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**A Thesis
Submitted in Part Fulfillment
Of the Doctorate of Education Degree,
School of Education
University of Durham**

2009

Neo Thiam Soon

Title

**Lifelong Learning in Eastern and Western
Culture Organizations in Singapore**

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ABSTRACT

In Singapore, the government has recognized the importance of lifelong learning at the workplace. It is the new educational reality as knowledge is highly marketable in the knowledge society and organizations will benefit and prosper so long as they continue to capitalize upon their intellectual resources.

All companies operating in Singapore will need to assume responsibility in establishing an organization learning curriculum, both formal and informal but as Singapore is a multicultural environment with companies from different parts of the world, it can be hypothesized that they will react differently to this need. The main purpose of this study is to seek a better understanding of the impact of Eastern and Western cultural differences on the development of lifelong learning at their workplace in a learning organization in Singapore.

The instruments used in this study include questionnaires and semi-structured interviews with employees from an Eastern-Singapore and a Western-German culture case-study organizations. The questionnaires comprised four main measures concerning: (1) The development of subject matter expertise; (2) Problem-solving techniques; (3) The development of reflective skills and (4) The climate of personal and social relationships in the organizations studied.

Both quantitative and qualitative data show that the Eastern-Singaporean and Western-German culture case-study companies have positive patterns of development towards establishing some form of corporate curriculum. There is no significant difference in the way they drive for lifelong learning at workplace. On the other hand there are some differences such as the intensity and scope of training which can be explained by reference to theories of cultural difference.

On the other hand, there is no evidence to show that the case-study companies provided skills training in areas outside the employees' current domains. This somewhat negative conclusion has implications that it is not just culture that explains the restricted training programmes of these companies. Perhaps, the local economic situation of Singapore, under pressure for business effectiveness, is a much more decisive factor encouraging managers to interpret their needs for training in some restricted way.

Based on the research, it is concluded that in Singapore where globalization activities are very intense, the impact of business survival is closing the gap between the Eastern and Western culture organizations in the field of training development. It is also concluded that lifelong learning at the workplace of both the Eastern-Singaporean and Western-German culture organizations is very much limited to the current domains that the employees are assigned to.

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DECLARATION

I, Neo Thiam Soon declares that this thesis represents my own work and it has not been submitted to this or any other institution in application for admission to a degree of any other qualification.

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INTRODUCTION

This study examines differences in approach and understanding between the 'Eastern' and 'Western' culture, exemplified in two case-study organizations in Singapore, with respect to the idea of lifelong learning and to the work-based training and development of their employees. The background for the study are global changes in economic life and the pressures these exert on all work organizations to become ever more efficient and competitive. The particular context for the study is Singapore. This is a city-state in which determined efforts are now being made to improve the skills of the labour force to enable Singaporean companies to enhance their competitiveness. The government promotes a particular but narrow version of lifelong learning. One of its approaches addressing the needs of the general workforce is to emphasize the importance of learning new skills in keeping up with the job market. It suggests that lifelong learning is the new educational reality and the notions of "intellectual capital" and "knowledge society" are critical in maintaining, renewing and developing intellectual resources. Therefore, there is a need for mind-set changes in constituting and contributing potent resources to the future development of modern Singapore. The government embraces the notion that human capital formation and investment in people are key determinants in achieving sustainable economic growth.

Given this pressure to embrace lifelong learning, and the fact that Singapore is an Asian society with a very strong, western-oriented economy and business elite and has high levels of inward investment from western companies, it is thus a good setting in which to explore whether there are differences in approach to work-based learning related to the cultural factors that shape learning experiences at work. The framework of the study of the corporate curriculum (Kessels, 2001) in the two case study organizations is reflected in four research questions and is summarized at the end of this chapter. The literature review found in Chapter Two further helps the

researcher to define the problem more clearly. The following section details examples from Singapore of new and widely differing approaches that are being set in motion in order to construct and develop much needed lifelong learning communities.

1.1 Lifelong Learning in Singapore

In the contemporary world today, change is the norm. Without exception, Singapore is undergoing rapid changes in its economic arena. This is demonstrated by the recent developments of Free Trade Agreement between Singapore and the United States, Australia, New Zealand, Japan, Vietnam, and the up and coming India and many more in the ASEAN and Asia Pacific region. The impact of globalization has created a complex working environment and has resulted in new challenges for leaders to manage. Therefore, it becomes meaningful for Singaporeans to realize the needs for work-based lifelong learning to cope with new job opportunities.

The labour shortages of the mid-1970s in Singapore led to the development of technology-intensive manufacturing industries. Concurrently, there was a renewed emphasis on technical education and training as well as expanded incentives for more research and development. In the 1980s, the government determined to develop knowledge-intensive industries and that, in turn, led to the current focus on information technology, aerospace technology, pharmaceutical products, and computer aided design and computer aided manufacturing. With its high labour costs, Singapore focused on a “Total Business Centre” strategy, whereby tax reductions and exemptions were given to foreign companies that established comprehensive operations within the economy.

Another strategy was to continually upgrade the skills of the workforce. The Institute for Technical Education and the polytechnics are major driving forces for much of this, along with increasing R & D incentives given by the Economic

Development Board. In another strategy, Singapore developed a product known as the Students' Multimedia Integrated Learning Environment, or SMILE. Launched in 1996, this effort integrates the expertise Singapore wants to develop and become known for, with an applied solution that will be used to develop the workforce needed to support the product. Rather than relying purely on the traditional education system to drive this initiative, it is driven by collaboration between Informatics Holdings Limited (Singapore registered company) and Singapore's National Computer Board's Information Technology Institute (Lee, 1996). In this approach to lifelong learning at the workplace, business and industry is not simply going to be the curriculum focus; it is going to be much of the development and delivery mechanism as well. This leads to the question: will such policies iron out differences between commercial organizations in Singapore in their approach to employee development?

In this study there is an account of the implications of these policies for work-based training and development. The key ideas that inform its approach are drawn from a literature on lifelong learning and in particular, a body of ideas related to organizational learning. A key concept examined here, drawn from the work of Kessels, is that of the *corporate curriculum*. Kessels (2001:502) defines 'corporate curriculum' as 'a special plan set by the organization for learning to exist. It provides the framework for the learning functions that promote the ability to signal relevant information, to create new knowledge and to apply this knowledge to step by step improvement and radical innovation of work processes, products and services.

Another entry into the issues is provided by Antony (1994:17) who argues that in order to compete effectively in the turbulent global economic environment, the foremost necessity is to make meaning for people at work. He advocated that people must be aware of the needs and the processes involved in making changes for the survival of a business and thus enabling the prospect of job security. In Singapore, the government is aware that those labour-intensive industries that were lost to our neighbors would never come back. Therefore, there is a need for

Singapore to target capital industries and develop them as a competitive advantage over the neighboring countries in this region. Hence, there is need for continuous learning at the workplace in order to stay ahead of economic changes.

A further approach to these issues is to consider the cultural dimension quoted of Bruner (1996:13-6) “that interpretations of meaning reflect not only the idiosyncratic histories of individuals, but also the culture’s canonical ways of constructing reality. Nothing is “culture free,” but neither are individuals simply mirrors of their culture”. He further commented that “It is the interaction between them that both gives a communal cast to individual thought and imposes a certain unpredictable richness on any culture’s way of life, thought, or feeling.” Therefore, effective learning in the workplace is probably affected by culture at large.

Since as Bruner and many others have argued, there are profound cultural differences between societies it is important to explore the ways in which they shape different learning environments. For this reason, this study is based on a comparison between organizations from Eastern and Western cultural contexts. These are broad concepts which are widely used in everyday language. There is some support for them. Hofstede (1991:15-18) whose work is widely cited and has been very influential describes differences in the values and beliefs and social arrangements of East Asian societies and those of the West. It might be expected therefore that there will be observable differences in respect of how companies train people and in how people learn in the workplace. Singapore is a particularly valuable place to study such differences for it is a city-state that bridges the two cultural worlds and where such cultural differences could in principle be clearly observed. In later parts of the thesis the concepts of ‘Eastern’ and ‘Western’ will be however considered in more detail.

The purpose of this thesis is to understand differences if any, between the ‘Eastern’ and ‘Western’ culture of two case-study companies in Singapore in respect of the structure of their training curricula and support for staff in lifelong learning at the

workplace. From this comparison, readers may expect to learn: (i) how the differences in 'Eastern' and 'Western' culture relate to the development of learning at the workplace and (ii) how the cultural differences within management shape differences in approach to training and development.

1.2 Singapore's Economic Development Strategy

In this section, the researcher will give a more detailed chronological account of the nation's economic background mentioned above and also set the context in which the case study companies have to be competitive, regardless of their 'Eastern' or 'Western' cultural orientation. This section explains the particular approach and philosophy behind Singapore's economic development strategy and the role of training and development in Singapore. It is necessary to do this because workplace learning cannot be discussed in isolation from the experiences, attitudes and values of those who manage it or take part in it and because these features of the workplace have a distinctive history in every society and culture.

The island-emporium and later city-state of Singapore is the modern and post-modern successor of a long series of flourishing city-states in Southeast Asia during pre-colonial and colonial times. However, after two decades of continual growth, the Singapore economy went into an unexpected recession in 1985 with a negative growth rate of 1.6%. At this stage, the nation went into a state of economic crisis. A special high level Economic Committee was immediately formed to thoroughly review the situation. Swift actions and drastic measures were taken by the government to save the economy. By the end of 1986, the worst was over and a positive growth rate of 1.8% was registered. The growth was small when compared to the glorious past, but confidence was restored.

The lesson had been learnt. In order to be competitive at all times, productivity growth must exceed cost increases. The Economic Committee Report charted new directions for the Singapore economy. It identified several new growth areas

where Singapore can carve a niche in the world market (Tan, 1995:2-7). Two of the growth areas are hi-tech industry and information technology. A S\$2 billion budget was set aside for the National Science and Technology Board in its R & D expenditure with a target of reaching 2% of GNP by 2000. At the same time, the National Information Infrastructure was created to link the excellent telecommunication network with the vision of becoming an “Intelligent Island”. After a decade of concerted effort, the entire Civil Service system was successfully computerized. This has resulted in the wide spread of Electronic Data Interchange (EDI) systems such as TradeNet, PortNet, LawNet and MediNet.

In this context, Lim (1995:83-95) argued that human resource development is one of the key factors for a nation to sustain improvements in living standard and higher productivity. For example, Lim’s view is illustrated by one of the approaches taken by the government to augment the domestic labor force by using tax and other incentives to encourage women and older workers to become and remain economically active. Hence, formal and informal lifelong learning at the workplace are encouraged.

The training infrastructure is under the purview of the Skills Development Fund (SDF) Board and funded by access on the payroll of less skilled workers originally defined by a wage ceiling of S\$750 a month. It is now raised to S\$1000 a month and the current access rate is at 1% of basic wage. All collected funds go into a common pool from which grants for approved training programmes and courses are disbursed upon application by organizations to help them defray the cost of training programmes.

Peebles & Wilson (2002:35-38) argue that the formation of the Strategic Economic Plan in 1991 was much more ambitious and wide-ranging. The following eight strategic thrusts were structured to reflect their relevance for the new century.

1. Enhancing human resources
2. Promoting national teamwork
3. Becoming internationally oriented

4. Creating a conducive climate for innovation
5. Developing manufacturing and service clusters
6. Spearheading economic redevelopment
7. Maintaining international competitiveness
8. Reducing vulnerability

One of the latest strategies is the recent formation of the Infocomm Development Authority of Singapore (IDA). The strategy of this formation is to help the Republic to retain its position as a location for high-end manufacturing. The IDA will work with several multinational companies in Singapore to develop an integrated supply chain. The objective of an integrated supply chain is to increase the efficiency and profitability of an enterprise by controlling the production, shipment and distribution of products centrally. The IDA's vision is to position Singapore as a nerve centre for coordinating regional supply chains that offer the whole spectrum of manufacturing services, so as to remain relevant in the new high-tech manufacturing landscape. One of the opportunities for the Republic is to create close to 185,000 jobs. These can be filled by many of the existing workforce, provided that they possess matching skills and competencies (The Straits Times, 31st March 2004).

The government is aware that the world has changed, partly because of the adoption of internet technology and the importance of research and innovation so that for Singapore to be successful in the future it must be 'part of the knowledge-based world.' (Lee et al., 2000:763). It is obvious that the above strategic thrusts encourage the workforce from both 'Eastern' and 'Western' culture to excel in order to stay competitive. One of the approaches is to continue with the lifelong learning so as to contribute to the growth of the economy.

In order to investigate how industry is in practice responding to all this and if the cultural dimension is important in their responses, this study, as will be explained in more detail, is based on case studies of two companies based in Singapore. One is Singaporean, the other German. The study investigates whether and in which

ways cultural differences within management relate to differences in approach to training and development, despite the fact that both organizations function in the same country and in the same, broad macro economic environment. The significance of this study is that it builds into the literature of organizational learning a comparative cultural dimension.

1.3 Organization of the Thesis

The thesis consists of nine chapters. They are:

Introduction

Background

Literature Review

Methodology

Description of Organizations under Study

The Participants' Perspectives (4 chapters)

Conclusions

Each of these chapters is devoted to its particular purpose and when combined together, they represent in totality the advancing argument on the practices of organization learning between the 'Eastern' and 'Western' cultures.

After this introduction, *Chapter One* gives the background to the arguments and purpose of the study. Firstly, it describes the context from which there is a growing concern for continuous learning and training at the workplace in order for companies to stay competitive in this global village that we are now living in. This helps to set the scene for the conceptual discussions and the subsequent investigation on the importance of lifelong learning to support the development of a learning organization in the workplace. Secondly, this chapter also identifies the impacts of economic downturn in this region after the 1997 financial crisis and needs for restructuring through lifelong learning efforts. Discussions also include the views from some companies operating in Singapore and their belief in adopting

the learning-based approach to manage organizational change. Included at the beginning of this chapter is a brief account of Singapore's Economic Development Strategy. The objective of this inclusion is to set the context in which the two case study companies have to be competitive and to explain the particular approach and philosophy behind Singapore's development strategy. Finally, this chapter gives a brief outline on the purpose of the study and its key research questions.

Chapter Two gives a literature review on the topic of learning organizations and lifelong learning in the workplace. The themes that are highlighted are 'Eastern' and 'Western' organizations' cultural differences, training and Human Resource Development (HRD), learning organizations, organization learning, learning and skills, and competencies. This review section attempts to provide a comprehensive synthesis of major thoughts and discussions on the above concepts to enable a clarification of the differences between the 'Eastern' and 'Western' culture organizations. Each of these concepts will be discussed in the light of its contribution to the development of lifelong learning in organizations.

Chapter Three covers the justification of methodology chosen. Issues include the reasons for combining quantitative and qualitative research and the choice of comparative methods, including the interpretation of data from focus groups, and the question of research ethics.

Chapter Four gives a detailed report of the two organizations under study. Materials are based on internal as well as external public sources. Internal sources refer to interviews conducted with the managers, supervisors and the general workforce, the questionnaires obtained from samples of each department, and the observations made by the researcher during the in-house training sessions. External sources refer to the articles and company write-ups obtained from the monthly and quarterly journal and the companies' annual reports.

Chapters Five to Eight give a report of the data collected from the two case study companies. The data are presented systematically in the light of the underlying hypotheses that have been derived from the literature

Chapter Nine is the final chapter of the thesis that aims to discuss the findings by drawing comparisons between the conclusions of the study in question and those major conclusions of previous research. It tries to articulate the extent to which the research evidence presented by the study is supportive of the major theses. Implications will then be drawn and reflection on the limitations of the research work will be discussed. Finally, the chapter suggests important areas for future research and comments on the methods of inquiry that may be most useful in increasing the understanding of the impact of lifelong learning and the development of learning organization at the workplace.

1.4 Purpose of the Study and Research Questions

The principal objective of the study is to identify the differences, if any, between the 'Eastern' and 'Western' cultural beliefs in pursuing the lifelong learning concept in a learning organization. This involves an exploration of the kinds of learning climate within a workplace, and the level of training and development provided to produce a learning environment.

Thesis proposition: there is a global discourse of lifelong learning that originated in the West. In recent years the 'Eastern' companies have adopted this lifelong learning initiative to enhance their business competencies. However, differences in 'Eastern' and 'Western' culture organizations may have an impact on their work-based training practices.

The case study exemplars are based on two multi-national companies located in Singapore. One of them is German-based and the other is a Singaporean entity. At least in principle, despite being multi-nationals, they are likely to represent the 'Western' and 'Eastern' practices respectively.

The framework of the study is based on following questions to compare between 'Eastern' and 'Western' approaches to lifelong learning. These questions which will be the basis for the analysis of literature to be introduced in the next chapter will link Kessels with Hofstede. They are:

1. Is there a difference in approaches to the provision of a corporate curriculum between the two case-study companies?
2. If there is a difference, to what extent can this be attributed to national culture values and to what extent to company cultural values?

These points are further formulated and operationalised as four research questions as below:

1. Do 'Eastern' and 'Western' companies take different approaches in providing subject matter expertise to their staff basing on their company cultural values?

This question is aimed at addressing the level of competencies related to acquiring subject matter expertise through a training and development plan established by the 'Eastern' and 'Western' organizations.

2. Do 'Eastern' and 'Western' companies take different approaches to training staff on problem solving techniques to enhance their knowledge in resolving problems continuously in order to support their company values ? And if so: are the values which staff are trained to support 'Eastern' and 'Western' respectively?

This is a question about learning to solve problems by using domain specific expertise. It is important to develop competencies with which existing domain specific knowledge is applied to solving new problems. This requires both reproductive skills and also productive skills, meaning the ability to act in new and ill-defined problem areas.

3. Are 'Eastern' and 'Western' companies' staff being helped differently and in ways which reflect 'Eastern' and 'Western' approaches to develop reflective skills and meta-cognitive skills that enable them in approaching problems?

The purpose of this research question is to establish the 'Eastern' and 'Western' approaches – and possible differences between them - to developing reflective

skills and meta-cognitive competence conducive to locating paths leading to new knowledge.

4. Is the climate of personal and social relationships within the 'Eastern' and 'Western' organizations supportive of new learning and is it attributed to 'Eastern' and 'Western' cultural values or to company cultural values?

This question aims at understanding the level of communication skills provided by the 'Eastern' and 'Western' organizations to the staff. It is recognized that securing the right communication skills is important in getting access to the knowledge network of others and that will enrich the learning climate within a workplace.

The researcher realizes that knowledge productivity requires easy access to relevant sources of information and competence. Do the 'Eastern' and 'Western' organizations provide these facilities in different ways? Even though the 'Eastern' and 'Western' organizations may provide these opportunities, are the staff proficient enough in the communication and social skills to get access to these networks? Hence, a few common questions as below will help to evaluate the efficiency of the staff communication skills.

- i. How do 'Eastern' and 'Western' organizations make themselves attractive in order to get the staff to participate in networks of knowledge workers?
- ii. What can 'Eastern' and 'Western' organizations' offer the necessary assistance and how are they accepted?
- iii. To what extent can the above be attributed to 'Eastern' and 'Western' cultural values and to what extent to company cultural values?

In addition, this research aims to compare the 'Eastern' and 'Western' approaches in providing staffing procuring skills that regulate the motivation and affections related to learning. Affections, affinities, and emotions play an important role in knowledge work. Therefore, there is the importance of commitment, involvement and ownership to acquire new skills. Hence, it is crucial to find out the emotional and affective elements that drive the staff to regulate themselves for better

achievement. These findings are an important aspect of human resource development in a knowledge economy.

One other area that this research question targets is to understand the organization climate and organization behavior. Peace and stability are necessary elements to achieve gradual improvement. Does the environment allow staff to apply what they have learnt from the past to their current actual work? Are there frequent reorganizations, business process redesign projects or fast moving management issues in the organizations? Lack of time to reflect and to exploit existing intellectual resources inhibits the development of a firm's intellectual assets.

Finally, the organizations also look into the opportunities to tap into the creativity of the staff. It is recognized that creative turmoil results in the instigation of innovation. Creative turmoil brings the dynamics that push towards radical innovation and lead to continuous improvements in work-based lifelong learning. However, creative turmoil requires a certain amount of existential threat. Peace and stability, and creative turmoil are two contrasting learning functions. Which of the two directions does an organization promote? Perhaps, both are necessary and organizations have to strike the balanced way to achieve effective and efficient work-based learning, leading to the development of a learning organization.

The above research questions present the structure and parameters for the investigation of differences in approach between the 'Eastern' and 'Western' culture of two case-study organizations in Singapore. The policy and the activities that an organization develops to promote these learning functions form its corporate curriculum. This reflects the plan for learning to increase knowledge productivity by applying new competencies for flexible adaptation. The research reported in the following chapters enables conclusions to be made about employees' learning in different organizations in Singapore.

The study makes no direct recommendations for the managers of either of the two case study organizations or, indeed, for policy-makers in Singapore. It does have

major implications for both, however. The researcher's hope is that this study encourages managers, workers and policy-makers to think about their personal development in a new light. Successful organizations need investment and their managers need to understand the hard economics of the business environment, but there is also a whole class of factors that also need to be understood concerning work-based learning, organizational development and culture. This study shows the ways in which these factors are important and invites Singaporeans to explore their own work organizations with this in mind so that they can continually discover new ways to respond the inescapable pressures of doing business in the most cost competitive ways.

Chapter 1

LEARNING OPPORTUNITIES AND ECONOMIC DEVELOPMENT IN SINGAPORE

The global village that we live in is undergoing tremendous social and economic changes. To many people, especially the older generation, it is a vastly different, unfamiliar and sometimes bewildering world to the one they once knew. Technology and competition are spurring the change. Global economic transactions take place in real time and national boundaries are becoming irrelevant. Through the internet, organizations all over the world are rethinking the way they do business. In the new economy, one critical aspect that should be heeded is the need for people with a positive attitude, transferable skills and the ability to adapt to sometimes radical new practices.

Today, at the center of the knowledge economy is the knowledge society where knowledge workers apply to productive work ideas, concepts, and information rather than manual skills. Therefore, the productivity of knowledge has become the key to productivity, competitive strength, and economic achievement (Drucker, 1992:262) and it has become the central “factor of production” in an advanced, developed economy. In addition, the systematic and purposeful acquisition of information and its systematic applications, are emerging as the new foundation for work, productivity, and effort throughout the world.

In the past, master craftsmen and professionals acquired the skills that they used over their lifetimes when they were young and few people received much training after that initial learning. Traditionally, apprentices served long and arduous periods under a master craftsman. Often, these periods stretched over many years while the apprentices learned the tools and techniques of the job under the close supervision and guidance of the master craftsman. Likewise, in the professions too, they really needed to understand the day-to-day requirements, complexities, and the demands and pressures of the particular profession necessitated a period of

on-the-job training and exposure to new ideas. However, today these traditional apprenticeship models, as well as professional education such as doctors and lawyers can no longer follow such a model because of the dynamic knowledge revolution. They have to keep up with the fast pace of changes happening today and in order to stay competent, they have to continue with the continuous learning in their own discipline. Hence, lifelong learning is relevant to all groups of employees.

Today the philosophy of work-based lifelong learning is readily subscribed to not only by the general work-force but also by professionals and those who choose to operate at the professional level. The stages of increasing responsibility throughout the career of an executive and what they mean for personal growth, and the nature of internal corporate programs make the activity of executive education, a form of lifelong learning. As a result of this, executive education developed extensively and is spreading worldwide and gathering strength from international exchanges. It is becoming a kind of educational dimension to the binding forces of international economic and technological interdependence that seem likely to dominate the events of the next century.

The executive too is not a static entity in the corporate equation, but rather an ever-changing person who performs many roles during his or her lifetime in his/her career development with the company. Thus the effects of all-pervasive change seem to underscore the rationale for a lifelong learning effort by executives under the encouragement of their organizations.

However, evidence has shown that many managers still do not undertake training programmes. For example, in the UK, there has been a lot of commentary under the Management Charter Initiative (Blundell and Murdock, 1997: 8-9) that management is not as competent as it should be. This could be due to the fact that some companies invest in training and many others do not.

There is no exception with respect to the companies operating in Singapore. However, the two case study organisations that the researcher has drawn on in this project do in fact invest in training, including training for the executive. The Singapore Food Industry's (SFI) leadership and management vision is to open opportunities for personal development, which may have no immediate connection with their staff's working environment. This is demonstrated by its sponsoring of senior management staff to further improve their intellectual capital by acquiring either the formal post-graduate degrees or encouraging them to attend the action learning programmes being promoted by institutions of higher education. This is a formal training as it is conducted outside the workplace and usually the employees involved invest their own time to acquire the required intellectual capital.

The SFI calls for professionals in different fields to pool and reflect on their experiences over time and engage in mutual learning circles. On the other hand, it also believes that what is not measured will not be delivered. Therefore, it has structured its compulsory informal learning scheme to ensure that staff must attain a minimum number of training hours per annum and apply their acquired learning skills in achieving their committed annual specific objectives to support the organization's goals. This informal training is usually conducted during the working hours and at the company's premises and it takes the form of class-room training and on-the-job training for its practical application. Their annual key focal points are assessed and reflected in the annual performance appraisal.

One of the illustrations of this is the application of so-called lean tools such as 'the quick change over' concept, 'kanban system' and 'total productive maintenance' in performing their roles in the 'value stream' organization. These deliverables are measured by the improvement in productivity growth, reduction in operating cost and the meeting of customers' demands in the reduction of delivery lead-times. The management performance is reviewed on a quarterly basis with the president of the company. This leadership style is perceived as the driving force that compels the managers to excel in their knowledge in order to stay competent in the tasks that they are performing.

On the other hand, the management leadership style of Dragoco Singapore, a German organization in the researcher's second case study, has only a limited degree of structured training platform to encourage or promote the lifelong learning concept for the managers. The staff is provided with formal training on basic information technology application software to assist them in performing their routine tasks. This organization is beginning to conduct formal performance appraisal review and as a result, the staff is not perceived to be motivated to excel. This has resulted in them working in situ and may not be aligned to the company's vision.

In other words, although both companies operate within a competitive global context yet, as will be shown in more detail in this study, they approach these challenges in very different ways. One places great importance on training and development as a way of meeting these competitive pressures. The other does so but not to the same degree. How can such differences be explained? Are they simply facets of different management skills and competencies or do they reflect more profound differences of cultural attitude that are rooted even more deeply in German (which may be taken to represent 'Western') and Singaporean (which may be taken to represent 'Eastern') cultures?

1.1 Learning and Learning Organizations

The concept of the learning organization has, in the past decade or so, begun to make an important contribution in organizational studies and management practice. It was in the 1980s that a few companies started realizing the potential power of corporate learning in increasing organizational performance, competitiveness and success. As we are entering a new era of the twenty-first century where the development of organizational life and structure cannot be avoided, there is a need for organizations to learn faster and respond to the rapid change in the environment, otherwise they simply will not survive.

The notion of 'learning' has taken on a plethora of definitions and interpretations. Wenger (1998:86) for example defined a 'community of practice' in its temporal dimensions as a matter of sustaining enough mutual engagement in pursuing an enterprise together to share some significant learning. In his perspective, communities of practice can be thought of as having shared histories of learning. Therefore, learning is a characteristic of practice and practices evolving as shared histories of learning. Shared histories of learning are collective combinations of participation and rectification and they are intertwined over time.

There are a number of scholars who have made constructive attempts to separate the underlying nuances of 'the learning organization' and 'organizational learning'. Senge (1994:50-52) in his best-selling 1990 book on the subject, *The Fifth Discipline: The Art and Practice of the Learning Organization*, attempts to explain 'learning organization' as an organization that is continually expanding its capacity to create its future. He emphasizes that for such a learning organization, it is not enough merely to survive. "Survival learning" or what is more often termed "adaptive learning", though important, must be joined by "generative learning" which enhances our capacity to create.

However, Ray Stata, President and CEO, *Analog Devces. Inc.* when asked by Senge, expressed organizational learning as a concept that emerged at the end of the learning process which the organization was going through. It is the integrating concept for a broad range of improvement tools and methods such as Total Quality Management (TQM), Just-in-time (JIT) manufacturing, and Quality Focus Deployment (QFD).

In another publication, Boud and Garrick (1999:31-35) suggested that under conditions of *supercomplexity*, organizational learning is a matter of generating the capacities for continually creative insertions into an organization's environment. Supercomplexity is a situation in which different frameworks present themselves, frameworks through which we understand the world and ourselves and our actions within it. For example, the president of Singapore Food Industries may find that

customers' value systems are presenting challenges in communication and that, as a result, both values and communication have to be given attention in themselves rather than treated as taken-for-granted means of action.

This idea of supercomplexity provides a view that learning and work are not two distinct sets of activity. Learning is embedded in work and that work itself presents opportunities for growth and learning to take place. This applies to both low-skill work and professionals and others in senior positions in major organizations. As an illustration, in Singapore Food Industries, starting from the President to the chefs and technicians, all of them have undergone a program called the six-sigma training and acquired the skills of delivering product/service variation within the failure rate of not exceeding three parts per million parts produced. It is through this supercomplex situation that the employer/employee achieves the win/win outcome.

Argyris and Schon (1978:16) in their publication, *Organizational Learning: A Theory in Action Perspective*, indicated that organizational learning must concern itself not with static entities called organizations, but with an active process of organizing which is a continuous cognitive enterprise. In this process, individual members are continually engaged in attempting to know the organization, and to know themselves in the context of the organization. Personal development is therefore inseparable from organizational development. This, at least, is the theory.

To explore these themes further we need to look in more details at the idea of learning in the workplace.

1.2 Learning in the Workplace

Learning becomes a central concern of corporations and a facet of the way businesses see themselves. To remain employable, there are few places left for employees at any level who do not continue to learn and improve their

effectiveness throughout their working lives. There will be no place for managers and the general workforce who do not appreciate their own vital roles, i.e. fostering learning. With the way globalization is going, one can source for talent anywhere, any place, anytime, and jobs that are not done by humans can easily be overtaken by technology and this trend will continue because companies exist to grow the bottom line margin at the lowest cost or at the highest level of productivity.

Hence, with stiff competition from China with its cheap labor, as well as from our neighbor Malaysia, how will the Singaporean worker continue to survive? The key lies in Singapore having an essentially different role from these two countries. Singapore has to continue to develop itself as a higher-value regional centre, and as long as it continues to restructure and deregulate its economy, its workers will have a role to play. This implies that Singapore workers must develop world-class skills in order to ride out this transition and be able to help Singapore remain competitive.

Therefore, the Ministry of Manpower under the leadership of the Minister of Labor has developed policy to help the workers to learn, to re-learn and to re-invent themselves so as to stay competent and sustain their employability. One of its policies is to promote the restructuring of job redesign and to encourage workers to learn new skills and take on new jobs so as to overcome the continuous growing mismatch between available jobs and the skills of jobseekers. This policy will make low-skilled workers “less employable”, which will add to the current structural unemployment problem that is causing workers to take longer to find jobs.

Therefore, at an individual level, it means one should have a wide range of skills, be fairly adaptable and proactive to be able to ride out the economic cycles and ensure that one’s skills are needed wherever one goes. The new economy in Singapore is going to be more skill-intensive and more high-value-added, regardless of the companies’ background. It is acknowledged that workers need to

be well trained, well educated, more flexible, and be prepared for work-based learning that is specific to certain companies, disciplines or procedure.

There is no single way of understanding learning at work. It is not because of the diversity of work and the differences which exist within an organization, but because learning is so multifaceted. There is no universal model for learning at work as there are no best-known practices universally. Different perspectives are needed for achieving different purposes at their own defined paces. For example, development of 'knowledge workers' within high-tech 'knowledge societies' is of top priority in developed and developing countries but in the latter there is also a pressing requirement for better training in such basic skills as literacy and numeracy.

