

I will make some observations from the meta-analysis of frames of reference to identify the nature of these differences in order to illumine this very complex phenomenon of how frames of reference are used in meaning making. The individual differences of each interviewee's frame of reference relate to the differences in how each of the dimensions of cognition, affect and conation features in each interviewee's meaning making. This includes differences as to which dimensions are more prominent in meaning construction in each of their narrative constructions generally. It is, of course, difficult to measure which is more prominent when they are all inter-related and may feature differently in different contexts. However, for purposes of illustrating the individualised differences in the use of frames of reference by each individual interviewee, a summary impressionistic

overview of more prominent dimensions observed in the narrative analysis is described in the next paragraph.

For Ang and Goh, affect and conation are more prominent even though cognition is also present. For Fook, affect and conation are more prominent though cognition is present when he learns by experimentation. For Bee, Ian and Juan, all three dimensions are prominent. For Cate and Ding, cognition and conation are more prominent than affect. For Eng, cognition and affect are more prominent and conation only featured in his later narratives. For Han, cognition and affect are more prominent than conation.

The individual differences of each interviewee's frame of reference also relate to the different modes of cognitive processing. For example, words like "intuition" (Eng) and "wisdom" (Juan) are not purely analytical. For cognitive processing, personal practical knowledge may be learnt by doing (Bee, Cate, Ding, Fook, Han, Ian), and through interaction (Bee, Han, Goh) or discourse (Bee, Han), different experiences (their own or other people's experiences e.g. Bee) in different environments or situations whether mediated by a mentor (Bee, Eng, Han) or a significant person like a teacher (Eng) or through reflection (Ang, Juan).

Where it relates to the affect, it may involve different intensities of different positive or negative emotions described differently for different individuals. For example, Ang uses "fear" and intimidation"; Bee, Han and Ian use a strong emotive word like "love"; Cate says she was "miserable" when she was treated unfairly in school; Ding describes herself as being a "nuisance" to others; Eng uses the heart metaphor; Fook uses "fortunate" which can indicate a sense of gratitude; Goh describes herself as being "very upset" when a girl threw a sweet at her in the primary school and Juan describes her feelings in a very understated way when she says that "it was such a waste that my father couldn't attend my graduation."

Conation which explains the connection between knowledge and affect in the way it affects behavior can refer to motivation, purpose, values, volition, will, intention, interest, beliefs, self-concept, life philosophy and attitude. Conation also presents itself in the narratives of different individuals in different ways. Conation for Ang involves his religious beliefs and values. For Bee, it is her self-concept, motivation, interest, beliefs and life philosophy. For Cate, it is self-concept, volition, values and purpose. For Ding, it is self-concept, motivation, volition, purpose and values. For Eng, it is motivation, volition and

purpose. For Fook, it is values, attitude, motivation, interest, purpose. For Goh, it is motivation, interest, will and intention. For Han, it is values and interest. For Ian, it is interest, attitude, intention and motivation. For Juan, it is motivation, intention, interest, attitude, self-concept and volition. A meta-analysis of the elements constituting conation in the narrative constructions does not show any clear patterns.

Cognition, affect and conation also inter-relate to each other differently for each individual interviewee. The inter-relatedness of the dimensions is also seen in the descriptions which can relate to more than one dimension. Examples include "spiritual side of learning" (Ang); "I fell in love with my studies" (Bee); "through fumbling through and making mistakes you learn what is important, what is not important. You go for the jugular" (Cate); "I will make the decision more right than wrong" (Ding); "I develop that passion for it" (Fook); "I learnt that you've got to win people over" (Goh); "I had a cultural shock and difficulty in adjusting in my earlier days *in the IHL (research site)*" (Han); "I look at things from different angles. Not just from the head, but also from the heart" (Ian); "thinking with my heart" or "inner voice" (Juan).

There are also different and ambiguous causal relationships between different dimensions of the frame of reference and within the same dimension. Affect can be attributed to conation and vice versa. For example, Ang's affect (fear) can be attributed to conation (his beliefs about himself and other people). Bee's conation ("I fell in love with my studies") (motivation and interest) can be attributed to affect (enjoyment of her University experience). Ding was "quite stressed" (affect) because she could not find answers to her question "What is a quality course?" (Conation: purpose) Words like "passion" (Eng); "fortunate" (Fook); "blessing" (Ian); "horrible" (Cate); or "horrifying" (Bee) can relate to both affect and conation. It is uncertain, however, whether the feelings evoked are because of the individual's encoded beliefs or whether affect in an individual's experiences reinforced his or her beliefs. Even within the same dimension of conation, the causal relationships differ for different individuals. For example, what is driving Cate's question of what kind of person she wants to be (self-concept) is her values as she defined values as driving learning. Ding's self-concept of being average is the driving motivation for her to strive to do a good job in all that she does. Goh's inner tensions caused her to quit teaching suddenly only to return to teaching shortly later. Han found out that he really liked teaching when he had a "fun

time” developing project management standards and training staff. Juan describes how her difficult life experience pushed her to perform well in whatever job given to her.

Use and adaptation of frames of reference by the same individual can be different in different contexts

The complexity of sense and meaning making is compounded in that each individual may view different experiences in different contexts differently whether by choice or even unconsciously. Some smaller narratives may be constructed purely with a cognitive frame of reference and some smaller narratives may see a predominantly affective or even conative frame in operation. In some situations for the same individual, only the cognitive dimension is involved. Maturity can offer an explanation for this. For example, conation (purpose) for Eng is observed only in his later professional narratives. It was only after his College narrative that purpose became more evident and continued to be sustained in Fook's professional narratives.

Another explanation is that the differences are due to differences in contexts which require meaning to be constructed differently using

an adaptation of the individual's frame of reference. For example, Ang describes his University experience cognitively and his professional experiences more affectively and conatively. Bee and Cate describe their school and University narratives more affectively and their professional experiences more cognitively and conatively. Goh describes narratives when she had to lead more cognitively and her narratives describing her interacting with different people more affectively and conatively. Han describes how his earlier experiences in the first IHL caused him to take a cognitive approach by separating academic issues from personal issues when it came to decisions at examination board meetings. "Because of the way that I have been brought up, more than 10 years in *the first IHL*, I can't unlearn. I'm still very clear, between academic and non academic issues." In his earlier recollection of school, his narrative was primarily affective as he describes his "love" for literature and "hatred" for Chinese. Ian was consistent in using a cognitive, affective and conative frame of reference in his school and professional narratives as his organising metaphor was that of a learning journey. However, when he took a detour to describe his "love" for culture and maps, he used predominantly an affective frame of reference.

Where the frames of reference were more consistently the same in the narrative construction, it could be because the individual has sought to integrate what he or she has learnt in different contexts. For example, Ding was quite consistent in using a cognitive and conative frame of reference for her school and professional narratives as she organised her narratives around the theme of who she is and how she learns. Juan was also consistent in using a cognitive, affective and conative frame of reference throughout. It can be said that she had integrated what she learnt from her personal life and professional life. She applies what she learnt from going through tough times in her personal life to her professional life by treasuring the opportunities and striving to do well professionally. She also describes how she applied what she learnt in her professional life to think with her heart to her personal life in the challenges she faced at home. She says that what she learnt from her previous supervisor, "... I apply it in my family and in my work here."

Self construction is involved in meaning making and use or adaptation of frames of reference

The above meta-analysis of frames of reference in meaning making in the ten narrative constructions demonstrates the difficulties both in defining the different dimensions which make up an individual's frame of reference, their adaptability and the inter-relationships and the causal relationships between the different dimensions. The meta-analysis of frames of reference used in meaning making in the narrative constructions also clarifies the nature of some of the complexities and ambiguities involved in understanding the different dimensions of frames of reference, their adaptation and their inter-relationships and the causal relationships that are involved in meaning making in different contexts as a phenomenon.

The concept of an adaptable frame of reference finds support in Mezirow's (2000: 18, 19) concept of transformative learning in which an individual moves towards a more dependable frame of reference which is one that is more inclusive, differentiating, permeable (open to other viewpoints), critically reflective of assumptions, emotionally capable of change, and integrative of experience in so far as experience and circumstances permit.

What this means is that there is a need to look behind these frames of reference to observe what it is that provides the narratives with continuity in meaning making for an individual when the frames of reference are adapted in different contexts. Taking a constructivist perspective, it is the individual distinct self of each interviewee who constructs meaning, using and adapting his or her frame of reference in different contexts in such a way as to provide a continuity of self even in change narratives. In narratives, it relates to the "narrative unity of a life" (Ricoeur, 1992) or "unity of consciousness" (Brentano, 1874) or a "continuity of the self" (Usher, 1998). Holstein & Gubrium (2000) called this narrative identity. Wolf (2005) said that in the narrative, "identity is pronounced, named, even explored and reconstructed" and that the narrative is "essentially a psychologically constructed narrative that integrates the reconstructed past, perceived present, and anticipated future; in short, it is a story of the self." Nixon et al (1996) defined learning as agency and capacity development and that learning to understand ourselves as persons means "recognising the complex interdependence of qualities that express what is distinctive about ourselves: not just our feelings, imagination, practical or social skills and cognitive powers, but their necessary relationships."

To add to the complexity, Bruner (1990) also saw the “self” as “a construction.” This means that as the self constructs meaning using and adapting frames of reference, the self is also being constructed. In Bruner’s (1982) reflective intervention in the knowledge that a man encounters, the man succeeds in developing a sense of self that is premised on his ability to control and select knowledge as needed for his own uses and can share and negotiate this use of knowledge. This is when he becomes culture-creating. Weick (1995) theorising about sense making in organisations also described sense making as being “grounded in identity construction.” He said,

“... identities are constituted out of the process of interaction. To shift among interactions is to shift among definitions of self. The sensemaker is himself or herself an ongoing puzzle undergoing continual redefinition, coincident with presenting some self to others and trying to decide which self is appropriate.”

The internal dialectics of meaning making in the narrative constructions will be examined in the next section to understand how this takes place.

Internal dialectics of meaning construction

The literature reviewed in Chapter 1 indicates that the question which remains unanswered relates to what happens in a person's mind when he or she makes meaning of experiences. The interviewees' descriptions of how they learn or how they make meaning and or their reflections of their meaning making in the interviews do not make meaning making entirely transparent as meaning making involves the inner consciousness of each interviewee. It is possible that an individual interviewee may not be fully conscious or aware of his or her process of meaning making. I therefore included examples from the interviewees' narratives when I analysed the internal dialectics of meaning construction in Chapter 4 to provide the concreteness of specific contexts to illumine what may be hidden which has not been described by the interviewees.

I will examine the uniqueness and similarities in the interviewees' various descriptions and examples of learning and meaning making in their narrative constructions and venture to construct the process or internal dialectics of meaning making based on the commonalities or similarities of how the interviewees construct meaning. I will also point out what remains unclear.

The uniqueness and similarities of the internal dialectics of each interviewee's meaning making

In Chapter 3, I presented how learning happens for each of the interviewees in their individual unique ways of learning embodied in the uniqueness of their overarching themes. For Ang, it relates to reading and reflection. For Bee and Cate, it relates to learning from experience. Ding learns by asking questions. Eng's learning is mediated by significant persons until his last two narratives. Fook learns by experimenting and Goh by experience and interactions. Han learns by doing and by debate and discourse. Ian adopts the learning stance of a traveler who learns from new situations and experiences. Juan learns from challenging situations or adversity. These relate to what Bruner & Olson (1978) described as the three principal means of interacting with and constructing the world: by experience (acting upon it); by modeling (observing it); and by symbols and texts (being told or reading about it). These relate to a presenting set of situation or situations which may be different but which shares the commonality of creating a need to know, decide or act. What remains unclear is how these interviewees make sense of these presenting sets of situations.

Ang says that when he reads to satisfy an inner "hunger" to know, he "picks up" things that strike him, things that are "very insightful" and "potentially useful." He makes notations to interact with what he reads. Bee says that when she is put into a foreign environment, a new situation or something she has not handled before, there is uncertainty. She likes this uncertainty as it makes her "focus" and learn. She then draws from her past experience, researches and looks at what other people in a similar position do. Cate describes how the process of learning from experience for her starts with an observation of what is happening. Ding describes how in new situations, she will ask many questions to learn from what other people have to say. Eng describes how by being in a new job, he always feels lost initially. In his earlier experiences, he had a mentor who opened his eyes but in his management appointment in the IHL (research site), he had no one to consult with and had to decide himself. Fook describes learning from experience in his management practice as one that is experimental. Goh says that she enjoys working with people who are different and who think differently. She likes to listen to their views as it gives her intellectual stimulation and sometimes surprises. Han describes learning as occurring when a person has to find out things which he or she may not have explored before in a very unfamiliar environment. He

says that he learns by observation and listening to arguments and by doing. Ian says that in a new situation like when he took on a management position in the IHL (research site), he starts by observing what other supervisors do. Juan describes learning as occurring quite naturally when she "picks up" important things for her "daily job." Although these relate to the unique responses of the interviewees to presenting situation(s) which create their need to know, decide or act, what is common is that these are all descriptions of the interviewees acting to gain knowledge of themselves, others and or their environment. This relates to a developing consciousness.

What remains unclear from the various descriptions is how they make sense of the knowledge they are seeking to gain to meet the need to know, decide or act. For example, what does Ang mean when he says he "picks up" things that "strike" him? How would something "strike" him? His mention of "insightful" and "potentially useful" does not offer much help as they beg the question of what is "insightful" and "potentially useful." Also what does it mean when Bee says that she "draws" from her past experience and what sense is she making when she looks at what other people in a similar position do. When Cate says that she observes what is happening, how does she make sense of what she is observing? When Ding asks questions to learn from

other people, what questions would she ask and what is the sense she is making of what other people tell her? When Eng says that his mentors opened his eyes, it is unclear what sense he is making of what his mentors are trying to show him. When Fook says he learns by experimenting, what is the sense that he is making when his experiment succeeds or fails? When Goh says that she likes to listen to other people's perspectives, what does she make of their different perspectives? When Han says that he learns by "observing, listening to arguments" and "by doing", what sense is he making of his observations, arguments and what he is doing? When Ian observes what other supervisors do, what sense does he make of what he is observing? When Juan says that she "picks up important things" for her daily work, what sense does she make of these important things and what makes them important? All these questions relate to the sense that is made of what the individual interviewee experiences and the sense that the interviewee is making sense as he or she seeks to gain knowledge of himself or herself, others and the environment to satisfy the need to know, decide or act created by the presenting situation.

Subsequent to an interviewee's developing consciousness by seeking to gain knowledge whether of self, others and the situation or environment, what follows relates to a developing self-responsibility

when the interviewee makes a decision about the knowledge gained about self, others and the environment. Ang says that when something strikes him, it becomes an acquired truth that he "personalises and internalises through reflection" which "changes his thinking and stirs him to action." Bee says that she learns from her own experience and from role models by seeing what they do. Cate says that after observation, she reflects to think about "why a particular outcome happened" or "something was averted" and what she will do or practice the next time it happens. In another description, Cate also speaks of learning from practice as being dependent on a person's priority and that "learning is a process of thinking through what is important in the course of making mistakes and discerning what is most important" for her in the process. Ding says that there is a need to "integrate what is learnt from what other people say" with who the person is, his or her thinking and value system. In Eng's reflection of the interview, he says that he understands himself better and that he needs to think through why he is doing things and if there is a better way to do things. Fook describes how in his experimenting, he will see if what he is trying works. If it does not work, he will ask why and then learn from it. Goh says that when she interacts with people with different views, it makes her examine her own attitudes and perspectives and see that a

situation can be viewed in so many ways. She will visualise herself in a particular situation and ask herself how she will handle the situation using what she learnt from her memory of past experiences that made an impression on her as well as how other people do things. This relates to learning from other people's examples of successes, mistakes and their new ways of doing things. "Relevance" is important in her learning. Han says that "learning occurs when a person finds out things in unfamiliar environment" and how he will "adapt to that sort of environment." He says that this is based on his experience and that it is an "internal absorption over time" from the things he has seen. Ian's journey metaphor provides a continuity in experiences past, present and future. In his reflection of the interview, he says that "some points are being crystallised" and that he is reaffirming himself that a particular decision that he made was right. He also says that sometimes he needs to ask why he is doing things in a certain way. When he observes experienced supervisors, he will consider and decide whether he should or should not do as they do. Juan describes learning as a "natural process of internalisation of knowledge learnt which results in action." She says that for her it comes by reflecting on what she wants to achieve, what she has done and whether it is done right or wrong followed by action or putting into practice what she has learnt. She

speaks of “embedded” knowledge. She also speaks of using the heart to “think twice” before making important decisions. By this, she means whether it is what she really wants.

What is clear is that the gaining of knowledge of self, others and the environment leads the individual interviewee to a decision regarding the knowledge that is learnt. The decision can relate to whether to reject it, accept it, act on it, integrate it, embed it, internalise it, be influenced by it, allow it to lead to action, learn from it, adapt to it, internally absorb it or practise it. The decision is made according to the interviewee’s inner criteria as he or she makes sense of the presenting situation whether he or she is conscious of it or not. These criteria range from what is “insightful”, “potentially useful” (Ang), what is “priority” (Cate) or important (Cate & Juan), who the interviewee is, how he or she thinks and his or her value system (Ding), whether there is a better way (Eng), whether it works or not (Fook), relevance (Goh), what is done right and what is done wrong (Juan). What remains unclear is how the interviewees decide on their inner criteria or how they decide whether to accept, reject, adapt, integrate, internalise, embed, or act on knowledge gained about themselves, others and the environment or situation.

Process of how meaning is made from the narrative constructions

From the meta-analysis of the commonalities of the internal dialectics of how meaning is made, the process of the internal dialectics of meaning making involves:

First, a presenting situation which creates a developing consciousness in the individual interviewee of a need to know, decide or act.

Second, the individual seeks to gain knowledge or consciousness about self, others and the environment in order to satisfy the need to know, decide and act. This also relates to a developing of consciousness.

Third, the individual makes a decision about how the individual makes sense of and what is done with the knowledge gained. This relates to a development of self-responsibility in terms of what the individual selects or chooses to learn from the knowledge gained according to his or her own internal criteria or judgment.

Fourth, the individual decides or chooses to reject, internalise or adapt the knowledge gained or change how he or she thinks or acts. This relates to a development of self-responsibility.

This process or internal dialectics of meaning making constructed from the similarities observed in the meta-analysis of the narrative

constructions indicates that meaning making involves both the development of consciousness and self-responsibility. It can be said that the internal dialectics of meaning making is also intrinsically bound with agency development.

Even though the process of meaning making in narrative construction appears to take place in linear fashion, this process can be instantaneous or take time just as thinking can be instantaneous or take time. Sometimes the individual may not even be aware of his or her internal process of meaning making. To avoid oversimplifying the complexities of meaning making, it must be pointed out that many areas remain unclear. These include the complexities of how an individual makes sense or meaning of the presenting situations; how an individual makes sense or meaning of who he or she is, what he or she thinks or wants and how he or she makes sense or meaning of others and the environment as he or she seeks to gain knowledge or consciousness; how an individual decides on a criteria with which he or she selects the knowledge to accept or reject or change and adapt to. These complexities relate to the use and adaptation of frames of reference in the inner consciousness of each unique individual, the multiple possibilities in terms of his or her choices and decisions and a lack of transparency of what happens in the inner consciousness of an

individual. It also involves the individual's construction of reality as well as self construction.