Also different national contexts create very different climates for work-based learning. In labor rich economies such as Indonesia, there may not be the pressure to train workers at work. In western societies, with ageing populations, declining birthrates and high technology economies, there are actually labor shortages at the low skills end of the spectrum. Also, developed western societies have high employment costs because of their welfare states, job protection policies, pension schemes.

In the researcher's case studies of the two companies, one point to note is that training policies and practices have to be contextualized. Although global pressures do not affect all areas of the global economy in the same way and those pressures are refracted through differences in economic circumstances, culture and management styles, the researcher's work will explore such differences at the micro level, meaning through a comparative study of the two firms facing the same labor market, in the same area of the global economy, within the frameworks of the same national law, but with different management approaches which the researcher hypothesis are related to the different cultural traditions of the firms.

In both settings, the world-wide demand and need for work-based lifelong learning appears to be increasing since the 1990s. However, we cannot presume that there is a need to recognize the importance of workplaces as sites of learning and to accept knowledge as a primary resource that gives rise to unprecedented demands for learning. Therefore, we cannot presume a demand for work-based training. It may or may not exist – whatever the need for it may be. It could exist under the situation where an organization undergoes structural changes and there is a fear of misfit of job skills that will pose redundancy. In another situation, the company does not provide a platform for promoting work-based training.

In any case, the nature of any demand has to be clarified in the two case studies the researcher has in his study. The researcher has to explore the nature of demand, if any. Is the demand short-term or long term? Is it a demand for skills and competencies or for something much more general? Is it the same for all levels of employees? Does it arise from within the labor force or it being stipulated by management?

To answer such questions, there is a need to understand that workplace learning means recognizing its complexities, its competing interests and the personal, political and institutional influences. While learning has always been a feature of working, learning at work, like workplace culture, has a new status in contemporary workplace discourse. The emphasis on ongoing skills development in the context of the rapidly changing demands of work is reflected in the contemporary management literature with Senge's (1990:13-16) concepts of 'learning organization' mentioned earlier. Learning at work can no longer be described as a discrete activity, nor as an activity that occurs only at occasional moments in one's career. Rather in the productive workplace, learning is considered to be part of everyday work. Workplace learning can be understood as a cultural practice constructed by contemporary discursive practices of work. Learning is seen as constructing work discourses.

Argyris (1978:16-23) holds that there is no organizational learning without individual learning, and that individual learning is a necessary but insufficient condition for organizational learning, and this therefore means we need to consider the socio-cultural conditions in which learning takes place, and the cultural contexts which surround learning organization.

1.3 Cultural Difference

Hofstede (1991: 14) conducted research which seemed to show strong differences between countries and that there is a tendency for countries in the West (i.e. the European and North American region and other countries related to them such as Australia and other Anglophone countries) to be similar whilst countries in the East i.e. Asia and in particular East Asia tend to be similar and therefore can be designated as the East. His research looks into basic problem areas corresponding to dimensions such as power distance (from small to large), collectivism versus individualism, femininity versus masculinity and uncertainty avoidance (from weak to strong). He then classifies cultural differences according to the above dimensions. For example, the Western countries such as Germany, USA, Australia have a power distance index (PDI) of 35-40, versus the Eastern countries -- Singapore, Hong Kong, Malaysia showing PDI of 68-104 (ibid: 26). As for the dimension of individualism index (IDV), he shows that the Western countries -- Germany, USA, Australia have an index of 67-91, versus Eastern countries such as Singapore, Hong Kong, Malaysia having IDV of 20-26 (ibid: 53). A more detailed discussion of this kind of approach will appear in the next chapter.

1.4 Learning and Training

There is, however, an important distinction to be drawn between learning and training. Training for workplaces requires a pedagogy, a philosophy of teaching that creates an environment conducive to the development of intellectual skill. The

learning processes in organizations require the creative destruction of barriers to learning and the broadening of access to new sources of knowledge and experience. Starkey (1996:204-209) distinguishes 'unorganized learning' from training, as 'organized learning'. He argues individual learning can result from training, but a successful learning organization requires not only a comprehensive training curriculum, but also a way of encouraging, and benefiting from unorganized learning.

Boud (1999:29-40) sees work-related learning as an important vehicle for exploring the ongoing interests in innovative approaches to teaching and learning. He emphasizes that there is thus growing interest in workplace learning and it focuses on the role and significance of the informal learning. This phenomenon of informal learning results from actual work experience. According to Boud, employers are not recognizing this form of informal learning that is occurring through the work organization. On the other hand, traditional training methods only teach people what to think. A new pedagogy is necessary to give workers the knowledge to think for themselves, rather than the old training that gives information only on a 'need to know' basis.

While it is possible and necessary to draw distinctions between learning and training and between attitudes that encourage all employees to learn and those which take a much more specific view of training as something necessary only on a need to know basis, all that can be observed in practice is training activity. The challenge is to find a way to observe all kinds of learning activities and to classify them in ways that illustrate possible cultural differences.

1.5 Summary

The purpose of this chapter has been to introduce the main focus of the thesis on an investigation of possible cultural differences in two cases in the approach to training.

The Singaporean context was introduced and the policy drives to use work-based training to reset the new economic situation.

In Singapore, there are multi-national companies but some are 'Western' – based and some are 'Eastern' – based. The focus of the thesis is on the investigation of whether their training is different and if the difference is caused by their different cultural origins or bases. The working hypothesis is that a German-based company will have a different approach to a Singapore-based company, and that this is caused by differences in culture.

The question of cultural difference was made very prominent by the widely quoted work of Hofstede, Trompenaars and others. In this chapter, there has been an initial explanation of this literature and of my decision to focus on cultural difference. In doing so, I have refined the distinction of 'East' and 'West', but the question remains whether cultural difference leads to organizational difference in training as Hofstede's and others' work would suggest.

In the following chapter, the initial discussion of 'learning', 'training' and 'cultural difference' will be deepened in order to clarify and operationalise the working hypothesis.

Chapter 2

LITERATURE REVIEW

Chapter 1 has provided the background of the present study and set out a working hypothesis. Prior to embarking on the empirical testing of the hypothesis, it is necessary that it be set against the background of existing literature in this field. The scope of the present chapter is to give an overview of the theoretical and conceptual frameworks guiding the research and it consists of the following aspects:

- 2.1 Understanding the Concepts of Learning
- 2.2 The impact of 'Eastern' and 'Western' cultural differences on the development of lifelong learning in a learning organization environment
- 2.3 Understanding the Concepts of Lifelong Learning in a Learning Organization environment
- 2.4 Key significant differences between organizational learning and learning organizations
- 2.5 Summary.

2.1 Understanding the Concepts of Learning

Human beings learn throughout their lives, both formally and informally. Formal learning throughout life is made possible by structured organized stages of education with the aim to provide for the passage from one stage to another and to diversify the paths through the system, while enhancing the value of each. This takes place both in formal education and in many work organizations.

Learning, both at institutional and individual levels is increasingly seen as the prerequisite for the success and survival of organizations irrespective of their size

and sector. Hence, the challenge for most organizations is to recognize and react to perceived environmental changes. Therefore, corporate changes reflect an organization's knowledge of itself, what it is, what it can do, what its desired ends are and its contexts (de Geus 1997: 6-12). However, the pace of change relies very much on the organizational culture and the belief for it to happen. According to Kessels (2001:502), if the learning function is so essential for organizations, then there is a need for organizations to establish a corporate learning curriculum. The conventional learning approach of random opportunity is not prudent enough and should be replaced by a controlled learning process.

Pedler (1997:3-16) offers his view that action learning is an approach to the development of people in organizations that take the tasks they work on as the vehicle for learning. He argues that there will be no learning without action and no sober and deliberate action without learning. Action learning implies both self-development and organization development. As a result, action on a problem changes both the problem and the person acting upon it. This is a process of learning and Revans (1980:23-28) established his famous learning equation as:

$$\text{Learning} = \text{Programmed Knowledge} + \text{Questioning Insight}$$
$$\text{or } L = P + Q$$

He argued that P has varied over the years, and its value must be put in its appropriate place in the learning spectrum of the organization. Kessels' (2001:479-506) acknowledgement that there is a growing importance for firms to operate in a knowledge economy highlights the vital importance of learning new processes. This implies that the company has to establish a learning curriculum and encourages its associates to apply what they have acquired in the programmed knowledge they received.

However, under different cultural platforms between the 'Eastern' and 'Western' environments, numerous views pertaining to differences in information flow,

learning, training and development may emerge and will be evaluated in the research questions. The researcher is evaluating the differences, if any, in management's views in supporting both formal and informal training, and the employees' views in accepting training. He suspects that both 'Eastern' and 'Western' culture case study organizations will provide for work-based training needs, but perhaps to different degrees and in different ways. In addition, the researcher will examine the differences in the climate of personal and social relationships within 'Eastern' and 'Western' culture case study companies in supporting new work-based learning. The researcher suspects that though they exercise different management styles, they do provide a good environment for personal and social relationships to develop.

Klein (1998:3-5) also advocates that an organization's culture must be conducive to participative information management and free information flow. However, information flow does not make an organizational culture less hierarchical and more open; rather having a democratic culture will make possible democratic information flows. Therefore, the nature of the wider political context in which the organization functions must come into view.

The political situation of Singaporean (limited) democracy is related to the need for a democratic culture and democratic information. The philosophy of providing training and giving the individual responsibility is part of democratic approaches and in Singapore, such views of learning and the way in which it occurs are very much determined by the Government's learning policies, the organization's belief in providing a platform for learning at the workplace and the individual's motivation to learn. The Singapore government is very supportive of workplace learning and it has a democratic approach in that it puts the responsibility on the individual to take up opportunities. It provides learning opportunities for working adults at different levels to enhance their skill competencies so that they can remain employable in the volatile labor markets where technological changes are rapid. (Int. Journal of Lifelong Education, Vol 23, No.6 (Nov-Dec 2004), 560-561.)

The government has risen to the challenge of providing quality adult education by attracting leading institutions to set up their campuses in Singapore. This formal training that is run on a full-time and part-time basis ranges from the service to the technical sectors. To build the knowledge-based economy, the government also encourages executive education targeting executives who are empowered with the latest market developments and relevant applications to meet the business challenges of tomorrow. Apart from higher learning, individuals are encouraged to sign up for a multitude of enrichment and self-development courses. These are usually conducted at neighborhood community clubs. As for informal training provided at the workplace, the government encourages employers to participate in a state-run programme by giving financial subsidies. (www.Channelnewsasia.com.Singapore Budget 2003)

These actions reflect the government's position that individuals have the responsibility to improve their knowledge productivity so as to increase their chances of staying employable. Individuals are encouraged to take a step beyond personal boundaries and define their own path to the future. While there is a strong climate of government-sponsored support for work-based learning, it remains the case that what takes place inside organizations is related to the policies, priorities, understanding and commitment of owners and managers and on how they interpret the wider discourse in their operational environment, thus encouraging the democratic flow which Klein says is important.

2.1.1 Workplace Learning – Dominant Paradigms

According to Popper & Lipshitz (2000:181-196), successful learning strategies are key factors to improve the learning environment of organizations. It is therefore, necessary for companies to establish the link between workplace learning and company performance in terms of learning processes, learning structures, work processes and work structure.

The above then brings in the concept of 'knowledge-based economy'. In Singapore, the knowledge-based economy is seen by many people (www.allacademic.com) the major lever to explain changes needed in management culture at work. According to Drucker (1999:123-132), knowledge workers are simply people who use their resident knowledge as the means of meeting the needs of their company. As indicated by Drucker, to the Japanese, knowledge creation is the main need of a company and this is done by "the knowledge creating crew". It is a new paradigm to recognize that workers and management must engage in specific interlocking processes that give rise to knowledge and wealth creation for the company. A similar view is taken by Byrne (2000:84-96) who recognizes that the creation and development of intellectual capital is the most important paradigm needed by companies to survive and compete globally. Stewart (1997:39-43) also emphasizes that to get ahead in today's economy, we have to be most adaptable and effective, and understand that something is going to happen, though we don't know where or when it will happen. This is the significance of the knowledge economy and the belief in continuous lifelong learning at the workplace is one of the key success factors for leading organizations.

According to Klein (1998:1-7), an organization's intellectual capital involving knowledge, experience, expertise, and associated soft assets, rather than hard physical and financial capital is increasingly becoming a key determinant of its competitive position. To manage its intellectual capital more systematically, the company must devise an agenda for transforming from an organization simply comprising knowledge-able individuals to a knowledge-focused organization that stewards the creation and sharing of knowledge within and across internal business functions and that orchestrates the flow of know-how to and from external firms. In some firms, visible support from top management for intellectual capital programs is among the most critical success factors. Top management has the responsibility in deciding on the types of programs that can facilitate the creation of environments to cultivate intellectual capital as core values. On the other hand, there lies the importance of commitment, involvement and ownership from the

staff to deliver the procured skills. These important issues will be analyzed in the research questions.

Stewart (1997:39-43) argues that to support the knowledge economy and “Knowledge Company”, information is the most important raw material that is needed to do our jobs. This phenomenon used to be true for only a few people in the past. However, today it is true for most, and those who are not knowledge workers are not as well rewarded as they were. Manufacturers are hiring better-educated workers to perform these knowledge-intensive jobs. Thus, the rise of the knowledge worker fundamentally alters the nature of work and the agenda of management. Kessels (2001:503) recognized that securing the right communication skills is important in getting access to the knowledge network of others that will enrich the learning climate within a workplace.

Following the direction of the above discussions, organizations that strive to become learning organizations will have to cultivate a learning culture. One of the key cultural changes is for leaders to promote organizational work-based learning through their commitment and empowerment of the workforce. Thus, leadership style is one of the key potentials that will affect and effect organizational learning. Another key change involves the learning from the business environment, both internally and externally. The most prominent stakeholder in an organization is its employees. Thus, the learning of individual employees and team learning ought to be promoted because of the positive association among individual learning, team learning and organizational learning.

As for the level of external learning, the emphasis of learning is centred on customers and competitors. As an illustration, one bank in the South East Asian region that has improved its performance amidst the financial crisis is the Development Bank of Singapore (DBS). DBS bank is an example of an organization that has learned from its competitors. It has highlighted its globalization achievement by indicating “DBS is expanding internationally, seizing opportunities in the region and beyond through acquisitions, strategic partnerships

and alliances and the establishment of new offices in banking and other financial services.” (DBS Bank Annual Report 1997:18). Thus, through DBS’ globalization strategies, DBS has not only learnt from its employee base, but also learnt from new members that it has acquired or partnered.

For reasons which will be explained in a later section, it might be expected that there are cultural differences in who takes responsibility – management or workers – for acquiring the key elements of a “knowledge company”. Furthermore, as explained in Section 1.3 (Chapter 1) the researcher suspects that both the ‘Eastern’ and ‘Western’ culture case study organizations realize the key success factors to transform their current status to those of knowledge productive organizations. It was explained there that these two companies are to be taken as representative of ‘East’ and ‘West’ as implied by the research of Hofstede and others. However it is also possible that company values and approaches over-rule any ‘East’ or ‘West’ culture values and at this point, this would mean that there will be no significant differences between the ‘Eastern’ and ‘Western’ culture organizations’ willingness to make the change to enable their employees to learn new workplace knowledge other than their own existing tasks. These are some of the issues which will be pursued in the empirical part of the thesis.

2.1.2 Summary

The above review highlighted the available evidence that supports the importance of learning and its association to lifelong learning at the workplace. The interpretation of this evidence has shown support for the following four views.

- The importance of developing a learning climate workplace
- The importance of acquiring intellectual capital for a knowledge-based economy
- The importance of structuring an organizational learning curriculum to support the lifelong platform for the associates’ development and the organization development
- The importance of the learning of its members’ knowledge the organization did not previously have.

2.2 The Impact of 'Eastern' and 'Western' - Cultural Differences

In earlier sections (especially Chapter 1 Section 1.3), the researcher has discussed and explained that the general 'Eastern' and 'Western' designations have some, but perhaps limited value. I am using them as short-hand for the complex differences, that a German Company and a Singapore/Chinese company are being used as representatives of this very broad 'Eastern' / 'Western' distinction, and that it will be the detailed contrasts between German and Singaporean-Chinese which will be the main focus of the empirical debate.

2.2.1 Singapore's Geo-political Position

Lim (1995:238) emphasizes that today's South-east Asia's success is very much due to its international openness. After almost three decades of steady economic growth, the ten capitalist countries of Southeast Asia today constitute the world's fastest-growing regional economy. These ten countries form the Association of Southeast Asian Nations, known as ASEAN. In contrast to their relatively homogeneous Northeast Asian neighbors, these capitalist countries are characterized by extreme ethnic, cultural, and religious diversity. Yet unlike other ethnically diverse, European-colonized developing regions, these ASEAN countries have maintained ethnic harmony and political peace for decades.

Lim's work shows that the ASEAN countries' economic success is particularly distinctive for its heavy dependence on the world economy. This has contributed to the region's more than 1,000-year history of widespread participation in maritime-based trade. The distinctive geography of South-east Asia which consists of peninsular and archipelagic territories lying astride the major world sea-trading route between the great empires of China to the north and India to the west has contributed to the economic success in this region. Today, this geographical feature still remains an important factor underlying the ASEAN countries' accelerated economic growth and industrialization, as they are heavily dependent on international trade, in terms of export shares of GDP. The ASEAN countries have remained major world producers and exporters of a variety of primary

commodities, at the same time becoming increasingly important as exporters of manufactures and services.

Lim further explains (1995:238) that during the colonial era, Western enterprises dominated the 'commanding heights' – a culture of adopting a large-scale, capital-intensive approach in striving for the primary-commodity-exporting economies. She points out that the immigrant ethnic Chinese and the Indians who are the minority middlemen monopolized most lower-level commercial operations. Her work also indicates that in the immediate postcolonial period, nation building was the primary political task of governments of territories that in most cases had previously been unified only by Western colonial rule. At the same time, the main modern economic activity continued to be primary production for export, but all the ASEAN countries also gradually embarked on programs of import-substitution industrialization. This is evidenced by the setting up of state enterprises as an indigenous alternative to European-dominated and Chinese-dominated private enterprise. At this point, there was a shift to labor-intensive export manufacturing as a response to political rather than economic imperatives.

In 1965, import-substitution industrialization became unrealistic when Singapore separated from the Federation of Malaysia. This is because Singapore, a trading entrepôt for the region, lacked local industrialists, and therefore, in 1968, multinationals were invited and the U.S. electronics industry began locating offshore assembly facilities here. This development had a demonstrable effect both on Singapore's neighbors and on foreign multinationals. It is at this point that the multinationals became educated about the region's potential as an efficient low-cost export platform for world markets. From the late 1980s, the ASEAN economies were affected by the rapid evolution of increasingly integrated regional production and trade networks which linked the ASEAN countries closer to their other Asian neighbors such as Japan, China and Vietnam. This now allows Singapore the opportunity to widen its market to include both the 'Eastern' and 'Western' multi-national companies that are interested to invest here.

With this change, will the culture element of 'Eastern' and 'Western' culture organizations make any difference to achieving lifelong learning in the workplace? We shall see that the 'Eastern' culture case study company (SFI) has a structured training program managed by six full-time trainers. However, the 'Western' culture case study company (Dragaco) conducts ad hoc training to meet the business needs. It is important now to consider the factors at the level of the organization that might explain differences between companies in Singapore in respect of promoting work-based learning as a way of securing future business growth. The concept that enables us to do this is that of organizational culture. This idea helps us form the bridge between the broad macro-economic changes described by Lim (1995:238) and the patterns of learning in the details of the daily activities of companies.

2.2.2 National and Organizational Cultures

Hofstede's definition of culture is:

The collective programming of the mind which distinguishes the members of one human group from another Culture, in this sense, includes systems of values; and values are among the building blocks of culture. (1991:4-5)

The above can then be used to explain organizational culture in that:

- every organization has its own culture, and no two are quite the same;
- members of the organization need to learn its culture so as to play their roles in supporting the organizational objectives;
- when top management decides that the organizational values should be changed, new beliefs and attitudes are taught;
- workplace values are passed on from experienced to novice employees – which may or may not correspond to the values that top management wishes to build.

Hofstede's work claims to show that the organizational culture will be influenced by national culture. This view was based on his analysis of one organization with branches in different countries in which he argued that the differences he found had

to be attributed to nationality. This view has been challenged in a re-analysis of the data which shows that “country explains only a small share (2 to 4 percent) of the variance and organization differences account for more variance in cultural values than do country differences” (Gerhaft and Fong, 2005:982). The authors conclude that there is a need “to balance the focus on national difference with a focus on organization differences in culture”.

In other words, are organizational values as powerful an influence on behavior as national culture? This point is important because if they are, employees can be trained to express values that contradict national values. As an illustration, one of Singapore’s national values is the belief that it is important to cultivate lifelong learning at the workplace so as to stay competitive in a highly capital intellectual economy. If the organizational culture is aligned to the national values, then there will be a high degree of synergy between the two institutions.

On the other hand, if the organizational values are overruled by the contrasting national values, then investors may not invest heavily in systems designed to modify the organizational culture. This has implications for the headquarters control of a foreign-based subsidiary. Even in a situation where the organizational and national cultures are aligned, the extent to which the individual is influenced by the workplace values depends on the individual’s service in the organization as well as the strength/weakness or positive/negative dimensions of organizational culture. The results of having a strong organizational culture will be a cohesive work force in terms of sharing the same values, beliefs, and attitudes; and members will be able to communicate easily between themselves and this is an important dimension to form lifelong learning at the workplace. A positive organization cultivates its members to support top management initiatives and results in higher productivity through team sharing of knowledge and encourages workplace redesign for continuous improvement. When there are contradictions in the workplace, relations with management are bad and the opposite conditions apply. According to Lloyd (2002: 5-8), for organizational culture to generate sustainable competitive advantage, strong and adaptable cultural traits are necessary.

2.2.3 Culture and the Workplace

Cultures manifest themselves at a superficial and deep level, in symbols, heroes, rituals and values. They are something holistic, historically determined, related to the things anthropologists' study, socially constructed, soft and difficult to change. Different national cultures have different preferred ways of structuring organizations and different patterns of employee motivation. For example, they limit the options for performance appraisal, management by objectives, strategic management and humanization of work.

Organization cultures have been identified by Hofstede (1991:292) as having six independent dimensions or practices:

- Process-oriented versus results-oriented;
- Job-orientated versus employee-orientated;
- Professional versus parochial;
- Open systems versus closed systems;
- Tightly versus loosely controlled and
- Pragmatic versus normative.

The position of an organization on these dimensions is determined in part by the type of business or industry the organization is in. They are also related to the characteristics of the organization.

Hofstede then argues that for national cultures there are four key elements, or dimensions (www.onepine.demon.co.uk/phof.htm). They are power distance, uncertainty avoidance, individualism versus collectivism, and masculinity versus femininity. According to Hofstede's (1991:23-48) matrix on power distance and uncertainty avoidance, there are significant differences between the countries' culture on the power distance index at the workplace. In the case of Singapore and other Asian culture, there is a high power distance and a low uncertainty avoidance (refer to Diagram 2.1). High Power Distance is related to employees' fear to express disagreement to their managers, boss's autocratic/paternalistic decision making style, and subordinates' preference for the boss's autocratic style. This

implies that employees manage their work according to what the manager wants or what they intuit he wants. On the other hand, managers show relatively little consideration but like to see themselves as benevolent decision makers.

Low Power Distance is related to a consultative relationship between boss and employees. There is less dependence on such a superior and more interdependence. Subordinates will readily approach and contradict their boss. 'Western' countries such as Germany (refer to Diagram 2.1) tend to exhibit this dimension.

In the context of establishing a learning curriculum in an 'Eastern' country organization, this view suggests that employers will be the main decisive drivers to dictate on the learning opportunities for the staff. In 'Western' country organizations, there will be more empowerment and autonomy given to the staff to decide on their learning development.

The uncertainty avoidance index (UAI) showed three factors: job stress (nervous and tense at work), strong rule orientation, and intended longevity at the job. In terms of measuring the uncertainty avoidance index, both the 'Eastern' and 'Western' country organizations have relatively low needs to avoid uncertainty, implying lower anxiety and job stress, a greater readiness to take risks, and less emotional resistance to change. In these cultures, it implies that managers and staff are more ready to accept the introduction of new initiatives and challenges to the organization by the top-down management style.

We need however to consider the individual in all this, and Mead (1994:38-39) explains the relationship between the individual and the group to which an individual belongs. He refers to the role of the individual and group, and which interest prevails over the other. According to him, individualist cultures stress individual achievements and rights and expect the individual to focus on satisfying his/her own needs. In this environment, competition among staff is expected and individual decisions are valued over and above group decisions, and the individual has a right to thoughts and opinions. However, in collectivist cultures, the distinction made between in- and out-groups means that altruism may be restricted

to members of one's group. A high premium is placed on group loyalty, and loyalty is valued above efficiency. In the case of Singapore, there is a high level of collectivism index as compared to Germany, for example, as demonstrated by the Hofstede (1991:50-54) matrix on Individualism Versus Power Distance, (refer to Diagram 2.2) and it can be derived from this that there is likely to be a significant difference between the Singapore and Germany case-study companies' approaches in the lifelong learning concept. Perhaps, the Singapore and other 'Eastern' companies will produce more synergy in the lifelong learning journey, as they are seen to be collectivists and German and other 'Western' companies are seen to be more individualists. The synergy is probably from the collective efforts in making changes and learning together as a team. The researcher concludes that there are factors in both which need to be taken into consideration.

Diagram 2.1: Uncertainty Avoidance x Power Distance

(Hofstede 1991:123)

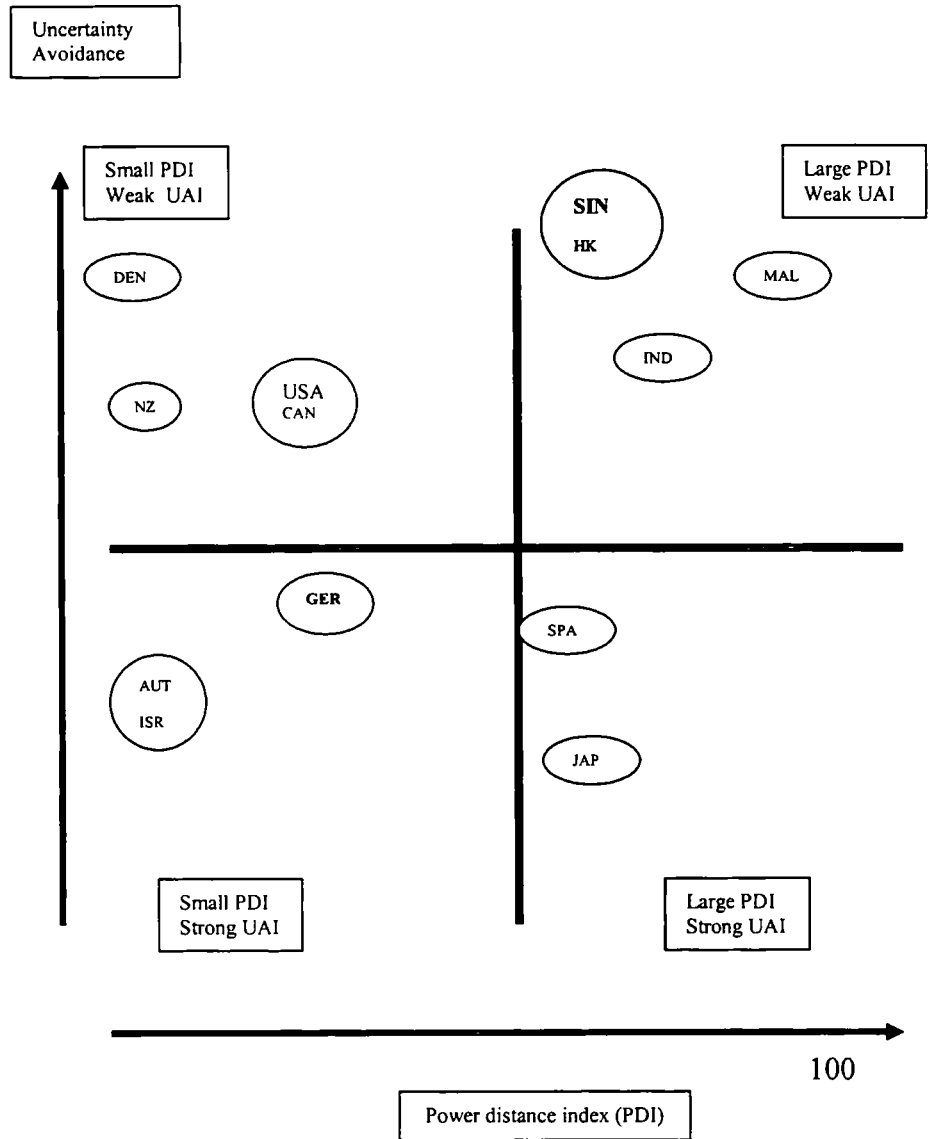
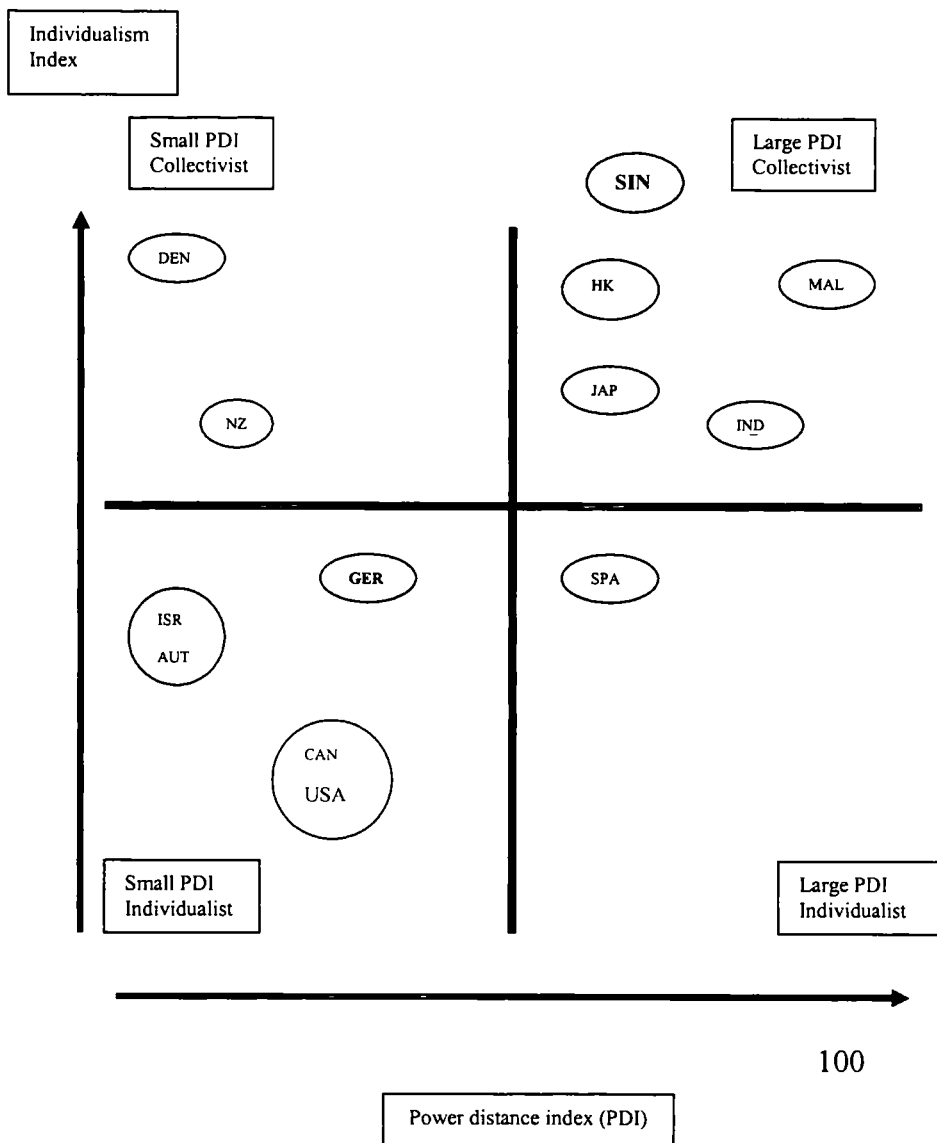


Diagram 2.2: Individualism x Power Distance

(Hofstede 1991:54)



2.2.4 Interim Summary

The above review on the cultural variations between the 'Eastern' and 'Western' countries based on the Hofstede (1991:54, 123) matrix to relate culture and the workplace provides a good platform for discussion. Nevertheless, it is one that we must treat with some caution since much has changed in the global business environment from the time that Hofstede's work came to prominence, and new analysis has reduced the power of his claims.