Self construction in meaning construction, use and adaptation of frames of reference and internal dialectics of meaning making

It is possible to clarify to some extent this very complex area when it relates to a performed communicative action such as constructed narratives of concrete lived experience. The meta-analysis of the frames of reference presented earlier in this Chapter shows that whilst it is possible to observe some patterns of organisation of thinking or meaning making in a particular individual, frames of reference can also be adapted in different experiences in the same individual because of differences in contexts. That the individual can also choose how he or she will construct his or her self in a given context makes it more complicated. The boundaries of this self construction are, however, bounded in narrative construction by the "narrative unity of a life" (Ricoeur, 1992), "unity of consciousness" (Brentano, 1874), or the "continuity of the self" (Usher, 1998) as evidenced by the coherence of the logically structured organisation of the narrative constructions discussed earlier in this Chapter.

I will now set out examples of how each of the interviewee constructed his or her self as meaning is made in specific contexts in his or her narrative constructions using frames of reference. These will also be examples of self-construction in the internal dialectics or process of each interviewee's meaning making presented in Chapter 3. These examples are narratives of how each interviewee constructed his or her self in response to a situation which developed consciousness of his or her need to know, decide or act.

Ang chose (conation: volition) to be willing to face his fears by choosing to move to a new department (affect and conation: beliefs and values). When Bee was given a management appointment she did not want initially, she clarified for herself that she was happy in past leadership experiences (affect, conation: self-concept) and decided (conation: volition) to accept her new management appointment instead of quitting. Cate's encounters with "horrible" and "great" senior professionals led her to ask the question of what kind of a person she wants to be. Her decision (conation: volition) of who she wants to model after, both clarified and shaped her values (conation: volition, values). After Ding asked the question "What is a quality course?" for three years without getting a satisfactory answer, she

decided to clarify for herself what was important for her and set her own criteria (conation: volition, values) as to what is a quality course. Eng had originally intended to take the IHL(research site) as a stepping stone. The influence of his mentors led him to change his mind (conation: volition) and decide that he wanted to stay in the IHL (research site). He clarified what he was really inspired by (conation: motivation, purpose) after his mentors helped him see (cognition) the bigger picture. The opportunities for Fook to do different things in his management role in the first IHL and the IHL (research site) clarified for him what he enjoyed doing (affect and conation: motivation, interest). Although he initially entered teaching because he was not keen on a management role in his first professional job, he re-framed (cognition, conation: volition) how he saw management in the process and found that he developed a passion (affect and conation: interest, motivation) for it as it was more attuned to who he was (conation: self-concept). Goh's first encounter with her domineering colleague caused her some difficulty. She changed her understanding of her colleague as she became open (conation: volition) to understand herself (conation: self-concept) and others and how to relate to people who were different (cognition, affect and conation: self-concept). When confronted with a similar situation in the IHL (research site),

Han chose (conation: volition) not to change (cognition) what he learnt in the first IHL in the new situation in the IHL (research site) but learnt in new areas which he did not learn in the first IHL. Ian's learning journey metaphor meant that he saw himself as a traveler open (conation: volition) to learning new things (cognition and conation: motivation, interest and self-concept) along the way as is needed to discharge his management responsibilities. Juan learnt from her past experiences with her previous supervisors and chose (conation: volition) to change her own practice when she observed (cognition) that it was not working in her new context. She also clarified for herself what was important to her and found her "inner voice" (cognition, affect and conation: intention).

The above examples of how each interviewee constructed his or her self when he or she made decisions to change, not to change, or adapt to new professional situations and contexts show that the frame of reference used in these situations relates most predominantly to conation, second to affect and third to cognition. What was determinative for each interviewee in these decisions was a self-clarification of the conative aspects of his or her self-concept, values, what motivates him or her or what his or her interest is, what he or

she intends to be and do and how he or she feels or thinks. This is significant in that it shows that in situations when an individual decides to change, the individual constructs his or her self in such a way as to provide a continuity with who he or she sees himself or herself as, and what is important to him or her and what he or she intends to be, do, feel and think. This, Bateson (1994) saw as being achieved by human agency. She said that learning as change and continuity is brought together by human agency. Human agency can be said to relate to the element of choice, decision or permission to change (conation: volition). She said,

“Change and continuity are brought together by human agency. Improvisation and adaptation to change allow the past to be connected and to have continuity with the future. Learning is change. Continuity results because people improvise and adapt, that is, they learn.”

Constructive-developmental psychology (Kegan, 1982) also assumes that meaning-constructing evolves or changes when an individual's epistemologies change and looks at the process of development as the gradual process by which what was "subject" in an individual's knowing becomes "object." In an individual's

clarifications of who he or she is and what he or she wants to be and do, changes are made to their objective person as a reflecting subject (Ricoeur, 1992). This requires the development of consciousness or the ability to see oneself as object as one reflects as subject. The decision to make changes to an individual's objective person can be said to be the development of self-responsibility. From the foregoing discussion, the involvement of consciousness and self-responsibility in self-construction also relates to agency development in the internal dialectics of meaning making.

Chapter summary

This Chapter presents a meta-analysis and discussion of the narrative analysis presented in Chapter 3 to answer the research questions. The findings of the meta-analysis of the narrative constructions show that meaning making, frames of reference and the internal dialectics of meaning making are both unique as well as general for each interviewee.

Development over time relates to a development of agency which involves a development of consciousness and self-responsibility.

Development of consciousness accompanied by a need to know, decide or act leads to the development of self-responsibility. When an expectation to exercise self-responsibility precedes the development of consciousness and is far beyond the individual's capacity to act, inner tension is created which seeks a resolution. Agency development over time does not follow distinct stages. Meaning construction is logically ordered, structured and coherently developed in narratives.

Frames of reference are unique to each interviewee in the three inter-related dimensions of cognition, affect and conation. The frames of reference used by the same individual in different contexts can be adapted and different. Self construction is involved in meaning construction and in the use and adaptation of frames of reference.

Self-construction is also involved in the internal dialectics of meaning making in the narrative constructions constructed from similarities and differences observed across the narrative constructions. The development of agency, consciousness and self-responsibility are also involved in self-construction in the internal dialectics of meaning making. What remains unclear from the various descriptions is how they make sense of the knowledge they are seeking to gain to meet the need to know, decide or act; and how the interviewees decide on their inner criteria or how they decide whether

to accept, reject, adapt, integrate, internalise, embed, or act on knowledge gained about themselves, others and the environment or situation.

Chapter 5 crystallises the findings of the meta-analysis, reflects on the strengths and limitations of this research and makes further research suggestions before discussing the implications of the findings.

Chapter 5

CONCLUSION

Chapter introduction

Although this research started out as an investigation of how people in management positions in a Singapore IHL learn and how they develop their professional identities, the focus on learning and professional identity development as meaning making in life and professional stories invariably includes how adults construct meaning of their development over time. This also includes their development in higher education. This research therefore has implications for practice and the professional development of managers in education, adult learning and higher education. A summary of this thesis is first set out before I crystallise the findings, discuss strengths and limitations of this research, draw implications of the findings of this research for practice and professional development of managers in education, adult learning and higher education and suggest further research.

Summary of thesis

Chapter 1 defines learning and development of professional identity as meaning making in life and professional stories. My research

questions developed in the light of literature reviews of the landscapes of leadership and management in education and learning focus on three different perspectives of the phenomenon of meaning making. First, how do people in management positions in a Singapore IHL learn or make meaning of their significant learning experiences in their life and professional stories? Second, how are frames of reference used and adapted to construct meaning of experiences in the interviewees' life and professional histories? Third, what are the internal dialectics of meaning making in the interviewees' life and professional histories?

Chapter 2 sets out that narrative inquiry as a phenomenological research method was chosen as my research method as it is highly appropriate to investigate the phenomenon of meaning making. I also set out how I designed and conducted the phenomenological interview so as to generate rich data in the narratives of the lived experience of the interviewees. Criticisms and ethical issues related to narrative inquiry are addressed and the criteria for evaluating narrative inquiry are also discussed. I also discuss how I derived my narrative analysis approach using a synthesis of Labov's (1972) structural analysis, Denzin's (1989) biography method, Giorgi's (1985) empirical phenomenological method and Lieblich et al's (1998) modes of reading

as these are appropriate to analyse the narrative constructions or qualitative data collected to investigate my research questions.

Chapter 3 presents the narrative analysis of each of the narrative constructions to answer the research questions, viz., how meaning is constructed in the development of the overarching theme and emerging themes of the narrative constructions; frames of reference used to construct meaning; and the internal dialectics of how meaning is made in each of the narrative constructions.

Chapter 4 presents the distinctive and generalised findings of meta-analysis and discusses the meaning construction of the interviewees' development over time, their use and adaptation of frames of reference and their internal dialectics of meaning construction derived from narrative analysis across the narrative constructions. These show each interviewee's self constructions in meaning making, use and adaptation of frames of reference and internal dialectics of meaning making. Except for what is discernible from the narratives constructed of specific experiences, what takes place in the inner consciousness of the individual interviewee as he or she constructs himself or herself in meaning construction, use and adaptation of frames of reference and the internal dialectics of meaning making remains unclear.

This concluding Chapter crystallises the research findings and offers a reflection on the strengths of this research. This includes how the research findings illumine and add to the knowledge in the literature. It also reflects on the limitations of this research and makes suggestions for further research. This Chapter then draws implications of the research findings.

Crystallisation of findings

In the crystallisation process, the same story is told from different points of view and these multiple refracted realities are displayed simultaneously, inviting readers to explore competing visions of the context, to become immersed in and merge with new realities to comprehend (Denzin & Lincoln, 2003). Denzin & Lincoln (2003) also used the metaphor of the qualitative researcher as *bricoleur*, as a maker of quilts, or, as in filmmaking, a person who assembles images into montages, or as a jazz improviser who produces a *bricolage*, or a pieced-together set of representations that are fitted to the specifics of a complex situation. The *bricoleur's* method is an emergent construction that changes and takes new forms as different tools, methods and techniques of representation and interpretation are added. The underlying assumption of montage is that viewers perceive

and interpret the shots in a montage not *sequentially*, or one at a time, but rather *simultaneously* as the sequences are put together into a meaningful whole.

I will first summarise the findings derived from narrative analysis and meta-analysis in Chapters 3 and 4 which tell three stories of how meaning is constructed viz., meaning making of development over time, the use and adaptation of frames of reference in meaning making and the internal dialectics of meaning making before crystallising these findings as a crystallised refracted reality, *bricolage* or montage of the same phenomenon of meaning making.

The findings of meta-analysis of the narrative constructions in Chapter 4 show that meaning making of development over time, frames of reference and the internal dialectics of meaning making are both unique as well as general for each interviewee.

The meaning constructions of learning and professional stories over time show that the interviewees' development over time relates to a development of agency which involves a development of consciousness and self-responsibility. Consciousness is defined as an individual's self-awareness, other-awareness and awareness of the environment or the world. This includes knowledge acquisition, and awareness of other perspectives and points of view. Self-responsibility

is defined as the taking of responsibility to find one's own answers and way and includes making choices and decisions of one's thinking and actions.

Development of consciousness accompanied by a need to decide or act leads to the development of self-responsibility. When an expectation to exercise self-responsibility precedes a development of consciousness, and is far beyond an individual's capacity to decide or act, inner tension is created which seeks a resolution. Narrative construction of agency development over time does not follow distinct stages. Meaning construction is logically ordered, structured and coherently developed in narratives and there is a narrative unity or continuity of self in each narrative construction.

Frames of reference used are unique to each interviewee in the three inter-related dimensions of cognition, affect and conation. The frames of reference used by the same individual can be different or adaptable in different contexts. Self-construction is involved in meaning construction and in the use and adaptation of frames of reference.

The internal dialectics of meaning making is constructed from the similarities and differences observed across the narrative constructions. Areas that remain unclear in this construction of internal dialectics derived from a meta-analysis across the narrative

constructions relate to what takes place in the inner consciousness of the individual interviewee as he or she constructs his or her self in meaning construction, use and adaptation of frames of reference and internal dialectics of meaning making. The internal dialectics of meaning making constructed is as follows:

First, there is a presenting situation in which an individual is conscious of his or her need to know, decide or act.

Second, the individual seeks to gain knowledge or consciousness about self, others and the environment to satisfy the need to know, decide and act. This is a development of consciousness.

Third, the individual selects or makes a decision about what he or she does with the knowledge gained according to their internal criteria or judgment. This relates to a development of self-responsibility in terms of what the individual chooses to learn from the knowledge gained.

Fourth, the individual decides to reject or accept and internalise or adapt the knowledge gained or make changes to how he or she thinks or acts. This relates to a development of self-responsibility in terms of making a decision to act in a particular way.

What remains unclear is how an individual makes sense of the knowledge he or she is seeking to gain to meet the need to know,

decide or act; and how an individual decides on their inner criteria or how he or she decides whether to accept, reject, adapt, integrate, internalise, embed, or act on knowledge gained about self, others and the environment.

Narrative construction or meaning construction of the interviewees' development over time, the use and adaptation of frames of reference in meaning making and internal dialectics of meaning making when presented simultaneously offer depth of view in the understanding of meaning making from three different perspectives of meaning making.

As a composite picture, how the interviewees learn and how they develop their professional identities in their lived experiences involves how they develop agency over time. This involves developing both consciousness and self-responsibility in situations which create a need to know, decide or act. This involves the use and adaptation of internal mental structures or frames of reference in meaning construction to become self-aware, other-aware and environmentally-aware in order to decide or act in a particular way in a particular context. The process or internal dialectics of meaning construction derived from the narrative constructions involves a process of internalisation of knowledge. Self-construction is involved in meaning making, the use and adaptation of frames of reference and in the internal dialectics of meaning making.

What remains unclear relates to what happens in the inner consciousness of each interviewee as he or she constructs his or her development over time in narratives, uses and adapts his or her frames of reference in meaning making and the process or internal dialectics of meaning making in different contexts.

Strengths of this research

Uniqueness of this research

The strengths of this research lie in its uniqueness particularly in the area that is being researched, the research method used and in the specific context of the research.

This research seeks to address a need for research identified in the review of the leadership and management in education and learning landscapes in Chapter 1. The need for research identified relates to how people in management in education understand their worlds and the sense they make of their experience. An understanding of this is critical to how they respond to the events and circumstances in which they find themselves.

This research also seeks to address a need for research identified in a review of the landscape of learning in Chapter 1 which relates to an investigation of learning as a constructive and situated process and

thinking as an internal dialectic whereby the human organism adapts to its environment. This necessitates research that investigates the phenomenon of learning or meaning making from the perspective of learners in their lived experience using their voices.

I embarked on a narrative inquiry as a research method because the literature reviewed in Chapter 2 showed that narratives are a primary way individuals make sense of experience and reality and make meaning of their lives. They also provide access to an individual's development over time. There has, however, been a dearth of autobiographical research. This research is also a contribution to the field in that there has been no narrative inquiry done as far as my literature search shows, on how meaning is constructed in narrative construction.

As there has been no phenomenological research done in Singapore on how people in management positions in education learn and how they develop their professional identities, the context of this research also makes this research a unique contribution to the field.

Illumination and expansion of knowledge of the phenomenon of meaning making

The findings of this research also illumine and expand knowledge of the very complex phenomenon of meaning making.

The first area in which the findings of this research illumine and expand knowledge of meaning making relates to development over time. Meaning construction in narrative construction of the interviewees' development over time was found to relate to agency development which involves the development of both consciousness and self-responsibility. The literature on learning in higher education (Marton & Säljö, 1984; Prosser & Trigwell, 1999; Biggs, 1999) reviewed in Chapter 1 shows a pre-occupation with conceptions and approaches of learning. In adult learning literature, Brookfield (2000) and Mezirow (1991) identified adult learning as meaning making. However they did not identify agency development as central in adult development over time. They chose to focus on adult cognition and adult learning as transformative learning respectively.

In seeking to theorise lifelong learning, Edwards, Ranson & Strain (2002) recognised that learning is the transformation of understanding, identity and agency. In identifying learning as involving a developing awareness in reflexive social and self-questioning which

leads to the transformation of "habitus," they did not identify self-responsibility or any concept akin to it as being integral to this transformation. Nixon et al (1996) identified agency as an outcome of learning which creates the capacity for self-creation and for intervention in experience. This description of agency development is closest to the finding of this research that both development of consciousness and self-responsibility are involved in agency development.

Structural developmental theorists like Piaget (1969) and Kegan (1982) theorised development in distinct stages. This research finds that narrative construction of agency development over time does not follow distinct stages. Rather, this research finds that narrative construction seeks "narrative unity" (Ricoeur, 1992) or "unity of consciousness" or "continuity of self" and self construction in meaning construction in narratives is logically ordered, structured and coherently developed in narratives.

The findings of this research can also be said to extend the knowledge of agency in the literature as it shows that agency is developed in the following ways:

Firstly, when the interviewees are in situations which create a need to know, decide or act, he or she develops consciousness.

This, in turn, leads to a development of self-responsibility. Agency development involves both the development of consciousness and self-responsibility.

Secondly, the interviewees' use and adaptation of internal mental structures or frames of reference in different contexts in meaning construction involves agency development.

Thirdly, agency is developed in the internal dialectics of how meaning is made as the internal dialectics of meaning making involves the development of consciousness and self-responsibility.

Fourthly, self-construction is involved in agency development, the use and adaptation of frames of reference and the internal dialectics of meaning making.

Although Edwards, Ranson & Strain (2002) recognised that learning is the transformation of understanding, identity and agency, they did not describe the inter-relationships between understanding, identity and agency. The findings of this research extend Edwards et al's (2002) description of learning by showing the inter-relationships between development of consciousness, self-responsibility and agency in self-construction in narrative construction.

The second area in which the findings of this research illumine and extend knowledge of meaning making relates to the frame of reference

used in meaning construction. Dewey's (1933) description of how we think presents constructivism as primarily cognitive and logical. I developed the three category framework of cognition, affect and conation from the categories observed as a pattern across all the narrative constructions. The use of the three category framework to present the frames of reference used in meaning construction shows clearly that the interviewees' frames of reference comprise inter-related dimensions of cognition, affect and conation. The frames of reference are adapted in meaning construction of different experiences in different contexts which involve self-construction and agency development. This is closer to Vygotsky's (1962) situated meaning making which saw the mind as mediating between the external world and individual experience, endowing experience with meaning and where direct experiences are assigned interpretations and the world that emerges for the learner is a conceptual world. Piaget (1969) also presented a cognitive constructivism where adaptation in cognition is a matter of conceptual equilibration. Dewey (1933), Vygotsky (1962) and Piaget (1969), however, did not indicate whether affect and conation are involved in cognitive or conceptual equilibration or the mediating mind.

The third area in which this research extends knowledge of meaning construction is by illuminating the process or internal dialectics of meaning making.

Firstly, the process derived from this research involves presenting situations in which an individual is conscious of his or her need to know, decide or act. This resembles but is not "on all fours" with Dewey's (1933) felt difficulty, Piaget's (1969) perturbation in the experience of an object or event which cannot be assimilated into an existing mental structure, and Vygotsky's (1962) puzzlement with what is encountered.

Secondly, this research finds that to satisfy the need to know, decide and act, the individual seeks to gain knowledge or consciousness about self, others and the environment. This is a more expansive gathering of knowledge about self, others and the environment beyond the knowledge of the presenting situation or circumstances in Dewey's (1933) definition of the difficulty and a cognitive and logical reasoning of the facts and conditions leading to a possible suggestion of solution as well as Piaget's (1969) adaptation process of cognitive development which sees that the mind organises the world by organising itself. This research finding of an "outside-in" development of consciousness is closer to

Vygotsky's (1962) social constructivism as involving the internalising of culture's symbolic tools which include language in the stream of thought through social interaction. The findings of this research also support Bruner's (1982) description of man's ability to control and select from the knowledge he encounters, knowledge as needed for his own uses.

Thirdly, this research finds that the individual selects or makes a decision about what he or she does with the knowledge gained according to their internal criteria or judgment and chooses what he or she will learn from the knowledge gained.

Fourthly, the individual decides to reject or accept and internalise or adapt the knowledge gained or make changes to how he or she thinks or acts. The individual then makes a decision to act in a particular way.

The third and fourth steps which move from meaning making to decision or action are found in Dewey's (1933) description of meaning making. What is missing, however, is what Dewey (1933) described as following after. This relates to the observation and experiment of possible solutions leading to its acceptance or rejection and leads to the organisation of facts and conditions from the given partial and confused data to suggest a comprehensive or inclusive situation. Also,

the third and fourth steps do not operate only in the cognitive dimension as suggested by Dewey (1933). The frames of reference of the interviewees include inter-related dimensions of cognition, affect and conation.

The third and fourth steps also qualify Piaget's (1969) concept of assimilation, accommodation and expanding equilibration as a purely biological process independent of the individual's self-awareness. The internal dialectics of meaning making involves a development of an individual's agency, consciousness and self-awareness. Piaget's (1969) theorisation however, was based on his observations of young children in stages of pre-rational development whereas this research investigates adults whose agency is more developed.

My research finding is closer to Vygotsky's (1962) social constructivism which involves an "outside-in" internalisation process in which culture's symbolic tools like language get internalised and enter the stream of thought through social interaction. This research, however, also finds that meaning construction has an "inside-out" dimension of self creation besides an "outside-in" internalisation process. This supports Bruner's (1982) theorisation of meaning making in which culture both shapes and creates the self. He said that learning

is joint culture creating and self is a construction, a result of action and symbolisation.

The research finding of the use of an individual's internal criteria in the internalisation process shows greater self-responsibility than Vygotsky's (1962) description of a renegotiation of meaning in a manner that is concordant with what others believe within the limits of the symbolic world that is acquired through language. The self-responsibility implied in the third and fourth steps in the process observed in this research is closer to Bruner's (1982) description of the individual's development of his or her ability to control and select from the knowledge he encounters, knowledge as needed for his own uses and with which he can share and negotiate. In the terms used in this thesis, this relates to agency development which involves self-construction and a development of consciousness which leads to a development of self-responsibility.

My research finding of the internal dialectics of meaning making can also be said to support and extend the developmental constructivism of Bruner (1982), Dewey (1933), Piaget (1969), Vygotsky (1962). The internalisation process derived from meta-analysis in this research is closest to Bruner's (1982) theorising in that it relates to an "outside-in" as well as an "inside-out" meaning making and self-construction and

agency development that involves more than the cognitive to include affect and conation. My research finding also shows that the interviewee's exercise of self-responsibility is more action oriented and closer to Bruner's (1982) self creation.

It must be pointed out that Bruner's (1982) theorising does not start with a presenting situation which creates a need to know, decide or act but starts on the premise of agency or ability to control and select from the knowledge he or she encounters, the knowledge he or she needs. This research therefore, also adds to Bruner's (1982) theorising by showing how agency is developed in presenting situations that create a consciousness in an individual that he or she needs to know, act or decide. It can be said that this research adds to the knowledge in the composite picture of constructive developmentalism (Bruner, 1982; Dewey, 1933; Piaget, 1969; and Vygotsky, 1962) painted in Chapter 1 by illuminating how agency is developed in meaning making.

Limitations of this research

The limitations of this research relate to areas earlier highlighted as remaining unclear. This includes what happens in an individual's inner consciousness as he or she constructs his or her self, constructs meaning, uses and adapts his or her frames of reference in meaning

making and the internal dialectics of how meaning is made in different contexts beyond that which is discernible in the narrative constructions. This limitation relates more to the difficulty in understanding what happens in an individual's consciousness in and of itself as inner consciousness defies definition and cannot be known except through the mediation of symbols and texts such as narratives (Vygotsky, 1962; Dewey, 1933; Bruner, 1982).

Kozulin (2002) in his Chapter *Setting Vygotsky in Context* in the revised edition of *Thought and Language* pointed out that the major goal of Vygotsky's paper "Consciousness as a Problem of Psychology of Behavior" (1925) was to restore the legitimacy of the concept of consciousness without falling into the vicious circle of trying to explain states of consciousness by the concept of consciousness. He said that Vygotsky had argued that if one is to take consciousness as a subject of study, then the explanatory principle must be sought in some other layer of reality. He suggested that socially meaningful activity can serve as a generator of consciousness. McDermott (1973:126,127) writing about *the Philosophy of Dewey* quotes Dewey as saying that

"In man, in so far as he is self-conscious – *and it is self-consciousness that makes him man* – the unity through which all

things are and are known ... Absolute self-consciousness manifests itself in the knowing and acting of man."

Bruner (1983) said that human beings represent their knowledge of the world through three modes of representation: enactive, iconic and symbolic. Bruner (1985) also described narratives as constructing the two landscapes of action and consciousness simultaneously.

This difficulty in understanding an individual's consciousness in and of itself highlights the need for more phenomenological research, in particular narrative inquiry of lived experience to further illumine what takes place in an individual's inner consciousness which includes what an individual may not be aware of but which influences the individual's meaning making. This includes the influence of culture or what Bruner (1990) called folk psychology on meaning making, self construction and culture creation. This further research could be by way of phenomenological interviews, critical incidents or autobiographical studies (Brookfield, 1990) which generate rich data or descriptions of what takes place in the consciousness of an individual in specific and concrete situations.

This narrative inquiry is based on a sample size of ten. This means that the generalised findings cannot be taken to apply universally to all meaning making. As the ten interviewees are all from the same IHL

(research site) in Singapore, the findings can be said to be representative of people in management positions in the IHL (research site). However, it can be said that because the research questions relate to something as universal as meaning making, that the findings of this research can also be applicable for adult education. Brookfield (1990) said that the attempt to understand learners' phenomenological worlds as proposed by Lindeman (1989) is the purpose of adult education. A similar narrative inquiry repeated for another identifiable group of people in another professional context in Singapore to provide a basis for comparison can indicate whether the findings can be applicable more universally outside the context of an IHL in Singapore.

As the nature of the inquiry is to investigate the interviewees' learning or meaning making which includes their frames of reference and the internal dialectics of how meaning is made, this can be accomplished only through talking to them intensively and at length. Given the scope of this doctoral research and the intent of this research being to illumine how the interviewees construct meaning of how they learn and develop their professional identities to deepen understanding of meaning making, the sample size is adequate and the significance of the findings will be comparable to any other narrative inquiry of the same nature.

The research data which I collected in Part 2 of my interviews which I excluded because of the reasons explained in Chapter 2, can be analysed to further investigate how the interviewees make meaning and develop personal practical knowledge and construct their professional knowledge landscape in specific management areas. These include the *Verstehen* of the phenomena of power and value in practical realities, how leadership is conceived, how the role and purposes of the organisation in a dynamic and conflictual environment are conceived, and how they deal with the exigencies of present situations in the context of a rapidly changing external and internal environment.

Implications of findings

Besides the contributions to theory highlighted under the earlier section on *Strengths of this research*, this research also contributes to practice in terms of the implications of the findings on practice in higher education, adult learning and management learning. In my practice in the context of the IHL (research site) in particular, it points to the need to use narratives and create contexts for learning from experience which will focus student learning, staff professional

development and management development on the development of agency (consciousness and self-responsibility) as well as self-construction in agency development, use and adaptation of frames of reference and internal dialectics of meaning making as detailed below.

The first implication relates to the importance of agency development in learning and development over time as well as the development of agency by the development of consciousness and self-responsibility. Student learning in higher education, adult learning and management learning therefore needs to focus on agency development which includes self construction. There is a need for higher education to move beyond their current concerns with conceptions and approaches of learning to focus on agency development, meaning construction, self construction in student learning in higher education. An appropriate use of narratives in learning-teaching in higher education can facilitate deep learning and agency development by developing students' consciousness of self, others and the environment as they make meaning and construct their self in specific contexts. Beyond developing consciousness in terms of the knowledge that is learnt, there is also a need to develop self-

responsibility by creating situations which require students in higher education to move beyond knowing, to decision and action. Authentic learning situations where learning is situated in actual professional or work environments involving projects or simulating such professional work environments and projects are examples of how consciousness and self-responsibility can be developed.

In adult learning and management learning situations, learning should start with the lived experience of the learner and focus on practical situations or work contexts that they face or will encounter professionally. Opportunities should be created for learning to take place in different experiences in actual work or management situations and contexts which require individuals to know, decide or act. Consciousness and self-responsibility can be developed by providing opportunities for different experiences for individuals to learn self, others and environmental awareness by interactions with others who provide many different perspectives in different work contexts, by his or her involvement in roles or work projects which require the individual to find his or her answers or way. These different experiences could include those described in the narrative constructions viz., being in a new environment, challenging situations

and adversity, opportunity to do different things, interactions with different people and different points of view, interactions with a significant person like a mentor or teacher and discourse providing the external stimuli for the development of self-responsibility or the taking of responsibility to find one's own answers or way whether for oneself or for others and to be challenged by other perspectives. This includes work organised in cross disciplinary or cross functional teams and or assignments of different management responsibilities in new areas as part of institutional management professional development. It could also include opportunities across IHLs in Singapore and beyond Singapore to broaden the diversity of views and perspectives. However, to optimise the learning and development of agency, the focal point of all these experiences should be on creating the need for them to find their own answers or way, make decisions or choices and to have the benefit of interaction and discourse with different people and different perspectives. A good example would be action learning where the agenda is both the project and the learning. Mentors of managers must ensure that in their interactions with their protégés, they require them to find their own answers or their own way and challenge their protégés to come up with alternative views and ways of doing.

The development of consciousness requires adult and management learning experiences which will enable individuals to develop consciousness especially of how he or she constructs meaning. Educational biographies (Dominicé, 2000) is a good place to start with in providing the opportunity for individuals to develop consciousness of how they construct meaning, how they use and adapt frames of reference and the internal dialectics involved in meaning making. Group sharing of educational biographies amongst peers and in course teams in the context of an educational institution can provide the opportunity for adults and managers to become more aware of himself or herself as "object" whilst being a reflecting "subject" (Ricoeur, 1992). These will also be opportunities for adults and managers to hear objective voices concerning their perspectives and other perspectives to inform their meaning making and self construction.

Narrative practice also provides opportunities for adults and managers to develop consciousness in their practice. Narrative practice, lying at the heart of self construction, is an interpretive practice in everyday life (Holstein & Gubrium, 2000). Narratives make visible how everyday narrative practice plays out in everyday life to produce coherent selves and construct diversity and difference.

Opportunities for group sharing of stories of adult work experiences and management practice can help adults and managers develop consciousness in everyday work and management practice.

The findings of this research can also be applied in management practice when managers create opportunities for their academic staff to share their educational biographies with their peers in order to develop their consciousness. Brookfield (1985) argued that administrators when calling for critical reflection by teachers, should model critical reflection and one of the ways to do this is to use their autobiographies to illustrate the benefits of the process in their own lives and to talk about the role critical reflection is playing in their own practice. This can take place even in formal meetings with staff. It may be said that managers in education and academic staff should, by virtue of their cognitive abilities, be more open to other views, be self-conscious and capable of critical reflection. Knowles (1990) however, said that adults' experience is who they are. As adults accumulate experience, they tend to develop mental habits, biases and presuppositions that can close their minds to new ideas, fresh perceptions and alternative ways of thinking. Therefore it is necessary to discover ways to help adults examine their biases and open their minds to new approaches by subjecting experience to critical analysis. This critical analysis should

not just be cognitive but should also involve affect and conative dimensions and include how adults construct their selves in meaning making, use and adaptation of frames of reference in meaning construction and in the internal dialectics of meaning making. This will enable both managers and academic staff to develop agency or capacity to engage in reflective intervention (Bruner, 1982) as they self-construct in their practice.

Conclusion

Whilst research into learning in higher education, adult learning and management learning have developed quite separately to address different research concerns, the focus of this research on the phenomenon of how people in management positions in a Singapore IHL (research site) learn or make meaning made it necessary to look at learning in higher education, adult learning, management learning as an integrated field from the learner's perspective. This narrative inquiry which takes a constructivist perspective of learning confirms that learning is very complex and that there are distinctiveness and generalities in how each individual makes meaning. The distinctiveness in meaning making of each individual relates to the distinct self that is constructed in narrative. What is common to all the interviewees'

meaning making is agency development which is a development of consciousness and self-responsibility. Each individual uses and adapts his or her distinctive and yet generalised frame of reference comprising cognition, affect and conation in different contexts. The internal dialectics of meaning making includes an "outside-in" internalisation of knowledge about self, others and the environment as well as an "inside-out" self construction. What remains unclear about meaning making from this research relates to what actually happens in the inner consciousness of each individual which is not discernible from the narrative constructions. Further phenomenological research into what happens in the inner consciousness of individuals when they make meaning in different management and other contexts is needed to further illumine this highly complex phenomenon of meaning making.

APPENDIX

APPENDIX: The narrative constructions

1. Ang

School was largely uneventful. All through school, it was very much the same. I never really have much difficulties in school right through University. Never topped but never had any difficulties either. I never felt much stress to excel, never quite feared that I will fail miserably. So it was largely uneventful. Some other significant learning experiences will be learning for the first time that I need to learn how to think outside the school context. This was taught to me by my pastor. It had to happen outside the school context. My pastor taught me this through his own talking and through the way he processed things. That happened at the time I was in University. I gained wisdom as I met with my pastor, something I never learnt in school.

Significant learning also had to occur when I took on my first job ... as I had to do cases entirely on my own within a month of graduation against my classmates' bosses. It was sometimes very intimidating and I really had to grow up fast and learn the tricks quickly and not fall into the traps that some of these older ones would lay around me. I had to learn quickly for my own survival. In the process I over compensated my own fear in my own intimidation. I was really having to learn and not finding the comfort for a year or two, if ever at all. I just figured it out on my own when I was ... was handling the case. I had to make decisions all the time ... as there were no seniors around. I also learnt about my own heart, gaining greater self-awareness, learning about the spiritual side of learning, about myself, that to me becomes very valuable, beyond the intellectual learning. Again this is impossible to learn in school. It is a process of learning to understand what limits my effectiveness and how I limit my own effectiveness. There are things from the past that I might need to deal with, like intimidation. I had to learn how to deal with this on my own. There was no way I could learn to survive in my first job through books. I remember very few things about what I learnt in school, even what was intended to be usable professionally in *University*. I recall very little. In my assessment, it helped very little. I acquired ... thinking of my discipline more on the job, than in *University*.

In 1999, when I was *overseas doing my Masters*, I really threw myself into reading Christian literature. That started a hunger for learning, growing and reading. It's a major source of learning. I gain a lot from my reading. That was quite a major change to how I learnt as I have never been a reader before that. When I read, I pick up things that strike me, that are very insightful, things that I find potentially usable in future context. I make notations as it helps me to interact with what I am reading. I try to although I haven't been able to take the advice of someone who said that he spends twenty minutes reading and forty minutes reflecting on what he has read. When something

strikes me, it becomes an acquired truth that I personalise and internalise through reflection which influences my thinking or stirs my action. It results in both a change of thinking and concrete actions.

My first boss in *the IHL (research site)* made an impact on me. She provided challenge and spurred my learning through her personal example and personal modeling and handling of circumstances. The sheer years in my previous department meant that things were pretty routine. The learning that was required was rather minimal. A big learning experience is my movement to *a new department* where I have to provide the answers and decide what the answers are. It was a personal victory when I gain a willingness to move to a department where I feel lost and do not know the answers. It's the willingness to start all over again as a recruit. It is a significant learning experience because I faced with the fears and insecurity of a learner almost amidst the learned. It is this willingness that will put me in good stead for future situations when I start anew. Situations are new and uncertain. It increased my capacity for learning. My capacity for learning has been stretched.

2. Bee

My learning experience was not so much from textbooks. I learnt a lot through all the CCA (*co-curricular activities*). I didn't know that they are going to be so useful to me today ... because it is through this that I learn all the softskills, how to deal with people, how to apply technical knowledge to the context. Different experience is good. I didn't know why I was picked by teacher to give speech, all the embarrassment when I forget something and how I cope with the situation. When I had to do a dance and choose costumes, I had to deal with my friends and learn how to negotiate for what I want and how to give way. As a monitor or prefect ... I was being trusted and given the confidence. When I went around to beg people to give me money for charity and people stare at me and I learnt to deal with it when adults stare at me and why I had to chase after them. These non-curricular activities are the things I value most. It is through all these that I learn. They really help me a lot as you cannot learn these things from textbook. A major influence then was my principal in secondary school who gave me a lot of opportunities. I was quite timid, quite quiet. If you put me in a team, I will hide. Also when I have to stand in front and give a speech. But this principal, I don't know why she always wanted to give me opportunities. She put me as Chairman of don't know what committee, music and dance society, made me senior prefect and have me go to her office to make announcements over the public address system. Until today I don't know why.

At that time, I didn't know that twenty, thirty years later, that I have to deal with a world that has all sorts of personalities ... I didn't know that the experiences that I had dealing with uncertainty, different types of situations, and different types of people would be so useful to me today. This realisation that these are very rich experience came when I was given leadership position. I can read a lot from management books but that is theory. It is when you look at some of the case studies and you had that experience, then you can really really agree with them and that is how that particular situation has helped.

My University was fun because I was overseas. The overseas experience is very interesting. I remember the moment I took the flight and left the airport, I was crying. I didn't realise that I am not going to have my mother or my family with me as I was so happy so eager to go *overseas*. That first ten hours, it was a shock in my life. I feel that I was disconnected. And I realised that I was all alone. I have to be depending on myself for everything. I never had that experience in my life. I have to build new relationships, learn how to do the laundry, go to the supermarket, and stock up my own milk and everything. That was wonderful. That made me independent; really independent and I learn to make a lot of decisions myself. What to spend, what to do, who to trust, who not to trust. In Singapore I consult my parents and they set certain restrictions. I became very independent after I went *overseas* as I am all on my own... I was *overseas* for almost five years. From then on I became very independent. I realise that I do not necessarily listen to other people's advice. After that I grew up and became very independent. I realised that I am responsible for myself. Everything I do, there are consequences and implications. That's when I became very independent.

It is at the University that I fell in love with my studies. I think it is the environment. I never enjoyed studying in Singapore. What I didn't like is that people compete. Even your friends may not help you. The environment is not so nurturing and helpful as there is too much competition. In *my University overseas* it is a very different learning environment. People help one another because we are competing against ourselves, not our friends. In Singapore you compete against each other because you are being ranked. Actually I was in the University in Singapore for a few months. I didn't like it at all and it was a horrifying experience... I was so shocked and I never thought life can be so fierce in the first few days with "ragging". I boycotted because I believe you should not treat people like that. The first experience was very bad. The other experience was also a totally horrifying experience. I realised that people are very cold in the University. In *my early school* environment people are warm and helpful. People were very cold, very selfish and I hardly have any friends. One experience that I never forgot is that at lecture in a huge lecture theatre, one professor came in and she brought in a stack of notes meant for all. The staircase was full of people. When the professor said "all of you pick up the notes," there was a stampede. I sat there stumped. And I

"switch off". When my parents asked me whether I would like to go *overseas*, I wanted to leave that place as I didn't have a good impression of the university. I find it very cold. So I left and went *overseas* and I had to go through the transition period whereby I have to learn to live on my own.