We have seen that Hofstede's work focuses on differences among countries but that there is a tendency for Asian countries (sometimes with the exception of Japan) to be grouped together just as European countries and the USA follow the same tendencies. It is possible therefore to refer, broadly, to 'Eastern' and 'Western' cultures to use the companies of Singapore and German origin, which will be the cases studied here, as illustration of countries and 'East' and 'West', whilst remaining aware of the differences within these broad categories.

2.3 The Concept of Lifelong Learning

Lifelong learning presupposes the development of a learning society, one where active, ongoing learning of a higher order will be broadly embraced. As this learning ethic develops, the demand for increased educational opportunities of all types will be unprecedented. It is promoted through initiatives that give individuals 'choice' and 'consumer power'. It is not to be equated with the current forms and levels of provision of adult education. It embraces much more, meaning people learn at work, in the community and through their ordinary participation as citizens in the political and cultural life of their society. Lifelong learning is an activity that can be promoted and demanded in many different contexts. It exists in factories, communities, political groups, hospitals, social service departments, the professions and the media. As an illustration: wherever and whenever adults are faced with problems for the solution of which they require new ideas, new information, knowledge, help and advice, those they turn to are performing an

educational function. This is lifelong learning. It happens everyday, every hour, every minute and every second of our lifespan.

Coffield (1997:22-36) explains lifelong learning as an inclusive concept. It is viewed as the provision of all forms of post-compulsory education and training. If a strategy for lifelong learning is to be widely supported and to mean spreading opportunities more evenly over the lifecourse and between different groups, it needs to embrace all age groups and all sections of the working population, and not just those experiencing difficulty in facing full-time employment. Lifelong learning should provide continuous chances for everyone, at all stages of their lives and whatever their circumstances.

2.3.1 Lifelong Learning at the workplace – Whose Responsibility?

As pointed out in Chapter 1.2, citing Senge and Argyris, the onus will be increasingly on the individual worker to become a lifelong learner, assembling his or her constantly updated portfolio to demonstrate 'employability'. Such shifting of responsibility for training from the employer to the employee, coupled with recent developments on worker empowerment, can be seen not just as democratic and liberal movements but also more negatively, as an attempt to make the employee, rather than the state, responsible for his or her employability. The emphasis on self-reliance and private provision in the area of lifelong learning can be interpreted as simply part of the dominant ideology reflective of a low-employment, ageing-demography economy.

Healy (1997:61) argues that enterprises and the public sector need to be prepared to shoulder a larger share of the burden for training and learning. It is argued that public resources need to be used strategically to achieve best returns and impact. He further elaborates that making lifelong learning a reality for all requires mobilizing many actors – individuals, communities, businesses, the social partners and government.

2.3.2 The Importance of Lifelong Learning in Singapore Context

There is much discussion about the need for all organizations to equip managers and staff at all levels to be able to continue to learn and develop throughout their lives and careers. In the past, the ability to think, to learn, to be creative, to solve problems, to read quickly, and to work effectively were considered to be 'nice to have'. However, today, these perspectives are no longer acceptable. The pass marks for examinations have gone higher, the expectations from employers have gone higher and therefore, the strengths, skills and qualifications with which we enter employment are extremely unlikely to remain sufficient for a whole career. Thus, the need to constantly refresh our skills and knowledge is greater now than ever before.

Many organizations, including the Singapore government have recognized this and put in place a range of training and open learning facilities for managers, supervisors, engineers and staff at all levels so as to improve the capabilities of the workforce. A new center for adult education to help Singaporeans retrain and prepare for new jobs, called the 'Centre for Adult Learning' has been set up by the Singapore Workforce Development Agency (www.sdf.gov.sg). One of the primary objectives of this center is to bring together expertise in curriculum development and training approaches, as well as provide funding support for programmes. To support this initiative, the Prime Minister, Mr Goh, in his 2002 National Day speech, announced an increase of the Lifelong Learning Endowment Fund (LLEF) from a \$5 billion fund, started two years before by another \$500 million over the next two years (The Straits Times, August 19, 2002). Based on the FY2005 budget, the Government had provided a \$500 million top-up to the LLEF. In addition, in the recent announcement (The Straits Times, Jan 7, 2009), the government has increased the fund by another \$600 million. This is targeted to pay for some 220,000 training places over two years.

It is also recognized in Singapore that the world is going to continue to change to become the global village. Complexity will increase, volumes of information will continue to grow, and competition will continue to become increasingly global.

Under this condition, no organization can afford to under-utilize its most valuable asset – people. Therefore, one of the best investments is to unleash the creativity, thinking capacity and learning potential of its workforce, thus developing the intellectual capital to its optimum level. This asset value of knowledge creation can be assessed by identifying its outcomes in terms of continuous improvement and innovation (Harrison, & Kessels, 2004:140). This can be achieved by committing to help people to develop, by giving them the knowledge and skills that will turn them into lifelong learners and achievers. We now need therefore to examine in more detail what the nature of the learning in an organization can be, and in the next section we need to look at the relationship between organizational learning and a learning organization.

2.4 Organizational Learning and a Learning Organization

2.4.1 What is Organizational Learning?

In the last twenty years, there has been a surge of research in the domain of organizational learning (Kersell, 1988; Schein, 1993; Strata, 1989; Tsang, 1997). Academics and practitioners have generally agreed that organizations need to learn in order to survive in today's complex, dynamic, and turbulent business environment (McGill and Slocum, 1993; Stata, 1989).

Based on this literature, the view expressed in this research can be summarized as follows:

Argyris and Schon (1978:9) argued that an organization lives in economic, political, and technological environments that are predictably unstable. As a result, the requirement of organizational learning is not an occasional, sporadic phenomenon, but is continuous and endemic to our society. However, there is difficulty with the notion of learning itself. When we call for learning or change, it can be perceived to be either good or bad. For example, a change that leads to regression, deterioration and stagnation is bad. A learning process that leads to the

transferring of knowledge explicitly is a good change. Hence, it is important that the kinds of learning in an organization should be transparent to the employees.

Argyris and Schon (1978:9-10,16) further argued that it must be recognized that organizational learning is not the same as individual learning, though the individuals who learn are members of the organization. Organization learning only takes place through the experience and actions of individuals. It is therefore, an entity that learns through its processing of information and when the range of its potential behavior is changed. In other words, it is an entity that allows the detection and correction of errors. It is the process of improving actions through better knowledge and understanding. It promotes creativity and is seen to be the most outward-looking entity and the most willing to change in the organization's behavior. It moves away from the old, bureaucratic command-and-control model to one that emphasizes on the relative importance of intellectual labor, involving the increasing acceptance of knowledge as a prime source of competitive advantage.

Denton (1998:23) argued that organizational learning is clearly a people-oriented philosophy and is seen as a way of managing the transition from focusing on mechanisms as a strategy to focusing on people. It can be seen as a cycle that begins with experience, continues with reflection, and later leads to action, which itself becomes a concrete experience for reflection. This sparks off a number of targeted experimental learning activities that were designed to engage people, empower leaders and accelerate team development. This form of learning is hailed as the catalyst that transforms organizations and inspires people to reach their greatest potential together.

According to Denton (1998:37-46), although individual learning is clearly different from organizational learning, there is a significant need to demonstrate a commitment to having a highly educated workforce to support the movement towards organizational learning. If organizational learning is becoming more important, then it is crucial to improve on the ability of the organization to create

knowledge, to transfer knowledge, and to use knowledge as a source of competitive advantage.

2.4.2 What is a Learning Organization?

Dodgson *et al.* (1993) and Tsang *et al.* (1997) indicate that with increased global competition, rapidly developing and changing technology and increasingly diversified consumer tastes, the need for flexibility and rapid adaptation have become increasingly important for organizations. In this context, organizations have come to focus increasingly on the importance of learning and knowledge as a prescription for dealing with current economic pressures. One method of implementing a central focus on learning is through the introduction of the learning organization.

Pedler's (1994:18-33) model of a 'learning company' integrates developmental and organizational perspectives at an individual and organizational level. He emphasizes that working and learning take place alongside each other, and employees are aware of opportunities for acquiring knowledge, applying it creatively to their work and sharing the resulting learning with their colleagues. Mumford (1995:54-55) indicates there is a growing realization that, in order for effective individual and organizational learning to take place, learning needs to be integrated with work. There should be more self-directed learning in the workplace and this is one way of maximizing opportunities for individual development.

Iles *et al.* (1994) advocate "new methods of integrating working and learning in the form of 'learning communities', which incorporate a series of multi-skilled and self-managed work teams and value the diverse skills and backgrounds of team members, while retaining a central focus on learning in the organization." They further indicate that one of the critical key factors in the development of a learning organization is the facilitation of a learning culture that focuses on the continuous development of all employees throughout the organization at every level and not simply on training programmes for privileged groups such as managers. In such organizations, learning should not only take place at local level but extend to senior

managers and the formulation of business strategy. There should be constant evaluation of a learning approach and modification is required to ensure continuous support to business plans. One of the approaches is to encourage regular feedback and execute small-scale experimentation in order to evolve the most effective business direction. To be successful in this aspect, policymaking should be participative in nature, thus reflecting the interests of everyone in the organization and not just those of higher management group.

The traditional focus of human resource development (HRD) has been on incorporating training, learning, development, and education. However, like the learning organization, HRD seeks to discourage the concept of training and instead to promote learning, through work and as an integral part of the organization's business strategy. Grieves *et al.* (1999) suggest three further features of HRD which bear similarities to the learning organization approach. First, both models promulgate the notion of learning as employee-driven, with individuals determining their own learning needs, which may then be met through supportive line managers and learning facilitators. It is emphasized that within the learning organization, individuals are encouraged to take control of their own self-development.

Second, both HRD and the learning organization recognizes the advantages of learning based in the workplace, rather than in the form of off-the-job training courses. HRD actively promotes work-based learning and in some cases may make it compulsory. However, Boud and Garrick (1999:218) criticize that this type of workplace learning is sometimes benefiting the organization more than the individual as this may not result in 'improved learning'. Within the learning organization, work is intended to incorporate an element of development and learning for all organizational members. Employees learn through mechanisms such as job exchange, job rotation, job shadowing, or by participating in action learning groups, project teams, task forces, or quality circles, while the organization might additionally support learning through workshops and seminars.

The third feature is the devolution of responsibility for employee development from senior managers to line managers. This is where a learning organization has to establish a structured way of developing its employees through the concept of 'management development' curriculum. According to Pedler (1994), all members of the company should have a chance to take part, to discuss and contribute to major policy decisions. There should be a deliberate fostering and encouragement of contributions and recognition that successful debate involves working with tensions, or even conflicts, between different values, positions and views. The learning organization must establish a participative policy that allows (1) all diverse groups the right to take part, (2) that such diversity, although complicated, is valuable in that it leads to creativity, to better ideas and solutions and (3) that only by striving to delight customers and meet the requirements of other stakeholders will the company be successful in the long-term achievement of life-long learning at workplace.

After the general overview of the new needs of organization what Kessels (2002:2-4) offers is a specification of the "curriculum" which is required to meet these needs. However, we shall show that it is necessary to be careful to appreciate that Kessels' focus on corporate curricula and knowledge-productivity needs to be complemented with a concern for the wider cultural environment in which an organization functions. As we shall see in the next chapters, with Kessels' model on the corporate curriculum for the knowledge economy as a basic theoretical framework, the study aims to search for the differences in Eastern and Western culture in implementing lifelong learning at the workplace.

Furthermore, as we have seen in section 2.3 above, there rises the question of the responsibility of the management or the workers to acquire all these key elements to achieve a knowledge company, within the wider context of the economy of the country itself with its multi-national companies. This is one area that the research questions will attempt to identify the differences between the 'Eastern' and 'Western' culture two case study companies in their approaches to work-based learning. In this aspect, the researcher expects both the 'Eastern' and 'Western'

culture organizations to realize the importance and the needs in providing training to their employees so that they can contribute to higher productivity.

2.5 Summary

The above literature review supports the view of Staniforth (1997:5-7), that if we are to survive – individually or as companies, or as countries -- we must create a tradition of ‘learning companies’. Every company must be a learning company because it is an organization that facilitates the learning of all its members and continuously transforms itself.

It brings out the differences between organization learning and a learning organization. Organization learning is a process participated in by the employees to cultivate a learning environment, which is structured and supported by the management to promote a platform for learning. It is through this structured platform that a learning organization is born to sustain the organization’s growth and stay competitive.

The review has also introduced the question of national cultures and the values they embody, as analyzed by Hofstede. It has been argued that national values (such as power distance, uncertainty avoidance, individualism and collectivism) are likely to interact with organizational values. We might expect to see, for example, German national values in a Germany-based company and Singaporean national values in a Singapore-based company, but also the companies’ own values, particularly in today’s globalized economy where companies are multi-national. An analysis of a learning organization must therefore attempt to identify the interplay of values as they appear in approaches to lifelong learning.

The literature review also highlights that learning is not a simple process and it is difficult to force people to learn. Without individual learning there is no lifelong learning and there will be no Learning Organization. It can be concluded that

individual learning is not by itself a sufficient condition to create a Learning Organization. The learning must enable the individuals to excel at their own jobs or roles, have direction, purpose, and be efficient. The accumulated evidence in the above review raises the importance of having a structured learning curriculum to lead to lifelong learning in a learning organization, and the approach taken by Kessels has been mentioned and will be explored further.

The literature referred to is largely western in origin and reflects change and development in management thinking and in public policies throughout western societies. The ways of thinking that are part of this discourse have been positively embraced in Singapore. It is a major concern of this study to explore whether the cultural and organizational circumstances of Singaporean business are supportive of such approaches to training and development or not. Also, as will be seen, it is to assess how far the western discourse on lifelong learning in the workplace can be challenged and/or enriched by the experience of both government and business in Singapore.

The thesis began with a working hypothesis that there will be identifiable differences between 'Eastern' and 'Western' companies in the way they address lifelong learning. We have shown that there is some justification for this hypothesis but that it needs to be refined and Hofstede's research refers above all to countries. This hypothesis can however be used as a framework for examining lifelong learning in the two cases which will be described in Chapter 3: Singapore Food Industries, a Singapore-based company and Dragoco Asia Pacific, a Germany-based company.

In order to operationalize the hypothesis, we have introduced Kessels notion of a corporate curriculum and its component parts. It might be expected that there will be differences between the two companies in their curriculum on account of their national bases, but it might also be expected, as the literature review has shown, that company cultural values will also be present.

In order to focus the analysis the following research questions have been formulated:

1. Do 'Eastern' and 'Western' companies take different approaches in providing subject matter expertise to their staff basing on their company cultural values?

This question is aimed at addressing the level of competencies related to acquiring subject matter expertise through a training and development plan established by the 'Eastern' and 'Western' organizations.

2. Do 'Eastern' and 'Western' companies take different approaches to training staff from 'Eastern' and 'Western' companies on problem solving techniques to enhance their knowledge in resolving problems continuously in order to support their company values? And if so: are the values which staff are trained to support 'Eastern' and 'Western' respectively

This is a question about learning to solve problems by using domain specific expertise. It is important to develop competencies with which existing domain specific knowledge is applied to solving new problems. This requires both reproductive skills and also productive skills, meaning the ability to act in new and ill-defined problem areas.

3. Are 'Eastern' and 'Western' companies' staff helped differently and in ways which reflect 'Eastern' and 'Western' approaches to develop reflective skills and meta-cognitive skills that enable them in approaching problems?

The purpose of this research question is to establish the 'Eastern' and 'Western' approaches – and possible differences between them – to developing reflective skills and meta-cognitive competence conducive to locating paths leading to new knowledge.

4. Is the climate of personal and social relationships within the 'Eastern' and 'Western' organizations supportive of new learning and is it attributed to 'Eastern' and 'Western' cultural values or to company cultural values?

This question aims at understanding the level of communication skills provided by the 'Eastern' and 'Western' organizations to the staff. It is recognized that securing the right communication skills is important in getting into access to the knowledge network of others and that will enrich the learning climate within a workplace.

Chapter 3

METHODOLOGY

3.1 Introduction

As Singapore moves into the 21st century with the intensity of globalization, global competition and numerous organizations undergoing restructuring, it is both meaningful and interesting to find out the feelings and perceptions associated with the needs of lifelong learning at the workplace in companies of different national origins among the employees. The differences in their respective perceptions of the demands of global pressures on the need for workplace education and training will be important in deciding how well Singapore responds to the changing economic environment of the modern world.

The research design and choice of techniques reported in this chapter are guided by the notion of 'fitness for purpose', a view shared by Oppenheim (1992:7-10).

As described in the previous chapters, the purposes of this study are providing an overview of work-placed learning, organization culture, organization learning and learning organization in Singapore:

1. To understand the kinds of learning climate within a particular workplace, and the level of training and development provided to produce a learning environment.
2. To identify the differences, if any, between the ways in which Eastern and Western culture companies understand and act upon the lifelong learning concept in organizations in Singapore and in the course of doing this:
3. To assess whether the current arrangements for lifelong learning in the workplaces of Singapore are adequate to the task.

Following research questions were then established for the case study.

1. *Do 'Eastern' and 'Western' companies take different approaches in providing subject matter expertise to their staff basing on their company cultural values?*
2. *Do 'Eastern' and 'Western' companies take different approaches to training staff from 'Eastern' and 'Western' companies on problem solving techniques to enhance their knowledge in resolving problems continuously in order to support their company values? And if so: are the values which staff are trained to support 'Eastern' and 'Western' respectively*
3. *Are 'Eastern' and 'Western' companies' staff helped differently and in ways which reflect 'Eastern' and 'Western' approaches to develop reflective skills and meta-cognitive skills that enable them in approaching problems?*
4. *Is the climate of personal and social relationships within the 'Eastern' and 'Western' organizations supportive of new learning and is it attributed to 'Eastern' and 'Western' cultural values or to company cultural values?*

These questions are derived from the Kessels' (2000) model of the corporate curriculum. In his model, Kessels argued that the society is gradually moving towards a knowledge economy, that is to say there is implication that knowledge application will be one of the key factors in successful production. Therefore, an organization's knowledge productivity in terms of ability to gather information, generate new knowledge and disseminate and apply them at workplace will be the main economic factor to develop a competent workforce. Hence, it is crucial for an organization to be able to create a learning environment to stay competitive.

He has used similar questions in a diagnostic way to find ways of improving the structures, policies and outcomes of work-based learning in a wide range of organizations. In this study the model provides a useful analytical framework with which to explore differences between organizations in the corporate curricula they

develop. Kessels has not been concerned to identify cultural differences that influence corporate curricula in different organizations. Nevertheless, his model of the corporate curriculum is a useful tool with which to conduct such enquiries. The answers that can be given to his questions reflect, it can be argued, some deeper structures of value and belief and attitude that shape how managers think about employees, their needs, their potentialities and about their relationships with them. These deep structures of perception – or, to use Bourdieu's term, *habitus* - or habits of mind, are bound up with wider patterns of culture.

Bourdieu explained this concept in the following way:

The *habitus*, a product of history, produces individual and collective practices – more history – in accordance with the schemes generated by history. It ensures the active presence of past experiences, which, deposited in each organism in the form of schemes of perception, thought and action, tend to guarantee the 'correctness' of practices and their constancy over time, more reliably than all formal rules and explicit norms. (1994:98)

In order that valid answers to the above questions could be obtained, careful consideration was given to the design of the research and its methodology. The aim of this chapter, therefore, is to discuss the most practical methods used for the study. The first part of this chapter covers broader issues on research design. This includes research instruments, validity and reliability of the study and research ethics. In the second part of this chapter, details of the research procedures regarding data collection, processing and analysis will be explained.

3.2 Research Design

This study takes the approach of case study research that elicits responses from a sample of the population from both organizations. The sampling from the two case studies is stratified and cross-sectional, meaning that cases are included from the general work force to the supervisor and management group.

The research design is descriptive in nature, aiming to find out the learning attitudes from the management's perspective to the employees' perspective. This allows the exploration of the relationship between two key variables, the reception of learning at the workplace by management and secondly by employees in the context of the different orientation of Eastern and Western culture organizations in the Singapore environment. Although the survey research approach may not be adequate to establish the relationships between the independent (causes or predictors such as 'Eastern' and 'Western' cultural orientation) and dependent variables (effects-variables, meaning gains or losses in accepting the learning concept), it helps to reveal the associations or correlates between them.

In order to provide valid and reliable answers to the research questions set in the above section, different instruments are used in this study, including questionnaires and focused individual or group interviews, which will be described in greater details in the following section.

3.2.1 Research Instruments

Questionnaires and interviews are the two instruments that the researcher used in his research study. The term "Questionnaires" is sometimes used to distinguish a set of questions, including perhaps some open-ended ones, from more rigidly constructed scales or tests (Oppenheim 1992:102-103). A questionnaire is an important instrument of research, an important tool for data collection. The questionnaire has a job to do – its function is measurement. The answers to "What is it to measure?" are contained in the questionnaire specifications that follow directly from the operational statement of the issues to be investigated or the formulation of research questions to be answered as in the earlier section, and from the research design that has been adopted. Although a direct method using questionnaires can address the attitudes towards lifelong learning (both cognitive and affective aspects) of the employees in the case study organizations, informants might often take social pressures into account and could therefore give socially desired responses instead of the ones they hold themselves and we have to find the best ways to overcome this even though we cannot be entirely sure that we have

been successful. The following discussions show the advantages and disadvantages of each of the instruments used in these case studies.

3.2.1.1 Interviews

There are different kinds of interviews (Structured or also known as 'standardized' interviews, Semi-structured also known as 'exploratory' or depth interviews, and unstructured interviews which are used in ethnographic field work)

The purpose of a structured interview that is typically used in a large-scale survey is essentially that of data collection. It might be called the 'mass production' stage. The various research objectives and hypotheses have been formulated, the interview schedule and the wording of the questions have been exhaustively tried out in pilot work; the sample has been drawn; the field force recruited; and arrangements made for coping with refusals and otherwise unobtainable respondents, with fieldwork checks and the return of the completed schedules for data processing. This method is often used in public opinion polls, market research and government surveys. During the actual interview phase, there is this crucial assumption that the interviewer's skill to approach as nearly as possible the notion that every respondent has been asked the same questions, with the same meaning, in the same words, same intonation, same sequence, in the same setting (Oppenheim 1992:66-67). Although this allows bigger data base from wider diversity to be collected for analysis, it is time consuming and demanding to achieve this kind of psychological 'sameness'. It is a manifest impossibility.

One purpose of the semi-structured interview is essentially heuristic. It is to develop ideas and research hypotheses rather than to gather facts and statistics. It is concerned with trying to understand how ordinary people think and feel about the topics of concern to the research. Often these are emotionally 'loaded' topics. Two of the main disadvantages are (1) it requires a highly-skilled depth interviewer to talk freely and with some degree of insight about their thoughts, feelings and formative experience, (2) it meets with difficulties such as shift work, busy people

being unable to spare the time, reservations about being 'probed', which may lead to bias in the sample (Oppenheim 1992:69).

A second purpose of this kind of interviewing is to follow-up a survey to gain more insight into responses to a questionnaire.

However, one of the advantages as contrast to the structured interviews is that this method requires no more than thirty interviews. Oppenheim (1992:67) views that it would be very foolish even to try to quantify so small a number and, besides, these respondents are unlikely to be properly representative of the survey population. He emphasizes "the job of the interviewer is thus not that of data collection but ideas collection".

The researcher decided to use semi-structured interviews in the second approach i.e. to follow-up the questionnaire results as he is in better position to address numerous open-ended questions, or open-ended probes. This allows the respondents to say what they think and to do so with greater richness and spontaneity. One of the greatest advantages in the use of interviewing technique is that it gives the researcher a prepared explanation of the purpose of the study more convincingly than a covering letter can do. The researcher is able to explain the intention of the study to the less well-educated respondents or those with reading difficulties, e.g. in this case the operators from Dragoco and the chefs from SFI.

In the researcher's research work with the two case study organizations, the cost factor is not an issue at all as all his interviewing sessions were conducted within the company's premises. However, the time factor was the major constraint that he experienced. The researcher had to take weeks if not months to complete his interviewing schedule as he had to wait for the respondents to turn up for the interviews in spite of sending out reminders and pre-arrangements made for the interviewing sessions. In many cases, he had to leave the company's premises very disappointed and at times frustrated, without having the opportunities to conduct

the interviews as the respondents were either involved in urgent meetings or on call to address the ongoing critical operating issues at the shop-floor.

The interviewing was necessary so that respondents were able to express their views and elaborate on their feelings towards lifelong learning at the workplace. It was for the above advantages of a mixed approach that this study adopted a combination of both quantitative and qualitative methods and we turn now to the use of questionnaires.

3.2.1.2 Questionnaires

The researcher also used questionnaires to gain a more systematic and quantifiable data set to complement the data from interviews.

A questionnaire is a tool for data collection. There are numerous methods such as mail questionnaires, group-administered questionnaires and self-administered questionnaires. The researcher decided to use the self-administered questionnaires as the most practical approach in the circumstances. In this method, the questionnaires are presented to the respondents by someone in an official position, such as a supervisor. The purpose of the inquiry is explained in a covering letter that explains the purpose of the survey, the various sections of the questionnaire and that their inputs are treated with high confidentiality. The respondent is left alone to complete the questionnaire, which will be picked up later. Greatest care is needed in the briefing, otherwise with the best intentions, may introduce fatal biases (Oppenheim 1992:100, 102).

The key to good results of measurement is to ensure that the questions are not ambiguous. In addition, the detailed specification of measurement's aims must be precisely and logically related to the aims of the overall research plan and objectives. However, it is recognized that it is not an easy task to lay down the detailed specifications in itemized particularity for an entire research project. It requires painstaking, intellectual efforts, and it is a test of the researcher's patience and perseverance. As an illustration, the researcher's proposed set of

questionnaires was subjected to numerous rounds of review, editing and amendment by both his thesis supervisor and the dean of this program. When it was finally accepted, the researcher picked a pilot area for testing, namely the participants involved in the PSB Academy. The researcher decided to use this base for testing the questionnaire because the participants are from a diversified background. These are working adults from the 'Eastern' and 'Western' culture companies operating in Singapore. Feedback of the pilot testing was considered and minor changes were made to the original set of questionnaires to enhance better understanding from the potential respondents. Such procedures may seem tedious but they are essential. For the quality of the data to be analyzed depends fundamentally on the quality of the instrument used to collect it. If, as in this case, a questionnaire is an important part of the research design, then every effort is needed to make sure that the instrument used has been well designed and tested.

With respect to questionnaire responses, studies show that a postal questionnaire may easily produce a response rate of below 40 percent (Oppenheim 1992:81-82). In this study, questionnaires were not posted. Instead as indicated above, the researcher had them handed over to the Human Resource Managers who in turn distributed them to the respective diversified participants from the various operations divisions as well as the supporting functional groups such as administrators, accounting division, and sales and marketing groups. The response rate in his approach was extremely good, generating a close to 100 percent feedback.

3.2.2 Validity & Reliability

As pointed out at the beginning of this chapter, the research set out to answer empirically a series of questions derived from theoretical literature. Therefore, each question has a job to do, and that job is the measurement of a particular variable, as laid down in the questionnaire specification. While trying to assess how well each question, or group of questions, does its job, we need to use the concepts of reliability and validity. These are concepts derived from measurement

theory and from psychometrics such as measures of aptitude tests (Oppenheim 1992:144-145).

There are numerous types of validity. 'Concurrent validity' shows how well the test correlates with other, well-validated measures of the same topic, administered at about the same time. 'Predictive validity' shows how well the test can forecast some future criterion for generalization purposes. 'Construct validity' shows how well the test links up with a set of theoretical assumptions about an abstract construct such as intelligence, conservatism or neuroticism. 'Content validity' seeks to establish that the items or questions are a well-balanced sample of the content domain to be measured. (Oppenheim 1992:162).

Reliability on the other hand refers to the consistency of a measure, to repeatability, to the probability of obtaining the same results again if the measure were to be duplicated. Reliability is never perfect; it is always a matter of degree (Oppenheim 1992:159). It is possible to have a measure that is highly reliable yet of poor validity. On the other hand, when a measure is found to have excellent validity, then it has higher probability of reaching higher level of reliability. The development of psychological tests, such as measures of intelligence or personality, is often faced with these issues of reliability and validity.

In this study, reliability among groups from the two organizations is addressed through the use of standardized questionnaires and procedures for administration. As regards to interviewing, a list of standard questions was prepared to guide each group discussion even though participants were encouraged to contribute freely to the interviews.

Since the question of validity and reliability underpins the whole study, related issues will be revisited in the second part of this chapter when details of the research procedures are accounted for.

3.2.3 Research Ethics

Oppenheim (1992:83-84) suggests some main ethical considerations that are particularly pertinent to survey research. One of the basic ethical principles governing data collection was that no harm should come to the respondents as a result of their participation in the research. For instance, if a respondent had been upset by some of the questions in an interview, then the interview might have to be abandoned rather than risk upsetting respondent still further. In the process of data collection, it should not be perceived by the respondent that the interviewer was making an attempt to sell things to him/her as this was unethical and it gave social research a bad reputation. The other key ethical issue was to respect the respondent's right to privacy and the right to refuse answering certain questions, or the respondent's decision not to be involved in the interview. There should be no undue pressure given to the respondent to participate.

In order to attain a high ethical standard, the following rules were strictly followed throughout the whole study and special caution was taken to protect the interests of the respondents, to ensure that they gave their 'informed consent'.

- The researcher explained as clearly as possible the aims, objectives, and methods of the research to all of the parties involved
- Respondents had the right to refuse to take part in the research
- The researcher had to demonstrate how confidentiality and anonymity were to be built into the research
- Respondents' decisions had to be respected.

In summary, it must be observed that in all stages, all parties were informed of the general purpose of this study and that their participation should totally be voluntary. It was also experienced that anonymity and confidentiality were built into this study without much difficulty. For both the questionnaire survey and the focused interviews, no names were recorded. Although respondents were-asked to indicate their job designation, and workplace on the questionnaires that might become a potential threat to anonymity, the researcher protected their identities.

The researcher did not find any significant differences in the behavior of the respondents between the case study organizations in the approach about the research process. Respondents from both organizations were positive and responsive to the questionnaires and interviews.

3.3 Data Collection and Analysis

After the discussion of some broader research issues, in this second half of the chapter, details of the research procedures that include sampling strategies, steps for data collection, data processing and data analysis will be described. In the following, the research procedures will be described in detail firstly for the quantitative instrument and then the qualitative instrument.