In *my University overseas*, I found a lot of freedom and I really really enjoy the University. I mixed with people from different backgrounds. It is very interesting to have classmates from all over the world. Every day there are so many things to talk about. There is a lot of political critique. The media is very open. I find that there is so much to learn. Then I learn in life that there are a lot of views. You don't have to be restricted by what your teacher say, what your parents say. You can have your own views. I found the learning experience there very nurturing, very good in the sense that you really compete against yourself. You help your friend. You put in your heart and your soul. I found that I excelled. I did very well. I didn't know that I could do so well and enjoy my work. In Singapore I study for study sake to please my parents. Over there I really study for myself. I really wanted to excel because I found that you are challenging your brain and your mind to do something well. Your friends will help you. I think it was very good. I think it is the attitude of the people. It's the learning attitude of the people that we help each other to excel. It's not so much that I get first class and you don't get it because the system is not by quota. If you can achieve that, they will honor you. I think is very good. I always like that system.

The professors don't talk down to you. They come to the lecture theatre and say this is the research that I am doing. Give me your views. You can disagree with me. They embrace your views. We respect them a lot because they are really really very good. They have no airs and they are very easy going. That is where I start to fall in love with studying and researching deeper into a particular topic. I will go to the library to borrow books to find out more because I wanted to discuss with my classmates. We have a lot of debates in that sort of environment. More debates, more exchange of ideas. You got to prepare yourself. That is where I realise that that environment really challenge me. I feel very good when I can prove that my professor is wrong. They are very open about it and they won't mark you down or look down at you as very threatening. I like that sort of environment very much. Maybe it suits me. I like that sort of environment.

It was my Masters that totally change me. I did my Masters immediately after my undergraduate studies. My Masters was very different from my undergraduate studies because it is not so technical. It covered all aspects, social issues, economic issues. We went into the soft aspect of technology and it is quite mind stretching because all the while in my degree, everything is logic, technical. So you go deep but very narrow. This is where they help me to look at things in a more macro manner. It stretched my mind in more

macro manner. For example, I found very interesting that in my first week, one professor came in and walked out after ten to fifteen minutes and gave us a few books to read and of course to buy his book. He said I'll see you next week and gave us an assignment to define information and data. What I learnt most in the following week's discussion and I found it very interesting that people really defend their position. You can check ten dictionaries and you can disagree with them and they have their own definition. What I realise after the Masters is that you can have your own definition. In the degree we talk about which is the best technology to deploy, whether it is compatible, whether it works or not. But it is in my Masters that I realise that it is not the technology. It is the people.

In the Masters programme itself, I realise that I have such a big gap in my learning. I thought I did quite well in the degree ... But it is in my Masters that...wow, there's still so much more. I was so glad I did the Masters.... At that time I didn't know that my formation years, my co-curricular activities did help me. But that was the first time I went through theoretical understanding of the soft side of things, how to deal with people, project management. Actually in the Masters programme, we study a lot of *real life* case study why things fail, why things are successful... I think in the Masters is where I learn about future trends. You can be part of the future. You develop the critical thinking skills. I was one of the three who didn't have working experience. The rest of my classmates came with years of experience... Most have some working experience but I didn't.... So when they speak... I learnt from their experience and I know it's real because they were talking about their experience... Masters is a totally different group of classmates, all the mature adults. They talk about their lives. That's when I found it very exciting.

When I am put into a foreign environment or new situation, there is uncertainty. I like uncertainty. It makes me focus and that is where I draw my learning. You give me something that I have not handled before. That's where I tell myself I have to be very focused because I am dealing with something that I am not familiar with. I draw from my past experience and I research and look at what other people in a similar position do. That's how I learn. I don't straightaway go to the library to take ten books. I learn from my own experience. I also learn from role model. See what they do and learn from them.

In the *IHL (research site)*, I was *lecturer* for about three years. Then I *moved to different management appointments every three to four years*... I have the opportunity to learn and then take the position, learn and then take the position. In the fourteen years with the organisation, they really put me through all the experience before they put me to the next level. So I really learn from the ground... Compared to industry, *the IHL (research site)* gave me a more complete training in academia ... But unfortunately in formation

years, the organisation really don't have structured programme for us... I could have speed up my learning rather than leave it to me alone to explore and wonder around. In structured formal training, it's experiencing in the same setting. That's where you learn best you see. You can learn from each other's experience and you can also import your own experience. You know, I think that is very important.

But my personal experience was good in that I was given all the opportunity over many many years to build up my knowledge. Besides the inspirational leadership of the previous Principal, there is another important person in terms of my academic development. He actually mentored me a lot in terms of how to look at situation. When he disapproves any of my papers, he explained and I think that is very important. You need a lot of mentorship in an academic environment.

When I joined the *IHL (research site)*, I wanted to be a lecturer for the rest of my life. I thought I had enough challenges in the industry. And I just wanted to do a simple job. But luck was not on my side because my *supervisor* knew a bit of my background. He put me back into a management position... in industry I was made manager after two years... I was always monitor, prefect, so I am always happy in that sort of position. I was very determined when I joined that I shall hide myself. That was what I did in the first three years. Then my *supervisor* came on board and all of a sudden I received an e-mail to say that I shall be *supervisor* of a group of engineers. I have to be very honest with myself. I thought about it, either I quit or continue. But I love my teaching job so much how can I quit. And it was a good job. But I guess what went through my mind and my heart was that if I was to be responsible *supervisor*, I got to be the best that you can be... If you decide that you will take a manager or leadership role, then you really have to put in your heart and your soul. If not, I think that you will be unfair to the people who report to you. So that's my personal philosophy. Either I do it well or I don't do it and I quit. Because you cannot be half-hearted. Then you are not fair to the team of people that you look after ... So I'll be happy doing that until I decide not to. That will be my philosophy.

3. Cate

I had some bad memories of teachers who were very unfair to students and to me in particular at some points which made me very reluctant to go to school in those years when I had those teachers. And in particular I remember this form teacher of mine in Primary 4 ... I didn't know what it was exactly but I think, after teaching me for one year, she decided that she didn't like me or something. So she became very critical of things that she perceived was

happening in class... I will be scolded for no good reason, accused of a lot of things. That really made me very miserable to go to school and I didn't like the days when I have her classes in the timetable... Somehow it didn't affect my grades because I still managed to be first in class in that year and of course she wasn't happy about it... in my report book, she wrote negative comments, I was not given my report book in class like everyone else, I had to see the principal to get my report book. So I did my studies in spite of her ... It was quite bad actually. In terms of classroom, I can't really say that it was very significant.

In University, there were some lecturers who influenced my thinking... I changed my view on things after going through certain courses. For example I had this lecturer who was an Englishman... in my fourth year. Before that my views *about a particular issue* was quite in line with what our government espouses ... after going through the course I realised that there are flaws in my thinking and he was able to make me see that, and that permanently changed my views on some things... I also saw in University very much the differences between lecturers who cared and didn't care. Because at that time I think the approval of the lecturers was more on publication and not on teaching ... so the lecturers did not bother to put too much into their teaching. There were one or two lecturers who really bothered to do that and that stuck out because I knew that they were doing it for us and not for any gain of their own. That was quite significant. Also during this period there were a couple of lecturers who spent one on one time with me because I was wanting to leave *University*. So they were quite good in that sense. They went out of their way to talk to me... I remembered some of them very well. In terms of appreciating certain subjects in the University, some of my work for example, ... *being* involved in *work on a* publication then, helped to fuel my interest in certain subjects as well, because I used to write in the journal about ... what was happening and so on, well I felt that I learnt a lot from there which I was able to share with my class as well

... a few months after graduating from *University*, I went *overseas to study* ... During my Masters it was quite interesting because I realised that different people did the course for different reasons... Some who just didn't care what happened. They weren't prepared for class and they didn't mind being humiliated by the professor. It's ok with them kind of a thing. So I suppose your goals before you start a course, they will drive your behaviour. Sometimes, I mean, I won't be able to do that but that's what they did. I learnt independence I guess, 'cos things were pretty unstructured and limited contact time. So a lot of things we had to do on our own. And there were many opportunities ... to learn things on our own, like for instance I signed up as a member of this institute which was concerned with juvenile delinquencies. It was quite fun because we could visit all these penal institutions to learn more. That I found quite interesting. I also learnt from that

and actually from *Junior College* onwards until my Masters, I learnt that I am not very academically inclined. It is usually the case that in primary or secondary school you top the class easily. But of course if you gather into a more central institution, then you realise where you are in the scheme of things. And you realise that wow, you are probably only in the top 20% of the cohort or something like that. So that was in a way a humbling experience. But I think I am much more realistic now about what I am good at and what I am not good at.

... in *my first job*... I learnt that theory is very different from practice and I also had to deal with quite a lot of conflicts of principle. Because of *my training*... I am always very concerned about due process. You know, you must do things properly and all that. But when it comes to operational matters, you may not always be able to do so and there needs to be a compromise somewhere. And it will be very difficult to grapple with and also to battle the institutional behaviour. Its either you go with the flow or you stick out and then you have to leave. That's one thing and I also learnt to deal with discrimination in *my first job* because there was a gender bias at that time firmly set in policy... for example, I was told I could only be promoted in my fifth year in service because I am a lady so that was quite hard to accept. Eventually I left because I felt it was just too unfair. But also when I was working there, I learnt a lot about life in general because of the cases that I handled... its very eye opening. I learn a lot about dealing with people definitely.

... *my second job* is a good testing ground, in a sense to see what kind of a person you want to be. Because you encounter *fellow professionals* of many shapes and sizes and some who are very horrible and who would use their client as an excuse. When you know it is actually them and they could actually persuade their clients if they want to. And that is quite interesting and you begin to ask yourself what kind of a person you want to be... And I used to observe how my boss used to behave and I think he is a great person because he would... He is always gentlemanly when it comes to his dealings like your word is your bond kind of thing. I think it is something that is quite rare these days. You try to model that if you can.

I define learning as things that shape your values... Knowledge is one aspect but I think the values are more important. Because that is like what will drive your learning. I suppose I don't learn so much in the classroom now. And learning takes place outside the classroom now. So definitely the place of learning has changed. And a lot has to do with experience rather than theory. And over time you realise that there are very few absolutes in life. Because when you start out you tend to have certain basic principles but then you find out that "oh, it doesn't hold true." The process of learning: I suppose it will start with observation of things that are happening, then reflection, to think

about why this particular outcome happened or how something was averted for example, and then I suppose you practice it the next time it happens.

For me learning from practice depends on your priority I guess...if your priority is to be more efficient with time, through fumbling through and making mistakes you learn what is important, what is not important. You go for the jugular. And of course in dealings with people you get to know people more or you get to read more in one sense you can say that it's both good and bad. And you learn to deal with them. For instance today I met a *colleague* and you see we are all so concerned with this particular student who is going to be removed. So I asked *this colleague who is the student's Care Person* if this guy is going to be removed...*he* was supposed to put up a report. He said, "Is it?" And then I just laugh because it is very typical of him not to like ... you know he may miss some e-mails and he will later go back to it. You know this kind of thing. You see over time you learn.

In the *IHL (research site)*, learning to deal with teenagers is one... totally new experience for me ... initially ... as a new tutor a lot of people give you advice and then you try to use it and you realise that it doesn't work. Because you have to come up with your own way of handling students, like you know I was talking to one of the lecturers and I was told to be very strict with the students in your first lesson, otherwise they will climb all over your head you know. But when I went in there and I tried to do that, many of the students hated me and I learnt later that in the end you have to really find your own way. What works for one person may not work for another person. That's one thing about handling students. Then I guess I also learn about managing people by observing people in management position. Then you see what you think is good and something you could adopt, and maybe certain methods that you think probably won't work for you. I learnt about management that way. I learnt to have fun I guess. This is one of the most fun jobs I've had. I learnt on the job I mean because it gives you a lot of opportunities to do things which are enjoyable...

4. Ding

I realise that I am always learning by myself. I am one person who has an interest in wanting to do a good job in whatever I do since young. I think that carries me throughout. Even when I first started to work at the age of 21, I can really say that I never had anyone to handhold me and taught me what to do. All the while I have been doing things by using my own initiative, solving a problem, going and talking to people, learning from people. I am always telling people that I do not know what I am doing can you please tell me if this is what I think I want to do and how about that? Even in the University, I

remember this lecturer once told me, how come you are the only one who always come and see me after the lectures? Other people never come and see me and you are the one who always have so many questions? So I told her, I said, maybe I am not so smart you know so I have a lot of questions. Any way I know that I was always a nuisance to people, when I am in a new situation or when I go for a new job.

In my previous job, I was working in a bakery situation. I know nothing about baking. There was this master baker who was the bakery controller. I was sticking to him everyday, everywhere we go. Until one day he said "you are such a nuisance!" I am definitely a thick skin person. At that time I was already a manager and yet I was very thick skinned. Perhaps I was able to be honest to say 'I don't know' and 'teach me'. People were willing to even though they found me a little bit of a nuisance.

I really do not know how I developed this. I think it's my make up. I have a sister who was much smarter than me. She didn't need to work very hard and she always topped you know. I worked very hard and I was never top, nearly top but never top. I was always very conscientious I must say. My mother always liked me because I was very conscientious. As the second daughter I was always taking more responsibility. Both my brother and I were in the same class. I was one year younger than my other classmates. And it's like he is first I am second. So the whole school knew about us. My sister who is after me, also top in my class. So the whole school, it was a small primary school, knows about my family.

I went for my Masters *overseas*... under a scholarship I did well, at that time, my programme, we didn't have distinctions. One year after that, *my* Professor wrote to me... to say that ... they are awarding distinctions for Masters degree graduate and should you be a graduate now you would be given a distinction... he hopes that this letter will in some way give you that satisfaction that you had actually attained that level. So I kept that letter. In terms of technical, I think I have learnt. It changed a lot in terms of my outlook, the way that I see things. Because in the past I was very sheltered at home, always a very good and proper girl at home, never really went out with friends. After PSLE, I never went to a friend's house. Everyday I went from home to school and school to home. There is no problem with me. Even in secondary school I think I only went once to a classmate's house. So when I went *overseas* for that year, I was forced to communicate with people. I think it really changed my outlook, my ability to connect with people. I had no choice. I was overseas. If I need help and I don't talk to people, I would be in trouble. So that one year helped me to be a changed person. I felt a change in myself. In the past, if I walk on the road, if I don't know where to go, I won't ask people. I just want to depend on myself. But after *going overseas* I felt the need to rely on other people. I was a very shy, closed person before. I

couldn't remember much about my technical area. I know that I have to be successful. Because otherwise I wouldn't know how to come back. At that time I was getting a scholarship and salary. I couldn't come back if I did not do well. It's the same way of working. I am a very focused person. If I were to do something I will do my best and make sure that I achieve. Of course there were times of failures.

...

my first job was in manufacturing... I was the Group R&D (*Research and Development*) Manager and QA and QC (*Quality Assurance & Quality Control*) ... I didn't have anybody to handhold me to tell me how to do what to do. I just think about how to do it and just went to do it... I started to be in charge of people when I was twenty five... I have thirty years of experience taking charge of people, Masters degree, PhD. I had a PhD under me and he was a man older than me. I was telling myself I don't know how to tell him off. He is not doing his job. That was the first time I was in charge of PhD and my Director said, "don't worry, I will sit down with you and talk to him". I said "you talk to him, I don't know how to tell him you know. He didn't do his job at all you know." He is a rich man's son. He got his PhD and he doesn't really need a job. I was very grateful that he left before the appraisal. His father had a big business and he went back to work for his father.

...

I think that in the industry I felt that I learnt a lot more about the business aspect. What actually is important in terms of the bottom line? I think my boss appreciated me because I was able to do different projects and convince him that I am saving him money. *As my department was in Research and Development and Quality Control*, I should be cost centre. But I was telling him that I am actually a profit centre. So every thing I asked, he will give. Because I told him, this project cost is \$x. After this product, how to produce this product, every month the ingredients cost is \$x, the processing cost is \$y, the disposal of the byproduct is \$z, and now after this project, I reduce it to so much. What is saved, he could see. There was one product that I reduced the ingredients from 100% to 6%. In terms of product quality, it was acceptable quality. I was very proud of that product... I said if I were to do product development, the people go and sell, it's the marketing people who will get the limelight and the *Research and Development* people are no where to be seen. People can't see it because there is no direct translation to money. Now if I were to reformulate for you, you have been spending \$1,000 to buy ingredients, now you only spend \$400, that's \$600 straightaway. If marketing people are having a turnover of \$2,500, how much is the margin you still have to calculate and in the end you may not even get \$600 in the pocket.

I always ask some people you know. I was not smart. I was just average. I work hard. I always try to find answers first if I do not know anything. If I can

have the time and the energy and the people around me they can help me out. I will always make sure that I will leave no stone unturned. Because of that habit I think you accumulate a lot of knowledge along the way and it gives you a lot of confidence and you could see a lot of things... If I have a problem, I always try to solve it. Maybe I try once, two times I fail. But if I have choice I will always come back. Sometime I try to give some suggestions to people and people don't do it. After trying two times three times, people don't move, I will go and do it. I want to show people it can be done. Persistence is my character, that's me. Of course I cannot say that I have not given up anything. But I think majority of the time that is me....

... Oh I forgot to mention. I play piano since I was five. And after coming here (TP) then I realised that playing piano develops your brain. I am always a logical science person. So maybe piano gave me another dimension... I asked this guy ...who... did double degree in Maths and Music... "Do you sometimes suggest some things that people are surprised, how come you say this and they cannot connect" He said yah, "many times" Well its important to have varied experiences in life. I think that is how I feel strongly for any individual...

If I were to crystallise and put in a nutshell the very essence of what I am like as a learner and how I actually learn, I will describe myself as a focused, persistent, wanting to know to the bottom of everything... I should also say that I was also very interested in Chinese language and I read a lot of Chinese books... I was in a Chinese school ... all these factors, because of different perspectives, that you read Chinese books and you read English books, you distill that... And also because of the government perspectives, industry perspectives and educational perspective, all these help me to see things a little bit more complete.

In *the IHL (research site)*, again I felt that no one guided me. But I am a very willing to learn person... in the first two years... my question was, "this student wants to take leave to go for his driving licence, should I give leave or not?" Such a small thing. Because I knew that the value system changed completely from a business perspective to education. So I would ask even very unimportant question. The first 2, 3 years... I try to ask a lot, a lot of questions. I had a lot of questions in my mind. And I couldn't find answers. I guess I always ask myself, "what is a quality course?" So much so that I was very distressed.... because I want to do a quality course. "What is a quality course?" So at that time everybody was supposed to go for this ...quality training... I met the GM (*General Manager*) there and I said I want to ask you a question which is very important to me... "what is a quality course?" ... He couldn't tell me. So I had to draw my own conclusion... that you can only see in the outcome of the whole thing. Because the course is made up of so many subjects, so many components, there are so many aspects of training

students, it is the collective influence. Hopefully you have more positive than negative things that go into the programme in influencing students. So my conclusion is, in every decision that I make for education, I will make the decision more right than wrong... in every decision that we make, there is no absolutely right or absolutely wrong decision. So I would say that more right than wrong. That was my conclusion after three years. I was quite stressed myself because I was searching for answers. And no one could give me answers.