3.3.1 The Quantitative Instrument: Questionnaire Survey

3.3.1.1 Design of the Questionnaire

In this study, a questionnaire was devised to collect responses from i) a large sample of the employees working in Singapore Food Industries and Dragoco Company. This questionnaire is based on Kessels' (2001:502-504) paper on: "Theory of Organization Learning – Corporate Curriculum for the Knowledge Economy", explained earlier in this chapter. The following framework was set forth for this study, and questions were devised under two categories and they were sequenced randomly (Appendix I)

a) Part I: Personal and Organization Information

The first part of the questionnaire collected background information about the informants such as organization name where he/she is employed, organization headcount, nature of business, profession, sex, age group, currently attending any course, course sponsorship by company and higher level academic qualification

attained. There are no sensitive questions raised in this section, and the researcher expected full support in this area.

b) Part II to VIII: Organization's & Respondent's perceptions and beliefs about training

Part II has reference to Kessels' idea of corporate curriculum for the learning function in terms of 'subject matter expertise'. A total of nine questions (Appendix I, Questions 11.1-11.9) are structured to gather information on the kind of training provided following Kessels' idea in 'subject matter expertise'. In the analysis the data will be analysed to see if there are differences between the two companies – seen as representative of 'Eastern' and 'Western' approaches to training – and thus to address research question one:

Do 'Eastern' and 'Western' companies take different approaches in providing subject matter expertise to their staff basing on their company cultural values?

The researcher is expecting that feedback from the first six questions will help him in understanding the 'Eastern'/'Western' cultural differences in addressing the competencies related to acquiring 'subject matter expertise' in the organization. Responses from three other questions 11.7-11.9 are expected to provide feedback related to cultural differences in whether a highly specialized work force with competencies related to acquiring 'subject matter expertise' will make a learning organization that becomes knowledge productive.

Part III refers to Kessels' learning function in terms of 'problem solving'. Kessels argues that one of the important learning functions is to 'solve problems' by using domain specific expertise so as to develop competencies with which existing domain specific knowledge is applied to solve new problems. This section is aimed at addressing research question two:

Do 'Eastern' and 'Western' companies take different approaches to training staff from 'Eastern' and 'Western' companies on problem solving techniques to enhance their knowledge in resolving problems continuously in order to support their

company values? And if so: are the values which staff are trained to support 'Eastern' and 'Western' respectively?

This section has thirteen questions (Appendix I, Questions 12.1 – 12.13) to understand the respondents' perception in learning in terms of 'problem solving'. The first ten questions are structured to understand the respondents' perception in their organizations in providing them with sufficient skills in 'problem solving'. The remaining three questions will help the researcher in understanding whether the cultural differences have impact in the learning process to solve work-related problems by using the acquired specific knowledge.

Part IV consists of nine questions (Appendix I, Questions 13.1 – 13.9). They are designed to link with Kessels' view on developing 'reflective skills and meta-cognitive skills' leading to new knowledge and means for acquiring and applying this asset. These questions are structured to address research question three:

Are 'Eastern' and 'Western' companies' staff helped differently and in ways which reflect 'Eastern' and 'Western' approaches to develop reflective skills and meta-cognitive skills that enable them in approaching problems?

Part V to VIII refer to Kessels' views that a corporate curriculum provides the following framework for the learning functions: 'communication skills', 'self regulation of motivation and affection', 'peace and stability', and 'creative turmoil'. A total of thirty-seven questions (Appendix I, Questions 14.1 – 17.8) are designed to obtain feedback from respondents in their perception of training. They are designed to link up with Kessels' concern for (i) securing communication skills that can provide access to the knowledge network of others and that can enrich the learning climate within a workplace. Kessels also argues that getting access to these networks relies heavily on the proficiency in communication and social skills i.e. (ii) procuring skills that regulate the motivation and affections related to learning – meaning self regulation of motivation and affection; (iii) promoting peace and stability to enable specialization, synergy, cohesion, and integration. Kessels states that peace and stability are necessary for gradual improvement, and

(iv) causing creative turmoil to instigate innovation. Kessels believes that creative turmoil brings the dynamics that pushes towards radical innovation, leaving traditional paths behind. This section attempts to address research question four:

Is the climate of personal and social relationships within the 'Eastern' and 'Western' organizations supportive of new learning and is it attributed to national cultural values or to company cultural values?

In summary, Part II to VIII of the questionnaire consisted of statements and questions devised to elicit informants' perceptions of and beliefs about the organization's support for training programmes and the respondent's reception of the training. This section of the questionnaire is composed of 45 questions and 23 statements. In order to get the respondents to place themselves on a continuum for each statement, the researcher decided to use Likert scales running from 'strongly disagree' to 'agree', 'uncertain', 'disagree', and 'strongly disagree'. The central point 'uncertain' in the scale is omitted from the computation. During the survey, each respondent was asked, not merely whether he/she agrees or disagrees with each statement, but to tick one of the five positions. However, during the computation, the results from the 'uncertain' column were disregarded in order to have a clear calculation of agreement and disagreement. In the event, as we shall see in later chapters, there were very few informants who wanted to use the 'uncertain' category.

Next, the score of each respondent is recorded. To do this, a decision has to be made whether a high scale score is to mean a favorable or an unfavorable factor. It does not matter on the decision made, but it is important to ensure consistency in recording the score. If it is decided that a high score on the scale will mean a favorable factor, then favorable statements must be scored 4 of 'strongly agree' down to 1 for 'strongly disagree'. The total score is obtained by adding up the item scores, excluding the middle score (Oppenheim, 1992:197).

3.3.1.2 Sampling Approach

The questionnaire survey conducted at the two companies' premises was administered prior to the qualitative phase of the study. This quantitative survey was conducted over a 4 months' period.

In order to attain a high validity within the cases in the first instance, sampling strategies are important. It is the strategy to have more informant representatives so that a higher level of the generalizability in the research result can be obtained. In principle, a representative sample of any population should be so drawn that every member of that population has a specified non-zero probability of being included in the sample. The researcher decided to resort to a modified sampling method that is called the cluster sampling method (Oppenheim, 1992:39-40). This takes advantage of the fact that the populations in the two organizations are structured by their functional roles, for instance production operators' function, finance function and marketing function. Cluster sampling is designed to make use of these structured hierarchies. The researcher then applied the random sampling principle to each stratum in turn.

As for the qualitative method, most of the lower and middle managers from each of the two organizations were interviewed. In addition, a cross-functional group of representatives from the general workforce, including the administrative staff were also interviewed. Each of the interviewing sessions lasted for about 15 – 30 minutes, depending very much on additional information being shared by the respondents. Most of these interviews were conducted during Saturdays at Singapore Food Industries (requested by the staff as it is less disruptive to week-day tight working schedules) and as for Dragoco Asia Pacific Co Ltd., the researcher had the opportunity to meet up with them in any of the week-days (for further details of interviewing see Table 3.2 below) .

3.3.1.3 Data Collection Procedures

Five managers from each organization were invited to administer the questionnaire to their general workforce. The researcher was fortunate as he obtained full support from the managers. In order to reduce discrepancies between different questionnaire administrators, the managers were given a briefing on standard instructions. In addition, before the questionnaire was issued, a briefing session was given to the administrators on the meaning of each of those 45 questions and 23 statements. The return of completed questionnaires from Singapore Food Industries was very encouraging. All of them were returned to the researcher within two to three days of the survey, with the exception of one group from the subsidiary production where the survey was returned after 1 week. As for Dragoco Asia Pacific Co. Ltd, most of the completed questionnaires were returned after 1 week from the survey date. One of the primary reasons given for the delay was the respondents were very busy with their day-to-day activities.

Ethical issues were considered during the data collection process. All questionnaire administrators were informed very clearly that participation in this study was voluntary. Respondents' names were kept anonymous. In fact, several respondents chose to register their names in the questionnaire.

3.3.1.4 Data Processing

The researcher received excellent responses from the two case study organizations' employees. The successful return of questionnaires was obtained from all strata in the organization hierarchy. At the end of the survey, a total of 243 questionnaires were used for data analysis. The researcher checked on the number of responses in each of the two case study organizations to ensure that a sufficient spread is available for statistical analysis. Listed below is the number of cases involved in the survey.

Table 3.1 Number of Participants Involved in Survey

Groupings	Number of Valid Cases
Singapore Food Industries	125
Dragoco Asia Pacific Co.	118

3.3.2 The Qualitative Instrument

As explained earlier, the researcher decided to use a mixed research approach because the results of the first instrument, the questionnaire, can provide a framework for the second instrument, the interview. One of the characteristics of a mixed approach is to allow the researcher to understand the questionnaire analysis and guide him in structuring the interviews in two main aspects: i) who to interview, and ii) what questions to address. The qualitative approach is more open-ended. It generates 'rich' data that needs interpretation. It provides contextual information.

From the results of the questionnaire survey, the researcher was able to finalize "who to interview?", and also "what to discuss?". In the interviewing process, both direct and indirect questions were asked to elicit the employees' responses.

Following are questions raised during the semi-structured interview with the respondents from the two case-study companies. The main reasons for asking these questions are:

- i. to link to Kessels' views of the type of learning outcomes and the learning processes leading to knowledge productivity that requires a curriculum that supports learning functions reflected in the research questions. The 20 questions (Appendix 2) provide more in-depth feedback to allow the researcher to have a better understanding on how the Eastern-Singaporean and Western-German companies address the needs to make a learning organization that becomes

knowledge productive. Questions 1–7 attempt to encourage the respondents to share their views in this aspect.

1. What is your thought of lifelong learning at your work place?
2. Is organization learning important?
3. Does training help your company to achieve better results?
4. Do you see your company promoting lifelong learning?
5. Does your company support training?
6. What form of formal training is provided to your employees?
7. What form of informal training is provided to your employees?

ii. questions 8-16 allow the respondents to share their views of companies' commitment and encouragement in lifelong learning, and the expectation after the training process.

8. Do you experience any difficulty in getting your employees in training?
9. What is your company's expectation from employees who have received formal or informal training?
10. Have you come across any employees reluctant to be trained?
11. How do you encourage your employees to accept training?
12. Do you foresee your employees leaving you after acquiring their training?
13. What are key success factors to cultivate your company to adopt a learning organization environment?
14. Do you create earning opportunities for your employees?
15. Do your superiors support training?
16. What is your CEO vision in terms of training?

iii. the remaining four questions attempt to conclude the understanding from the respondents of individuals' and companies' needs and approaches (leadership style) to develop the necessary competencies (types of learning platform) to be able to participate in a lifelong learning at the workplace.

17. What type of leadership style is seen in your manager?
18. What are the benefits of training --- your opinion?

19. What is your company turnover rate?
20. Does your company promote learning platform at your work place?

The data collected could be used for providing more depth and detail to the statistical tendencies identified from the questionnaires. The researcher personally conducted all interviews so as to ensure maintaining high reliability of the interviews. The qualitative data through interviews help the researcher to analyze the attitude of responses towards lifelong learning at their workplace. This comparative method is cumbersome and it demands some level of 'judgment' from the researcher to interpret each statement as expressed by the respondents during the interview sessions. The researcher faces the difficulty in terms of the fact that he has to be sensitive in making clarification with the respondents. He has to ensure that the process is not being perceived as making them over-committed and their social dignity is taken care off.

Most discussions were conducted in English with some exception in Mandarin. (from Singapore Food Industries' employees). A total of 30 participants took part in the interviews, ranging from middle managers to general workers at the shop-floor.

Table 3.2 Details of Participants Involved in Interviews

Source	Total Participants	No. Male	Job	No of Female	Job
Singapore Food Industry	15	8	3 Mgr 1 Engineer 3 chef 1 Admin	7	2 Mgr 2 Admin 3 Tech
Dragoco	15	7	3 Mgr 2 Tech 2 Salesmen	8	2 Mgr 3 Lab Assist 3 Admin

Key: Mgr --- Manager

Admin --- Administrator

3.4 The Comparative Case Study Dimension

The final element of the methodology to which attention should be drawn is the comparative case study dimension. There are two case study organizations in this study and the design of the study allows for comparisons to be made between the results of questionnaire research in both of them. These companies are different industries but for the purpose of this study that is not significant, for the focus is on their management practices in relation to a common problem, that of work-based learning.

Yin *et al.* (2003:12) suggests the definition of a case study as follows:

The essence of a case study, the central tendency among all types of case study, is that it tries to illuminate a decision or set of decisions: why they were taken, how they were implemented, and with what result,

Yin *et al.*(2003:1-3, 10) explain the case study as one of several ways of doing social science research and it includes surveys and the analysis of archival information. They further comment that using case studies for research purposes remains one of the most challenging of all social science endeavors.

Bassey *et al.*(1999:24) describes the case study as follows:

Unlike the experimenter who manipulates variables to determine their causal significance or the surveyor who asks standardized questions of large, representative samples of individuals, the case study researcher typically observes the characteristics of an individual unit – a child, a clique, a class, a school or a community. The purpose of such observation is to probe deeply and to analyse intensively the multifarious phenomena that constitute the life cycle of the unit with a view to establishing generalizations about the wider population to which that unit belongs.

Cohen and Mansion (1994:106) make the following comments on case study:

Present antipathy towards the statistical – experimental paradigm has created something of a boom industry in case study research. Delinquents, dropouts and drug-users to say nothing of studies of all types of schools, attest to the wide use of the case study in contemporary social science and educational research. Such wide use is marked by an equally diverse range of techniques employed in the collection and analysis of both qualitative and quantitative data. Whatever the problem or the approach, at the heart of every case study lies a method of observation.

From the above suggestions, the researcher thinks that there are numerous common features of case study. They include the use of qualitative and quantitative approaches to analyse data. This methodology is preferred when “how” or “why” questions are being posed, when experimental approaches are not feasible or appropriate, when the researcher has little control over events and when the focus is on a contemporary phenomenon within some real-life context. One of the distinctive needs for case studies arises out of the desire to understand complex social phenomena. It allows the researcher to retain the holistic and meaningful characteristics of real-life events such as organizational and managerial processes. Case studies can be based on any mix of quantitative and qualitative evidence. One of the case study’s unique strengths is its ability to deal with a full variety of evidence – documents, artifacts and interviews. However, perhaps the greatest concern about the weakness of case study research is to allow equivocal evidence or biased views to influence the direction of the findings and conclusions. Another common concern about case studies is that they provide little basis for scientific generalization. However, in the view of Yin *et al.* (2003) case studies are generalizable to theoretical propositions and not to populations or universes. This means that the findings from a particular case can be used to confirm or disconfirm general theories – for example about differences between ‘east’ and ‘west’ but not to make generalizations about specific populations such as ‘all Singapore companies’.

In his work on cross-cultural differences, Hofstede (1994:258) noted that it was important for researchers to develop their own research instruments suited to the topic they wished to study. He noted in addition that it is particularly useful to compare results for different populations within the same culture or country. In this way, he says, social science becomes less ethnocentric and 'otherwise seemingly unrelated phenomena can be shown to be linked together.'

Following this logic, this research is based on a comparison of two cases that enables the relevance of different factors that operate in the structures of work-based learning to be identified. Both organizations in this study work in Singapore and probably - according to our hypothesis - bring to their task different approaches to management and assumptions about learning. The comparative method allows some assessment to be made as to whether these differences have any real significance in shaping attitudes to learning in the workplace and among employees.

The researcher classifies Dragoco Asia Pacific Private Limited Company as a Western culture organization on the basis that its headquarter is in Holzminden, Germany. The local enterprise is an expansion from Germany. In 1996 the Regional Headquarters was set up in Singapore with further extension in 1996 where a purpose-built flavor and fragrance factory was put into operation. Top executives from Germany were posted to manage this factory. They brought along the Western-German culture management policies and management style to influence the local workforce that were recruited to run the operations.

On the other hand, Singapore Food Industries Private Limited started its operation in Singapore in 1973 to support the Ministry of Defence by supplying raw rations that include vegetables and meats to the Singapore Armed Forces (SAF). The company's president and his team are selected from local individuals who were steeped in the Eastern-Singaporean culture management style. The company's partnership with SAF further strengthened the expected 'Eastern' culture style of

operating the company. Its staff was exposed to the Singaporean culture core values and their practices are very much in line with the Government policy.

Bearing in mind the strengths and weaknesses of case study presented above, it will not be possible to make generalisations about a population such as Singapore but it may be possible to make some comments on general; theories such as those of Hofstede.

Further description of the cases follows in Chapter 4.

Chapter 4

DESCRIPTIONS OF THE ORGANIZATIONS UNDER STUDY

In this chapter, the researcher sets out a description of the two case study companies in which the research took place and in which the theoretical themes set out in Chapters one and two were examined. The study is to explore how far the development of knowledge-productive organizations is influenced by wider cultural factors in the society. A comparison between Eastern-Singaporean and Western-German culture companies in Singapore that examines whether there are differences in their approach to work-based learning promises to supply answers to this question. Organizational learning is also a complex idea (it covers informal learning as well as formal programmes of training) but through accounts of company training programmes or of how people in a particular organization actually learn – the theoretical idea becomes real and vivid and illuminates how globalization is exemplified in practice in particular companies in particular places.

The researcher finds these two companies, namely, Singapore Food Industries (SFI) and Dragoco Private Limited Company to be interesting from the theoretical point of view in that although they are based in Singapore, they represent different cultural backgrounds, but are subject to common Government policies, common business environment, and global competition and opportunities. Both organizations recognize the importance of lifelong learning at work and the continuous learning development required to stay competitive in their respective business. However, they seem to have taken different approaches to suit their business needs.

In order to gain information about the policies and practices of the two companies with regard to training, interviews were carried with five managers from each case-study company. They are Human Resource Manager, Customer Service Manager, Production Manager, Sales Manager and Quality Manager. The rest of this chapter is based on those sources of information.

4.1 Case Study 1: Singapore Food Industries Limited (SFI)

4.1.1 SFI Company in Perspective

In Singapore, the group has a well-developed network of facilities with over 35,000 square meters of warehouse, cold storage and production facilities. Backed by a fleet of refrigerated trucks and vans, it is capable of handling large and on-time deliveries. At the time of the research, SFI had two large capacity kitchens that are capable of producing 60,000 meals in a day. Its sales revenue for year 2000 was S\$350 million compared to S\$237 million in 1996 and its net profit before tax grew from S\$16 million in 1996 to S\$30 million in 2001. (SFI, October 2001)

The achievement for SFI was not so smooth as it was fraught with both challenges and successes. In its early beginnings, the company began as a result of a need to look for a trustworthy food supplier in Singapore. Peter Tay, President and CEO of SFI explained that in the early 1970s, there was an abundance of food suppliers that did not take pride in providing quality assurance standards in the local food industry. As a consequence, the Ministry of Defence started SFI in 1973 to spruce up the food distribution system. When it first began its operations, SFI supplied raw rations that included vegetables and meats to the Singapore Armed Forces (SAF). It later expanded its distribution channel to other government institutions. Eventually, the food company improved its infrastructure by establishing large capacity cookhouses to supply cooked and chilled meats to SAF. This source of business from government institutions formed about 90 percent of SFI's entire sales revenue in the late 1980s that totaled to about S\$50 million (Caroline Chia, Oct 2001). The partnership with SAF has gone beyond the early years of supplying quality raw materials to SAF camps to the supply of cooked-chilled meals in the late 1980s to on-site cooking at SAF cookhouses from 1997. In response to SAF's

evolving needs, the organization now supports the SAF in its catering needs at overseas exercises such as those at Shoalwater Bay, Australia.

The organization's other major customer segments include supermarkets, ship chandlers, wholesalers, wet/dry markets and foodservice outlets. In the 1990s, SFI continued to expand its business through overseas ventures. It acquired a 20 percent stake in International Cuisine Limited (ICL), a food manufacturer in UK. In 1995, SFI became a majority shareholder and it has since built a factory to expand and manufacture food products. Over the years, SFI also expanded its operations into Australia and China. In Queensland, Australia, it owns Urangan and Schulz Fisheries and operates a fleet of fishing vessels and a seafood processing plant to produce quality and competitively priced seafood for export to Singapore, Hong Kong, Taiwan and Japan.

The above chronology demonstrates SFI's strength in establishing a foothold in the food business, both domestically and abroad. This business development is a clear indication of SFI's determination to exploit global business opportunities. Globalization is not a mysterious process that happens by itself. It needs planning and encouragement and the President and CEO, Mr. Tay received strong support from the Defense Ministry to establish the self-sufficient food supply to the Singapore military personnel during the on-going joint military exercises carried out at the Shoalwater Bay, Australia. This expansion opportunity was the initial development to establish a foothold in Australia. It is through this adventure that SFI demonstrated its capability in delivering quality products to the Australian military. This landmark victory opened up the gateway for SFI to venture into the commercial world in Australia. To support the success of this globalization policy, SFI headquarters in Singapore stepped up its ability in continuous supply of quality food products. One of the ways was to execute sound quality systems to provide the high level of assurance and confidence the market demands. This led the company to pursue the powerful tool in quality control in terms of product variation reduction. A consultant was engaged to develop a customized approach to train and implement the Six-Sigma approach in quality control. Six-Sigma

methodology is the implementation of a measurement-based strategy that focuses on process improvement and variation reduction. It means a measure of quality that strives for near perfection. Six-Sigma is a methodology that provides business with the tools to improve the capability of business processes.

4.1.2 SFI Organizational Culture

Despite the success in the government sector, SFI had other extensive plans and did not wish to limit its growth. SFI began to broaden its business into the commercial sector by targeting supermarkets, wholesalers and restaurants to extend its food distribution business. It relied on its strength to supply frozen food and vegetables. It slowly increased its market share in the commercial sector. The increase of new customers later led to the expansion of warehouse space and cold rooms. With this transition into the commercial sector, its 1000 staff strength company had to change their mindset to a performance-oriented culture with customer focus. The researcher understands the need for this change as follows: SFI past endeavors or previous mindset was narrowly focused with the Government-linked business environment. The mindset was cultivated because it was a Government-linked enterprise and was perceived that its food supply to the military section could not be challenged by outside private enterprises. It has dominated the food industry in Singapore context for a long time. Therefore, the absence of commercial competition created a situation that allowed them to cultivate a culture of complacency. On top of that, the military base of which 80% of the customers are on short-term 3-year national service, would have very little influence in commanding a customer-focus service. These customers did not have much choice as they were under a very regimented environment.

However, the SFI CEO realized that the commercial environment is very competitive in the real world and together with the intense development of globalization, the organization's culture must shift towards a customer focus. The CEO was well aware of a need to make this drastic change. To begin with, he needed to revamp the traditional way of rewarding his staff. Traditionally, all staff

are given an annual increment ranging from 3 – 5% of basic pay, and in addition, an annual bonus of one month salary is payable at end of each year. Under this reward system, performance-related attitude is not considered. In order to encourage his staff to perform, he introduced a performance-related reward called ‘Economic Value Added’ (EVA). This performance indicator measures the return on total capital employed. The traditional one-month fixed bonus rewarded at end of year, was replaced by a variable bonus sharing system. This means that the higher the EVA generated by the company, the more will the staff be rewarded for their effort contributed to the organization. To support this vision, this implies that the company must support the continuous improvement through lifelong learning concept in the organization. The CEO capitalized on this lifelong learning concept introduced by the government in 1999. He realizes that people are the key asset of the organization. These workers must be provided with up-to-date knowledge in their respective domains so that they in return can contribute to the organization more effectively. He also recognized that the majority of his 1000 workforce in the local manufacturing premises had only primary academic qualifications and they needed to be equipped with more post-education training in order to perform better. One of the ways is to pursue lifelong learning at the through a well-planned organization-training curriculum. The CEO is confident that the lifelong training will be perceived as a motivational factor to encourage them to excel and to stay employable within the organization as new technology is introduced.

The CEO has been the chief executive since 1989. He is a Colombo Plan Scholar, graduated with Bachelor degrees in Engineering (Hons) and Economics from University of Newcastle in Australia and also holds a MSc in Management (Sloan Fellows Programme) from the Massachusetts Institute of Technology. He is a Fellow of the Chartered Institute of Management Accountants. (SFI Annual Report 2003). The CEO recognizes that his organization in the digital 21st century should consider becoming a virtual business by interacting with customers via computer networks. He is aware that the responsiveness of an e-business firm means that it is ready to adjust its production and marketing plans, to deliver products on demand, and to service customers’ needs in real time. With the help of

Singapore Productivity Board, a consultant was engaged to assist in customizing a B2C system for its implementation. Noticing an emerging trend and lifestyle change among Singaporeans, the innovative food company promises to deliver groceries to its customers seven days a week at one-and-a-half hour time slots. This can be an ideal situation for busy people. The CEO encouraged two of its employees to develop the Website and it created opportunity for the company to leverage its strengths in food logistics and distribution in the business-to-consumer (B2C) market.

The researcher finds that this CEO has strong western contacts. One of the ways in which globalization impacts on people at work is through the mechanism of cultural transmission built into the personal networks and experiences of business leaders. In this sense, the logic of globalization is not impersonal; it is interpreted and enacted by people and the way in which that is done is related to their experience, understanding and ambition. In organizations where the leaders possess these qualities and contacts we would expect a strong customer-focus and a positive attitude to learning. When this is the case, traditional cultural orientations of people at work will be under great pressure of change. Where they are absent, business failure is a possibility.

The president realizes that in a changing business landscape, the company has to remain focused in objectives and business strategies to ensure consistent growth. At SFI, they pride themselves in their ability to look beyond traditional boundaries and seeking vital opportunities that they can use to grow their businesses. At SFI, they have a “never-say-die” attitude. If projects do not succeed, they are prepared to step out and venture into new opportunities. The culture of continuous improvement is evidenced by the CEO’s remarks that “*if you do not attempt to try, you will never know the outcome.*” (SFI Annual Business Report, 2001).

As reported in SFI Annual Business Report, 2005, the CEO announced that there was an increase of 4.4 per cent in sales over the previous year. This growth was led by the overseas operations which accounted for 60 per cent of the Group turnover.

This result is possible because of the 'Internationalisation Strategy' that the company has envisioned. The company has the vision to address and focus on meeting changing food needs driven by changes in lifestyle and demographic patterns. This demonstrates the CEO's "never-say-die" attitude and the culture of executing continuous improvement for business excellence.

4.1.3 Their Mission:

"To be a world class integrated food company. We aim to deliver premier value to customers, superior returns to shareholders and a rewarding environment to employees."

This mission statement was developed during the company's expansion program and its recognition of globalization shaping up in the region. The CEO articulated this mission through the monthly business review with his staff and further re-enforced it during the quarterly performance review. The researcher feels that the mission statement has a combination of both the Eastern and Western cultural implication. The element of 'To be world class integrated food company' is very much Western in context.

4.2 Learning Opportunity at SFI Organization

SFI recognizes that the years ahead will be very challenging. Economic forecasts all point to slower growth worldwide. For example, Singapore GDP growth for 2002 was 2.2 percent, down from the 9.9 percent growth in 2000. As a result, the organization will continue to sharpen its competencies across all operations. Over the years, the organization has imbued into its staff the need for quality and continuous improvement through training and empowerment. As an illustration, the company has led Singapore on the implementation of the process improvement program called EVA (Economic Value Added) driver analysis. To ensure continuity in this strategic move, and to ensure staff continues to stay competent, the organization has structured an e-learning platform to conduct the on-line

training of EVA framework. This training need will continue to be pursued by all levels of the staffing in the overseas operations. In fact, the organization's belief in learning and continuous improvement has earned itself the award of "People Developer" certification in Singapore, and in the UK, International Cuisine, a branch of SFI was awarded the "Investor in People" certification.

For example, the CEO realized the importance of reducing products' variability and thus increasing its products' reliability through application of total quality management (TQM). The CEO is aware that the successful implementation of Six Sigma tool will become one of SFI's key competitive advantages among the competitors in the food industry. The CEO who is trained in Engineering, is aware of the Six-Sigma route to quality. His aim is to grow market share, improve customer retention, develop new products, accelerate innovation, and manage changing customer requirement. In view of the vast advantages, he personally shows interest in the Six Sigma route to quality. With the help of external consultants, a customized Six Sigma in-house training program was established.

Instead of following the conventional Black belt and Green belt structure, the organization came up with another category called Yellow belt. A Black Belt certification is awarded to an individual who is able to use data to convert broad generalizations into actionable goals. He/She should be able to develop detailed plans for achieving these goals and also establish control systems for maintaining the gains achieved through Six-Sigma. A Green Belt certification is awarded to an individual who has a basic knowledge of Six-Sigma, but does not lead projects on their own, as does a Black Belt. He/She is often responsible for the development of process maps to support Six-Sigma projects. As such the amount of training given is much less in comparison. The Yellow Belt's category is basically customized to suit the 80 percent general workforce that has a lower level of formal education. The people in this category have to undergo at least 20 hours of training, spread over a 3-month period. This training provides awareness of the Six-Sigma concept and the use of basic statistical tools to collect data for the Black Belt and Green Belt holders.

A full-time team of trainers in the SFI training division manages all this training. This division is responsible for conducting all in-house technical and safety, hygiene and environment training. In the Six Sigma training perspective, intensive training is also given to all other staff, including the CEO who is trained to be the “Black-belt” practitioner. The Green belt is meant for all executives who have to attend a structured 40-hour training program over a 2-month period. Two other associates have been identified and trained to be the Black belt full-time trainers. The reference to Black and Green Belts is very telling. These terms are from an eastern sport and imply eastern hierarchies – a very traditional approach. These metaphors and imagery are important indicators of organizational culture, of a characteristic that Hofstede (1991) has categorized as indicative of a high power-distance culture, as explained in Chapter 2 section 2.2.3. They give clues about the identities that organizations wish to project.

The external consultant does this high level training. The pilot Six Sigma project began in 2000. The initial stage of implementation of this tool faces some difficulties, as the management has to gain acceptance from the workforce. However, with support from the middle management, involving functional managers, supervisors and engineers, SFI manage to get the buy-in from the workforce. In fact, one of the staff key performance indicators is the application of this Six Sigma tool.

Another learning strategy is the emphasis on innovation, and the application of technology in all its businesses. For example, the organization has set up product development centers in Singapore, the UK and China as part of an ambitious programme to produce a constant stream of new products.

SFI relies on Information Technology to create new business opportunities. For example, the organization has developed the e-mart, a B2C e-business model to leverage the capabilities of IT with its competencies in food logistics and strong customer relationship. It uses an Internet-based ordering system to allow its 50-plus catering sites to communicate via web-based file transfer with its main supply

center at head office. A similar system was extended to link to all its local suppliers for indenting, order processing and payment. This implies that a structured work-based training and educational curriculum must be provided to the respective staff to cope with the continuous improvement culture in the organization.

In summary, the organization has a very structured training curriculum for its entire staff, comprising of the formal and informal training. The framework of the formal training curriculum is known as the Total Quality Program (TQP) and it consists of four main initiatives, namely the International Organization for Standardization (ISO), EVA, Six Sigma and the Quality Control System (QC). Following is a brief account of the formal training program that is a work-based requirement.

- ISO training and re-training is conducted twice per annum.
- EVA training is aided by the e-learning platform through the company's intranet system.
- Six-Sigma training is given to all staff.
- QC training comprises the Hazard Analysis Critical Control Point (HACCP) and On-the-Job (OJT) training
- External government's certified body trains all lift-truck drivers and refresher courses are conducted twice a year.
- Employees are sponsored for job-related diploma and advanced diploma courses. On needs basis, executives are also sponsored for higher tertiary education, leading to MBA level.
- Supervisors are trained on leadership courses and first-aid courses.

As for the informal training, they are either conducted in-house or by external training institutes. Following are some of the training requirements for the different levels of staff, from operators to the managers. One illustration of the in-house informal training is the company President's brainchild in developing a training need for its executives. It comprises four modules namely, Financial

Accounting, Management Accounting, Treasury Management and Corporate Financial Analysis.

- Specific training for the product managers so that they develop their competencies in fulfilling the market demands. In some cases, these training needs are conducted jointly with the local training institutions.
- 2-4 weeks' on-the-job training to lower and middle management to acquire respective skills to perform their jobs more effectively and efficiently.
- Given opportunities, the concept of cross-training and job rotation are provided so as to allow flexibility in multi-tasking for the operators and technicians.
- At least twice a year, external consultants are engaged to provide new and revision courses to all marketing and product development supervisors and executives. These courses are customized to align with the company's objectives and core values and they are conducted outside the company's premises. It also serves as a form of incentive to motivate the associates.