What is more right than wrong depends on the situation. A decision may be right now may be wrong two years later because situation changes. If you can see that it will change in future, then you are right. For example, I can tell you that I will tell my staff, I am sorry I need to take care of you people, your welfare and things like that. But in any situation when I think that it will benefit the students more than it will benefit you, I will benefit the students first... to me that is more right than wrong... in engaging staff, in training staff, in making sure that you put the right person in the right job or right project to do, it is all decision that you have to make every day... The moment I try the person out and he cannot, if I try to help the person and he cannot, I will have to change... sometimes I wait for one two years before I change. Because I do not want to be giving up on people or oh I never give people a chance... I give people more than 3, 5 or 6 chances. But sometimes if the person really really don't want to pull their own socks, I just got to change.

Actually as a Christian, the values and the teaching from the Bible is always the guiding principle. Of course I make mistakes too and I knew that sometimes I make decisions, I knew that I was uncomfortable, I was regretful and sometimes I pull myself back. And I think with maturity in age, a lot of things in terms of people, because in education its people, because of the maturity and understanding of how people think, how people behave. For example, *more than ten years ago* ... I had ... less than ten *staff*... I was trying to understand this Care Person system. And I interviewed students who wanted to come into the ... course... people who could not come into the system through *the normal admission exercise would appeal*... I came across this girl, actually dropped out of another course a year ago, I asked her what problem she had and after talking to the girl, then I realised that this girl had a problem. She was ostracized by people and nobody helped her. So I said, didn't you talk to your *Care Person (CP)*? I don't think the CP even knew who I am. People won't help so what's the use? So I realised that our CP system had some weaknesses. At that time it was one semester and then change CP. Every semester you change CP. How can you ever build relationship? I was Sunday school teacher for a few years ... I know about difficulties of teaching and I think that it won't work... It takes time to develop a relationship and if you want CPs to influence or to help the students whether academically or non academically, you really need to have a certain relationship. So I said,

can we have *the same* CP for three years? I think I was very blessed with a group of people who all saw the same vision as me. And since *then* ... students in *my course* have been having *the same* CP for three years... I was very very glad to know that when *the IHL (research site) decided later* to ... have CPs for three years. I felt good that we did the right thing from the beginning...In the same way for APEL (*Applied Principles of Effective Living*), I feel that ... CPs to teach APEL because it is the only way to influence the students... I ... persisted to have my CPs teach APEL... I actually call all my lecturers up. At that time I think I had more than 20 people ... I said "how many of you want to teach your own class?" And then a few don't want. I had to talk to them separately. And I said "what is the problem?" So I went through all these processes. You see the way I do things is quite detailed, when it comes to people type of thing. Although sometimes staff said I don't have to work on details, you just go for the ballpark and then you walk away, we are supposed to implement. But I feel I do see the details when I need to.

5. Eng

I think the earliest significant learning experience would be ... some time from mid to late primary school... I never really understood what learning was or what going to school was all about. I thought it was very much going there to have some fun ... it was not until late primary that I had a very major scolding from my mother that I started to take learning seriously. I was not really interested in studying, and I will just get by with the minimum. It was five years after my grandfather died. In my mind, my grandfather was the greatest person, somebody I'm most respect. So my mother pulled my grandfather out in the argument, saying that my grandfather will want you to study, and cited examples of how he will always want people to study... "why are you not doing so? You will be breaking his heart."

In Secondary school, what is significant would be ... the first time I took Chinese as first language and history was done in Chinese ... I flunk both. It was the first time I've ever failed ... But then, I still remember my Chinese teacher, who was strict, but still showed a lot of passion in teaching. So even though I failed, it did not rob me of my interest in the subject ... On the other hand, I totally lost interest in history because of the way the teacher treated me... I think the most significant thing that happened in secondary school would be two particular teachers... At the end of secondary three, ... although I managed to clear all my papers, they were all borderline... in *secondary* four, I had one chemistry teacher whom we were all afraid that she would teach us because we have heard of her meanness... after the first quiz ... she called each one of us into her room, one by one... when I went to see her, she said, "do you think you will pass your 'O' levels?" "I am not sure" "do

you want to pass your 'O' levels?" "I hope so" "what you hope so?" ... it was very hard to get along her and she would be losing her temper at us all the time. And all of us were very upset with her... we were afraid of her... It wasn't until the middle of secondary school... that we begin to see *that* ... behind all the meanness was actually a very kind heart... We begin to realise that by giving us all the extra lessons, it was taking a toll on her health. She was not only able to help us learn her subject; she was also able to help us to learn in general. First thing we were able to learn was how to take notes and how to identify the critical learning points in any given subject, contexts or passage... learning to summarise, learning to identify and ways to remember things. So those were very critical learning skills, which ... helped me even till today. Likewise... the English language teacher... showed a lot of passion ... she experimented with lessons beyond the classroom. She goes beyond the usual grammar, to make us try to perhaps love the language. And we will be listening to English songs and listening to conversations, and then she will say, "what can you pick up from there?" She also made us do debate as well, also again, she helped us with critical thinking skills, I've remember very vividly that I was in this debate, and I was like going in almost circular argument, and she stopped the whole thing and he said, "class, do you see that he is digging a grave for himself?" So thinking skills, learning the language is more than just the rules of the language actually in usage, and also in loving it. At the end... when 'O' level results came out, all seven classes got A1 except for one student, who got A2. ...She was quite a significant influence.

I was in a *Junior College* (JC) near my home for one year. I remember going there and a few months into it, I was telling my parents I'm going to quit. Because I saw that the lecturers there did not have passion.... the two Maths teachers ... were the worst teachers there can ever be. One of them would of course, the usual JC style; write on the board and you just copy, that's fine as long as you understand what the person is talking about. This teacher basically wrote every sentence ... from the textbook and after a while, we wonder why we need to copy those down. And another one will come into class and for two or three months, will ask "why are you taking further Mathematics? You do not need four A-levels I suggest that you all quit" and this would go on, every class for about five minutes for two to three months. So that totally put me off... I wanted to quit, but my parents said "don't quit." It was a pretty emotional time. At the end, it was back and forth...until one day, my parents said "okay, if you want to quit, quit. If you want to go abroad like what you said, Go." So I went *overseas to study* at the end of JC 1...

What stood out for me in my *studies overseas* was *that*... I did see a lot of passionate professors. But something perhaps more different, were two cases. One will be the mathematics teacher that I have who was very unique, because he experimented with different ways to run a class... I went to the

class and he said, "in this class you do not get a grade. There is no exam, so there is no grade. There is no homework. No grade, no tests no what ever. I would still give test, but there will be no grade. I will still give homework that you do not have to do them." It was very interesting because for the first time I was studying with no intention of getting a grade. But I study really for learning's sake. I found that I ended up working harder for the subject than for any other subject... I noticed that there was a lot of discussion in class... I found that very liberating... the first thing that came to me was an interest in the subject... The interest grew because I knew it was not going to affect my grade, I am not going to get worse off. It allowed me the freedom first of all to do what I want. So how much time I put in is also totally within my control... I guess there was a sense of excitement because I've never done this before... He will bring in a ball and then he will ask, "I am going to drop this ball onto the floor, can you write out the equation to calculate the speed of this ball. What if now it bounces off, what kind of equation? And now if I were to use some strength in throwing, what then would it be?" So we were on an inquiry mode, asking "what if" and "what if". Then another time he would bring in a can and he punctures holes in the can and he pours water into the can, "what if? I were to release this hole, how far do you think the water will go? Can you write in equation that model that?" He basically made us think about what we take for granted. What we see in nature, of course, instinctively, we know that the water will flow out. But how do you show that mathematically. Can you apply that? We will work together... the entire class. Then after that he will help us to correct it and show us where we went wrong. He probed and showed us how things could be done. Then he probed further... he wants us to apply it to everyday life. Application and inquiry. The inquiry stood out most. I think it changed in the sense that, I guess we began to ask more questions. "What if?" I ask a lot of "what ifs?" I can also see that today, when I learn things, I also asked a lot of "what ifs."...

The second thing... worth mentioning, it ... came as a shock to me that I have to take so many non engineering subjects... as much as ... a quarter or a third of the whole curriculum. Psychology, philosophy, sociology, history, I still didn't like history, but psychology was quite fascinating. I think in all these subjects, I learn something. Perhaps the most significant thing that I learnt is that, after all is said and done, more is said than done. In the sense that after a lot of research, which is very fascinating people actually still do not know how things really work, and that there are many different schools of thought, and nobody agrees with each other. All the schools of thought are important, to help us explain some things, but it definitely cannot help us to explain all things. So, we are supposed to write a lot of papers and in all these papers we have to propose different arguments... and we have to see how some arguments can be very weak, and I'll be pointed out. It was a humbling experience. And in there, I also begin to see different points of view. All along, I had a very singular point of view. And through that experience, I can

see that there are different points of view, depending on where they begin, their thinking or the model that they have. That does not mean that my view is more correct than theirs. So that made my mind, more open to different ideas... *there were also* a lot of opportunities for you to earn extra credits... I began to see a lot of things beyond the textbooks, because all the extra credits were beyond the textbooks...

...

My first job ... for only three months... was a family owned business. Everybody, the highest education that they had was only secondary one or two. But they all drive Mercedes. Doing quite well... they never had a degree holder ... wanted to expand *their* company. So *they* are taking two *graduates*. He had the ambition that he didn't know how to deploy us. So I sat in the office with really nothing to do. ... I learnt the most from one of the site manager...*he* said, "you are sitting here doing nothing. Why don't you just come along with me?" So I will go along with him and he will explain things to me... he had a lot of experience. And I learnt quite a lot from him, learning from his experience, and his knowledge... it opened my eyes to different things, something as simple as, do you know why the road in most places, you see is black colour, and this side you have this grey colour, the concrete. Do you know why they make concrete there and not there? He explained all these to me. He also explained to me about working life as well, because it was my first job. I do not know how to relate to people. Interestingly, he was the one who drove me to my interview for my next job. He was a mentor.

My second job ... was an interesting place in that the first two weeks was fine, and after that I began to wonder if I was in the right place. The boss that I had was a very harsh man... a lot of scolding and reprimanding. But I stuck to there because I knew I was learning something. I put up with it for 3 1/2 years... there was another guy that came in for a short while. He was sort of like a mentor. This guy gave me a challenge beyond that. He said, "it is not enough to come up with the right answers. You must have a feel. When you say one ton, do you have a feel of how much is one ton? When you say 250 feet, do you know how long is 250 feet? Do you have a gut feel when you look at all your answers, all your working looks correct? But looking at the answer, do you have a feel that this is the correct answer?" So that opened my eyes to different things and that this world is not about formulas. That intuition or gut feel, and then matching it to what you work out on paper and if it doesn't match then what went wrong? ...

Then I came to *the IHL (research site)*... Again in the first few months, I thought I came to the wrong place. And I remember telling my *supervisor* then, I think I am in the wrong place... a lot of these things, I don't know... they give you a timetable and they gave me *a subject to teach*, and I wonder

what this is... a few weeks into the lesson, I felt so small, so small, so small, because the students will ask me, and I don't know... I told *my supervisor*... to put me out of this subject otherwise, I'm not doing the students a service. So I focused on those things that I was better at. And then he gave me room to grow. So slowly again, I began to pick up all the new technology and practices. Then, the truth be spoken, I came to *the IHL (research site)* with an ulterior motive... to re-learn a lot of things that I have forgotten... then go away for my Masters. Sort of like a stepping stone. But I was very inspired by *the previous Principal and my Deputy Director then*... both of them opened my eyes again, and I see a bigger picture now, bigger in the sense that now it is not just about me, what I can do, we're talking about collaboration, different models of collaboration for win-win or mutual success. It's also about the strategy, where you position yourself, what skills you need to pick up so that you can collaborate with other people who are setting the pace. I guess we wanted to be number one and we will get there. So that really inspired me. And I changed my mind. This is the place I want to be in. I got the lot of mentoring from *my Deputy Director then*. I spent a lot of time with him. A lot of lunch times. He went to different Diplomas, and then he later told me, he went around to scout out people. I guess I felt honoured that he should pick me. After that he spent time and showed me what was possible. He showed me what other people are doing, not just in *the IHL (research site)* but beyond. He really put that fighting spirit. He himself is a workaholic. Later on I also learned something from him. Although he was a workaholic, his family still came first. He was always able to put time aside, for his family. Then the opportunity came for me to go *overseas for my Masters on a scholarship*....

*My Masters was in a different discipline which is very fascinating. Again it opened my eyes to many many different considerations...it has a more holistic point of view. ...after talking to you I realised how my learning experiences opened my eyes...I never realised that there is so much to this you know. Why some things are done in a certain way...I learnt to understand what people want. I think the psychology of people... At graduate level, there were a lot of opportunities to interact with other graduate students and I guess its quite fascinating what other people are looking at. I found out that that this other guy was modeling the human brain in the psychology department, basically they want to create a model so that they could predict how human behave under different circumstances... Robotic are quite common. Nanotechnology, at that time was quite new... its very exciting there because new frontiers are always being discovered, things that I never knew possible became possible there or things that I never dreamed people will ever do, they are doing there. So the learning environment...when I came back, *my previous Deputy Director had left and my previous Principal announced his leaving. And my heart was broken.**

When I started *to take management responsibility for a course*, the same thing happened as all my experiences. When I take on a new job it was always a loss in the beginning. In this case the lostness was, now I have no body to consult with, I have to decide myself. My *supervisor* gave me a lot of freedom. She is not someone who would check on us. In a way that's good but in a way, for a beginner, goodness, what am I going to do next? The lostness also came from, all of a sudden there were a lot of demands from different people, ... the most challenging part was how to handle staff, especially *management staff previously appointed who...* happen to be all older than me and more years of experience than me... quite challenging how to ... show them respect at the same time without letting them lead me.... It was very difficult in the first year... getting the rest of the people, to know them, changing the culture as well... at that point in time, certain things happened and staff morale was at an all time low. My quest at that time was how to get *my management staff* to move with me and how to motivate the people and galvanise them so that we moved together in one direction. I think it took me up to only today that things are moving together in one direction...

Reflecting on this interview, I would think that I have learnt something....it is a rare opportunity for me to reflect on how I learn and therefore how I will be learning and I guess I understand myself a little bit better, I guess I understand my practices a little bit better. Sometimes I just do it maybe without too much of thinking, more instinctive, maybe stamping from my own values and just act upon it. This is an opportunity for me to think through. I see why I am doing things this way and therefore whether there might be better way to do it. Maybe there is a better way to do it eg., in terms of staff, if they understand my values more, maybe they can see where I am coming from.

6. Fook

My first deep impression of the importance of education was ... in Primary One. I was enrolled ... in a Chinese school... I was naughty at that time... I was kicked out of the school. There was a frantic search at the time by my ... grandmother, my parents to get me enrolled in another school. So I happened to get enrolled in an English speaking school... because I was kicked out of school, I joined them in the middle of the year. So it was quite a difficult experience... when small, we don't realise it, is that my parents put a lot of emphasis on education.

... the learning for me, the encouragement comes from doing well. I seemed to be able to do mathematics quite well. So you get good results, you get encouraged. The school also encouraged competition and you are able to solve riddles, puzzles and things like that and you get prizes. So that was the

initial motivation for learning. You find that you do a subject and if you do well, you get recognised for it. You get prizes. You feel good about it and therefore you continue to do it. I was especially proud in primary six, after PSLE, the teacher gave a lot of puzzles to occupy time as there was nothing very much to do after PSLE, and they gave prizes. I was quite proud to solve one of the more complicated puzzles which I have not come across before and was able to think out of the box and managed that particular puzzle. I was given quite a good prize. That helped me put a lot of effort into the learning of mathematics. That passion continued into secondary school.

I think one of my weak areas is in languages. I've never done English well. Similarly with the Arts subjects like literature, geography and history. You have to do it. But I don't do it that well... geography seems to be better because there is a physical part to it... I tend towards more science and numbers. That probably helped me to decide that I should be doing sums.

In primary school, I do well in mathematics and I get recognised for it. So you tend to put more effort in it and in secondary school, it's the same thing... mathematics is such that the more you practice, the better you get. People say it is difficult to do ten year series. But I can finish ten year series and go beyond that... It's more like you prove to yourself that you can do it... if I can do it faster and quicker than other people, it makes you feel good. And that has been to me, when I reach upper secondary and pre-University, the motivating factor that you can do well. In fact, at that time, I enjoyed doing examinations. Because every time I do an examination, I can do well. So it gives you that motivation to prepare for it... I prepare for examinations by doing summaries of everything I learnt. When I came to the actual examination, I do very little revision. I just read the summary sheets. As long as I understand the summary sheets, the idea is that I normally go by first principles. Once I understand the summary sheets, I will go and sleep because during exams I normally sleep a lot more. I realise that you need to rest well, have a clear mind, and then you go for your exam. I don't prepare last minute. I summarise what I have to learn on a regular basis.

... in Secondary three ... I realise that teacher plays a very very important part in your learning... we had an excellent literature teacher... we were inspired to really read ... analyse it and answer well in terms of the literature questions... I went on to secondary four and I continued with that method to understand the book well and enjoy it. I was surprised that ... I got an A1 for literature... because I have never been good in this area. But because of the teacher, because she generated interest, because she spent time with the subject, you can do well. I think that also tells me that basically, sometimes when you say that this is an arts person and a science person, it is not really true. It's just that you have not been motivated or stimulated in that area sufficiently to get interested. And once you get interested, it doesn't really

matter what area you go in if you do the right way of learning. As long as you're interested enough, you will find ways of learning.

In *Pre-University*, I was quite I would say studious type. Because I tend to get good results, I continued to put in a lot of effort in preparing for exams... My only regret in Pre-U was that I could have done better, get more 'As' rather than 'Bs'... Because I know that if you prepare well enough, you can do it. At that time I spent a lot of time in the Chinese Society. I was also ... in the harmonica group. I was also interested in photography. There were quite a lot of extra curricular activities. And I was also a prefect and so there were a lot of other things that I had to do. And so in Pre-U I was quite occupied. At that time we were also preparing for National Service. For preparation, we went running and so it was quite purposeful in a sense. It was a good two years for me because it was very directed and purposeful. A lot of things to do and we could achieve. Results were good.

My parents never had to worry how I do. I am the eldest in the family. In fact the family quite difficult, but I had the support of my grandmother. She said that as long as you can study, don't worry about other things. So I was quite fortunate in that I don't have to worry about other things, not even whether the family can afford to send me to University or not... My mom never worked and so it was only my dad was working. My grandmother's business wasn't doing well. So there were a lot of issues at home. But I was fortunate that I was screened from all these things. In fact we were quite bad at that time; we had to move from the pre-war ... flats to ... rent a small place. We have eight brothers and sisters. All of us just stayed in one room. So times were not that good. But I didn't have to worry. Maybe I didn't worry. Don't know why. But I must say that I was fortunate that there was National Service. National Service allowed me to ... save enough money to pay for my ... University education. I sometimes say I am very fortunate because where I stayed; a lot of my neighbors actually gave up school very early. Some of them fight. In fact I heard of murder cases. After a fight, you can't control yourself and somebody may just die. So those things do happen along that kind of street. So during the early days, it was quite a notorious area. So I was quite fortunate. I seem to be screened from all this. Maybe I have a world of my own. That may have helped me a bit. Somehow maybe that's my style. When I do things in full concentration, the rest of the world can be shut off. So I don't have to worry about a noisy environment because no matter how noisy the environment is, it doesn't matter. I can hear and I don't listen. I am able to focus quite well. So that helps. During my school days I was quite focused on my study because I know that if I study, I can do well. And then you feel good about it. My parents never had to tell me that I have to do my homework. As far as I can remember, I will always do my homework. I was very proud that I could complete everything and pass up on time. It seems to make you feel good that you were able to do it.