A training department staffed with six trainers manages the above training wherever appropriate. All trainings are conducted on either Friday (Half-day) or Saturday (Full-day) throughout the year, approximately 40 weeks at the head-office.

In Kessel's (2001) analysis of organizational learning, he emphasizes that the day to day work environment should favor learning processes. This environment should support the creation of knowledge productivity. This means that the environment should allow signaling, absorbing and processing of relevant information. In addition, new knowledge that is generated must be disseminated and applied to the improvement and innovation of processes, products and services. SFI has a series of in-house and on-the-job training, and the question is whether it promotes and supports a platform for creativity to be practised.

In Senge's (1994:150-154) work on creative orientation in organizational learning, he argues that there should be an abundance of encouragement and support for

generating creative ideas and allow people to learn rapidly from experience, and continually improve their ability to take effective actions and produce results. Management should avoid blaming others for the poor results but instead should be addressing the needs to understand the circumstances that happen and what needs to be done to make changes for prevention. The question is whether SFI encourages and supports their employees to practise changes within the domains that they are currently posted to or whether there are still restrictions in knowledge transfer and the Kaizen concept is encouraged but within smaller areas.

4.3 Case Study 2: Overview of Dragoco Asia Pacific Pte Ltd.

Dragoco is a leading international manufacturer of perfume compositions, flavors and cosmetic materials. It has taken time for Dragoco to attain such a position and continuous creative achievement is required to maintain it.

The researcher had interviews with the Human Resource Manager and found that Dragoco has the philosophy of promoting the spirit of innovation that underlies the thoughts and actions at all times and in all areas of endeavor. It encourages its perfumers and flavorists to be creative and innovative in the fundamental discoveries of its research; in the practical ideas of its applications specialists; in its sensitivity to market opportunities; in its modern production facilities; and in the forward-looking orientation of its management. Through this shared spirit, all functions are welded together to form a harmonious whole. The organization believes that it is through this synergistic interaction of the entire team that it has achieved great successes. The researcher uses the following data to demonstrate Dragoco's successes in its business.

Table 4.1: Dragoco's Productivity Performance

1) <u>Sales Turnover:</u>	
2003	Euro 0.96 billion
2004	Euro 0.81 billion
2005	Euro 1.56 billion
2) <u>ISO Awards:</u>	
July 2002	ISO 9001 (Quality Management System)
August 2005	ISO 14000 (Safety and Environment System)
3) <u>Quality complaints from customers</u>	
Less than 0.1% from 2002 – 2005	
Source: Annual Report (2006)	

The interview with Dragoco's Human Resource Manager indicates the company's success as primarily due to the organizational structure, management style and willingness to invest. Its philosophy has provided the means and the freedom for its staff in 24 countries to work creatively, constantly keeping in sight its ultimate goal that is to meet the needs of the market. The researcher understands that what the company is saying may be derived from some management formula or narrative (Czarniawska 1997:11-17) they have applied. Such narratives are in fact key elements to show the organization's culture and focus on human behavior and organizational behavior.

The 24 Dragoco companies form a network that stretches across five continents and include international creative centers, national laboratories for development and applications technology, production facilities, and experienced teams in market research and customer services. Dragoco's expertise lies not only in the discovery

and development of new substances but also in producing these materials to exceptional standards of purity. As a manufacture of aroma chemicals, it applies the stringent purity requirements that pertain to its effectiveness and safety.

Creative research forms the basis for progressive fragrance and flavor development, which is why Dragoco has continuously invested in the expansion and modernization of its central research facility in Holzminden, Germany. The research center is equipped with state of the art instrumentation and is linked to worldwide information sources that provide its research chemists with optimal conditions for creative science. As a result, the company's achievements enjoy worldwide acclaim, both in the fields of basic and of applied research. For example, the in-house development of new aroma and flavor chemicals has made significant contribution to the innovative strength of the company. The researcher has captured some of Dragoco's achievement as evidences to support the numerous positive claims by the company. These are from the interviews with Sales Manager and they are as follows:

1. Today, Dragoco has moved up to the 4th place on the top ten list of global fragrance and flavors market and this is supported by the approx. 60% growth in their sales revenue from 2003 to 2005.
2. In 2005, it launched a range of plant extracts from the traditional Ayurvedic medicine, Extrapont ® Ayurveda to the cosmetic market. This is the effort from the research department which has gained insights into the properties of plant extract.
3. In 2006, the company developed an anti-aging active ingredient, IBR-dormin® and was awarded by BSB European Innovation price for cosmetics and chemistry in the field of "Innovative Raw Materials – Naturals". It is the effort of Global product development team led by Dr. Dick Sorgenfrey who develops this facial-care product that provides wellness to the skin.
4. As an evidence to demonstrate the company's strength in the state-of-the art in technology, the R&D has filed 350 patents since 1995. As from 2002, it has been averaging about 42 patents per year.

The organization is equally active in safeguarding the interests of the consumers and was among the initiators of the Research Institute for Fragrance Material (RIFM) in the U.S.A. Dragoco was also instrumental in the foundation of the international Fragrance Association (IFRA) and the International Organization for the Flavor Industry (IOFI).

The vision of Dragoco is “We will be our customers’ most valued partner” and following are the organization’s missions.

“We are a global creator and manufacturer of flavors, fragrances, aroma and cosmetic materials. We enhance and differentiate our customers’ products for the benefits of the consumers by providing innovative solutions through the applications of technology, creativity and value-added services.”

The language used in the above mission statement is a description of how the company can overcome constraints by improving processes through technology and creativity from its staff. Garvey and Williamson (2002:109-112), suggest that creativity arises because of concerns of competitiveness in the global economy and the requirement of continuous changes under competitive pressure. Therefore, to achieve success for the company, the employees have to become ever more creative in the ways in which they perform their jobs. For example, they adopt some of the managerial techniques such as Kaizen (continuous improvement), networking, team building and mind mapping to resolve issues within their current specific domains of which they are posted to.

Dragoco is focused solely upon identifying the likely current and future service requirements of its customers and ensuring that the facilities are sufficiently comprehensive to meet these needs in the immediate future. To enhance its ability to offer its international capacity and its ability to effectively provide quality products and services, the company develops the international exchange programme with its major centers in Holzminden (Germany) and Totowa (USA). The primary objective of this program is for development and creative staff so as to ensure that international co-operation continues to be built in Dragoco and ideas

from Europe and the USA are readily made available. These exchanges further enhance the experience of Western/German ideas for its staff in Asia Pacific, providing both new insights and shared experiences valuable to its customers. This is yet another illustration of the cultural transmission processes that make globalization possible.

Dragoco celebrates over 25 years' experience in Asia Pacific, with entry into the market being initiated by the opening of the Australian office in 1971 and followed by the establishment of the Hong Kong factory in 1978. In 1998, the company recognized the latent potential in Asia Pacific for accelerated growth of cosmetics, toiletries and processed food and in June 1990 the Regional Headquarter was set up in Singapore with further extension in 1996 by a purpose-built flavor and fragrance factory. A series of further expansions took place in India, Shanghai and Australia and by early 2000, Dragoco operates its own subsidiary in major countries including Hong Kong, Indonesia, Japan Malaysia, Thailand and Philippines. Currently, locations in Australia, India, Shanghai and Singapore are equipped with both production and technical facilities.

Dragoco regional headquarters in Singapore has two major divisions. A well-developed pilot plant that enables new or existing flavorings to be evaluated in food matrices and which ably supports the Flavor Division's creation activities. The majority of the senior application staff has a minimum of ten years' industrial experience, thus enabling full utilization of the equipment and optimization of prototypes for its customers. The technical and marketing staff are divided into business units focusing upon only one food category, either bakery, confectionery, savory, beverages, tobacco or pharmaceutical. The Fragrance Division's creative, business unit and evaluation staff have achieved through understanding of the needs of its customers through extensive market research.

4.3.1 Dragoco Asia Pacific Organizational Culture

Dragoco strives to be the number one flavor and fragrance manufacturer in the industry. To reach this goal, they started to work on many activities in the past three years. They obtained feedback from customers, elaborated the key points of their corporate strategy, laid down the core competencies of their operational divisions and communicated them to their customers and employees. Examples of their key activities to demonstrate their competencies include the continuous improvement in quality of their products, emphasis on the importance of on-time delivery to the customers, challenging the on-going creativity in developing new products, and surge forward to improve their technical skills in using new processes and production technologies. They realize that today products are easily interchangeable and therefore the “quality of human relations” is the decisive factor for long-lasting customer relations at Dragoco. One of their key beliefs is “satisfied internal customers are the basis for satisfied external customers”. To achieve the status of having satisfied internal customers, they obtained feedback on “working conditions”, “satisfaction at work”, “accessibility to information”, “leadership”, “training”, “cooperation”, “social benefits” and “Dragoco’s image in their core competencies”. The results of these feedbacks were put into practice and following are some of the illustrations of their practical actions and this comes from the interviews with Marketing and Sales Managers.

- Continuous oriented development in the cosmetics division in the skin – hair plants enable the company worldwide to develop and market plant extracts for the cosmetics industry.
- Research work is oriented to find new substances to sooth skin irritations and to explain their mechanism of actions to the customers.
- Organize internal training and develop a multiplayer training program for the staff (refer to the Learning Opportunities below).
- Introduction of flexible working hours as suggested by the staff during a survey.

In addition to the above activities, one of the things the organization is cultivating is to promote more awareness to the key Accounts of Dragoco's competence and innovative potential. This change allows the company to successfully carry out joint innovation projects with their key Accounts. One positive feedback for many customers is that they are happy to have a comparable well-structured system leading to innovation management.

This leads to another belief that strong brands are built on innovations. These have to be radical innovations that create real consumer value and not just good advertising and promotion. To stay competitive, speed to market is Dragoco's major focus in growing sales and market share.

4.3.2 Learning Opportunities at Dragoco Organization

The company believes in the importance of human resources and maintains that planned training and educational programs for the employees are prudent investments. Basically, as explained in the interviews with managers, the respective functional managers and divisional managers identify most of the structured in-house training needs. Those training needs are established through reviewing respective job performance of individuals against their job competency matrix. It is a one-way management perception and individuals are not consulted in the training needs identification process. This can be seen to be a top-down approach and being seen as 'what is deemed good for the organization' by some individuals. This approach reflects Hofstede's view of high power.

Following inputs are obtained from the Human Resource Manager during the interviews. These are some of the formal and informal training program submitted by the functional and divisional managers for compilation by the HR Manager:

- Dragoco's Education Centre (DEC): awareness lectures for a duration of one hour, on a wide range of topics like management, individual development are conducted twice a month.
- Dragoco's Skill Development Program (DSD): classes are held twice a

month for Operational Management employees to improve their skills in various areas like, public speaking, written communication, presentation skills, customer service, and assertive skills.

- Dragoco's Management Development Program (DMD): Classes are held twice a month for Junior Management employees to improve their functional management knowledge.

- Dragoco's Management and Leadership (DML): A workshop on leadership and management is held once a year for functional management employees. (DIL Say Vol.1 Issue 3)

In line with the vision "Back to School", on-going training is provided on all aspects of perfumery with the aim to improve their raw materials knowledge and to have a common understanding of the perfumery vocabulary. In addition, it also allows the participants to achieve a better understanding of the behavior of international colleagues and business partners that come from different cultural background. Another illustration of "Back to School" philosophy, the CEO Mr. Venkat attended a one-week program at London Business School on "Interpersonal Skills for Senior Managers". The CEO has personally conducted workshops on "Learning from Failures", "Time management", "Persuasion", "Conflict management", "Stress management" and "Globalization, Innovation and Growth" to its staff.

There was the formation of a "Board organization" within the Perfumery Division. The primary objective is to have regular meetings so as to increase communication and so knowledge about major on-going projects, major wins, Category review presentations, new technology, production planning, logistics issues and turnover performance can be shared among the specialists.

The philosophy of Project Management was launched in 2000 with the aim of achieving continuous development and learning from past project experiences. The system does not exist for itself but is flexible and able to adjust to changed requirements. For each project a mentor is nominated, who is member of the

Steering Committee (SC), with the objective to quickly ease the solution of upcoming problems even though no SC meeting takes place. The chief mentor has been nominated to help the development of project leaders to become junior managers. In close cooperation with Human Resources Department a project leader's pool is defined and trained. Another important step is to spread the system to adjoining divisions in order to embrace the entire value-added chain from the Research, Purchasing and the Information System Department. The company has decided to train research staff accordingly and to apply the Project Management System to both the flavor and fragrance divisions.

The company promotes the "Company Suggestion Scheme". To increase the staff's willingness to make suggestions, successful participants stand to earn 30% of the savings amount. For example, in 2001, the highest award of S\$1,280 was awarded to an employee of the Flavor Division.

Other exposure given to the staff includes "Global Business Management Savory Workshop". The workshop's objective is to elaborate the key elements of a brand and apply them to the company's savory flavor business. This allows the participants to exchange their experiences and competencies in the individual cross-regional markets. Other workshops include "Cross-cultural Management", "Selling Skills", "Platform Concept", "Managing for Results", and "Negotiation Skills" conducted by Mercuri International. The objective of the program is to understand how to achieve even better market success by enhancing the impact in the way we work.

In 2001, Dragoco initiated the Electronic Office Project (EOP) as the first step towards a paperless office. The implementation of EOP has proved Dragoco's commitment to provide those facilities to its employees that are currently enjoyed by other global companies. The main goals of the EOP are as below:

- Information sharing and dissemination
- Improved efficiency by removing duplication
- Collaborative efforts

- Communication up-gradation
- Fast response

The scope of the EOP includes company details like history, Contact Information, Vision, Mission and Organization Chart. The E-Bulletin consists of new policies, new recruitment, circulars, news, thought for the day, and HR Management details like recruitment, employee history, and the E-forms. The implementation of ERP (Enterprise Resource Planning) package is yet another step forward. This has helped to integrate all the functions of the company. (The Dragocan, 1/2001)

4.4 Singapore Food Industries Limited (SFI) and Dragoco Asia Pacific Pte Ltd

It is evident from information given in the interviews, that the culture of both companies in regard to lifelong learning in the workplace has some similarities. Both organizations place high emphasise on continuous learning and training pertaining to excellence in current tasks or jobs assigned. One of the primary objectives is to ensure staffs are well equipped to demonstrate their competencies. This in turns leads to better performance for the companies. There are two forms of training at each workplace, and they are either formally structured or informal in nature.

Singapore Food Industry Company tends to provide training to all levels of staff, including the majority of the general workforce. This could be due to the nature of their business that requires a high level of hygiene and environmental care. Their training tends to be more structured and this is reflected by the fact that they have a ongoing training center managed by a handful of trainers. Perhaps this structured internal training scheme can provide a more in-depth focused approach to get the best out of their staff.

Dragoco Asia Pacific Pte Ltd. certainly also has a well structured formal training at the workplace. However, the initial account of their training program tends to be focused on higher management levels and most training is conducted by external consultants as they do not have a structured training department. Their training is mainly focused on ways to get business success.

In summary, these two companies have their ways of getting the continuous lifelong learning embedded in the organizations. The following chapter on results of the interviews and questionnaires obtained from the two organizations may perhaps assist in proving the hypothesis that the Eastern-Singaporean culture organization differs from Western-German ones.

Chapter 5
PARTICIPANTS' PERSPECTIVES
QUESTION 1

5.1 Introduction

This chapter and the following three chapters identify salient organizational patterns that are indicated in the questionnaire data and which illustrate how the participants perceived opportunities to learn in the case study organizations. The material examined provides insights into whether the differences observed in the responses from the two case study organizations reflect more fundamental cultural differences in attitudes towards lifelong learning. In order to do this, the quantitative data is used to highlight the participants' views. As for the qualitative data, it gives the researcher a deeper insight because they do not constrain respondents to the pre-conceived formulations of the researcher i.e. the questions in the questionnaire. The qualitative data have the advantage over quantitative data that they reveal the way the respondents think about the issues in their own words. It is then usually argued that qualitative data can be used to complement quantitative data which of course have the advantage that, since they are based on a sample, it is possible to generalize from them. As for the quantitative data, the Chi-square statistical test is computed to compare the participants' views and establish whether there is any statistically significant difference between the group from Dragoco and SFI in their views on training and culture.

As described in the previous chapters, there are four main research questions for this study to understand whether there are significant differences in the corporate curricula of Singaporean organizations with different cultural orientations. Kessels (2000:502) pointed out that all organizations have a corporate curriculum, whether they realize it or not. His thesis is that if companies are explicit about the way employees actually work and learn, then they can improve both. Those

organizations which are uncritical of or maybe even unaware of how they either help or hinder people from learning are not likely to do well. Those that have an explicit approach to becoming learning organizations have a much greater chance of success. Therefore, the research questions are to find out: (a) how participants perceive different aspects of the corporate curriculum and (b) whether there are differences between participants in the two companies. Results to address the following research questions are tabulated to show the findings for SFI and Dragoco.

The research questions are repeated here for convenience and are as below:

1. *Do 'Eastern' and 'Western' companies take different approaches in providing subject matter expertise to their staff basing on their company cultural values?*
2. *Do 'Eastern' and 'Western' companies take different approaches to training staff on problem solving techniques to enhance their knowledge in resolving problems continuously in order to support their company values? And if so: are the values which staff are trained to support 'Eastern' and 'Western' respectively?*
3. *Are 'Eastern' and 'Western' companies' staff helped differently and in ways which reflect 'Eastern' and 'Western' approaches to develop reflective skills and meta-cognitive skills that enable them in approaching problems?*
4. *Is the climate of personal and social relationships within the 'Eastern' and 'Western' organizations supportive of new learning and is it attributed to 'Eastern' and 'Western' cultural values or to company cultural values?*

Following are findings for research question 1 and its sub-questions, gathered through the quantitative methods.

5.2 Research Question 1: *Do 'Eastern' and 'Western' companies take different approaches in providing subject matter expertise to their staff basing on their company cultural values?*

Table 5.1 SFI and Dragoco Participants' Perception on Learning Organization

Question Number	Item		Yes	No	Missing	Chi Sq	d f	p
11.1	Does your company provide formal training pertaining to your job?	Case 1: SFI	112/90%	10/8%	3/2%	54.3	1	.000
		Case 2: Dragoco	56/47%	60/51%	2/2%			
11.2	Does your company provide informal training pertaining to your job?	Case 1: SFI	101/81%	23/18%	1/1%	11.2	1	.000
		Case 2: Dragoco	72/61%	44/37%	2/2%			
11.3	Does training provided by your Company enhance your skills?	Case 1: SFI	115/92%	9/7%	1/1%	21.0	1	.000
		Case 2: Dragoco	81/69%	35/30%	2/2%			
11.4	Does training help to develop your area of knowledge?	Case 1: SFI	120/96%	4/3%	1/1%	28.9	1	.000
		Case 2: Dragoco	84/71%	33/28%	1/1%			
11.5	Is training seen as a form of career development in your organization?	Case 1: SFI	112/90%	11/9%	2/2%	38.7	1	.000
		Case 2: Dragoco	64/54%	51/43%	3/3%			
11.6	Is there special plan for learning in your organization?	Case 1: SFI	86/69%	35/30%	1/1%	41.2	1	.000
		Case 2: Dragoco	32/27%	83/70%	3/3%			

In general, the findings show that both SFI (Eastern-Singaporean) and Dragoco (Western-German) participants perceived that their organizations promote learning at their work place. This is in line with Kessels' study which shows that all organizations have a corporate curriculum. However, there are specific differences between the companies and the Dragoco responders, although for most questions,

agreeing that there is support do so only with substantial minorities. Furthermore in the crucial question 11.6 about whether there is an overall plan the responses are almost the exact mirror image in the two companies: in SFI 69% say 'yes' and in Dragoco 70% say 'no'.

It is true that the majorities in both companies say yes but in Dragoco there are substantial minorities who say no. In fact, in most questions, there is more than a third that says no. The Chi-square test results of above questions show there is a statistically significant difference between the answers to questions about training in two companies. This is true because there are substantial minorities that say no. If the strength of response for both were 'very strong', then there would be no statistical significant difference. The overall Chi-square test results with one degree of freedom range from 11.2 to 54.3 and $p < 0.05$. Looking at the list of questions as a whole, the findings show that both SFI (Eastern-Singaporean) and Dragoco (Western-German) participants perceived that their organizations promote learning at their work place but with significant differences between the two companies' employees in their perceptions of training. This difference may be caused by the fact that one company is Eastern-Singaporean and the other is Western-German, and this will be discussed in more detail below.

The researcher now analyses the qualitative data to understand the ways in which the respondents of the two companies agree and disagree, in particular the case of Dragoco's interviews for any clues about why there is a substantial minority and how they are formulating their reservations. Following are some of the findings.

A) We first consider participants that say ‘Yes’ to the research sub-questions to see what their reasoning might be.

Feedback from SFI’s Participant 1, he says:

*We are in a very dynamic environment where changes in technologies and business needs are **happening very fast***. Therefore, we need continuous improvement and apply new knowledge to handle our jobs effectively through formal and informal training. The formal and informal training provided **by the company helps me in performing my job**.* (Male / 21- 30 years / Business Degree / Process Engineer) – (Quote 1)

[* NB emphasized words and phrases are selected by the researcher to indicate the key words and phrases in this quotation and in all subsequent ones]

Feedback from Dragoco’s Participant 4, he says:

*Formal and informal training is very important. They **improve our quality of work** and it also shows that my company is **genuinely interested in developing personal growth in the company**.* (Male / 21 – 30 years / Diploma /Technician) – (Quote 2)

Feedback from SFI’s Participant 4, she says:

*My company gives good support in **developing plan** for our formal and informal learning. In my view, learning is a process that **never ends** till we die.* (Female / 21 - 30 years / Diploma in Chemical Technology / Technician) – (Quote 3)

Feedback from Dragoco’s Participant 8, she says:

*Formal and informal training is important as it is **focused on work-related skills** both for short-term and long-term **development of the employees** by the company.* (Female / 21 – 30 years / Secondary Education / Process Technician) – (Quote 4)

Feedback from SFI’s Participant 6, she says:

*My company provides on-the-job training as a form of informal training to **ensure we are up to-date** to meet expectation.* (Female / 21-30 years / Engineering Degree / Quality Manager) – (Quote 5)

What is interesting here is that there is an acute sense of the speed and constancy of change among the three from SFI: (quotes 1,3,5 as '*happening very fast*', '*never ends*' '*ensure we are up to date*'. All three then see training as a response to this and that the company is aware of this speed and change: '*my company provides*', '*training provided ...helps in performing my job*', '*company gives good support in developing*').

Similarly the two from Dragoco emphasize positively that: formal and informal training '*improve our quality of work*', (quote 4 as '*focused on work-related skills*') and that their company is sincere in supporting them as demonstrated by quote 2 as '*genuinely interested in developing personal growth*' and '*development of the employees*'.

The researcher thinks the above feedbacks further demonstrate that both Eastern-Singaporean and Western-German companies are proactive in trying to enhance the employee's skills by developing special plan for learning and thus allowing continuous improvement and application of new knowledge acquired through formal and informal training. The researcher tends to draw the conclusion that the eastern and western companies in the Singapore context have vested interest in developing employees' skills through training and thus achieving continuous improvement in their organization.

B) The researcher now looks at the responses from participants that say 'No" to the research sub-questions and see what might be their reasons from diverging from the majority.

Feedback from Dragoco's Participant 2, he says:

*My company provides formal training to staff based **on case by case situation**. Most of the staff at all levels expect company sponsoring them on formal training, but it was perceived **only senior staff** are recommended for this form of training.*
(Male / 41-50 years / Production Manager) – (Quote 6)

Feedback from Dragoco's Participant 5, she says:

*I am not sure how supportive my management is encouraging lifelong learning. There are **no clear policies** / program to show. (Female / 21 – 30 years / Diploma / Laboratory Technician) – (Quote 7)*

Feedback from SFI's Participant 8, he says:

*My company encourages learning at work place in a **sporadic way**. I believe it could be done in a more structured and formal manner. (Male / 31 – 40 years / Business Degree / Business Development Manager) – (Quote 8)*

Feedback from Dragoco's Participant 6, she says:

*Informal training in the form of on-the-job training are provided to production-related tasks and thus **restricted** to production personnel only. (Female / 41 – 50 years / Secondary Education / Human Resource Administrator) – (Quote 9)*

Feedback from SFI's Participant 2, she says:

*In fact, my company has **not promoted enough** life-long learning in my section. This should be done as frequent as possible. (Female / 41 – 50 years / Primary Education / Chief Chef) – (Quote 10)*

Feedback from Dragoco's Participant 7, she says:

*Although our company has acknowledged the importance of lifelong learning in promoting a learning organization, **no proactive exercise** has been carried out so far. So, how can our company being supportive? Recognize the fact but no action! (Female / 21-30 years / Diploma / Process Technician) – (Quote 11)*

Feedback from Dragoco's Participant 10, she says:

*Lifelong learning through formal and informal training is recognized to be important and company acknowledges it. But, **for action either none or little**. (Female / 21-30 years / Diploma / Production Supervisor) -- (Quote 12)*

These negative responses can be roughly divided into those where the emphasis is on lack of policy and planning (*'no clear policies'* (quote 7), *'for action, none or little'* (quote 12), *'sporadic way'* (quote 8) and those where the perception is that training is limited (*'restricted to production personnel'* (quote 9), *'on a case by case basis'* (quote 6), *'only senior staff'* (quote 6), *'not promoted enough'* (quote 10)

From the above feedback, the researcher concluded that (i) the work-based learning in Dragoco (Western-German) company is very restrictive in nature and is largely controlled by the management (quote 9), that (ii) the employees' perception that not all individuals are given equal opportunity for receiving both formal and informal training needs. They tend to perceive that management has the prerogative in deciding who is deemed needing or fit for the training (quote 6), and that (iii) they recognize that their Company has acknowledged the importance of lifelong learning at the workplace, but their management does not take any proactive action to demonstrate the seriousness of its commitment to this concept (quotes 11,12).

Both the quantitative and qualitative data suggest that many workers in Dragoco (Western-German) company as represented in the survey are less convinced that their company is serious in cultivating a learning organization (quote 7). However, there are also some minority responses from SFI (Eastern-Singaporean) company that the training provided by the company could be more structured (quote 8) as *'sporadic way'* and could be more intense (quote 10) as *'not promoted enough'* From above analysis of the responses' feedbacks, the researcher can now conclude that there is a more substantial minority from Dragoco that perceived negatively their company's support in training. The strong feedbacks indicated absence of clear policies, minimum actions from management, and training restricted to selective individuals and to senior staff.

Table 5.2 SFI and Dragoco Participants' Perception on Training Vs Knowledge Productivity

Question Number	Item		T2B	B2B	Chi Sq	df	p
11.7	In the training I have experienced, they are directly related to the scope of the target competencies.	Case 1: SFI	125/100%	0/0%	1.336	1	0.248
		Case 2: Dragoco	93/79%	1/1%			
11.8	Main objective of training is to improve my knowledge for application.	Case 1: SFI	123/98%	0/0%	1.123	1	0.289
		Case 2: Dragoco	109/92%	1/1%			
11.9	A highly specialized work force does not make a learning organization that becomes knowledge productive.	Case 1: SFI	65/52%	12/10%	9.945	1	0.002
		Case 2: Dragoco	41/35%	26/22%			

(As explained in Chapter 3 section 3.3.1.1, the data of respondents who ticked 'uncertain' were not used in the above analysis, or in similar tables later, as the numbers were very low and it was important to focus on informants who had a definite view.)

Table 5.2 shows SFI and Dragoco participants' perception of training structures to enhance knowledge productivity opportunities. The above table shows respondents that say (i) 'strongly agree' and 'agree' to the sub-questions and this is represented by column T2B and those who (ii) 'disagree' and 'strongly disagree' represented by column B2B. From the above quantitative feedback, it appears that there is strong agreement with the first two points and less agreement for the third point. The researcher now examines the Chi-square test results and following are the analysis.

a. that in both companies a very substantial majority of people (SFI 100% Vs Dragoco 79% represented in the T2B) think *that the training are directly related to the scope of the target competencies (Question 11.7)*. The Chi-square test shows no statistically significant relationship between the variables as chi-square with 1 degree of freedom = 1.336 and p value > 0.05

b. that in both companies again very substantial majorities of people (SFI 98% Vs Dragoco 92%) think *that the main objective of training is to improve the participant's knowledge for application (Question 11.8)*. Findings show there is no statistically significant relationship between the variables as the Chi-square with 1 degree of freedom = 1.123 and p value > 0.05.

c. that in both companies people (SFI 52% Vs Dragoco 35%) think *that a highly specialized work force does not make a learning organization to become knowledge productive (Question 11.9)*. However, the strength of support for this view is larger in SFI than in Dragoco and findings show there is a statistically significant difference in these views about the relationship between training and knowledge productive in an organization as the Chi-square with 1 degree of freedom is 9.9 with p-value <.05.

The above data show that there is a difference. However, the data do not tell what the cause is and the researcher is now looking at the qualitative data for support for the research hypothesis that the difference is caused by culture.

A) Qualitative feedback *that the training is directly related to the scope of the target competencies*.

Feedback from SFI's participant 1, he says:

*Training is important as they are **directly related** to improve on the quality of my work. This also shows that the company is genuinely **interested in developing my skill competency**.* (Male / 21- 30 years / Business Degree / Process Engineer) – (Quote 13)

Feedback from Dragoco's participant 2, he says:

*In this new era, technology is changing fast. Everyone should be upgrading as and when required to improve on our job competencies. The company has **encouraged especially those loyal employees** who have served the company for many years.* (Male / 41-50 years / Diploma / Production Manager) – (Quote 14)

From the above feedback, the researcher perceives that both companies have a culture of providing and encouraging learning to ensure their employees have relevant knowledge to enhance their skill competencies. The respondent from SFI mentions that (quote 13) as '*the company is genuinely interested in developing his skill competency*'. As to the Dragoco's respondent, he also shares this view (quote 14) as '*the company has encouraged*' learning for improving job competencies.

B) Qualitative feedback that the main objective of training is to improve the participant's knowledge for application.

Feedback from SFI's participant 3, he says:

*My superior **supports and encourages** training as the knowledge **helps me to perform better quality work**.* (Male / 31-40 years / Diploma / Technician) – (Quote 15)

Feedback from Dragoco's participant 6, she says:

*It is **compulsory** that all employees need to have basic training in order **to perform well** in their jobs.* (Female / 21-30 years / Diploma / Production Technician) – (Quote 16)

The above feedbacks allow the researcher to perceive that both companies implicitly have a practice that training is provided for employees to enhance their knowledge and thus assist them in performing their jobs better. Both respondents perceive that their companies either (quotes 15,16) '*supports or encourages training*' or make training '*compulsory*'. In this way, they perceive that the knowledge and the basic training '*helps them to perform better*' or '*to perform well*' (Quote 16).

C) Qualitative feedback *that training in itself does not make a learning organization.*

Feedback from SFI's participant 5, he says:

*Whether formal or informal, training is meant to make us more knowledgeable in performing our jobs. Employees after training must be **expected to put them to good use** on the jobs, otherwise there will be no learning among colleagues.* (Male / 21-30 years / Degree / Facility Manager) – (Quote 17)

Feedback from SFI's Participant 3, he say:

*Even though my company sees the important of training and has encouraged me to learn, I think lack of time is the most important criteria that prevents me from applying what I learn. There is **not enough time** during working hours for me to **put into practice** what I have learnt. Therefore, it is difficult to become a learning organization.* (Male / 31-40 years / Diploma / Technician) – (Quote 18)

Feedback from Dragoco's participant 9, he says:

*It is very good indeed **to practice** what we have learnt during the informal training at our working environment but my superior **has not promoted situation for me to apply my knowledge and learn more.*** (Male / 31-40 years / Secondary Education / Supervisor) – (Quote 19)

The researcher concludes that both the Eastern-Singaporean and Western-German companies have objectives of cultivating their companies into learning organizations (quotes 13,14,15,16). However, they face some degree of difficulties as the feedback show that the intensive training provided may not result in this achievement because there is insufficient time and opportunity to put things into practice and apply what has been taught in training (quotes 17,18,19).

5.3 Summary

The initial findings based on the first research question on 'subject matter expertise' show that both companies have shown positive patterns of activity towards establishing some form of corporate curriculum, similar to the review done by Kessels (2001:497-506). The data from Tables 5.1 and 5.2 show statistically significant differences in perceptions of training and culture in the two case-study organizations, but they have been perceived to be positively involved in structuring formal and informal training for the workforce. The researcher now compares the attitudes towards training in the two companies with comparisons in values and degree of significant differences between the east and west. The objective of this comparison is to establish the possibility that the differences in attitudes to training are caused by differences in cultures. Summarized below are the main differences and the researcher's view about what could result in those differences.

- formal training (Question 11.1: SFI 90% say 'Yes' Vs Dragoco of 47%)
- informal training (Question 11.2: SFI 81% say 'Yes' Vs Dragoco of 61%)

The respondents from the Eastern-Singaporean company perceived very strongly (81-90%) that their company supports both the formal and informal training. Only 47-61% of the Western-German company's respondents perceived with similar strong feeling. The researcher perceives that both companies demonstrate the importance of supporting training. However, the Eastern-Singaporean company emphasizes stronger view and this could be due to a situation where the organizational and national cultures are more aligned than the Western-German organization (quote1,3,5). As explained in Chapter Two, even in a situation where the organizational and national cultures are aligned, the extent to which the individual is influenced by the workplace values depends on the individual's service in the organization as well as the strength/weakness or positive/negative dimensions of the organizational culture which has impact on the lifelong learning in the organization.

On the other hand, the Western-German top management is also involved in the importance of providing training and they could be guided by the organization's policy (quotes 2,4).

The above conclusions are in line with Hofstede's (1991:23-48) view that there are significant differences between countries' culture on the power distance index (PDI) at the workplace. In the case of Singapore and other Asia culture, it shows a high power distance. This implies that the value systems of the east-organizations have a big power gap between the leaders and those that they lead. In Western country organizations, there will be more empowerment and autonomy given to the staff to decide on their learning development. (As explained in Chapter Two) Hofstede's work (1991, 26) shows Singapore has a PDI of 74 versus Germany of 35. This could help to explain the findings of higher percentage of respondents from SFI indicating a strong training structure in their organization as opposed to Dragoco which shows an inclination to a more negative view. Key words used by SFI's respondents such as '*happening very fast*' and '*company helps me in performing*' and words by Dragoco such as '*no clear policies*' and '*sporadic way*' are some reflection of the power distance in the two case-study companies. The researcher thinks that Hofstede's explanation about the east and west in terms of power distance may help to explain the two-case study companies. In this way, the researcher would begin to confirm the hypothesis that the differences between the two companies can be explained by 'east' and 'west'.

Next we turn to the question of skills:

- that training provided by their companies enhance their skills (Question 11.3: SFI 92% say 'Yes' Vs Dragoco of 69%),
- that training help to develop their area of knowledge (Question 11.4: SFI 96% say 'Yes' Vs Dragoco of 71%),
- that training has been seen as a form of career development (Question 11.5; SFI 90% say 'Yes' Vs Dragoco of 54%),

The Eastern-Singaporean company's respondents perceived very strongly (90-96%) that training can provide skills development and also can help them in developing the knowledge, thus leading to a form of career development. However, about half or at the most two-thirds of the Western-German company's respondents perceived things in the same way. This lower perception is very much in line with their perception that their management's attitudes in involving them in training is not that positive. The researcher sees this trend to be linked to the east-west culture as explained above. Evidences from the Eastern-Singaporean respondents such as (quotes 17,18) "*not enough time*", "*to put into practice*" and "*expected to put them to good use*" reflect a higher power distance in this organization. Expressions from the Western-German respondents such as (quotes 11,12,14,19,) "*no proactive exercise*", "*for action either None or little*" and "*encouraged especially those loyal employees*" are indication of presence of west-organization culture reflecting a lower power-distance environment. The researcher explains these perceptions to be closely related to Hofstede's work on east-west culture in the workplace.

- that there is special plan for learning in their organizations (Question 11.6; SFI 69% say 'yes' and in Dragoco 70% say 'no').

As to this critical question of company providing special plan for learning, the respondents from Dragoco view that their company has (quote 9,11,19) "*no proactive exercise*", "*restricted*" and "*has not promoted situation for me to apply*" when asked to share their view of their company having "special plan for learning in their organization". The researcher argues that these higher negative perceptions are in line with Hofstede's concept of power distance in the 'Eastern'- 'Western' culture at the workplace. He explains that both companies are involved in supporting the training, with the east showing more positive attitude in driving the learning initiatives than the west. He further concludes this to be related to the east-west culture in the workplace.

If we now compare this with what was said by managers in the description of the policies of the two companies, we find some connections. The Dragoco

management talks explicitly about allowing space for creativity in their narrative whereas the SFI management talk in terms of reducing variation and keeping control. This may also be determined by the nature of their product but it is certainly explicit that there are differences.

Chapter 6
PARTICIPANTS' PERSPECTIVES
QUESTION 2

6.1 Introduction

The researcher continues to identify salient organizational patterns that are indicated in the questionnaire data and which illustrate how the participants from the two case study organizations perceived opportunities to learn problem solving techniques to enhance their knowledge in resolving problems continuously in order to support their companies' values. This chapter and the following two chapters again examine materials that provide insights into whether the differences observed in the responses from the two case study organizations reflect more fundamental cultural differences in attitudes towards lifelong learning.

The researcher continues to use the quantitative data to highlight the participants' views and the qualitative data to provide him with a deeper insight of the respondents' feeling and thoughts about the issues of their companies supporting them with opportunities for learning the appropriate problem solving techniques. The primary objective of this approach is to complement those quantitative data collected from the questionnaire. The researcher continues to apply the Chi-square statistical test on those quantitative data to compare the participants' views and establish whether there is any statistically significant difference in their views on training and culture.

In Chapter 5, the researcher has analyzed the quantitative and qualitative data of Research Question 1 on *“Do Eastern and Western companies take different approaches in providing subject matter expertise to their staff basing on their company cultural values?”*

In this Chapter, the researcher moves on to analyze those quantitative and qualitative data on Research Question 2 on “*Do Eastern and Western companies take different approaches to training staff on problem solving techniques to enhance their knowledge in resolving problems continuously in order to support their company values? And if so: are the values which staff are trained to support Eastern and Western respectively?*”

6.2 Findings of Research Question 2

Following are findings of research question 2 and its sub-questions, gathered through the quantitative methods.

Table 6.1 SFI and Dragoco Participants' Perception on Problem Solving Techniques

Question Number	Item		Yes	No	Missing	Chi Sq	df	p
12.1	Does your company provide formal training in problem solving?	Case 1: SFI	75/60%	49/39%	1/1%	44.26	1	0.000
		Case 2: Dragoco	21/18%	94/80%	3/3%			
12.2	Where do you see your strength in problem solving?	Case 1: SFI	Not Applicable					
		Case 2: Dragoco	Not Applicable					
12.3	Does your supervisor/manager provide opportunities for you to participate in group-base problem solving?	Case 1: SFI	83/66%	42/34%	0/0%	3.4	1	0.065
		Case 2: Dragoco	63/53%	52/44%	3/3%			

12.4	Does your supervisor/manager promote team-approach in problem solving?	Case 1: SFI	83/66%	41/33%	1/1%	13.302	1	0.000
		Case 2: Dragoco	50/42%	65/55%	3/3%			
12.5	Does your supervisor/manager provide good facilities for the group in problem solving?	Case 1: SFI	87/70%	36/29%	2/2%	2.575	1	0.109
		Case 2: Dragoco	70/59%	45/38%	3/3%			
12.6	Do you personally benefit in group-base problem solving technique?	Case 1: SFI	90/72%	34/27%	1/1%	3.698	1	0.054
		Case 2: Dragoco	70/59%	45/38%	3/3%			
12.7	Do you find it helpful in your job?	Case 1: SFI	88/70%	35/28%	0.588	0.588	1	0.443
		Case 2: Dragoco	77/65%	38/32%	3/3%			
12.8	Do you agree that this form of making tacit knowledge explicit important to improving your job competencies?	Case 1: SFI	90/72%	35/28%	0/0%	0.893	1	0.345
		Case 2: Dragoco	77/65%	39/33%	2/2%			
12.9	Can this explicit knowledge help you in solving new technical problems?	Case 1: SFI	71/57%	52/42%	2/2%	53.116	1	0.000
		Case 2: Dragoco	14/12%	100/85%	4/3%			
12.10	Is there a structured training program to enhance your trouble-shooting skills?	Case 1: SFI	87/70%	35/28%	3/2%	0.925	1	0.336
		Case 2: Dragoco	76/64%	40/34%	2/2%			

The above findings show that both SFI (Eastern-Singaporean) and Dragoco (Western-German) participants perceived that their organizations provide training to their staff on problem solving techniques to enhance their knowledge in resolving problems continuously in order to support their company values. This again is in line with Kessels' study which shows that all organizations have a corporate curriculum. However, there are specific differences in the ways between the companies and the Dragoco responders, although agreeing for most questions that there is support, do so with slightly larger minorities.

Feedback of following questions in the two companies reflects the differing strength of views, and the difference is significant.

- i. formal training in problem solving (Question 12.1: SFI 60% say 'Yes' Vs Dragoco 80% say 'No')
- ii. supervisor/manager promoting team-based approach in problem solving (Question 12.4: SFI 66% say 'Yes' Vs Dragoco 55% say 'No').
- iii. whether the explicit knowledge can help the respondents in solving new technical problems (Question 12.9: SFI 57% say 'Yes' Vs Dragoco 85% say 'No')

From the above data, SFI participants responded very strongly in (i) that formal training in problem solving is in place, (ii) that supervisor/manager promoting team-based approach in problem solving, and (iii) that the explicit knowledge can help the respondents in solving new technical problems. The Chi-square test results of above three questions show there is a statistically significant difference between the answers to above questions in between the Eastern-Singaporean and Western-German case study companies. This is true because there is high degree of participants in Dragoco that say 'no' to the questions. If the strength of response from Dragoco was 'very strong', then there would be no statistically significant difference in these three areas, in particular pertaining to the critical question on having formal training in problem solving.

The researcher then further analyzes the feedback from remaining questions as shown in Table 6.1. From the data, SFI participants responded very strongly, whereas in the case of Dragoco participants, they responded less positively that their companies provided the initiatives as below:

- i. supervisor/manager provide opportunities for them to participate in group-base problem solving (Question 12.3: SFI 66% say 'Yes' Vs Dragoco of 53%),
- ii. supervisor/manager provide good facilities for the group in problem solving Question 12.5: SFI 70% say 'Yes' Vs Dragoco of 59%),
- iii. personally benefiting in group-based problem solving technique (Question 12.6: SFI 72% say 'Yes' Vs Dragoco of 59%),
- iv. that training is helpful in job (Question 12.7: SFI 70% say 'Yes' Vs Dragoco of 65%),
- v. that this form of making tacit knowledge explicit important to improving job competencies (Question 12.8: SFI 72% say 'Yes' Vs Dragoco of 65%),
- vi. that there is a structured training program to enhance trouble-shooting skills Question 12.10: SFI 70% say 'Yes' Vs Dragoco of 64%).

It is true that the majorities in both companies say "Yes" but in Dragoco there are slightly larger minorities who say "No". However, the Chi-square test results of above questions show there is no statistically significant difference between the answers to questions about training-related activities in both the Eastern-Singaporean and Western-German case study companies. This is true because there are smaller minorities that say "No". If the strength of response were 'very strong', then there would be statistically significant difference. The overall Chi-square test results with one degree of freedom range from 0.588 to 3.698 and $p > 0.05$.

In general, the findings show that both SFI (Eastern-Singaporean) and Dragoco (Western-German) participants perceived that their organizations promote problem-solving learning at their work place but with significant differences in some areas and no significant differences in many other areas. The differences

which exist may be caused by the fact that one company is Eastern-Singaporean and the other is Western-German, and this will be discussed in more detail below. This is in line with Kessels' study which shows that all organizations have a corporate curriculum in place but differ to some extent and this could be largely due to differences in companies' business objectives and corporate culture.

The researcher then analyses the qualitative data to look for any clues about why there is a substantial minority from Dragoco that say "Yes" to the above three key questions (Questions 12.1, 12.4 and 12.9) and lesser differences in the remaining questions and how they are formulating their reservations. Following are some of the findings.

A) Participants that say "Yes" to the research sub-questions (12.1, 12.4 and 12.9 where there are significant differences)

Feedback from SFI's Participant 3, he says:

*In addition to numerous on-the-job training, my **company believes** that some form of formal training on problem-solving-related skills must be embarked to **enhance** our problem-solving skills while carrying out our daily tasks. My company has **structured formal training** such as "**Negotiation skills**", "**Communication skills**", and "**Customer relationship management**" to assist our training needs. (Male / 21- 30 years / Business Degree / Customer Service Manager) - (Quote 1)*

[* NB emphasized words and phrases are selected by the researcher to indicate the key words and phrases in this quotation and in all subsequent ones]

Feedback from Dragoco's Participant 4, he says:

*In our fragrance department, we have different educational levels. It ranges from the Laboratory Technicians, Evaluators, and Chemists and Perfumers. Most of them are either Diploma holders or Degree holders. However, all of us are **given formal training in problem-solving to improve on our** "**Creativity and Innovation skills**", "**Communication Skills**" and "**Interpersonal Skills in problem-solving**". (Male / 21 – 30 years / Diploma / Technician) - (Quote 2)*

Both of these - representing the two companies – stress the importance of ‘formal training’. Whereas the next two focus on the support and encouragement they get: Feedback from SFI’s Participant 3, he says:

*Definitely my immediate supervisor, in this case my manager, **supports and promotes** team-approached problem solving as it is **critical to the job** that we are dealing with. (Male / 21- 30 years / Business Degree / Customer Service Manager) - (Quote 3)*

Feedback from Dragoco’s Participant 4, he says:

*My supervisor very frequently **supports and encourages** us to have team-based approach in solving problems as we **have targets to meet**. For example, we hold **weekly meetings for all levels of staff** in the laboratory. (Male / 21 – 30 years / Diploma / Technician) – (Quote 4)*

Some stress the transfer of skills to new areas:

Feedback from SFI’s Participant 6, she says:

*The explicit knowledge we received from this formal problem-solving approach **benefits us in the thought process** of solving problem in **other areas**. (Female / 21-30 years / Engineering Degree / Quality Manager) – (Quote 5)*

Feedback from Dragoco’s Participant 8, she says:

*The formal problem-solving technique **provides an overview concept** and it gives a very **good practical environment** for us to practise in **new problem area** that we usually come across. (Female / 21 – 30 years / Secondary Education / Process Technician) – (Quote 6)*

We can see therefore that both groups use similar terms such as ‘formal training’, ‘support’, ‘encourage’. There are however no indications here as to why there is significant difference in the answers to the questions listed.

B) Participants that say 'No' to the research sub-questions (12.1, 12.4 and 12.9 where there is significant difference)

Feedback from SFI's Participant 2, she says:

*I am **not sure** whether my company provides formal training in problem solving as there is **no clear program** that shows the direction.* (Female / 41 – 50 years / Primary Education / Chief Chef) – (Quote 7)

Feedback from Dragoco's Participant 2, he says:

*Although my **company has acknowledged** the importance of problem-solving training, there is **no proactive action** to demonstrate this initiative. Hence, I perceive there is **no provision** of formal training in problem solving.* (Male / 41-50 years / Production Manager) – (Quote 8)

Thus in both companies there are people who are simply not informed about training, whereas in the next quote it seems that the employee is informed but believes that there is a filter process by the supervisor:

Feedback from SFI's Participant 2, she says:

*My supervisor is **selective** in choosing us for the team-based approach in problem-solving training. His choice is **dependent on our qualification**.* (Female / 41 – 50 years / Primary Education / Chief Chef) – (Quote 9)

And in another case the supervisor seems to be unhelpful:

Feedback from Dragoco's Participant 6, she says:

*I am **not sure**. This team-based approach problem-solving training has been **mentioned years ago** but there is **no implementation**. I am **not aware** of my superior's support to this training.* (Female / 41 – 50 years / Secondary Education / Human Resource Administrator) – (Quote 10)

Another perspective is where the informant has doubts about the effectiveness of training:

Feedback from SFI's Participant 8, he says:

*We strongly **encourage and support** on-the-job training on problem-solving technique among our customer service administrators and executives. I am **not sure** how this explicit knowledge can help in solving new technical problems outside my area of responsibilities.* (Male / 31 – 40 years / Business Degree / Business Development Manager) – (Quote 11)

And a further development of this is a responder having doubts about transferability - the opposite of what we saw with those who answered yes to the question above:

Feedback from Dragoco's Participant 7, she says:

*Team-based approach in problem solving is very **beneficial** for me in dealing with my **current job**. On the other hand, after receiving this training, I am **not sure** how I can **apply it to other areas**.* (Female / 21-30 years / Diploma / Process Technician) – (Quote 12)

Again it is striking that there is a common set of terms here: 'not sure' frequently appears, but it appears in both groups and it is not clear why there is statistical difference between the groups. What we do find however is that in both companies employees can have opposite viewpoints and explain them with contradictory statements e.g. some believe training is transferable and other say the opposite or have doubts about transferability and the use of training.

C) Participants that say 'Yes' to the remaining research sub-questions where there are no statistical differences (Table 6.1) The first group of quotations talk about need and necessity of training as fundamental:

Feedback from SFI's Participant 4, she says:

*In My opinion, the group-based problem solving technique is beneficial **not only for myself but also for the employer**. This is the **basic needs** to support our day to day handling of our tasks.* (Female / 21 - 30 years / Diploma in Chemical Technology / Technician) – (Quote 13)

Feedback from Dragoco's Participant 8, she says:

*I think the group-based problem solving technique training should be viewed as a necessity. It is beneficial to me as I can **understand the process problem better.***

(Female / 21 – 30 years / Secondary Education / Process Technician) – (Quote 14)

Another group makes this more explicit by referring to the need for skills upgrading as change is so rapid:

Feedback from SFI's Participant 1, he says:

*It is important for the company to **upgrade our skills**, and I thought that the structured group-based problem solving technique is **crucial** as we are faced with **new technology and current processes** are constantly changing. This training is helpful and it also boosts our morale and loyalty to the company.*

(Male / 21- 30 years / Business Degree / Process Engineer) – (Quote 15)

Feedback from Dragoco's Participant 4, he says:

*In this new era, **technology is changing fast**. My company realizes this important point and the problem-solving training given to us is very helpful as **it enhances our skills in carrying out our job.***

(Male / 21 – 30 years / Diploma /Technician) – (Quote 16)

Then there are additional points brought out about safety and the more general rationale that it is a matter of customer needs

Feedback from SFI's Participant 6, she says:

*Yes. My company **emphasizes strongly** on issues such as **safety and hygiene** and there is structured training program to **enhance** our trouble-shooting skills in these areas.*

(Female / 21-30 years / Engineering Degree / Quality Manager) – (Quote 17)

Feedback from Dragoco's Participant 3, she says:

*We have structured training program to **enhance** our trouble shooting skills in issues relating to customers' needs and behavior. This is reviewed **bi-monthly** during our sales seminar. (Female / 21- 30 years / Business Degree / Customer Relation Manager) – (Quote 18)*

D) Participants that say “No” to the remaining research sub-questions (Table 6.1)

The first group of quotations in this category talks about the benefits of receiving training, but there was lack of support and follow-up from the companies:

Feedback from Dragoco's Participant 7, she says:

*Training given to an employee should be beneficial if the lessons from the training are **allowed to be practiced**. My supervisor should **empathize me on the difficulties** encountered during my learning process. (Female / 21-30 years / Diploma / Process Technician) – (Quote 19)*

Feedback from SFI's Participant 8, he says:

*It is very good indeed to practice problem-solving skill at our working environment. But I do not find it helpful as there is **no constant follow-up or review** of its application. (Male / 31 – 40 years / Business Degree / Business Development Manager) – (Quote 20)*

Another group of quotations simply indicates that the training is not relevant and there is no opportunity to practice what they have learnt.

Feedback from SFI's Participant 8, he says:

*I find the problem-solving technique **not relevant** as it is **quite basic**. (Male / 31 – 40 years / Business Degree / Business Development Manager) – (Quote 21)*

Feedback from Dragoco's Participant 6, she says:

*Whether a structured problem-solving technique or any other training skills, I personally do not benefit from the training as it **does not allow me an opportunity to practice at my workplace**. (Female / 41 – 50 years / Secondary Education / Human Resource Administrator) – (Quote 22)*

Another group of feedback reflects that the training on problem solving techniques is only given to selected group of people and it is not structured.

Feedback from Dragoco's Participant 2, he says:

*I do not envisage the company of promoting a structured problem solving techniques. Yes, I agree that the company supports the training but it **should not be for the chosen few and confined to certain functional groups.*** (Male / 41-50 years / Production Manager) – (Quote 23)

Feedback from SFI's Participant 2, she says:

*I am **not sure** of what has been done **in promoting** the structured training program to enhance my problem-solving skill.* (Female / 41 – 50 years / Primary Education / Chief Chef) – (Quote 24)

Summary:

The researcher classifies the positive and negative responses in two aspects:

firstly, the positive responses are in terms of (i) those that perceive the companies realize the importance of formal training (*companies believes, to enhance, structured formal training, negotiation skills, communication skills, upgrade our skills, crucial, technology is changing fast, enhances our skills, emphasizes strongly, enhance, issues relating to customers' needs and behavior*) (quotes 1,2,15,16,17,18), (ii) those perceptions that link to support and encouragement from their supervisors and managers (*supports and promotes, critical to the job, have set targets*) (quotes 3,4) and (iii) those that think the skills can be transferred and beneficial (*benefits us in the thought process, other new problem areas, good practical environment, not only for myself but also for the employer, understand the process problem better*) (quotes 5,6,13,14).

Secondly, from responses, the researcher tends to classify negative perceptions as (i) those where there is lack of policy and planning (*no clear program, no provision, no implementation, not sure, not aware*) (quotes 7,8,10), (ii) those where the perception of problem-solving training is limited in support by supervisor

(*selective, dependent on our qualification, mentioned years ago, no proactive action, do not envisage, not be for the chosen few, confined to, not relevant, empathize me on the difficulties, no constant follow-up or review*) (quotes 9,19,20,21,23,24), (iii) those where there is doubt that the training is beneficial or helpful to them (*does not allow me, no constant follow-up or review, not sure in promoting*) (quotes 12, 22) and (iv) those where there is doubt where the explicit knowledge can help in solving new technical problems and also having doubt that the company has a structured training program to enhance the trouble-shooting skills. (*not sure can apply to other areas, outside my area of responsibilities*) (quotes 11 and 12)

The researcher concluded (from quote numbers 8,10) that the problem-solving learning in Dragoco (Western-German) company is less structured in nature as there is no clear indication of providing a formal training in this skill-set. The Dragoco's respondents also perceived that the management group is less committed to promote this training initiative and the feedbacks also reflect that the management is selective in deciding on those individuals that will be receiving this group-based problem-solving training (from quote numbers 12,19,22,23). Generally, Dragoco's responders recognize that their Company has acknowledged the importance of problem-solving learning at the workplace, but they perceive their management has not demonstrated the seriousness of its commitment to this concept.

In short, analysis of the above quantitative and qualitative data suggests that a higher percentage of workers from Dragoco (Western-German) company as represented in the survey are less convinced that their company is serious in promoting and executing the problem-solving technique. However, there are also some minority from SFI (Eastern-Singaporean) company that view the training provided by the company can be more structured (reflected by the feedback as '*no clear program*' – quote 7) and can be more intense to promote more involvement (reflected by the feedback as '*selective*' – quote 9). In the next table we turn to the question of the nature of the enhancement of skills.

Table 6.2 SFI and Dragoco Participants' Perception on Importance of Acquiring Problem Solving Techniques

Question Number	Item		T2B	B2B	Chi Sq	Df	p
12.11	I can only solve problems related to those specific knowledge I had acquired.	Case 1: SFI	106/85%	13/11%	2.914	1	0.088
		Case 2: Dragoco	90/76%	21/17%			
12.12	It is important to continue to upgrade my existing field of knowledge	Case 1: SFI	118/94%	1/1%	0.990	1	0.000
		Case 2: Dragoco	116/98%	1/1%			
12.13	There is a need to acquire productive skills to enable me to solve new and not well defined problem areas?	Case 1: SFI	113/90%	0/0%	0.989	1	0.000
		Case 2: Dragoco	105/89%	0/0%			

Table 6.2 above shows how SFI and Dragoco participants perceive their problem-solving skill enhancement after undergoing the structured training. The above table shows respondents that say (i) 'strongly agree' and 'agree' to the sub-questions and this is represented by the column T2B and those who (ii) 'disagree' and 'strongly disagree' represented by column B2B. The researcher now examines the Chi-square test results and following are the analysis.

a) that in both companies a very substantial majority of people (SFI 85% Vs Dragoco 76% represented in the T2B, and SFI 11% Vs Dragoco 17% represented in the B2B) think *that they can only solve problems related to those specific knowledge they had acquired (Question 12.11)*. The Chi-square test shows no statistically significant relationship between the groups as chi-square with 1 degree of freedom = 2.914 and p value > 0.05.

b) that in both companies again very substantial majorities of people (SFI 94% Vs Dragoco 98%) think *that it is important to continue to upgrade their existing field of knowledge (Question 12.12)*. Findings show there is a statistically significant relationship between the groups as the Chi-square with 1 degree of freedom is 0.990 and p value < 0.05.

c) that in both companies people (SFI 90% Vs Dragoco 89%%) think *there is a need to acquire productive skills to enable them to solve new and not well defined problem areas (Question 12.13)*. Findings show there is a statistically significant relationship between the groups as the Chi-square with 1 degree of freedom is 0.989 with p-value < 0.05.

The above data shows that there is a difference. However, the data do not tell what the cause is and the researcher is now looking at the qualitative data for support for the research hypothesis that the difference is caused by culture.

A) Qualitative feedback *that I can only solve problems related to those specific knowledge I had acquired.*

Feedback from Dragoco's Participant 1, he says:

*Training on problem-solving is important as it is a good cause. It helps me to achieve the results in solving problems that are related to specific knowledge I had acquired. For example, I am able to **fix process-related** product quality problem.*

(Male / 31- 40 years / Secondary / Process Technician) – (Quote 25)

Feedback from SFI's Participant 10, he says:

*After attending the structured problem-solving training, my colleagues and I are **more aware** of the required approach in **resolving those process problems** in our specific work areas. (Male / 31- 40 years / Secondary / Chef) – (Quote 26)*

From above feedback, the researcher concludes that respondents from both companies have demonstrated their belief that they can only solve problems that

are related to specific knowledge that they had acquired. The respondent from Dragoco mentions that the training '*helps me to achieve*' and '*to fix process-related product quality problem*' (quote 25). As to the SFI's respondent, he also shares that the training makes him '*more aware*' in '*resolving those process problems*' (quote 26).

B) Qualitative feedback *that it is important to continue to upgrade my existing field of knowledge.*

Feedback from Dragoco's Participant 3, she says:

*Nowadays, the **environment and technology are changing** very fast. It is important for me to continue to upgrade my existing field of knowledge so as **not to be left behind**. I am prepared to upgrade my skills to **stay competent** and contribute to the company and also be beneficial to myself.* (Female / 21- 30 years / Business Degree / Customer Relation Manager) – (Quote 27)

Feedback from SFI's Participant 9, she says:

*It is very important for me to continue to upgrade my existing field of knowledge. It **improves my quality of work** and I can also **demonstrate** to my company **my competencies and my contribution**.* (Female / 21 - 30 years / Diploma in Chemical Technology / Senior Technician) – (Quote 28)

The above feedback allow the researcher to perceive that the respondents from both companies demonstrate the implication that it is important to continue to upgrade their existing field of knowledge because '*environment and technology are changing*' (quote 27) and the continuous learning will ensure that they are '*not to be left behind*' (quote 27). In this way, they can stay '*stay competent*' and '*demonstrate to their companies their 'competencies' and 'contribution'*' (quote 28).

C) Qualitative feedback *that there is a need to acquire productive skills to enable me to solve new and not well defined problem areas.*

Feedback from Dragoco's Participant 9, she says:

*Yes, it is important to acquire productive skills as they can help me to **perform better** in my job by solving new and not well defined problems. This **helps to provide** customers with speedy information and deliver timely services.* (Female / 21 – 30 years / Degree / Customer Relation Manager) – (Quote 29)

Feedback from SFI's Participant 1, he says:

*There is **never ending** to learning. Therefore, there is a need for me to acquire productive skills as I will **be involved in solving new problem areas** by using as much as I can the new knowledge received.* (Male / 21- 30 years / Business Degree / Process Engineer) – (Quote 30)

From the above feedback, the researcher perceives that the respondents from both companies realize the importance of a need to acquire productive skills to enable them 'to perform better' and that will 'help to provide' (quote 29) and also they can 'be involved in solving new problem areas' (quote 30).

6.3 Summary

The findings based on the second research question on 'problem solving techniques' show that both companies have shown positive tendencies towards establishing some form of corporate curriculum, similar to the review done by Kessels (2001:497-506), but the data from Tables 6.1 and 6.2 show statistically significant differences between the two companies in responses about providing problem solving training and culture.

The researcher now summarizes the key differences and also indications of common ground in the two organizations, both in the fact that there were responses with no statistical difference and in the qualitative data.

Summarized below are the main differences and the researcher's view of what could result in those differences.

- formal training in problem solving (Question 12.1: SFI 60% say 'Yes' Vs Dragoco of 18%)
- supervisor providing opportunities for group-based participation (Question 12.4: SFI 66% say 'Yes' Vs Dragoco of 42%),
- explicit knowledge can help in solving new technical problems (Question 12.9: SFI 57% say 'Yes' Vs Dragoco of 12%)

The respondents from the Eastern-Singaporean company perceived strongly (60%) that their company supports the formal training in problem solving. Only 18% of the Western-German company's respondents perceived with similar strong feeling. The researcher perceives that both companies demonstrate the importance of supporting problem-solving training. However, the Eastern-Singaporean company emphasizes a stronger view and this could be due to (as explained in Chapter Five) a situation where the organizational and national cultures are more aligned than the Western-Germany organization. The researcher believes that the management in this organization could have emphasized the importance of formal training in problem-solving as one of the key success factors that will help the staff in delivering quality products to the consumers, especially in safety and hygiene.

Similarly, the Western-German top management is also committed to providing the training and their actions could be either due to budget constraint or guided by company's policy. This is reflected by the feedback from the Production Manager that says "*I do not envisage the company of promoting a structured problem solving techniques. Yes, I agree that the company supports the training but it should not be for the chosen few and confined to certain functional groups*".

However, the extent to which the individual is influenced to accept and practise the problem-solving techniques depends on at least two major factors: the individual's service in the organization as well as his/her attitude towards the organization's

positive/negative dimensions of the organizational culture which has impact on the learning in the organization.