... When I was in Pre-U, I attended a seminar by inventors... showing things that were invented by men to help men live more comfortably. I was quite interested. I would say that it will be great if I can build something for people that would simplify their life, to automate it, to make things easy for you and to make the environment more controllable. So I applied for a *course which allowed me to do this in University*.

University was quite a different experience. All the top students at that time *went into my course*. So you suddenly realise that there are a lot of smart people... who are more focused and studious than me... university was a mix of experience. There were a lot of friends; lots of things to do ... the subjects were the subjects that I liked. So I really enjoyed my University. And also because we joined the University after National Service, we were a lot more mature. We were able to do a lot of things, very independent... life was quite fun. Of course there's a lot of hard work and study. But we also do a variety of other things ... University experience was more an experience of independence. You really do things that you really wanted to...

In the earlier days in school, learning was more reading and then reproducing it. And then because I was more interested in science and mathematics, the understanding comes in to help you. It's not like just reproducing. It's like doing a problem, and then giving an alternate problem, with the same procedure, you can solve it. So it's doing, understanding how things are done, and then re-doing it, that kind of reproduction kind of work. It is also quite true in Pre-U already. In the school system, it is learning something that is known, understanding why it is so and reproducing it in that sense.

In the University it is very different ... in the first year, every ... student ... take part in a competition... to design a packaging system, fill up with a certain volume of sand and drop down 1.2 m and make sure that the packaging stays and not burst open. You suggest what materials to use. So it's extremely challenging. While there are parameters, the scope is really wide. So the challenge is to find out things that you don't know... While there are some subjects that you'll learn what is established ... more of *it concerns* discovery ... because a lot of time... there are a lot of ways of reaching the same results... So the learning is also very different. The learning is by experimentation. It doesn't work, you try again. It doesn't work, you try again... there is a lot of trial and error... lots of experimentation... you don't just do what is already known. You try and discover them in a sense. You are supposed to solve problems. While it may be the same methodology, there's always another question to say, is there another way of doing it? ... Can it be improved? ... Is this solution the optimum solution? ... the critical thing I learned ... is that for most processes and procedures and systems, there's usually an optimum level. If you do too little, it is not efficient. If you do too

much, you are not getting more for what you put in... there is a mathematical way of deriving that optimum... the challenge is, can you model it? If you can model it mathematically, then you can find the optimum. I think the discovery of that fact is quite a break through in the way I think and do things later on in life, realising that there is really an optimum way of doing things, except that we may not be capable to model it. *The discipline* also teaches you that when you model something, you don't have to model it with 100% knowledge. Because in this world, especially in science, you can never be 100% correct. But what you can know is that based on your assumption, if you stimulate it this way, you get this kind of response and that would be good enough for this particular situation. Now whether it is actually like this may not be true, but may not be critical because, this particular phenomenon that we can observe, see and measure, will be able to help you solve other problems... we then learn how to very actively look into solutions, knowing that you will never fully understand the system, but never mind. If you can see observable trends, you can see the relationship between input and output and you can model that. Then that particular modeling can be used for you to extrapolate, for you to solve other problems which rely on the same principle. So that actually makes *the discipline* really exciting because there is no limit to what we can do.

... *after* one week of classes... I realised that I am not so fascinated by the physical of *my chosen discipline*, you know, the structures. I am more fascinated with ... things ... you cannot see, things that you have to imagine... I decided to shift ...*to another field of my discipline*... when I went there, there were a lot of other things like computers that attracts me a lot. We were trained to design computers. All those things were really exciting because I enjoy learning through experimentation... because of that kind of learning my mindset is also very different...*people in my discipline* tend to be more experimental... because of the development of the discipline at that time. There are so many new things. And because of so many new things, a lot of things are not understood. So there's a lot of trial and error... So what I can see is that that shaped the way I think, and the way I learned later on. I am more the experimental type. I am more the type that don't mind if the thing doesn't work... we will have to learn how to drop it and just move on. The other aspect is the amount of knowledge and the refreshing of knowledge... You know the concept; you have the basic understanding... You may not know the intricacies... But you know how the basic principles that make it work. And that sometimes will be sufficient because you have to move on to go to the next level. So I think that has shaped how later on in life how I do things. I think the discipline also shaped my learning style.

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After university... I started work before my results came out. That time was also a good experience for me. Everything is so new. We learnt new

technology and they were willing to train... *I was...* responsible for a particular electronic product that is being manufactured... to test it and ship it to customer. If the customer has a problem, it comes back to you and you have to understand what the problem is... In the University, in the lab, you learn how to use the instruments but you don't measure to that kind of precision and that kind of accuracy. But at the workplace, you have no choice. So there was a lot of re-learning and the equipment was a lot more sophisticated. Actually the learning was more or less learning on the job because you never know what the problem will come. When the problem comes, then you will have to learn how to solve the problem. Then you have to go back and re-read and you got to consult people. A lot of time there is no literature available so you have to consult people. Then you dig back your old notes and realise that they become very important because the fundamentals are all taught in the University... The only regret I had was that after year one... you become supervisors and you have less time to do the investigative part of the problem. You now consolidate problems... After one year, my expatriate boss had to go back. So I was covering his duty for a while. The manager's duty is a lot of meetings. A lot of concern of the volume, the stock and all those things. At that time I was more excited with the technology and the chip itself. I find that I am not very keen in that kind of role. I always wanted to teach so I applied to *an IHL* to teach...

I joined an *IHL* when they were expanding... I had fun teaching. At first when I was lecturer it was really good because I have all this experience in ... industry to teach the new students... teaching was good. I taught for many years until I left *the IHL*. Even when I was *in a management role* at that time, I was still teaching... I enjoy teaching more than anything else. I also introduced a lot of new things in teaching... I revamped quite a bit of the way of learning ... I started the programming labs. Instead of doing normal lecture, I do the teaching in the lab itself. That was a new concept at that time. I do projects for subjects. At that time there was only one project for every course, the final project. But I create the subject into projects because I felt that *in the discipline*, you do project it is more effective and more interesting. That is exactly what the industry do. They do by projects. At the end you don't just learn. You also see some physical results. So I was happy that I was able to revamp quite a bit of this.

I moved more into the management area because I was selected. At that time *the IHL* went into some strategic planning ... got a consultant in and got into organisational learning ... and decided...to adopt a new concept of ensuring that every teaching staff understand more about themselves so we do transactional analysis and team building. So I trained quite a lot of staff in that area and that is another form of learning because you understand about yourself, the child, the parent and the logical part of yourself and how you interact with another person. You look at personalities. You look at team

work... leverage on the strength of the different people in the team ... interact with a lot of lecturers from other departments. That also made me realise that there are a lot of talents in an institution like this. Not necessarily just academic talent but also other talents... It was really a great experience. I was a facilitator for two or three years. I had a lot of teaching and other responsibilities. I think another aspect of my learning also came because *the IHL* was then expanding very rapidly ...*I was given the task* to help coordinate the expansion plans. Especially in the laboratory planning aspect. I was fortunate to plan out all the laboratory and expansion ... I also do ... the budget...monitoring the expenses ... That helped me to get a very good picture of the running of a department in the *IHL*. So that was a great opportunity for me. Because I use a lot of spreadsheet to collate all this, that prompted me to introduce practical software application as a subject to the students... later on I was made in charge of all lab technicians. I re-organised them into different groups and I also re-organise the component purchase process and all the other processes. I had the opportunity to put in place a lot of processes to help lecturers in supporting the final year project in supporting their lab requirements. Eventually I also put in an in-house printed circuit board line so that we can actually produce our own printer circuit itself. Once we bring that in, we also created a teaching programme from that. So I created a lot of new subjects based on what I do and then I converted it into some form of learning into new subjects...

I joined *the IHL (research site)*... My conceptions of education leadership started in *the first IHL* when I *took on a management role*... I realise that when you move beyond the teaching of the students, you move into the so-called educational leadership, you are really about developing people rather than leading in that sense. Because I realise in academic that everyone is an expert in their own right, so when you say leadership, it sounds quite odd in a sense because you are not really the expert there. So my work has always been ... to see how I can provide the support for growth of the various lecturers and staff, even the non-teaching staff, for them to grow. Opportunity for them to experiment and discover for themselves. Only when they are able to discover for themselves and stretch themselves then will they be able to translate them into things that will be able to help the students to learn and grow. So when I took over *management* of two courses, the main thing that I wanted to build up was this environment where the staff themselves can play a major part in the development of the course as well as their own personal growth... I also told the non-teaching staff ... you may be a support staff but you should also develop that teaching element because ... you need to understand the students in order to support them well... Similarly also for lecturers having to do other things other than teaching. This cross area is quite good. So when you ask me about my perception of educational leadership, it is not so much leadership, it should be more like supporting the

development of your staff so that they can achieve their best. So it will be in terms of the environment... resource... facilities that you can provide.

We want to create an environment when we don't segregate people but we create teams. So I think that was my perception of the leadership aspect of it... The other part that I observe is that I believe that chemistry is very important. Sometimes 2 good people cannot work together so don't force them to do that... I created the opportunity that we actually can have different thing. We can use your capability but you do not have to work together. Because some people cannot work together, I don't understand why. But I tend to realise that the chemistry and personality is much deeper than on the surface so as part of the environment I allow people to move to do other things.

Also the integration to me is quite crucial. I always make sure that ...staff *teaching generic subjects* for example is never left out... My challenge to them is... how you make yourself important to the rest of the course members ... you like it or not, you have to work together. I worked *the integration into curriculum...* the integration of the staff within the school is quite critical regardless of your discipline... One of my main emphasis during that time was how to integrate the people and how to make them work together to create the team spirit together. And then we will use that as a basis to launch new areas, new subjects.

As for learning from experience, if I take the case of building something, it is quite straightforward. In that you build something, you're supposed to work certain ways. So you look up literature on it and you try and do it. Now it doesn't work. Then you try and trouble shoot. You find out why it doesn't work. Did you do it wrongly? Let's say you did not do it wrongly, then something must be wrong. Then you go back and check. Have I made a wrong assumption or what? So you go back to the design, is there a need for change? To me it's translated in the so-called experiment, it's translated to your method of checking, in a lot of engineering, we train students to do troubleshooting. And I think it's important because you go back from step one, step two, step three, step four. There is a certain way of tracing a problem. That can be quite useful. That will be a way of translating experience into something that you can learn because once you know that ok this problem is because of this, this becomes experience already. The next time you see a similar problem you know that it's likely to be that. But it could be different. Then that will be a new experience for you. So you then have to build up from there. But in the case of eg., troubleshooting a computer, most of the time you turn on and nothing happens, you check the power supply. It's very simple. Then you check the connection. There are certain things that you have to check. So these are the procedures that, whether you fit procedures

or not actually have to come from experience. Eg., if you do this, you should produce this result. If it doesn't then you can skip.

The way learning from experience applies to an educational leader is quite different. And it will be my concept and not other people's concept. My concept is that I don't really lead, I support. So my concept is to allow people to do. I help. I say you cannot run away from letting them try it. So their learning will be that experiment. Of course I will be learning also. If that method works, fine. If that method doesn't work, then I have to go back and say why it doesn't work. Is it because of the person or maybe the person is not ready for this kind of responsibility or not. Then I will learn. OK maybe I need to be more careful. Maybe I need to check if this person can do this this way. Or maybe this person's preference is that, maybe it's the partner or team that I put together. In fact I would rather that the person selects the team. I always felt that that is a good way. But sometimes it cannot happen. Maybe you already have a pre-designed team. Otherwise I would rather that if I put somebody to be responsible for a project; you gather your team, because that is also a crucial success factor to me. Because it is important for a person to have his own friends and buddy to work, sometimes putting people together just drain away energy.

Looking back at my whole stint in education I would say that I am fortunate. I was given opportunity to do things. I think that helps a lot. If I were not given opportunity to do things, I will not be doing it. Therefore I still will be lecturing. But because I was given the opportunity to be in charge of a laboratory, in charge of people, training people, I develop that passion for it... So the way I do things is that I allow people to do things. Because I will never know until they do it. Because they will have to discover for themselves. The more opportunity I give to people, I believe the faster and the wider and deeper they can go. It's nothing like opportunity and experience. If you don't give people the opportunity to do the things then they will never grow out of it. They will continue to do whatever they have been doing. So my leadership is more support-ship is to allow people to do. To create opportunity and allow them to do the work.

7. Goh

I think for me, being the eldest in the family, allow me that kind of opportunity to lead... my parents ... are Chinese speaking ... they rely on me for anything to do with, anything that requires them to understand the English language... from young... I grew up with the understanding that I am to lead the family in different areas. And also, the other thing is that I've got a brother, who is ... intellectually handicapped. He is younger than me, I'm the eldest, again, I am expected to help him... And also because ... I can speak English, so I'm

expected to lead the way, to bring my parents to various agencies to get help. ... when my brother started to work, he had a lot of problems with his supervisors, because they couldn't understand the needs of an intellectually handicapped. He doesn't really look handicapped, you know. So because of that, a lot of times he could not understand instructions. His supervisors sometimes thought that it was deliberate, on his part. There were a lot of misunderstandings... because of his speech impairment, there was also problems understanding what he was trying to say. Again, I find that on many occasions, I was expected by my parents to fight for him... It wasn't too long ago. I thought my brother was bullied at work. His supervisors and managers kept telling him that they will sack him, even for very minor problems, and my brother would come back, very upset. He kept worrying whether they were threatening him or he really had to leave. I felt that it was really unfair to him... it was very bad for his self-esteem. And he really walked around with his head bent. I was very upset. I tried negotiating with his managers and all that. My siblings didn't do that... I am expected to lead most of the time. So I grew up in that kind of environment. I spoke to some welfare organisations that helped the handicapped. They advised me to speak to the *Human Resource* department of the company that my brother was working in. So I spoke to one of the managers in the department, but she couldn't do very much. So I was very upset once I actually send an e-mail to the Minister. I just explained to him, the situation of my brother, not asking for help. I just wanted him to know that people like my brother needed help. And I wish that the government could do more to help the handicapped. I grew up in that kind of environment that expected a lot out of me to support my siblings.

... that year that I was in primary school ... my parents could not get me into the primary school that was very near my place. I was sent to a school that was quite a distance from my house. As a result, I had to take a bus to school. My parents hired a school bus that will bring me to school. I grew up very differently from my siblings again... I was the only one ... sent to a school further from my house whereas my other siblings, were sent to a school just next to my house. So my mother took care of them during their six years there. During recess time she would bring food to them. So they will very dependent on my mum... because I was very far away my mother could not do that for me. Also she spent most of her time taking care of my handicapped brother. So I was left very much on my own. So I became much more independent... I was in ... a Malay girls' school. But I was the first batch of Chinese there. So, again I grew up with a very different group of people. I grew up with Malay girls... When I was Primary Three, I was made the Head Prefect... the older girls... were quite upset with this. I remember that during recess time, I was supposed to stand at the staircase to ensure that every body queue up and go back to the classroom in a disciplined manner. There was this girl, I don't know who she was, she threw a sweet at me. It was very hard. It hit me on my head. I was very upset... from that experience, I knew

that it was very difficult for someone very young to lead. That was one learning point for me. I had to win them over. I learnt that you've got to win people over. I guess I learnt it the hard way, despite the fact that I was the Head Prefect in Primary Three... because I was younger than them... I had a lot of problems trying to get the other prefects, to do what I want them to do.

... in secondary school, my principal at that time, she gave us a lot of independence, and she gave us a lot of opportunities to lead in the school. You know, we have the assembly sessions in school, my principal would allow every class, one assembly slot. So you were supposed to take charge of the entire assembly. You can do whatever you want. So you can actually get, a speaker to address the entire school population, or if you are more ambitious, you can actually get a concert going. She will allow you to do anything, as long as you take care of the particular slot given to you, you make sure that something happens.... Again I was asked to take charge of that... for four years from sec one to sec four, every year we had one opportunity... I found myself leading most of these sessions. I can't remember whether I was assigned, or I volunteered. I found that those were very good opportunities for me to organise. I think they helped me to be a better organiser.

I was more passive in college.... everybody studied very hard. So I was also pressured to study. But maybe I was very active in church, not in school then. I started to attend church in secondary school. I can't remember whether it was sec one or sec two. Most of my church friends came from the same school as me... we know one another, very well. Most of us belong to the same age group. So we interacted very well. A lot of things going on. So as the Church population grew, they took in a lot of people, there were a lot of younger people who came. Again there were a lot of opportunities for us to lead, to organise sessions for these younger people. So in JC (*Junior College*), I think I was more active in church activities. Not so much in college life.

In the University, I think I was also more involved in church. I wasn't that involved the University. I was under a lot of pressure to study because I was on a ... scholarship. So there was a lot of expectation to do well, and things like that. So my focus then was a lot on academic matters. After that I went to *Institute of Education* (IE), and then I became a teacher. I was bonded for five years... Then I was given a lot of opportunities to lead. Spearhead quite a number of clubs. After that I quit.

I ...*became* a journalist. Not very long, I love my job a lot because it gave me a challenge. I was also exposed to many many types of people. It just showed me that the world is very big. One day, you can interview a pauper, and then the next day, it can be a millionaire. And you realise that there are lots of

people with lots of needs in the world, just in Singapore, alone and not only in the world. I guess I became more exposed to different types of people. And the structure was very different. The pace was very fast. I had a very unreasonable boss... it could be the pressure of the job, it was very surprising to me to find Panadol, Brands Essence of chicken in the drawer of most journalists. The journalists themselves, they are a very colourful bunch. They taught me a lot of things, how to get news, how to get people to talk to you, that kind of stuff. Then after that, I decided to go back to teaching. I guess after that experience, I realised that I prefer the teaching environment. I joined *the IHL (research site)*... I was given a lot of opportunities in various departments through the various committees that I sat in *and in the new department I moved to*... There were a lot of opportunities to lead and to learn...

...

In University I took English-language, English literature. When I was in secondary school, I was a science student. When I went to JC, I took up arts. I realised that I was better with literature. I just couldn't stand blood, I cannot do biology. And I'm not mathematically inclined, so I think that helped. Literature did help me see human nature in a very different way, very different from biology. It helped you to examine human nature, the spiritual side, something that I was really very interested in. I think philosophy kind of complimented that... It was for more practical reasons. I was on a scholarship then, to do English language, because they wanted us to be able to teach... that kind of lecturers I was exposed to helped develop my ability to think. Most of my lecturers were Caucasians. They brought with them a very different aspect of life. They were much less conservative, more liberal. Their ideas, I think at that age when you were growing up, it was very appealing. They also made us question a lot. That kind of shaped the way I am. Most of them taught us to challenge existing norms. In literature, we were made to question a lot. There was a paper called Practical Criticism. I felt that that really trained the mind. It helped you to see things from various perspectives. It helps you to learn that in life there are many other perspectives, not just one single perspective in life. You must examine life from various perspectives. I think that's all. At that point in time, I felt that Caucasian lecturers, made better teachers because they brought with them a very different way of life, very different way of thinking. Maybe because they were much less conservative. And we always associate local teachers with people who were more conservative...

I don't think there was one single event that changed me. It was built up over the years with various opportunities given along the way, and the different kinds of people I meet. Books don't influence me that much. I feel that people influenced me more. I enjoy working with people who are different in that sense. People who, not necessarily creative, different in that they think

differently. I like to listen to their views, I like to see them at work talking about, I like intellectual stimulation. So most of my friends are very different from me. I actually seek out friends who are very different from me. And they become my very good friends... When I interact with them, it makes me examine my own attitudes, my own perspectives. It allows me to understand that, a similar situation can be read in so many ways. And it surprises me all the time. Even a very simple thing, can be seen in so many different perspectives. It may not be as simple as what you make it out to be. It can be something quite complex.