The above analysis reflects Hofstede's (1991: 51-66) view that there are significant differences between countries' culture on the individualism index (IDV) at the workplace. In the case of Eastern-Singaporean company's culture, Hofstede's work shows low individualism index scores of 20 for Singapore (ibid: 53) and this implies that the value systems of the Eastern organization is tending towards the opposite pole terms of collectivism. Under collectivism, the organization culture has work goals that "stress more on training, physical conditions and skills being used on the job refer to things the organization does for the employee, and in this way stress the employee's dependence on the organization" (Hofstede, 1991, 52). In the Western-German organization, the IDV score for Germany is high of 67 (Hofstede, 1991:53) and it tends more towards the individualism pole. It reflects a culture where "everyone is expected to look after himself or herself and his or her immediate family" and in itself it identifies "the importance of personal time, freedom, and personal challenge with individualism. They all stress the employee's independence from the organization" (Hofstede, 1991: 51-52). The above could help to explain the findings of higher percentage of respondents from SFI indicating very positively the training structure in their organization as opposed to Dragoco which shows an inclination to a more negative view. These are reflected by key words used by SFI's respondents "*benefits in the thought process*" (quote 5), "*basic needs*" (quote 13), "*upgrade our skills*" (quote 15) and words by Dragoco such as "*no provision*" (quote 8), "*mentioned years ago*" (quote 10) and "*no proactive action*" (quote 8). In addition, according to Hofstede's (1991:54) research, he finds that there is a strong relationship of cultures between power distance and individualism. His study shows that countries with small power distance, in this case the Western-German company, have a low correlation to individualism and vice versus. The researcher thinks that Hofstede's explanation about the east and west in terms of power distance (refer to Chapter Five) and individualism index may help to explain the two-case study companies. These are reflected by key words used by SFI's respondents "*training provided by the*

company helps me in carrying out our daily tasks" (quote 1), *"my immediate supervisor gives good support and promote"* (quote 3) in developing plan for formal and informal training, and words from Dragoco employees such as *"I am not aware of my superior's support to this training"* (quote 10), *"no clear policies"* (quote 7), and this negative formulation may be expected from Singapore employees who would like more structure in a collectivist mode. This allows the researcher to further confirm the hypothesis that the differences between the two companies can be explained by 'east' and 'west'.

The researcher continues to analyze the differences in other sub-questions as shown below.

- that supervisor/manager provide opportunities for participation in group-based problem training (Question 12.3: SFI 66% say 'Yes' Vs Dragoco of 53%),
- that training provides personal benefit (Question 12.6: SFI 72% say 'Yes' Vs Dragoco of 59%),
- that training is helpful on the job (Question 12.7; SFI 70% say 'Yes' Vs Dragoco of 65%),
- that this form of making tacit knowledge explicit is important to improve on job competencies (Question 12.8; SFI 72% say 'Yes' Vs Dragoco of 65%),
- that there is a structured training program to enhance trouble-shooting skills (Question 12.10; SFI 70% say 'Yes' Vs Dragoco of 64%),

The above feedback on the five remaining sub-questions show that the East-Singapore company's respondents perceived strongly (66 - 72%) that problem-solving training is beneficial as it helps them to resolve their daily process-related problems more effectively and at the same time allows them to demonstrate the skills competencies to the company. However, only 53-65% of the Western-German company's respondents perceived in the same way as their Eastern-Singaporean counterparts. This lower perception is very much in line with their perception that they are *"not sure"*, *"not aware"* of their management's attitudes in involving them in training. The researcher sees this trend to be linked to the east-west culture as explained above. The researcher perceives that the West-German

company's respondents draw their conclusion based on their views that their management had demonstrated lesser positive commitment to the aspects of training in the above five sub-questions.

Again, the researcher concludes that there is a continuous trend showing the differences in the east-west culture in supporting problem-solving training in the Eastern-Singaporean and Western-German companies. Both companies are involved in supporting the training, with the east showing more positive attitudes than the west in delivering the results, and the Singapore respondents showing they would like more support from Dragoco as the Hofstede theory would predict.

In Chapter Seven, the researcher plans to continue with the analysis of the quantitative and qualitative feedbacks of the two case study companies on Research Question 3 *“Are Eastern and Western companies' staff helped differently and in ways which reflect 'Eastern' and Western' approaches to develop reflective skills and meta-cognitive skills that enable them in approaching problems?”*

Chapter 7
PARTICIPANTS' PERSPECTIVES
QUESTION 3

7.1 Introduction

The researcher takes a similar approach as in the previous two chapters and continues to identify salient organizational patterns that are indicated in the questionnaire data. These data illustrate how the participants from the two case study organizations perceive opportunities to develop reflective skills and meta-cognitive skills that will enhance their knowledge in approaching problems in order to support their companies' values. This chapter and the following chapter examine materials that provide insights into whether the differences observed in the responses from the two case study organizations reflect more fundamental cultural differences in attitudes towards lifelong learning.

The researcher continues to use the quantitative and qualitative data to highlight the participants' views and also to provide him a deeper insight into the respondents' feeling and thoughts about the positive/negative issues of their companies supporting them with the opportunities to develop reflective skills and meta-cognitive skills that will enhance their knowledge in approaching problems. The researcher continues to apply the Chi-square statistical test on those quantitative data to compare the participants' views and establish whether there is any statistically significant difference in their views on training and culture.

In this Chapter, the researcher moves on to analyze quantitative and qualitative data on Research Question 3 *“Are Eastern and Western companies' staff being helped differently and in ways which reflect Eastern and Western approaches to develop reflective skills and meta-cognitive skills that enable them in approaching problems?”*

7.2 Findings for Research Question 3

Following are findings for research question 3 and its sub-questions, gathered through the quantitative methods.

Table 7.1 SFI and Dragoco Participants' Perception on Development of Reflective Skills

Question Number	Item		Yes	No	Missing	Chi Sq	df	p
13.1	Do you feel confident in solving all current problems	Case 1: SFI	105/84%	15/12%	3/2%	15.947	1	0.000
		Case 2: Dragoco	76/64%	40/24%	2/2%			
13.2	Can your current technical strength be transferred?	Case 1: SFI	101/86%	16/13%	1/1%	19.775	1	0.000
		Case 2: Dragoco	69/59%	45/38%	4/3%			
13.3	Have you received sufficient technical problem solving techniques for complex problems, and handling several tasks simultaneously?	Case 1: SFI	96/77%	28/22%	1/1%	13.730	1	0.000
		Case 2: Dragoco	63/53%	52/44%	3/3%			
13.4	Is your expertise very focused at one specific area?	Case 1: SFI	91/72%	32/26%	2/2%	1.095	1	0.295
		Case 2: Dragoco	78/66%	37/31%	3/3%			

The above findings show that both SFI (Eastern-Singaporean) and Dragoco (Western-German) participants perceived that their organizations provide appropriate training to develop their staff on reflective skills and meta-cognitive skills to enhance their knowledge in resolving problems so that they can support their company values. This again is in line with Kessels' study which shows that all organizations have a corporate curriculum. However, there are specific differences between the companies and the Dragoco responders, although for most questions agreeing that there is support, do so only with lower majorities as is evident in table 7.1. in question 13.1, for example the SFI 'Yes' response is 84% and the Dragoco is 64%.

From the above data, SFI participants responded very strongly in (i) that they are confident in solving all current problems, (ii) that their current technical strength can be transferred, (iii) that they have received sufficient technical problem solving techniques for handling complex problems, and (iv) that their expertise is very focused at one specific area. The Chi-square test results show there is a statistically significant difference between the answers to above questions in the Eastern-Singaporean and Western-German case study companies in 3 out of 4 questions. This is true because there is a higher minority group in Dragoco that say no to the questions. The overall Chi-square test results with one degree of freedom range from 1.10 to 19.8 and $p < 0.05$.

In general, the findings show that both SFI (Eastern-Singaporean) and Dragoco (Western-German) participants perceived that their organizations provide appropriate training to develop their staff on reflective skills and meta-cognitive skills to enhance their knowledge in resolving problems so that they can support their company values but with significant differences between the two companies' employees in their perceptions of implementing their problem solving skills. This difference will be discussed in more detail below. This is in line with Kessels' study which shows that all organizations have a corporate curriculum but with different approaches and different level of acceptance.

The researcher takes another step to analyse the qualitative data to understand the ways in which the respondents of the two companies agree and disagree, for any clues about why there is a substantial minority from Dragoco that say “No” to the above four key questions (Questions 13.1, 13.2 13.3).

A) Participants that say ‘Yes’ to the research sub-questions (13.1, 13.2, 13.3 where there are significant differences) are analysed first to understand what their reasoning might be.

Feedback from SFI’s Participant 5, he says:

*Yes, I am confident as I have been given **sufficient training** to solve my **current process problems**.* (Male / 31-40 years / Diploma / Technician) – (Quote 1)

[* NB emphasized words and phrases are selected by the researcher to indicate the key words and phrases in this quotation and in all subsequent ones]

Feedback from Dragoco’s Participant 1, he says:

*Yes, I do have **good feeling** of able to solve **job-related problems**.* (Male / 31- 40 years / Secondary / Process Technician) – (Quote 2)

- Both of the above two perceptions - representing the two companies – stress they have *sufficient training* (quote 1) and they *feel good* (quote 2) in solving all current *process-related problems* (quote 1) and the following two feedbacks reflect that in most situations their much *re-enhanced* (quote 3) training allow them to perform their tasks *more professionally* (quote 4) and they feel more *confident* (quote) 4) in *transferring* (quote 4) their knowledge in technical strength.

Feedback from SFI’s Participant 9, she says:

*Based on **case by case basis**, I think that my current technical strength can be transferred, especially it is **so much re-enhanced** after the training. It also depends on how my superior supports the concept.* (Female / 21 - 30 years / Diploma in Chemical Technology / Senior Technician) – (Quote 3)

Feedback from Dragoco's Participant 9, she says:

*After receiving the training, I view that I can handle my tasks **more professionally** and I am **confident** that the current technical strength can be **transferred**.*

(Female / 21 – 30 years / Degree / Customer Relation Manager) – (Quote 4)

There are another two cases as below whereby the respondents felt that their companies have given them *sufficient training* (quote 5) to cope up with new demand in technology changes and have provide them better *understanding* (quote 6) of the soft skill in handling customer's needs and behavior. This allows them to *handle adequately complex issues confidently in their areas* (quote 5) that may surface because of the changes and new demands.

Feedback from SFI's Participant 6, she says:

*Yes. We have received **sufficient training** to cope with **new technology** in our Quality Control and Production Areas. I believe we **can handle adequately complex problems in our areas**.* (Female / 21-30 years / Engineering Degree / Quality Manager) – (Quote 5)

Feedback from Dragoco's Participant 3, she says:

*Company has arranged for in-house training by consultant on **understanding customer's needs and behavior**. To a large extent, I am **more confident** now to handle complex problems related to customers.* (Female / 21- 30 years / Business Degree / Customer Relation Manager) (Quote 6)

Feedback from SFI's Participant 4, she says:

*We are working towards achieving zero defects in our quality control initiative. My **ability to focus my expertise** in this area will **minimize wastage and loss of time and products**.* (Female / 21 - 30 years / Diploma in Chemical Technology / Technician) (Quote 7)

Feedback from Dragoco's Participant 4, he says:

*I view that the technical problem solving techniques can help me to **focus more in my area of expertise**, especially in the **area where I have full responsibility**.*

(Male / 21 – 30 years / Diploma / Technician) – (Quote 8)

The above two feedbacks give the researcher the clue that the respondents are having the ability *to focus their expertise* (quote 7) in their *areas of responsibilities* (quote 8) to improve on productivity through *minimizing wastages such as loss of time* (quote 7).

B) Participants that say 'No' to the research sub-questions (13.1, 13.2, 13.3 where there are significant differences) are analysed next to understand what their reasoning might be.

Feedback from Dragoco's Participant 5, she says:

*I am currently given on-the-job training on those equipment that I have in **direct contact** for carrying out my daily tasks. I will **not be able** to solve problems on other equipment that I am **not familiar with**.* (Female / 21 – 30 years / Diploma / Laboratory Technician) – (Quote 9)

Feedback from SFI's Participant 2, she says:

*Apparently, I am **unable to solve** all current problems as I have not been chosen to attend training in many other **areas in my current job**.* (Female / 41 – 50 years / Primary Education / Chief Chef) -- (Quote 10)

Thus, the above are reflections that in both companies there are people who are simply not involved in other training other than their *direct contact* or *areas in their current job* (quotes 9 & 10). As a result, they are either *not familiar* (quote 9) with or *unable to solve* (quote 10) other complex problems outside their job scopes.

Table 7.2 SFI and Dragoco Participants' Perception on Acquiring Meta-cognitive Skills

Question Number	Item		T2B	B2B	Chi Sq	df	p
13.5	I am competent in resolving all simple recurring problems.	Case 1: SFI	122/97%	0/0%	0.496	1	0.481
		Case 2: Dragoco	105/89%	2/2%			
13.6	I have difficulty in resolving complex problems because of lack of new knowledge.	Case 1: SFI	73/49%	20/16%	3.256	1	0.071
		Case 2: Dragoco	87/74%	12/10%			
13.7	My intelligence/expertise is focused in present domain/tasks assigned to me.	Case 1: SFI	90/72%	10/8%	0.198	1	0.657
		Case 2: Dragoco	96/82%	13/11%			
13.8	I am making good progress in current technology I Have been exposed to, but lagging in other domain.	Case 1: SFI	87/70%	11/9%	2.354	1	0.125
		Case 2: Dragoco	78/66%	4/4%			

Table 7.2 above shows how SFI and Dragoco participants perceive their organizations providing them the appropriate training to develop them on reflective skills and meta-cognitive skills so as to enhance their knowledge in resolving problems and also in transferring these knowledge to other colleagues. The key objective is to look into how they can support their company values. The above table shows respondents that say (i) 'strongly agree' and 'agree' to the sub-questions and this is represented by column T2B and those who (ii) 'disagree' and

'strongly disagree' represented by column B2B. The researcher now examines the Chi-square test results and following are the analysis.

a) that in both companies a very substantial majority of people (SFI 97% Vs Dragoco 89% represented in the T2B) think *that they are competent in resolving all simple recurring problems (Question 13.5)*. The Chi-square test shows no statistically significant relationship between the variables as chi-square with 1 degree of freedom = 0.496 and p value > 0.05

b) that in SFI, 49% of the respondents think that *they have difficulty in resolving complex problems because of lack of new knowledge (Question 13.6)* Vs 74% from Dragoco. Findings show there is no statistically significant relationship between the variables as the Chi-square with 1 degree of freedom = 3.256 and p value > 0.05.

c) that in both companies people (SFI 72% Vs Dragoco 82%) think that *their intelligence/expertise is focused in present domain/tasks assigned to them (Question 13.7)*. Findings show there is no statistically significant relationship between the variables as the Chi-square with 1 degree of freedom is 0.198 with p-value > 0.05.

d) that in both companies people (SFI 70% Vs Dragoco 66%) think that *they are making good progress in current technology they have been exposed to, but lagging in other domain (Question 13.8)*. Findings show there is no statistically significant relationship between the variables as the Chi-square with 1 degree of freedom is 2.354 with p-value > 0.05.

Although the above data show no statistically significant relationship, the researcher is now looking at the qualitative data for clues to support the research hypothesis that culture may influence the ways the two companies plan their training curriculum.

The remarks below from respondents of the two companies demonstrate they are *confident* (quote 11) that the *competency* (quote 11) level in solving recurring problems is largely due to the *job rotations system* (quotes 11 & 12) implemented.

Feedback from SFI's Participant 1, he says:

*I am **confident** that my technicians are competent in solving all simple recurring problems as we have **job rotations system** in place. This allows the technicians to be **up to speed** in their problem solving skills especially in dealing with simple problems.* (Male / 21- 30 years / Business Degree / Process Engineer) – (Quote 11)

Feedback from Dragoco's Participant 4, he says:

*We **practice job rotations** within our process area and there is on-the-job training at different time. This **builds my competency** in handling simple recurring problems.* (Male / 21 – 30 years / Diploma /Technician) – (Quote 12)

Interestingly, representatives from both companies admitted that they could only manage *simple process-related* (quotes 13 & 14) problems as training was restrictive, thus their *knowledge* (quote 13) is limited.

Feedback from SFI's Participant 3, he says:

*Currently, my staff is trained to **manage simple problems**. Therefore, they are **not knowledgeable enough** to handle complex situations.* (Male / 21- 30 years / Business Degree / Customer Service Manager) – (Quote 13)

Feedback from Dragoco's Participant 8, she says:

*Yes, I am adequately trained to resolve most of the **simple process-related problems** such as scrap reduction. No, I am **not in position** to resolve complex problem as my on-the-job training program **does not include** this requirement.* (Female / 21 – 30 years / Secondary Education / Process Technician) – (Quote 14)

Feedback from SFI's Participant 4, she says:

*From the training given to us, I think my **company expects** me to use my intelligence to **focus** on those **areas that I am responsible to deliver the target**.* (Female / 21 - 30 years / Diploma in Chemical Technology / Technician) – (Quote 15)

Feedback from Dragoco's Participant 2, he says:

*My staff is trained to **practice** what they have learned from the training and my expectation is for them to **deliver the target**. Therefore, they are **encouraged to focus** on their present process area.* (Male / 41-50 years / Production Manager) – (Quote 16)

The two feedbacks above indicated that both companies are very *focused* (quotes 15 & 16) for *delivery of target* (quote 16) committed within the *process area* (quote 16) that they are assigned to. They also share their view as below that they are *making good progress* (quotes 17 & 18) in handling tasks but they are lagging behind in new areas.

Feedback from SFI's Participant 6, she says:

*My technicians are **very familiar** in dealing with problems related to current technology. They are **well trained** and are **making good progress**. However, I see that there is a set-back in **sharing of knowledge** from other departments.* (Female / 21-30 years / Engineering Degree / Quality Manager) – (Quote 17)

Feedback from Dragoco's Participant 6, she says:

*There is **good progress** made in **addressing process-related problems** of current technology. There is an urgent need for me to be **trained in other domain**, otherwise my knowledge becomes stagnant.* (Female / 41 – 50 years / Secondary Education / Human Resource Administrator) – (Quote 18)

The qualitative data thus seem to confirm the lack of statistically significant difference between the two groups.

7.3 Summary

The findings based on the third research question on '*approaches to develop reflective skills and meta-cognitive skills*' show that both companies have shown positive patterns towards establishing some form of corporate curriculum, similar to the review done by Kessels (2001:497-506). The data from Table 7.1 summarizes the Chi-square test results to have statistically significant relationship between the answers to those questions in both the Eastern-Singaporean and Western-German case study companies.

From Table 7.2, the quantitative feedback shows that there is no statistically significant relationship between the variables.

The researcher now summarizes the key differences and also indications of common ground in the two organizations where the responses show (i) statistical significant differences and (ii) no statistical significant relationship.

The respondents from the Eastern-Singaporean company perceived strongly (84%) that they are confident in solving all current problems. The Western-German company's respondents perceived the same at 64% but with a higher minority. The researcher perceives that both companies demonstrate the importance of *developing reflective skills and meta-cognitive skills that enable their staff in approaching problems*. However, the Eastern-Singaporean company emphasizes this more strongly and this could be due (as explained in Chapters Five and Six) to a situation where the organizational and national cultures are more aligned than in the Western-Germany organization. The researcher views that the management in this organization could have emphasized the importance of formal training as one of the key success factors that will help the staff in performing better.

Similarly, the Western-German top management is also committed to providing the training but their actions could be perceived to be selective as one respondent mentions "*having not been chosen to attend training*". (quote 10)

The researcher continues to borrow Hofstede's (1991:51-66) view that there are significant differences between countries' culture on the individualism index (IDV) at the workplace. In the case of Eastern-Singapore company's culture, Singapore shows low individualism index scores of 20 (1991, 53) and this implies that the value systems of the eastern-organization is tending towards the opposite pole terms of collectivism. (As discussed in Chapters 5 and 6). In the Western-German organization, the IDV scores is high of 67 (Hofstede, 1991:53) and it tends more towards the individualism pole. The above could help to explain the findings of higher percentage of respondents from SFI indicating very positively the training structure in *developing reflective skills and meta-cognitive skills that enable their staff in approaching problems* in their organization as opposed to Dragoco which shows an inclination to a less positive view. These are reflected by key words used by SFI's respondents "*sufficient training*" (quote 1), "*so much re-enhanced*" (quote 3) and words by Dragoco such as "*unable to solve*" (quote 10). As also discussed in the previous two chapters, Hofstede's (1991:54) research finds that there is a strong relationship of cultures between power distance and individualism. His study shows that countries with small power distance, in this case the Western-German company, have a low co-relationship to individualism and vice versus. The researcher thinks that Hofstede's explanation about the east and west in terms of power distance and individualism index helps to explain the two-case study companies. These are supported by key words used by SFI's respondents "*confident*" (quote 11), "*manage simple problem*" (quote 13), "*very familiar*", *are well trained, sharing of knowledge*" (quote 17) and words by Dragoco such as "*unable to solve*", "*have not been chosen to attend training*" (quote 10). Basing on these feedbacks, the researcher further confirms the hypothesis that the differences between the two companies can be explained by 'east' and 'west'.

In Chapter Eight, the researcher plans to continue with the analysis of the quantitative and qualitative feedback of the two case study companies on Research Question 4 "*Is the climate of personal and social relationships within the Eastern and Western organizations supportive of new learning and is it attributed to Eastern and Western cultural values or to company cultural?*"

Chapter 8
PARTICIPANTS' PERSPECTIVES
QUESTION 4

8.1 Introduction

The researcher takes similar approach as in chapters 5, 6 and 7 to identify salient organizational patterns that are indicated in the questionnaire data addressing the fourth and last research question in this study. The data in this chapter illustrates how the participants from the two case study organizations perceived their organizations supporting new learning in their personal and social relationships environment. Their responses may reflect fundamental cultural differences in attitudes towards new learning.

The researcher continues to use the quantitative data to highlight the participants' views and the qualitative data to provide him a deeper insight of the respondents' feeling and thoughts about the issues of their companies supporting them with opportunities for new learning. This approach is to complement those quantitative data collected from the questionnaire. The researcher continues to apply the Chi-square statistical test on those quantitative data to compare the participants' views and establish whether there is any statistically significant difference in their views on training and culture.

In this Chapter, the researcher moves on to analyze those quantitative and qualitative data on Research Question 4 on *“Is the climate of personal and social relationships within the Eastern and Western organizations supportive of new learning and is it attributed to Eastern and Western cultural values or to company culture?”*

8.2 Findings of Research Question 4

Research question 4 (As discussed in Chapter 3) is designed to link up with Kessels' concern for (i) securing *communication skills* that can provide access to the knowledge network of others and that can enrich the learning climate within a workplace (Table 8.1: Questions 14.1– 14.6), (ii) procuring skills that regulate the *motivation and affections* related to learning – meaning self regulation of motivation and affection (Table 8.1: Questions 15.1-15.7), (iii) promoting *peace and stability* to enable specialization, synergy, cohesion, and integration (Table 8.1: Questions 16.1-16.5) and (iv) causing *creative turmoil* to instigate *innovation* (Table 8.1: Questions 17.1-17.5)

Following are findings of research question 4 and its sub-questions, gathered through the quantitative methods.

Table 8.1

SFI and Dragoco Participants' Perception on Development of Personal and Social Relationships

Question Number	Item		Yes	No	Missing	Chi Sq	df	p
14.1	Do you have access to the knowledge networks of other divisions?	Case 1: SFI	76/61%	48/38%	1/1%	6.526	1	0.011
		Case 2: Dragoco	64/54%	52/44%	2/2%			
14.2	Are you trained in interpersonal skills?	Case 1: SFI	89/71%	34/27%	3/2%	25.975	1	0.000
		Case 2: Dragoco	70/59%	46/39%	2/2%			
14.3	Have you been trained on listening skills?	Case 1: SFI	71/57%	64/54%	1/1%	3.529	1	0.060
		Case 2: Dragoco	64/54%	53/45%	1/1%			
14.4	Are you able to promote a favorable learning climate?	Case 1: SFI	96/77%	28/22%	1/1%	5.599	1	0.018
		Case 2: Dragoco	73/62%	42/36%	2/2%			
14.5	What other formal	Case 1: SFI	Not Applicable					

	communication skill training have you been exposed to?	Case 2: Dragoco						
14.6	Do you think other people listen easily to you?	Case 1: SFI	106/85%	16/13%	3/3%	27.493	1	0.000
		Case 2: Dragoco	66/56%		1/1%			
14.7	How often do you participate in networks of other division?	Case 1: SFI	Not Applicable					
		Case 2: Dragoco						
15.1	Do you see in yourself a need to continue to learn?	Case 1: SFI	119/95%	3/2%	4/3%	0.204	1	0.065
		Case 2: Dragoco	112/95%	4/3%	2/2%			
15.2	Does your immediate supervisor motivate you to have continuous learning?	Case 1: SFI	115/92%	8/6%	3/2%	44.5	1	0.000
		Case 2: Dragoco	66/56%	51/43%	1/1%			
15.3	Who else motivates you to further your learning opportunity?	Case 1: SFI	Not Applicable					
		Case 2: Dragoco						
15.4	What is the main driver for you to pursue continuous learning?	Case 1: SFI	Not Applicable					
		Case 2: Dragoco						
15.5	Do you become emotionally involved in your job performance?	Case 1: SFI	80/64%	43/34%	3/2%	5.154	1	0.023
		Case 2: Dragoco	68/58%	47/40%	2/2%			
15.6	Are there any affections for the current job you are doing?	Case 1: SFI	84/67%	39/31%	3/2%	1.591	1	0.207
		Case 2: Dragoco	28/24%	87/74%	2/2%			

15.7	Do you work more than is normally expected of you?	Case 1: SFI	100/80%	21/17%	4/3%	11.360	1	0.001
		Case 2: Dragoco	72/61%	41/36%	4/3%			
16.1	Is your working environment peaceful?	Case 1: SFI	92/73%	31/25%	3/2%	0.040	1	0.842
		Case 2: Dragoco	83/71%	34/28%	1/1%			
16.2	Is there often restructuring in your organization?	Case 1: SFI	72/57%	51/41%	3/2%	2.146	1	0.143
		Case 2: Dragoco	59/50%	55/47%	4/3%			
16.3	Is there often changes in your own job?	Case 1: SFI	83/66%	39/31%	4/3%	2.578	1	0.108
		Case 2: Dragoco	65/55%	52/44%	1/1%			
16.4	Is labor-turnover high at your workplace?	Case 1: SFI	65/52%	58/46%	3/2%	4.176	1	0.041
		Case 2: Dragoco	70/59%	46/39%	2/2%			
16.5	Are you happy working at your current office environment?	Case 1: SFI	110/88%	13/10%	3/2%	0.003	1	0.955
		Case 2: Dragoco	104/88%	12/10%	2/2%			
17.1	Does your supervisor encourage creative and innovative idea from you?	Case 1: SFI	108/86%	15/12%	3/2%	24.494	1	0.000
		Case 2: Dragoco	70/59%	47/40%	1/1%			
17.2	Do you see a need for contributing creativity at your work-place?	Case 1: SFI	113/90%	10/8%	3/2%	4.5	1	0.034
		Case 2: Dragoco	96/81%	20/17%	2/2%			
17.3	Does your organization as a whole encourage innovation?	Case 1: SFI	105/84%	16/13%	4/3%	11.894	1	0.001
		Case 2: Dragoco	79/67%	37/31%	2/2%			
17.4	Do you enjoy change for new	Case 1: SFI	110/88%	13/10%	3/2%	1.810	1	0.179

	ideas or new way of doing things?	Case 2: Dragoco	96/81%	19/16%	4/3%			
17.5	Do you think that creativity and innovation promotes continuous learning?	Case 1: SFI	118/94%	4/3%	4/3%	0.581	1	0.446
		Case 2: Dragoco	107/91%	9/7%	2/2%			

The above findings show that both SFI (Eastern-Singaporean) and Dragoco (Western-German) participants perceived that their organizations provide an adequate conducive environment to enhance their knowledge in new learning in order to support their company values. This again is in line with Kessels' study which shows that all organizations have a corporate curriculum. However, there are specific differences between the companies and the Dragoco responders, although for most questions agreeing that there is support, do so only with lower majorities as is evident in Table 8.1 with respect to the following questions.

- i. 14.6 with the SFI and Dragoco of 'Yes' response of 85% and 56% respectively. The Chi-square test result with one degree of freedom is 27.493 and $p < 0.05$ indicates there is statistically significant difference between the answers.
- ii. 15.6 with the SFI and Dragoco of 'Yes' response of 67% and 24% respectively and the Chi-square test result with one degree of freedom is 1.591 and $p < 0.05$. This result shows there is statistically significant difference between the answers.

The researcher further analyzes the remaining twenty questions as shown in Table 8.1 and results show that both SFI and Dragoco participants perceived that their companies encourage (i) securing communication skills that can provide access to the knowledge network of others and that can enrich the learning climate within a workplace (questions 14.1, 14.2, and 14.4), (ii) procuring skills that regulate the motivation and affections related to learning – meaning self regulation of motivation and affection (questions 15.2, 15.5 and 15.7), (iii) promoting peace and stability to enable specialization, synergy, cohesion, and integration (question 16.4) and (iv) causing creative turmoil to instigate innovation (questions 17.1, 17.2 and

17.3). This is because in all cases there are more people who say 'yes' than 'no'. On the other hand the Chi-square test results of above questions show there is a statistically significant difference between the answers to between the Eastern-Singaporean and Western-German case study companies. The overall Chi-square test results with one degree of freedom range from 4.50 to 44.50 and $p < 0.05$. This is true because there is higher number of participants in Dragoco that say 'no' to the questions, in particular pertaining to those questions on '*promoting peace and stability to enable specialization, synergy, cohesion, and integration*' in organizations.

In general, the findings show that both SFI (Eastern-Singaporean) and Dragoco (Western-German) participants perceived that their organizations promote adequate conducive environment to enhance their knowledge in new learning at their work place but with significant differences in most areas and no significant differences in some areas. This is in line with Kessels' study which shows that all organizations have a corporate curriculum in place but differ to some extent and this could be largely due to differences in companies' business objectives and corporate culture. These differences which exist in these cases may be caused by the fact that one company is Eastern-Singaporean and the other is Western-German, and this will be discussed in more detail below.

The researcher then analyses the qualitative data to look for any clues about why there is a substantial minority from Dragoco that say "No" to the above four categories in terms of (i) "*communication skills*", (ii) "*motivation and affections*", (iii) "*peace and stability*", and (iv) "*creativity and innovation*".

First however there is data which illustrates the 'yes' responses.

A) Participants that say 'Yes' to the research sub-questions (14.1, 14.2, 14.4 and 14.6 where there are significant differences) are analysed first to understand what their reasoning might be.

Feedback from SFI's Participant 1, he says:

My staff is well trained in interpersonal skills and listening skills to enhance their personal competencies so that they can be more effective in managing their jobs. This also serves as a motivational factor. Such skills include "Effective Team Building" and "Practical Problem Solving". (Male / 21- 30 years / Business Degree / Process Engineer) (Quote 1)*

[* NB emphasized words and phrases are selected by the researcher to indicate the key words and phrases in this quotation and in all subsequent ones]

Feedback from Dragoco's Participant 4, he says:

We have been given "Performance Review Workshop" as a form of improving our communication skill. This helps to build my confidence when I participate in the weekly departmental meeting. (Male / 21 – 30 years / Diploma /Technician) (Quote 2)

Feedback from SFI's Participant 3, he says:

Currently, my staff is trained to be more effective in their communication by encouraging them to attend 'Effective Communication Course' and 'Team Building Course'. This exposure to focus group discussion trains them to be more effective in requesting for urgent tasks to be carried out. (Male / 21- 30 years / Business Degree / Customer Service Manager) (Quote 3)

Feedback from Dragoco's Participant 8, she says:

*Yes, I have been **given opportunity** to attend *Effective communication course for Supervisors*'. After the training, I am **more confident** in communicating with my colleagues and this helps me to **make better decision** in problem solving. (Female / 21 – 30 years / Secondary Education / Process Technician) (Quote 4)*

Feedback from SFI's Participant 4, she says:

*The company provides us effective communication skill training such as 'listening and oral communication', 'face-to-face interaction', and 'public speaking and presentation skill'. I am **now able to communicate better** and I also **learn more about my colleagues' different expectation**. (Female / 21 - 30 years / Diploma in Chemical Technology / Technician) (Quote 5)*

Feedback from Dragoco's Participant 2, he says:

*My staff is exposed to formal communication skill training such as 'team building', 'effective writing', 'public speaking' and 'business communication'. They view these as **valuable** as they can now **work better as a group** and at the same time, it helps them to **know the colleagues better**. (Male / 41-50 years / Production Manager) (Quote 6)*

All of the above six perceptions - representing the two companies – stress they have *enhance their personal competencies* (quote 1) and they have developed more *confidence* (quote 2) in communication and become *more effective in requesting* (quote 3) urgent tasks to be carried out. The above feedback reflect that in most situations they can *make better decision* (quote 4) and the communication skills' training allow them to *communicate better* (quote 5) with their peers and they *learn more about their colleagues' different expectation* (quote 5). These “interpersonal skills, listening skills, effective team building and practical problem solving” training are *valuable* (quote 6) and the knowledge received have strengthen their competencies and also allow them to *work better as a group* (quote 6)

B) Participants that say ‘Yes’ to the research sub-questions (15.1-15.7).