I first realised that I gravitated to people who are different when I was in college, when I was exposed to a group of lecturers who were really quite different. And also the kind of friends that I was exposed to. In the science stream, maybe we were also very young then; maybe our perspectives of the world are not shaped yet. But when you go to JC, you become a bit more rebellious, you tend to question a little bit more, and also because I was also in the arts stream then. People in the arts stream are generally more vocal. It was a change for me to see that there are people who can tolerate differences much more than in school.

I first joined *the IHL (research site)* twelve years ago after being a journalist for one year. Of course, my tendency was to compare it with the school that I was teaching in. I was teaching, the general paper in a junior college for five years. We were in Grange Road at that point in time. I felt that the environment was much more conducive than the school environment at that point in time... When it comes to students, the junior college students are definitely very different. We are preparing them for university, academically they are better. But maybe not as street-smart. My initial exposure to students *in the IHL (research site)*, I felt that I didn't like them ... They need a lot of help with even a very small thing. I felt that they couldn't think as well as my JC students. I guess with time, I also realised that, they are different. They also have their own strengths. The JC students are definitely not that street smart. They don't know a lot of things about life. They only know how to study. Most of them generally come from better family backgrounds.

When I *first joined the IHL (research site)*... I was made *supervisor*. At that point, I didn't quite like that experience, initially at least because I was working alongside another *supervisor*, who was quite domineering. Maybe because I am also quite domineering. I didn't like the fact that I had to, I also don't like to create disharmony. So I had a little tussle within myself. On one hand, I don't like to be dominated. On the other hand, I don't like to create disharmony. It was a battle for me initially. I felt that when I am given a section to lead, I would like to do a good job. I would like to lead. I wouldn't like another *supervisor* to speak for my group. I had a bit of a tussle there. But I think eventually, I learned to cope with that. I also realise that this person is a very

nice person. And when I learned to see things from her perspective, when we became good friends, she was also more willing to allow me to have more say in how I run the section... we were given a lot of leadership training. That helped a lot. One of the more significant training was one on personality types. We did quite a few... All three kind of confirmed certain personality traits in me. It also helped me to understand other personalities... you realise that there are all these kinds of people. We were taught to relate to people with different type of personality traits. That helps a lot.

I think the learning experience with *my new department* is quite different because the setup ... is very small... somehow it is quite isolated from the rest of the world... at that point in time, we reported directly to *the Principal*... I also realised that *there was* a lot of power in that sense. We could ask for a lot of things...*The previous Principal* also gave us that liberty to make decisions... He empowered us a lot... I felt that we could get things going faster. And I like the pace there... when we became *part of another department*... we were included in management meetings... A lot of information was disseminated to *us*... some of this information helps me to grow as a person...*previously* maybe I wasn't aware of the constraints. Sometimes I was a little upset about certain procedures or certain things that we couldn't get going. Now ... we were told of those constraints. We were given first-hand information of a lot of things. This helps us to make better decisions.

I think for me, if I see myself in a similar situation, I learn better. So I will visualise myself in a particular situation and question how I will handle myself in that particular situation. How a particular training course will advise me to handle the situation? Whether it will be useful for me? If it is useful, then I guess it will create some impression on me, for me to remember, and that's how I learn... I learn from examples...*if*... I saw another person handling a *situation* in the way that ... may be very successful... I remember it. Or it could be a negative example... I will tell myself, okay, if I encounter similar situations, I will not repeat the same mistake, or I will try to avoid that kind of decision or mistake.

I think I have definitely learnt over the years. I think as you grow older, you gain more experience. Maybe initially, I learn more from stories. I read a lot. I get exposed to more people, different ways of doing things, how different people do things, I get intrigued by new ways of doing things, so I begin to learn from real examples. And as I get more exposure to different situations in life, then I guess I learn from the different situations. And also because as I grow older, I prefer now to learn from experiences and examples rather than from reading. I prefer to see something happening. I learn from shows, things that happen in shows. I think that I relate better. To me, it's easier... I'm more of a visual person... I learn better *when things*... are relevant for me to learn.

If that is not relevant to me, maybe I don't learn as much.

8. Han

I can't go to my primary schooldays or even pre-U days because I can't really recall what happened during those years. I think I'll start at the first job. That may be a bit more clear. Actually the first few years were learning through doing. It was actually the blind leading the blind. Because at that time there was no computer science course... I was a fresh Maths graduate. The first job I had in a government agency required a lot of algorithmic knowledge. So I had to read the computer science itself. My first experience with computer was really a minicomputer... That's why we had to read a lot of books, to optimise the use of memory. Maths didn't help except to help me think more systematically and logically... I got tired of ciphering and deciphering kind of work and got posted to *another* division. They were more into business computing. Then I got into HP environment, mini computers as well, first hand on database management systems. I went more for training courses. During those times, methodologies in developing information systems became more important perhaps when we began to learn about database design and things like that. So I didn't really go through a degree program. I went to training courses. But as I said, it was the blind leading the blind at that time. So the learning was really on the job, and with people. And I also picked up business domain. The business domain had to be learnt.

Then I ... join a private firm because I wanted to go and see what industry was like. I stayed for about a year... I was from the vendor's side... we were also involved in helping to set up *client's* computer centre and also the development of software. One thing I learnt about industry, which clashed with my values, is that even if the product is not good, you must say that it's good. That's why I said forget it, after one year. I went back to my previous employer. And that was the boom time when they were coming up with their project management standards. So we had a fun time, developing these. That's when I found out that I liked teaching so much. I had to train. That's when I found out that I really liked teaching. I...*joined an IHL*... So the learning, as far as I was concerned was in the picking up and doing it...

I left to *an IHL* when they were starting the diploma in computer studies... They had an expat head and a number of expats came to set up the department to run the program. I had a few months... of teaching. I really enjoyed that because at that time we were taking in 'A' level students, those that didn't make it to the *University*. They were pretty mature... I was ... lecturer for seven to eight months before they sent us for postgraduate studies *overseas*... *it* made a difference, a vast difference to how I see

things... prior to *that*, was very structured systematic, very objective, yes or no and nothing in between. *Overseas postgraduate studies* opened an avenue, which I never regretted. You recognise the grey areas... I developed more critical thinking skills. As a postgrad student, you were really on your own. I remember one of the exercises that they gave us, I nearly fainted... One particular professor I think struck most of us with his idea of semiotics which is the study of "signs... It gave me a very different perspective about how information is used. That made the real difference to the way I see things. There was another subject called Ethics. I guessed at that time, it gave a different perspective. Ethics dealt with the design of the work, the workplace, the workflow, how you design jobs to fit around computerisation, the other way around... It gave a different perspective of how you look at systems. At that time people were not quite aware of those sorts of issues. So these were the two things that I think influenced how I see things today. The rest were all standard.

I think the other aspect was the three-month stint *also overseas*, where I got my pedagogic training...the three months were good, because I had to immerse myself with a whole bunch of "ang mo" (*colloquialism for Caucasian*). We were training together. One thing I like ... was that they debate a lot... It was fun. I also had to do practicum. I had to teach a bunch of "ang mos." And you had to face people who really ask questions. Asian students tend to be a bit more quiet. We really have to answer questions, and it was enjoyable. They'd ask questions and challenge things. That also taught me that when you teach things like algorithms, you cannot teach on the whiteboard... It was nice to have quite participative people. It was also quite nice to have trainee teachers. Also, the facilitators give me feedback after the practicum. They told me where I drifted off. It was very good. So the three-months ... was very enjoyable.... Then I came back.

I can now remember somethings in secondary school. And that was literature. I love literature... there was a poetry contest. And I was very proud, because my poem was exhibited. I think the other aspect was that I hated Chinese. I hated it, because I was quite good in Mandarin, until secondary two. In Sec. Three, I had a Chinese teacher, I didn't like him. I didn't like the Chinese teacher. That is switched me off. I focused more on Maths because... I guess it was the teacher that was important. He made Maths enjoyable. Although in Sec 2 I failed Maths. And then I bucked up. What impressed me most was the teacher. Sec 1, Sec 2 Chinese teachers were very good. But the Sec 3 one really turned me off.... He made it so boring. And I didn't have to pass Chinese at that time. So I didn't put much effort. I loved Macbeth. It was the way that it was being conducted I think. I don't know why but I always remember up to today, one line in Macbeth. I don't know why I love this kind of lines... there is a co-relation between what the book is about and life in general. I love literature. School really cultivated that. That was secondary

school. What did I remember from my Pre-U days? Not very much, except that I remember I got punished for not turning up for National Day. In University I was in Science. I had an option in second year to branch into chemistry, physics or Maths. I like Maths so much that I chose Maths. I couldn't handle the practical stuff... Maths was okay. I was quite good... I really believe that it trained the way that we think the logical thinking. It was something that you really need to do, to be systematic.

... When I came back from *overseas studies*, the first thing I knew was that I had 24 hours of contact teaching. Can't be helped. They were building up. We just did it. The initial four to five years was very very interesting. Actually, the department was run by a bunch of expats, very experienced expats. The learning was really through, I think mentorship. My *supervisor* was a very good expat. There was good guidance given, so mentorship. They made sure that we always have meetings in the initial years, when we were developing courses. Everybody was involved somehow. The group wasn't that big. Everybody was involved somehow. Every paper that was put up, I never attended any meeting where papers were not put up for discussion. When the paper was put up, there was a great debate. Therefore, we learned different points of view. And in such academic settings, there was no such thing as hierarchy. The chair was always the director. There was no such thing as hierarchy, everybody spoke up their mind. And everybody gave their two cents worth. Still, the learning was more the culture that was being set up. Most of the locals came from industry. It was really led by the expats. They didn't use their authority you know. You really see the way that they debated. They "whack" each other you know. After that, they will say, "let's go for a drink". So I learnt a lot in that kind of environment. Somehow or other, I think the locals absorbed that kind of culture. Anything could be questioned. So at the subject level, section heads lead meetings. Every tutorial and every practical was debated before it was delivered. Everything was questioned. It was standard... learning was really through mentorship. They knew what they were doing. The same went for exam questions the same went for assignments. The same went for anything. The system worked because everybody took it upon themselves as being accountable. The materials were there. You get your section head to endorse it. At course level, courses were developed. I was lucky. I was asked to lead a certain task force to design an Advanced Diploma. I was also lucky because I was asked to do year co-ordinatorship. I learnt about operations work. Day-to-day operations work. And in terms of developing courses, I started to lead and had discussions with *industry*... I was also nominated to be in a *professional body* at the time to develop a career booklet. So I had many interactions with industry. I started with learning objectives which I learned from writing the package. I had the opportunity to lead a bunch of people to develop a program. We had to present to the whole department our findings. They "whacked" us. It was all right. It was enjoyable... *for accreditation with an overseas body*, accreditation

teams coming down to check our operations... our Advanced Diploma had to meet that kind of criteria...*which* required industry project and research capability... emphasised very much more on thinking skills, critical thinking skills... it doesn't really matter whether your project worked or not. The emphasis was more on the design. The alternatives that you had looked at. If things went wrong, you would be able to diagnose and say what went wrong and what did you do about it. It is more on the highly order skills... we *had* to show evidence that staff were involved in industry projects... some staff *were* working on real-time update on stocks and shares... a lot of learning on designing of courses, implementation was really on the job. But still, there was guidance from the expats. They created a culture of learning, which I think I appreciated very much. A culture whereby people were free, and did not feel offended if you challenge them on their thinking. And the willingness to have that free and open exchange. They were very particular on how things were worded. I think that kind of learning environment is very critical in a learning institution. People didn't feel offended... And projects were not marked according to whether the product worked. They were marked according to the design, the implementation of the design; there are so many implementation platforms, why did you choose this platform? So it was trying to inculcate in the students, that ability to compare and contrast, a bit more deeper thinking into the design, why do you have this in a logical database design? Why do you have this entity? Why are relationships created? It's a lot of whys. Not, what is to be done. Ultimately, our reputation was built on the graduates that we produced. They were very good. Of course, we had very good students. So the focus was more on teaching... you're supposed to lead and do consultancy projects. And they had external examiners who will come to look at your projects and reports. And they will really grill you if they find that your student projects don't have compare and contrast, why you designed this way and that sort of thing...

... I had a cultural shock and difficulty in adjusting in my earlier days *in the IHL (research site)*. Because ... there wasn't a single academic *in management*. They were all people from industry... And they didn't have any background on academic aspects... So I've really had a problem. I tried to look for people who were more academically inclined... It was a strategic mistake on my part not to import some of my colleagues from *my first IHL*. They had very good academic foundation. How to set exam papers, how assignments were done... Then I was distracted by another course *from a totally different discipline*...*my manager* picked up the academic aspects very fast. She picked a good team. I didn't know a thing about science. What I think I managed to do was to rub off some of my thinking. I remember one particular incident. She did not believe me. At that time she was designing *curriculum*. She wanted to put Student Internship (SIP) into Year 2 Sem 2 because that was what *another school* was doing. I think the philosophy was that they learn something and then they come back in third year, to reinforce the learning. It

was a good philosophy. My experience told me that industry is not so benevolent... eventually, she had to change her SIP in third year. At that time... I said "why don't you try it out." I think when people learn from making mistakes, they learn it better. I think the feedback that she got from industry, was that they were not so happy. The students weren't quite ready to do what the industry expected. So in some sense you let people make mistakes. Then I think it will sink deeper. It is okay, as long as it is not critical. Let them make mistakes. Learn from it. Then we move on. This is my personal philosophy because I made mistakes. My mentors always were there to fish me out of it. We had to redesign our Advanced Dip. after a while. There was that the areas which we felt industry needed. It didn't pick up at the time. We had to re-vamp. So mistakes are made. But you learn from it. ... What I learned *from the first IHL*, we went through a four-year cycle. Re-vamp, review industry... one of the things I noticed in *IHL (research site)* was the frequent changes. When people did not think through... They propose something this semester and before the next semester, they change it...*In the first IHL*, we were very strict in a sense. Not even allowing repeats. If you fail a sup, you go...family problems, financial issues... don't mix up with the results...there was a clear dichotomy, between academic and non-academic matters...Because of the way that I have been brought up, more than 10 years in *the first IHL*, I can't unlearn. I'm still very clear, between academic and non academic issues.

I think the learning aspects in *the IHL (research site)* were in the things that I did not learn in *the first IHL*. There was the drive for marketing. A lot of effort that people had to do. You'll find in a small school, it was so difficult to want to do so many other things that were expected... the advisory committee *comprised two distinct disciplines* when one group talked, the other group kept quiet. East is East and West is West and what was in between was your academic issues that bridged the two... And you realise that you really have to have good second liners who knew their areas and let them fly. The good ones let them fly. I think you have to recognise that they have their own areas of expertise. And they knew what they were talking about. All you needed to ask was "really? how did they analyse and come to a conclusion? Who were they relying on?" So you learn to manage an area that you had very little knowledge about. So you learn from them aspects of industry that you never heard about...

My definition of learning is I think something that you may not have explored before in your life, and you really have to pick up things... learning occurs when a person has to find out things in a very unfamiliar environment and how he will adapt to that sort of environment. So in a broad sense I will take learning as that. It need not be a course or that sort of thing.

9. Ian

If I look back at my own education... In those days, there was only one mode of learning, no tuition, could not afford it. So we just did our best. I was fortunate enough to have done well enough to move on to a good school. To me that was a blessing. I always believe that what we are, a big part is what God blessed us with. As I look at my two boys, they are blessed with the capacity to learn. As you look at other children, somehow they have strength in other things. It is really something that God blessed us with. Whether it is capacity for academic things or you are better with your hands or whatever. So I guess I am thankful that I moved on to *a good school*. And those 6 years were very important 6 years of my life. I don't think it made me proud, but it made me very thankful that the school culture, the school spirit was so strong. We worked hard, we also played very hard. Those days there was no school ranking, there was no concern about having to score 99.9% pass rate. I was under a principal... who was so enlightened to say that even in the science stream, you must do English literature and Geography... I came from that kind of background where we learn on our own. Teachers were not our counsellors at all. In those days they don't counsel us at all. We just move along, we help each other. That is something else that I remember. We help each other a lot. And especially in Sec 4 and Pre-U 2, a lot of us stayed back in school to study. We stayed back in the evening in the classrooms to study and then we help on another learn. My classmate was good in Maths, he would help me in Maths and I would help him in something else. There was a lot of self-help, a lot of helping one another. Those were the days when we learn, had fun and then part of the learning in this part of my life was my *Extra-Curricular Activities (ECA)*. I was in the Scout group... I was a scout club in my primary school for 2 years. When I stepped into *my new school*... I was noticed by one of my old school mates, he pulled me into the scout's den and made me join the scout group. From there I joined the scout group and I was very active so much so that I treated my home like a hotel. Just go home to sleep and spend most of my free time in the scout's den. We did a lot of learning through, in those days we call it ECA... We could play so much because there was no school ranking... You just did your best and you just learnt... I remembered as much of my ECA, as my studies... equally because those 6 years of scouting were really wonderful. We spent so much time, we did so many things. But of course during that phase, I think, on hindsight, what was lacking was counseling by teachers... helping students figure out what is good for them... I have no regrets but on hindsight, I think I could have done better if I have chosen a stream that was more suitable for me. Why I say that is because I was not very good in Mathematics. But in those days, the best students go to double Maths. I could do, but not like my friends, not fantastic ... Nobody gave us any counseling, so I just went along. Because of that my 'A' level results were not as good. Sometimes, I used to think that if I had done Arts stream, I could have gotten a scholarship. Perhaps. I am

inclined towards things like Geography... I love Culture and people. My favourite magazine is National Geographic. I love Culture and places. I love maps. So when I go on holiday, I plan and that's a pleasure to me. That is something that I love doing. At one stage of my life, I was thinking of being a photo-journalist. I love culture and that kind of thing. Maybe at that time I wasn't sure if I realised that... on hindsight. That in a way could have influenced my learning and which path I took.

After that I went on to National Service (*NS*) and I learned. I was fortunate enough to be in officer cadet school. We have to go through selection. Being a scout, helped me a lot. Those days they interviewed us, I was selected to go to officer cadet school. And then I went through. That was a tough time. It was very strenuous, mentally and physically. Very vigorous training. Training us to be officers. So that was a lot of learning, a lot of self-discovery about myself and all that. So I went to NS, learnt all those things about the army. I was "very on the ball" (Colloquial expression for "trying very hard") in the army. Whatever I do, I try to do it well. After I finish my NS, I came out.

... Because my Maths wasn't fantastic... I didn't choose Engineering. I went to *University in Singapore*. I did enjoy the course. The degree programme was quite light ... contact hours were very low, ten over hours each week. I spent my time doing other things. I spend my time doing *on Campus activities*. ... I got very involved over 3 years there... I make friends from other faculties. *My on Campus activities* was cross campus, not organised by faculties... On hindsight again, I think, my learning during *University* would be something like what our students are going through now... So the subject I did were in a way quite academic. Just like our students, after O levels, come here and study. Never really worked before. So my appreciation could have been better. I say this because later on I went on to do my Masters... after working for about six years... I enjoyed so much more because I had work experience behind me... Suddenly it is so much better...

In my Masters, I could appreciate things much better, given the maturity and having worked for some years. And also, the programme was run differently. I did my Masters full-time just before I joined *the IHL (research site)*... it's run on a seminar style, postgraduate seminar style. It was more enriching and more meaningful... compared to the undergraduate programme. Undergraduate programme was like getting some qualification only.

I spent 1 year ... working in *statutory board*... That was an eye-opener for me. It was *located* in an old *housing estate*... That was the time when I realised that there were so many poor people out there. I came from a humble background. But I am not poor in a sense. That's when I spent that one year and I see those estate management ward, and that opened my eyes to see... it was an eye-opener for me. It's like learning as a person. Old folks died in

the house, nobody knew until the smell comes out that kind of situation. Then you get to meet people where they depend on charity... they queue up for canned food, bread... So I can see that there is a big group out there who are on social welfare. After that one year, I got myself into human resource management work at the ... Head Office... I was involved in some exercises that were also learning experiences like down sizing and all that, redeployment... even those days, you will be surprised, we do a lot of manpower study and all that. But of course the speed of it not as fast as now. Then ... I went on no-pay leave. I went to study for my Masters, then I went back, they gave me a position in one of their private companies. So I worked in the private company for a short while, then I wanted to teach, so I came to *the IHL (research site)*.

Learning, I guess there will be the formal learning versus the learning as you grow up as a person. The formal learning will be what I described in terms of my schooling history and all that. My education, I think. The formal part is the education part. Then the informal part will be learning on the job, learning as a human being, learning how to work with people, how you appreciate life, how to do a job, learning on the job. Because many things you don't learn in school. You learn on the job.... outside the classroom situation.

Over the years I think I learnt to be more analytical and more perceptive, to see things from a broader perspective, I guess that probably comes with maturity and with exposure. I guess as an undergraduate probably, things are more myopic. Then I was exposed to work, and having to handle different kinds of work, work that I have never done before, I need to learn to be able to see the big picture. I think one of my strength ... I am analytical, I can analyse things and put things into perspective. Even appreciate things from different angles. I think I am good in empathy... That's me. I take after my mother... I am more sensitive and more empathetic towards people's feelings. So I look at things from various angles. Not just from the head, but also from the heart. I guess along the way that helped me to look at things not just from one perspective. How does it affect other people? Perhaps it becomes more obvious to me, I guess along the way, it comes from feedback from people. People tell me. I can't really pinpoint, I think it's probably part of nature. I take after my mother...

My experiences in *the IHL (research site)*, it is an interesting journey and although I have been here 15 years, I am very thankful to God that I still have the energy and commitment to do my work and all that. It's not a short period of time. So early years were really learning how to teach. I can still recall giving the first lecture... I actually did rehearsal at home... In the first year, I don't know how much work to prepare, don't know how long I take to explain. So it was quite interesting in the first couple of years, learn to conduct a class, and learn to give lectures and all that. So that was learning how to teach... I

travel to *another IHL* for weekly lesson on *teaching*. So I spent one year doing that, every week, every Thursday... That got me grounded in teaching I guess... So the first few years was on learning and then those days, it was the growth phase... it was getting things off the ground... starting *the Student Internship Programme (SIP)*... I remember I was asked by then Director of school, to work with a *colleague* to get the SIP programme started. We had nothing. *My colleague* came from *another IHL*. He knew what to do. I came from industry so I didn't know what was SIP. So I was working with him. He was the chair, I was the Vice-chair. So we got things started. We spent a lot of time doing this sort of things, getting things started. I think along the way, we learnt all this things. After that, we launched new Diplomas. New Diplomas means more students. I was also involved in *new subject development*... A group of us were trained by *an external organisation*. ... So these were some of the things that I learnt along the way. So we learnt a lot of new things to launch. So for a few years, I was in that group with *another colleague who also came from another IHL* and he was much older. So he took the lead. I was with the team that launched the *new subject* ... Then later on I passed it on. Along the way other things came on with thinking habits, *Strategic Quality Class (SQC)*, *Problem-based Learning (PBL)*, ... PBL, I am also one of the so called pioneers to merge ... subjects. I thought that was a good experience to merge 2 subject teams together... Personally I think PBL teaches life skills. Which I think final year students will appreciate it. So along the way I learn. Things happen and different focus and different emphasis in *the IHL (research site)*... I attend those training with the rest of the team, I have to make myself learn at a more strategic focus. You go for training same with your team, you got to be more focused, you got to try to look at things from different angles. You cannot learn at the same level as your staff. You are expected to take the lead and provide some directions... initiate the implementation. Those days we also had... e-learning. Along the way I learnt as the focus changed for the Polytechnic. SQC was compulsory at one time, after that 7 Habits, then there was a special training module organised by *an external company*... So along the way these were some of the things.

When I became a *supervisor*, there was no job description. Nobody briefed me about it... those days, no buddy system, no orientation. I think with due respect, those early years ... the focus was on recruiting staff, getting things going. Things like orientation have been going on for years in a typical organisation. But in those days, the focus was very much on keeping the stuff going... So how do I know what I was supposed to do? ... have to make decisions, have to resolve conflicts, have to plan and organise and make sure things happen the way you want them to happen... I guess, part of it was through observation of *experienced supervisors*... See what people do, then you do what they do or you don't do what they do, if you see what they do is not too correct. So a lot has to do with modeling.

With higher appointment came heavier responsibility, and by then I was doing things that were not just teaching the regular stuff. By then I was helping out with an IHL-wide task force... I learnt a lot being in that task force ...in the area of working with people from other departments and schools...that was a very good learning experience because I don't just look at my school, I also look at how other programmes and schools are managed and run. And I also think that cross school interaction, is satisfying. Trying and satisfying... that was very good learning for me. Learning to talk to different kinds of people...from different disciplines... wired very differently. So that was also a learning journey for me... the change, all the frustrations and ...the unexpected... And the promise that the system will work, but it didn't work, learn patience and the serenity for some of the things that you can't change. You must learn to be thick skin... you got to have equanimity, the calmness. I think along the way you ...I think some things are beyond us.

When I manage change, I try to explain both sides of the story and I also learn to speak up in terms of explaining things ... at the risk of being misunderstood as defensive... some things you need to accept them, whether it is management decision or whether it's the constraints of the system and we try to work within it, around it or above it... when I work with my staff, I make the effort to explain to them. Or even those colleagues, along the way in informal chit chats, I do try to get them to see the other side of the story. ... I think human nature is that you only look at the negative... You can look at the thorn or you can look at the roses. I think if you look at the roses more, you will be much happier people... For example when the new system was implemented, people just looked at all the inconvenience and all the down side, without seeing the plus side. So when I try to explain ... even over lunch I try to explain. So that is how I try to help to ... explain the rationale and what goes on and what happened. Try to get them to see from a bigger picture as much as I can.

It's interesting after I took on a higher appointment... I am learning a lot of new things.... My portfolio is now enlarged... it is challenging and interesting. It's a lot to learn and if possible if I can contribute along the way, it is satisfying lah...and also I find that now I also need to give more guidance to the other management staff under my charge. More so at the management level, not the technical part... I think I am able to help them to see things from a broader perspective and the implications. Like managing staff problem and with problem staff and all that. So I think my contribution will be in that area... I spend a lot of time doing that now.... So it's really doing things... So along the way, a lot to learn in terms of Ministry thinking, the government thinking, the IHL's (research site) thinking, the Principal's thinking, the thinking of Senior management... I get to know so much more ... in terms of direction... A lot more to learn which I think is interesting and challenging. My horizon has expanded in my recent new management appointment.

10. Juan

I would start from the time when I come to Singapore... I finished my Pre-U in *another country*. That was the time actually quite challenging for me...there are *three countries overseas* ... that I can go...*to further my studies*... And I think my family, I cannot afford to go overseas....So... I came ... to Singapore. I was quite naïve. I took my certificate ... went to *Ministry of Education (MOE)* ... to ask for *admission into University in Singapore*. They said ... "you can't come in at all"... I didn't give up. At that time, I also wrote a lot of letters to MOE and go and find out what are the possibilities that I can get into local Universities... I was taking my own 'A' level...*while working*... as a salesgirl. After that I got into, somehow there was a group of students *from my school* and we got together... there were 8 or 10 of us... we ... appeal to MOE... when *the two Universities in Singapore* merged... they... open up this entrance exam... I actually took an entrance exam... there were only two persons who got in out of so many who took the entrance exams. I was one of them. So I got to *University in Singapore*... I wanted to go to Computer Science, but they didn't give me that. So I went into Science. The first, second and third year was really tough because after studying Chinese, here it is totally English. And the worst thing that I encountered was when my father passed away when I was in Year 3. That was a time, actually that one impacted me a lot because he purposely came out to visit me. On the way back *home*, the whole family met with an accident. My father passed away... I graduated without my father attending my ceremony... my father ... loves me a lot. My father really influenced me a lot. Since pre-U time he is very proud of me. Even I have very good Chinese writing, and even he is the Treasurer in the *Dialect clan association*, every time he wants to present a speech, he will ask me to write. So that was a time I feel that it was such a waste that my father couldn't attend my graduation and it was just one month or two months difference. After that I think over it, I wanted to do it well. I didn't do well in my University because of the struggling and whatever but I do graduate within 3 years.

And then the first job ... I stick to the job for 5 years. That period they also sent me to Australia for training. I went to Australia for about 3 months. After that I got married ... there was the Gulf Oil crisis, and the company need to retrench people. I was pregnant for almost 5-6 months, so I was retrenched. Of course I got 5 months, so I thought it was a good time for me also... I took it quite positively that ok retrenched never mind, even though I feel sad because I contributed quite a lot to the company. Then because I was pregnant, I thought it was also a good time for me to do reflection and maybe plan for what is the next road I need to go. During my pregnancy, the person that come into my life is actually my mother in law. I think she really supported

me for the time when I was waiting for my baby to be born. That was also very tough because it is my first pregnancy... during that 2 months, or 3 months time lapse, she pass me ... books... on Buddhism to read ... That was the time I actually gain a lot of wisdom and also a lot of inner peace... I really enjoyed that few months. I read the books. It changed a lot of things in terms of views about life, and my husband also encouraged me. He also supported me... After I gave birth to my son... I discussed with my husband that I want to take up the postgraduate Diploma. At that time my husband was not earning a lot... I sold all my gold to go for this study. So I studied very hard and was awarded the Gold medalist. That changed my career line...

So the first job that I got *after changing line* ... I was quite lucky because the boss treated me very well. In fact after 2 years, I wanted to leave, they actually raised my salary ... they wanted to stop me from leaving. But I didn't take up the offer... I didn't to remain a programmer. So I moved to *another company*... as user analyst... In *the first job*, I also learnt a lot, because ...*the company* ... sent me for training... lot of things I picked up from the training... I was also lucky that I moved to the *new company*... I admire a lot... my CEO. He was very clear about what he wanted to do. The focus that he had was always customer, patient focused... how do we make this easier for our customers especially patients... how can we help our doctors, pharmacists, nurses to provide good services to our patients. So we do a lot of things like how do we cut patients' queuing time, how do we help our doctors to have retrieval of information. So I was involved in fairly important ... project... I was promoted *twice rather quickly*... I have a lot of opportunity to attend a lot of leadership courses... a lot of training is provided. ... When I was taking over as Manager, there were a lot of challenges because we had to move to *another location*. A lot of systems migration, many many things to do. It's like the whole thing got to move.... And that time *a former colleague who joined IHL (research site)* called me. I was really thinking of because I really worked day and night... In system migration, because of 24 hours service, we always have to work during the holidays. That affected my family quite a lot. At that stage I was weighing whether should I then think of changing jobs to become a lecturer which is more stable for time with my family.

... I joined *IHL (research site)* ... my aim was just be a lecturer. I wanted to do something good. You know my character. If I want to do something, I want to do to the best of my ability. So I think at that time, it was the opportunity given to me.

....

There is a big difference in how I learn in University or school to my professional situation. I have a very painful experience from my *Pre-University* and fight for a University vacancy and studies and from the difficult experience of losing father, family actually thinks that I am the only one that

can do very proud for them, so I think I grasp whatever opportunity comes along. So when I go to *my first company after I changed line*, I think I had done a good job such that ... in fact whenever I want to leave, they always ask me to go back. ... The learning is how my life experience push me through to perform well in the job given to me. So I don't play a fool with my job. I really work hard whatever task I may be doing. So functionally I make sure that I do well. So functional competency no problem. Because work is work. You are dealing with users, its not complex because the complexity comes when you deal with people ... in *my second company after I changed line*, I was really motivated by my CEO, and his mission and vision is very clear. Focus on patients. Sometimes I look at the patients, it's very sad to look at them because, especially when you have migration done at the emergency department at midnight and you see people coming in. That type of...it affected you a lot. You find that life is so short and life is so uncertain, you better do a good job and don't take things for granted. I really relish whatever opportunities given to me... because of my functional competency... they gave me the opportunity to have leadership role. When I was given leadership opportunity I think I also take it very seriously and I learnt. I am very keen to learn. Learning from others examples...

Actually learning comes quite naturally, just like I learnt how to manage time. So when I learn how to manage time, I will actually pick up from the course, certain important things that actually in my daily job and what I have done. I use the word "embedded" knowledge. And I embedded them into and internalise them. Because if I find that if I don't practice it, I will not learn. I know that in time management, the question is how you implement that. So I do that very much in my daily life. Sometimes even I drive, I think about today what I want to achieve. I do reflection what I done wrong and what I done right. I practice it. It becomes my embedded knowledge that I internalise it and I use it. Even my presentations, I know that it may not be good, but the basic skills are there, a lot of presentation I find that is preparation. Knowing that I may not be good in presentation, I prepare a lot. That is how I learn. I overcome my shortcoming by doing a lot of preparation... Learn by practicing. Internalise it and embedded knowledge...

For example, in *the second company*, I remember when I join them; they were working with a very tough vendor. That vendor is not delivering what they want. My CFO is a person that is very demanding... So when I first joined, how do I gain her trust? Every time I brought the manual back to study such that sometimes vendor cannot solve the problem. I can tell them how to solve the problem. That actually comes naturally, you internalise it and you use it. Since vendor cannot do it I think I better know what to do... And it very seamlessly come into me. I am saying how do I apply, because it comes to me, I need to do, I need to deliver a good job and how do I deliver a good job? Is that I have to learn more than my vendor. And I have to ask questions

that my vendor know that what other people cannot ask, I can ask. And this can help them to do. And some of my situation or back up system, I tell you I come up with my own procedures and solutions better than vendor. Sometimes vendor takes my solutions and run it... it's only when you sink yourself into the situation I think, all the solutions will come in...

...

When I joined *IHL (research site)* ... I couldn't stand the working environment here... I couldn't stand the view that they have. And the way they do things.... I worked as a lecturer, but I strive to be very different from them... 1 year later, *my previous supervisor* gave me opportunity that I am very thankful for. I think he spotted me that I am very different from the rest. And he gave me opportunity... From the very beginning I know that this is the *new* course coming up, but without the intention of being the *manager*, I just want to be in the group to do the job well... So I work hard and put ... myself, my soul and my heart in it... The fact that I did well and put my heart in it and the results come in, I think the opportunity came by. At that time my director did not even know who I am. So I think I created an impact when I presented it at Senate. That time, I did a lot of preparation...It's my character you know. I want to do well...*I was subsequently appointed as Manager of the new course*...At that stage I felt very pressurized. So much so that I neglected my family. So day and night, I really put my soul into *the new course*. But *my supervisor* played a very important role. Whenever I have problem, I can rely on him. He can tell you straight, is this your problem? If this is your problem, then I will solve the problem. No hesitation, straightforward. Clean cut. And he solved the problem with the heart. One word that he told me and I still can remember, if you have the authority, always use it to help people. In his life, I find that he's a person who really helps people...

In another staff matter...the way *my supervisor* handled *the staff*, I also learned. *He* did it in a very different way...Rather than sack *the staff*, *he gave him a way out*... I don't know how he talked to *the staff*. But I think he did it with good intention. That's how he impact a person. "Even if you are wrong, and you know it but we give you a chance. But that's the final chance." That is another way that I learnt from him. And I apply it in my family and in my work here. Because I learned from him...*I also learn from another supervisor...who gave me ... freedom to do. She... let go ...and trust me a lot ... And ... supported me whenever the decision on a certain thing that I want to do...*

From the beginning *in my new management appointment*, I was doing what I was instructed to do. For example if I do manpower, I will learn about manpower. A lot of study rather than showing result. Like ... coming up with workflow, I cannot see results because the scope is too wide. You do manpower, you do staff capability development... then admin also quite a lot. ... everyday you do this sort of thing, you have not seen the result... you

handle a lot of things, I am saying that I am doing things but I am not very happy with the outcome yet. So I am learning. I learn from both *my previous supervisors* and I give staff a lot of opportunities. I try to use my authority, whatever I have, I will try to help them. Rather than telling them what to do. So a lot of things, like I give *my managers* a free hand to do things.... Of course dealing with *managers* is very different from dealing with lecturer ... they sometimes have a better solution than you. So more on consultative rather than instruction. Suggestion rather than tell them. So I practice that. I observed that this is a better way of doing. At this stage we have to do a lot of supervision. In *my Masters course*, they said learning is a way of living. You lead and you learn. Sometimes you got to unlearn because what ever you practiced *before*, you can't practice in *new management* capacity. So I have to unlearn and relearn. That comes in very naturally and I say to myself, I think this method will not work. Better quickly change it...maybe I let go this time round, maybe I do it in indirect way or maybe I will drop an e-mail to highlight so that hopefully people can pick up. No longer like instruction.

Reflection is key. In fact a lot of reflection when I drive to work, but of course now very distracted, family matter also come in. Reflection comes very naturally into my daily life. Sometimes when I sit down, this thing will come in eye, did I do it right? I think another person has done it this way. Why not I try. Because you practice it, so it comes very naturally that you will do reflection as and when you want to do it. You will do it.

I realised I had this knack of embedding knowledge and reflection when I was at a *previous company*... When you have a big task to do and you have to sink yourself in ... Once you practice it and you break through, it's really with you... You can't get rid of it. It just comes naturally... Learning, unlearning, re-learning and it's all together. I meet up with a lot of challenges especially at this stage... I have *challenges in my family*... I find that a lot of things I have to think not by head but by heart. I have to put my heart and my soul into it and think of the solution. Sometimes it's no longer a logical way of doing the solution any more. Sometimes, it's your heart that tells you, your inner voice that tells you I think better do this way ... From heart people can feel it. If you do it from head, people don't feel it... I do a lot of things from my heart. That staff can see, that's where it influences them...

... From *my Masters course* I realise.... The professor ... asked us to read, a *book*... That ... tells you that you have to take the courage to look into yourself. Look into your weaknesses and humbly within yourself to discover your inner voice. What do you want? That is very powerful. And I practice that after that. When I read the book, I was so appreciative that I read the book. When I go into the class, I was really attracted by whatever he explained and I can understand very fully and immediately I know that I need to practice that..

I think I am a very disciplined person. To be frank even though I got affected, but I pick up very fast. That is my training...Since coming to *the IHL (research site)* as lecturer and then *moving into higher management appointments*, my learning is not really just to get the job done but it has shifted to another dimension. Not just analysing logically but moving towards the heart. Sometimes in terms of judgment, I do make use of the heart to think twice. Logically I may think that this is the way to do. But I will go further to think with my heart to see if this is really what I want. I will look into it and see. Like that can or not. Better don't or better do. I will put my heart into it and think. Especially for important decision.

For myself, I experience I learn from leaders, I learn from my boss, I learn from *my previous supervisors* and I learn from my peers...*also from training courses*... So I think in IHL (research site), they do give opportunity for staff. But more on the job training. You learn to think through and you learn by example. More of that.

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