There are another six cases as below whereby the respondents felt that their companies have given them full *encouragement and supports for more learning* (quote 7) to cope with continuous learning to manage technology changes. They realize that there is *no ending in upgrading* (quote 8) and the *continuous learning process never stops* (quote 9). They perceive their *management group is seen as key motivator* (quote 8) and they *often influence their staff to participate* (quote 9) and *motivate them to continue to accept the training* (quote 10). It is seen that the continuous learning is *beneficial* (quote 11) and as a results they can achieve *higher productivity* (quote 11) and this provides opportunities for them *to stay employable* (quote 12). In general, the message is clear that their *immediate superiors have been encouraging them* and they are their *main motivators* (quote 12) for accepting new learning.

Feedback from SFI’s Participant 1, he says:

The learning journey is never ending. My desire to learn more is a strong motivational factor. In addition, my superior, my peers and my immediate family members give me the encouragement and supports for more learning. I benefit from the continuous learning as it allows me to view my tasks at different perspective. (Male / 21- 30 years / Business Degree / Process Engineer) (Quote 7)

Feedback from Dragoco’s Participant 3, she says:

Learning is an on-going matter. There is no ending in upgrading our knowledge as it helps us in contributing more to the company. My management group is seen as my key motivator. (Female / 21- 30 years / Business Degree / Customer Relation Manager) (Quote 8)

Feedback from SFI’s Participant 3, he says:

In my opinion, the continuous learning process never stops. It goes beyond the formal training we received in the school days. So it is a good thing that the company is promoting and encouraging the continuous learning through life-long

learning. We as managers support this program and we often influence our staff to participate the training. (Male / 21- 30 years / Business Degree / Customer Service Manager) (Quote 9)

Feedback from Dragoco's Participant 4, he says:

I realize that it is only through continuous learning that I can improve my current skills and stay competent. Therefore, I am very self-motivated to improve and in addition, the frequent supports that my superior gives me further motivate me to continue to accept the training given by the company. (Male / 21 – 30 years / Diploma /Technician) (Quote 10)

Feedback from SFI's Participant 6, she says:

My company provides and motivates my staff to improve their learning skills. The staff realizes that it is beneficial to them as their skill competency is improved. At the same time, the company benefits by having higher productivity. (Female / 21-30 years / Engineering Degree / Quality Manager) (Quote 11)

Feedback from Dragoco's Participant 1, he says:

Continuous learning will prepare myself to stay employable at anytime and anywhere when the needs arise. My family, friends and very importantly, my immediate superior has been encouraging me. He is one of my main motivators. (Male / 31- 40 years / Secondary / Process Technician) (Quote 12)

C) Participants that say 'Yes' to the research sub-questions (16.1-16.5).

Feedback from SFI's Participant 5, he says:

I view that my company has provided me a very conducive working environment in terms of promoting and organizing continuous improvement activities. As a results, the labor turnover is very low and most of my colleagues are happy to stay in this company. (Male / 31-40 years / Diploma / Technician) (Quote 13)

Feedback from Dragoco's Participant 1, he says:

*I have been with the company for more than ten years and during this period, many of my colleagues and peers are **still working here today**. We are quite satisfied with our **management caring attitude** in keeping us in the organization. (Male / 31- 40 years / Secondary / Process Technician) (Quote 14)*

Feedback from SFI's Participant 9, she says:

*The working environment in my company is very **healthy** as I can see **good teamwork** with a lot of sharing. There is high spirit for improvement in the ways we perform our tasks and **morale in general is good** as we encourage each other to stay competent. (Female / 21 - 30 years / Diploma in Chemical Technology / Senior Technician) (Quote 15)*

Feedback from Dragoco's Participant 7, she says:

*Many of my colleagues decided to **continue serving** the company after receiving the continuous learning because they perceive that the company **recognizes their improvement effort**. (Female / 21 - 30 years / Diploma / Process Technician) (Quote 16)*

The last four quotations give the researcher the clue that the respondents perceived their companies provide *very conducive working environment for learning and they are happy to stay* (quote 13) and this encourages them to excel in their jobs. In addition, they also perceived that their productivity level is improved because *morale in general is good*, and there is *good teamwork* (quote 15) in the organization. There are additional views who perceived that their *management has shown caring attitude* (quote 14) and that their company *recognizes their improvement effort* (quote 16).

D) Participants that say 'Yes' to the research sub-questions (17.1-17.5).

Feedback from SFI's Participant 6, she says:

*To show that I am sincere in **influencing** my staff in contributing to the company, I fully encourage them to **exercise creative initiatives** in their analytical problem solving. In addition, I encourage them to **apply relevant knowledge** in their daily tasks. To me, this is a form of demonstrating to them that I support their creativity at workplace. (Female / 21-30 years / Engineering Degree / Quality Manager) (Quote 17)*

Feedback from Dragoco's Participant 3, she says:

*Yes, our company has invested in the **latest technology** for our manufacturing facility. Our staff is sent for **more on-the-job training** for this new requirement. This is a strong encouragement for our staff. (Female / 21- 30 years / Business Degree / Customer Relation Manager) (Quote 18)*

Feedback from SFI's Participant 1, he says:

*Our business is very dynamic and coping up **technological changes** is a big challenge for our company. I am glad that our company has placed high priority to the investment in new technology for **upgrading our operations**. Much has been spent in acquiring the machines to manufacture products **more cost effectively**. This gives me more opportunities to **exercise my creativity** at my workplace. (Male / 21- 30 years / Business Degree / Process Engineer) (Quote 19)*

Feedback from Dragoco's Participant 8, she says:

*Our management has come out with the **suggestion box** for us to contribute our **creative ideas for consideration and shortlisted for implementation**. My supervisor also allows me to be involved in numerous projects, thus giving me the opportunities to think creatively. In addition, I am encouraged to **manage reports that require analytical approach**. (Female / 21 – 30 years / Secondary Education / Process Technician) (Quote 20)*

Feedback from SFI's Participant 3, he says:

Our management always encourages us to be flexible and think out of the box. With this thinking, I always let my staff use their creativity and develop their ideas into actions. One of my tasks is to guide them and provide directions to achieve their innovative ideas. It is through this approach that my staff feels very encouraged to try their ideas. They learn through their failures and enhance on their successes. (Male / 21- 30 years / Business Degree / Customer Service Manager) (Quote 21)

Feedback from Dragoco's Participant 4, he says:

My supervisor has always been my mentor and he is very supportive to help me in resolving different types of problems that come along the way. It is through this teaching and coaching approach that I learn to be more creative and innovative in handling my tasks. (Male / 21 – 30 years / Diploma /Technician) (Quote 22)

Thus, the above are reflections that in both companies there are people who felt that their superiors are *influencing* them to *exercise creative initiatives* (quote 17) in performing their daily tasks and this can be done through *more on-the-job training* (quote 18). It is also perceived by this group of people that their company has *invested in the latest technology* (quote 18) to upgrade their operations and this provides them *opportunities to exercise their creativity* (quote 19). Others also felt that their organization encourages them to submit *creative ideas for consideration and shortlisted for implementation* (quote 20). There is an indication that the management *encourages them to be flexible and think out the box* (quote 21) and the *teaching and coaching approach* (quote 22) helps them to be creative.

We now turn to the fact that there is a larger minority in Dragoco who say 'no' to questions in Table 8.1

E) Participants that say 'No' to the research sub-questions (14.1, 14.2, 14.1, 15.2, 15.5, 16.4, 17.1, 17.2, 17.3 where there are significant differences) are analysed first to understand what their reasoning might be.

Feedback from Dragoco's Participant 2, he says:

*It is **recognized** that effective communication skill training is **a good scheme**. It gives our staff better opportunities **to contribute** to our company after the training. However, management has shown **no strong effort** to encourage this to happen. (Male / 41-50 years / Production Manager) (Quote 23)*

Feedback from Dragoco's Participant 5, she says:

*My view is that although my supervisor supports us to go for continuous learning at our workplace, but it is done in a **sporadic way** and **there is no sense of urgency**. I think there should be more demonstration from management to encourage us. (Female / 21 – 30 years / Diploma / Laboratory Technician) (Quote 24)*

Feedback from Dragoco's Participant 6, she says:

*For those colleagues who decided to leave, the exit interviews shows that they are very concern with **too much organizational changes** and that disturbs their confidence level of the **organization's stability**. (Female / 41 – 50 years / Secondary Education / Human Resource Administrator) (Quote 25)*

Feedback from Dragoco's Participant 10, she says:

*It is good to see that the organization is investing in new process technology, but we are **not encourage to contribute our creative ideas** to further improve on the processes. We perceive that innovation comes from the headquarters and we are **instructed to implement them**. (Female / 21-30 years / Diploma / Production Supervisor) (Quote 26)*

Feedback from Dragoco's Participant 2, he says:

*Although we encourage our staff to **share information and new knowledge** in learning among the peers, there is **reservation** and is not widely practiced . This could be due to **fear of losing the special knowledge** one has acquired. (Male / 41-50 years / Production Manager) (quote 27)*

Feedback from Dragoco's Participant 2, he says: *My company encourages the workforce to be innovative. However, it is perceived by us that all technical changes to our process are much controlled by the Headquarters.* (Male / 41-50 years / Production Manager) (quote 28)

Feedback from Dragoco's Participant 5, she says: *We just follow the routine tasks spelled out by the standard work. There is no encouragement given to us to be creative. Therefore, I do not see a need for us to be creativity.* (Female / 21 – 30 years / Diploma / Laboratory Technician) (quote 29)

Feedback from Dragoco's Participant 6, she says: *Continuous improvement is important as it allows us to be creative and innovative. However, this philosophy is not significantly felt in my company because there is minimum promotion for continuous improvement.* (Female / 41 – 50 years / Secondary Education / Human Resource Administrator) (quote 30)

The above feedbacks are reflection that there are respondents from Dragoco company who felt that their superiors *recognized* that effective communication skill training is a *good scheme*, but their management does not show *strong effort* to encourage them to go for the training (quote 23). This is further shared by another respondent who says that the *continuous learning at their workplace* is being carried out in a *sporadic way* and their superiors do not show sign of *urgency* (quote 24). In addition, the continuous improvement *philosophy is not significantly felt* (quote 30). In addition, there are *too much organization's changes* and this gives a perception of *instability* in the organization (quote 25). Another feedback perceives *that their organization does not encourage* them to contribute to creative ideas as their headquarters are in control of changes (quote 26). Thus this may have impact in their thinking that *sharing of information* is restricted (quote 27). All this suggests that here is a strong impression from the interviewees that negative feelings are present in the workforce and this may therefore explain the higher minority in the Dragoco statistics.

Summary:

The researcher classifies the positive responses in four aspects:

They are in terms of (i) securing communication skills that can provide access to the knowledge network of others and that can enrich the learning climate within a workplace (*enhance their personal competencies, more effective in requesting, make better decision, communicate better, work better as a group*) (quotes 1, 3, 4, 5, 6), (ii) procuring skills that regulate the motivation and affections related to learning – meaning self regulation of motivation and affection (*encouragement and supports, no ending in upgrading, continuous learning process never stop, influence their staff to participate, continue to accept the training, beneficial, stay employable*) (quotes 7, 8, 9, 10, 11, 12), (iii) promoting peace and stability to enable specialization, synergy, cohesion, and integration (*very conducive working environment for learning, morale in general is good, good teamwork*) (quotes 13, 15) and (iv) causing creative turmoil to instigate innovation (*exercise creative initiatives, invested in the latest technology, opportunities to exercise their creativity, flexible and think out the box*) (quotes 17, 18, 19, 21)

As we noted in the statistical analysis, there is some difference between the two companies because although both companies are said to support and be positive about the issues underlying the questions, nonetheless there is a substantial minority in the Dragoco group who say ‘No’. Dragoco’s responders who perceived that their organization does not ‘*show strong effort*’ (quote 23) to encourage their staff to improve their communication skills and the concept of continuous learning is ‘*done in a sporadic way and there is no sense of urgency*’ (quote 24). The researcher also concluded this might be explained that providing the ‘peaceful and stability’ environmental in Dragoco (Western-German) company is less significant in nature as there is this feeling of ‘*too much organization changes and there is lack of confidence in organizational stability*’. (quote 25). Generally, Dragoco’s responders recognize that their Company has acknowledged the importance of their company providing the conducive environment at the workplace, but they perceive their management has not demonstrated enough to show its seriousness to encourage its staff to participate in ‘*creative thinking*’. (quote 26)

In short, analysis of the above quantitative and qualitative data suggests that higher percentage of workers from Dragoco (Western-German) company as represented in the survey is less convinced that their company is serious in promoting a ‘climate of personal and social relationships within the organization in supporting new learning.

Table 8.2
SFI and Dragoco Participants' Perception on Communication Skills

Question Number	Item		T2B	B2B	Chi Sq	df	p
14.8	Without social skills there can be no favorable learning climate within a workplace.	Case 1: SFI	124/98%	0/0%	5.475	1	0.019
		Case 2: Dragoco	105/89%	5/5%			
14.9	Without highly developed communication skills, there can be no favorable learning climate within a workplace.	Case 1: SFI	94/75%	5/4%	0.441	1	0.507
		Case 2: Dragoco	102/76%	8/8%			
14.10	My friendly interaction at the workplace allows me to participate in the communication network with my peers.	Case 1: SFI	118/94%	0/0%	5.748	1	0.017
		Case 2: Dragoco	100/85%	5/5%			
15.8	My emotions play an important role in motivating me to acquire more knowledge.	Case 1: SFI	117/93%	3/2%	0.761	1	0.383
		Case 2: Dragoco	103/87%	5/5%			
15.9	When I am well motivated I can	Case 1: SFI	110/88%	3/3%	1.018	1	0.313

	be more creative and innovative at the workplace.	Case 2: Dragoco	112/95%	1/1%			
15.10	I am more committed to my job when meaningful tasks are assigned to me.	Case 1: SFI	123/98%	0/0%	3.167	1	0.075
		Case 2: Dragoco	115/97%	0/0%			
15.11	It is important for my organization to recognize my emotional and effective drive so that I can perform better.	Case 1: SFI	115/92%	3/3%	0.831	1	0.362
		Case 2: Dragoco	106/90%	1/1%			
16.6	Peace and stability in an organization are necessary for my gradual improvement.	Case 1: SFI	117/94%	3/3%	2.862	1	0.091
		Case 2: Dragoco	113/96%	0/0%			
16.7	Company undergoes frequent reorganization will disturb the employees' performance.	Case 1: SFI	88/70%	8/8%	0.170	1	0.680
		Case 2: Dragoco	99/84%	11/11%			
16.8	Lack of peace and stability in a firm results in not able to optimize the utilization of intellectual assets.	Case 1: SFI	99/79%	0/0%	0.873	1	0.350
		Case 2: Dragoco	113/96%	0/0%			
17.6	Organization needs to establish corporate curriculum to encourage learning.	Case 1: SFI	117/94%	0/0%	1.031	1	0.310
		Case 2: Dragoco	113/96%	0/0%			
17.7	The economy today is	Case 1: SFI	115/92%	0/0%	1.070	1	0.301

	transforming into a knowledge economy.	Case 2: Dragoco	107/91%	0/0%			
17.8	Companies, individuals and teams need to develop the necessary competencies to be able to participate in a working life that is based on knowledge productivity -- the ability to add value to products and services.	Case 1: SFI	120/96%	0/0%	1.057	1	0.304
		Case 2: Dragoco	113/96%	0/0%			

Table 8.2 above shows how SFI and Dragoco participants perceive their new learning opportunities. The above table shows respondents that say (i) ‘strongly agree’ and ‘agree’ to the sub-questions and this is represented by column T2B and those who (ii) ‘disagree’ and ‘strongly disagree’ represented by column B2B. The researcher again classifies the sub-questions into four categories as stated below and comments on the Chi-square test results:

- securing communication skills that can provide access to the knowledge network of others and that can enrich the learning climate within a workplace (question 14.9),
- procuring skills that regulate the motivation and affections related to learning – meaning self regulation of motivation and affection (questions 15.8, 15.9, 15.10 and 15.11),
- promoting peace and stability to enable specialization, synergy, cohesion, and integration (questions 16.6, 16.7 and 16.8) and
- causing creative turmoil to instigate innovation (questions 17.6, 17.7 and 17.8).

The Chi-square test results of above questions show there is no statistically significant difference between the answers to above questions from the Eastern-Singaporean and Western-German case study companies. The overall Chi-square test results with one degree of freedom range from 0.170 to 3.167 and $p > 0.05$. It appears that there is agreement about the issues raised in the above questions in each of the four categories, with two exceptions.

In the first category on “*securing communication skills that can provide access to the knowledge network of others and that can enrich the learning climate within a workplace*”, there are two questions as below that show statistically significant relationship between the variables. They are:

a. that in both companies a very substantial majority of people (SFI 98% Vs Dragoco 89% represented in the T2B) think “Without social skills there can be no favorable learning climate within a workplace” (Question 14.8). The Chi-square test shows statistically significant relationship between the variables as chi-square with 1 degree of freedom = 5.475 and $p \text{ value} < 0.05$.

b. similarly, a substantial majority of people (SFI 94% Vs Dragoco 85% in the T2B) think “My friendly interaction at the workplace allows me to participate in the communication network with my peers” (Question 14.10). The Chi-square test shows statistically significant relationship between the variables as chi-square with 1 degree of freedom = 5.748 and $p \text{ value} < 0.05$.

The above data shows that there is a difference. However, the data do not tell what the cause is and the researcher is now looking at the qualitative data for explanation and then, at a later stage, support for the research hypothesis that the difference is caused by culture.

A) Qualitative feedback that *without social skills there can be no favorable learning climate within a workplace*

Feedback from SFI's Participant 3, he says:

*Our management has given us **adequate training** on listening and communication skills, and team-building so that we can perform our tasks more effectively and able to understand each other better. This favorable condition motivates us to excel in our continuous learning.* (Male / 21- 30 years / Business Degree / Customer Service Manager) (quote 27)

Feedback from Dragoco's Participant 4, he says:

*My supervisor has **always urged us to learn more** and creates a **conducive environment** for us to participate and share our knowledge. This platform provides good feeling for us to adopt the continuous learning at our workplace.* (Male / 21 – 30 years / Diploma /Technician) (quote 28)

The above feedback illustrates how both companies have a culture that the social skills such as 'team building, listening and communication' provide favorable learning climate within their workplace'. These training are *adequate* and the *conducive environment* (quote 27) allows them *to excel in their new learning* (quote 28). The respondent from Dragoco mentions that their supervisor motivates them by '*always urged us to learn more*' (quote 28). As to the SFI's respondent, he shares that '*the favorable*' (quote 27) working environment is a form of motivating factor that encourages him to seek '*continuous learning*' (quote 28).

B) Qualitative feedback that *my friendly interaction at the workplace allows me to participate in the communication network with my peers.*

Feedback from SFI's Participant 9, she says:

Because of myself This can be illustrated by some motivation to learn, I usually take the first step to request for assistance and raise questions during small group activities. In this way my friendly approach helps me participate in the

communication network within my company. (Female / 21 - 30 years / Diploma in Chemical Technology / Senior Technician) (quote 29)

Feedback from Dragoco's Participant 7, she says:

*I know that changes in the company are taking place very fast and my superior always **guide us to be active** during our weekly meeting in order to have continuous learning from my colleagues. **I take this opportunity** to learn and often ask for more information related to my process. (Female / 21 - 30 years / Diploma / Process Technician) (quote 30)*

The above feedbacks allow the researcher to perceive that the respondents from both companies demonstrate the implication that it is important to have *friendly interaction at the workplace* and that *allows them to participate in the communication network with their peers*. It is recognized that networking requires one to *take the first step to request during the small group activities sessions* (quote 29). As to the Dragoco's respondent, he shares that this is the *opportunity* for promoting better communication at the workplace. He shares that '*the weekly meeting*' (quote 30) sets the platform for him to gather more information relating to process improvement.

The researcher continues to look for clues to understand why a larger number of Dragoco's responders say 'no' to the above two questions. Following are the analysis.

Feedback from Dragoco's Participant 2, he says:

*My company is **very sensitive to cost**. As long as it involves spending, management will **hesitate to promote skills training opportunities**, especially during this period of slow business growth. (Male / 41-50 years / Production Manager) (quote 31)*

Feedback from Dragoco's Participant 5, she says:

*I was very much involved in effective communication skill training in my previous employment, but I **do not see** the encouragement of this learning at my present job. My supervisor is **just interested** in asking us to **deliver results**.* (Female / 21 – 30 years / Diploma / Laboratory Technician) (quote 32)

Feedback from Dragoco's Participant 6, she says:

*From my observation, my company **does not provide good supporting platform** for learning from each other. I will estimate less than 50% of the staff are involved and committed to exchange their view. Therefore, **participation level is limited**.* (Female / 41 – 50 years / Secondary Education / Human Resource Administrator) (quote 33)

Feedback from Dragoco's Participant 7, she says:

*I have **no opportunity to interact** with my peers for information sharing. Currently, I **just follow instruction** given by my supervisor to handle daily tasks.* (Female / 21-30 years / Diploma / Process Technician) (quote 34)

From the above feedback, the researcher deduces that the responders perceived that their company is very much constrained by tight budget control as they are *very sensitive to cost* and *do not see* (quotes 31 and 32) the needs to provide favorable climate for learning social skills. It is perceived that the management *hesitates to promote skills training opportunities* (quote 31) and they are very much result-oriented as they are *just interested* to have staff *to deliver results* (quote 32). Therefore, without providing social skills there can be no favorable learning climate within the workplace in Dragoco organization.

In addition, Dragoco's responders also perceived that their company *does not provide good supporting platform* for them to interact among themselves, thus the *participation level is limited* (quote 33). They perceived that the lack of *opportunity to interact* and the feeling of *just follow instruction* (quote 34) limit their initiative to have friendly interaction at the workplace. This affects their opportunities to participate in the communication network with their peers.

8.3 Summary

The findings based on the fourth research question on providing adequate conducive 'climate of personal and social relationships to enhance their knowledge in new learning' show that both companies have shown positive patterns in their views about how some form of environmental platform is established to support corporate curriculum, similar to the review done by Kessels (2001:497-506). The data from Tables 8.1 and 8.2 show nonetheless some statistically significant differences between the two companies in responses about providing conducive environment in enhancing new learning and culture.

The researcher now summarizes the key differences and also indications of common ground in the two organizations. Summarized below is the main difference and the researcher's view about what could explain those differences.

- affections for the current job that I am performing (Question 15.6: SFI 67% say 'Yes' Vs Dragoco of 24%)

The respondents from the Eastern-Singaporean company perceived strongly (67%) that they have affections for performing their current jobs. Only 24% of the Western-German company's respondents perceived with similar strong feeling. The researcher perceives that both companies demonstrate the importance of providing adequate conducive environment to enhance new learning. However, the Eastern-Singaporean company emphasizes stronger view and this could be due to (as explained in Chapter Five) a situation where the organizational and national cultures are more aligned than the Western-Germany organization. The researcher views that the management in this organization could have demonstrated the importance of having conducive working environment to promote and encourage their staff to accept more new learning. This is evident by the Customer Relation Manager who mentions "*My management group is seen as my key motivator*". (quote 8)

Similarly, the Western-German top management is also committed to provide the environment for encouraging new learning. This is reflected by the feedback from the Production Manager that says *'My staff is exposed to formal communication skill training such as 'team building', 'effective writing', 'public speaking' and 'business communication and they view these as valuable.'* (quote 6) Another view from the Customer Relation Manager who says *'Our company has invested in the latest technology for our manufacturing facility. Our staff is sent for more on-the-job training for this new requirement. This is a strong encouragement for our staff.'* (quote 18)

However, the extent to which the individual is influenced to accept the environmental factor depends on at least two major factors: the individual's service in the organization as well as his/her attitude towards the organization's positive/negative dimensions of the organizational culture which has impact on the learning in the organization.

As discussed in previous chapter, the above analysis reflects Hofstede's (1991:51-66) view that there are significant differences between countries' culture on the individualism index (IDV) at the workplace. The Eastern-Singaporean company's culture is in a country which shows a low individualism index scores of 20 (1991, 53) and the Western-German or Germanization is based in a country, Germany, where the IDV score is high of 67 (Hofstede, 1991:53) and it tends more towards the individualism pole. This could help to explain the findings of higher percentage of respondents from SFI indicating very positively training opportunities in their organization as opposed to Dragoco which shows an inclination to a more negative view. These are reflected by key words used by SFI's respondents *"encouraging them to attend"* (quote 3), *"provides us effective communication skill training"* (quote 5) and *"often influence our staff to participate the training."* (quote 9) This allows the researcher to further confirm the hypothesis that the differences between the two companies can be explained by 'east' and 'west'.

The researcher continues to analyze the differences in other sub-questions and shown below are some of the illustrations.

- that I am trained in interpersonal skills (Question 14.2: SFI 71% say 'Yes' Vs Dragoco of 59%),
- that my immediate supervisor motivates me to have continuous learning (Question 15.2: SFI 92% say 'Yes' Vs Dragoco of 56%),
- that my supervisor encourages creative and innovative idea from me (Question 17.1; SFI 86% say 'Yes' Vs Dragoco of 59%),

The above feedbacks show that the Eastern-Singaporean company's respondents perceived strongly that providing conducive environmental factors is a priority of their supervisors and beneficial as it helps them to be more effective in accepting new learning and this allows them to communicate better with their peers. Although the Western-German company's respondents perceived this in the same way as their Eastern-Singaporean counterparts, they did so with lesser degree of agreement. The researcher sees this trend to be linked to the east-west cultural differences as explained above. The researcher perceives that the Western-German company's respondents draw their conclusion based on their views that their management had demonstrated lesser positive commitment to the aspects of providing adequate platform for new training. A company with tendencies to collectivism and high power distance is likely to be more concerned with providing a strong platform for training, because in the researcher's view the eastern culture that is low individualism/low power distance expects their management to provide them direction to learn and once this is set in place, they will stay very focused and achieve the goals. This is opposite to that of the 'Western' culture that is low collectivism/high power distance where the employees are not dependent on their employers' direction of lifelong learning at the workplace.

Again, the researcher concludes that there is a continuous trend showing the differences in the 'Eastern-Western' culture in supporting new training in the Eastern-Singaporean and Western-German companies. Both companies are

involved in supporting the training, with the east showing more positive attitude than the west in delivering the results.

In Chapter Nine, the researcher plans to draw conclusions to the following principal questions of this thesis.

- Is there a difference in approaches to the provision of a corporate curriculum between the two case-study companies?
- If there is a difference, to what extent can this be attributed to national culture values and to what extent to company cultural values?

Chapter 9

CONCLUSION

This final chapter aims at drawing conclusions about the effectiveness of lifelong learning at the workplace between the Eastern-Singaporean and Western-Germany culture of the two case-study organizations in Singapore and about whether the Eastern and Western organizations cultural differences have an impact on training development. Basically, the researcher will address the following two areas as indicated in Chapter 1. They are:

- A) Is there a difference in approaches to the provision of a corporate curriculum between the two case-study companies?
- B) If there is a difference, to what extent can this be attributed to national culture values and to what extent to company cultural values?

Both qualitative and quantitative tools have been used, namely participants' structured interviews and questionnaires. Participants representing the two case study organizations are from various levels of the organizations' hierarchy, representing the machine operators, technical and service supporting staff, middle management and the functional managers. Implications are drawn regarding the roles and involvement of employees and employers in the development of lifelong learning at the workplace. Further implications are drawn regarding the impact of national and organization's culture in closing the gap between the Eastern and Western culture organizations in the field of training development in Singapore.

Finally, the chapter offers suggestions for future research to better understand the wider cultural context of an organization in shaping attitudes towards training and development within it. The researcher is aware that work-based training can be either competence-based or much wider, with lifelong learning goals in view. The point is this: government and public policies can create a climate that is either

supportive of work-based learning or which hinders it. However, governments live on relatively short-term time scales whereas human beings – employees – live their lives on a longer time frame. The researcher stresses that it is better therefore to cultivate workers who have the general skills to continue to learning in new areas or domains of expertise in within the organization. This implies a work-based training that is not narrow or too focused on solving the problems only of today. Hence, really good companies should keep their eyes on a longer-term future.

The researcher has classified the findings into major and others as follows:

9.1 Major Findings:

Let us first consider the two major questions:

- A) Is there a difference in approaches to the provision of a corporate curriculum between the two case-study companies?
- B) If there is a difference, to what extent can this be attributed to national culture values and to what extent to company cultural values?

In general, we have seen from the previous chapters that there are some differences – some of which are statistically significant – between the two companies, and that the employees articulate these differences in the interviews. From the previous chapters, the researcher views that the establishment of a company's training curriculum to support lifelong learning is very much influenced by the company cultural values and to some small extent by the national culture values. It is the company cultural values that will bring the organization to be aligned and progress to achieve the company's objectives, and the analysis of these in Chapter 4 showed the distinctiveness of each company.

However with respect to national cultural values, in Chapters 5, 6 and 7, the summaries have argued that the individualism/ collectivism vs power distance plays a key role in determining the extent of commitment by the respective management in providing and supporting lifelong learning at the workplace. It is perhaps easier for the Eastern-Singapore company (SFI) to gain assent to their

approach because this is in accord with the local values. For example, SFI respondents provide feedbacks such as “*My superior supports and encourages training as the knowledge helps me to perform better quality work*” (Chapter 5: Quote 15) and “*My company has structured formal training such as ‘Negotiation skills’, ‘Communication skills’, and ‘Customer relationship management’ to assist our training needs*” (Chapter 6: Quote 1).

On the other hand, there were often larger minorities not satisfied with the policy of the Western-German company which is often in contrast to the local Singaporean values, and therefore the values of the employees. This is evident in one of Dragoco’s feedbacks that “*the superior has not promoted situation for him to apply his knowledge and to learn more*” (Chapter 5: Quote 19). Further remarks from Dragoco’s respondents include such as “*I do not envisage the company of promoting a structured problem solving techniques*” (Chapter 6: Quote 23).

In addition, these over-arching questions addressed issues arising from Kessels’ work and this led to more specific questions:

A) Approaches in providing subject matter expertise (Chapter 5:102-103, 108-109)

This question is aimed at addressing the level of competencies related to acquiring subject matter expertise through a training and development plan.

There is evidence showing that the effectiveness of lifelong learning at the workplace in Singapore context of both the Eastern-Singaporean and Western-German organizations is very much limited to the current domains that the employees are assigned to. The employers’ methods for identifying these training needs are based on the immediate expected contribution by the employees to the business objectives of staying competitive in their respective industries. In summary, workplace learning is in existence, but largely very much on a result-oriented basis rather than on a process-oriented one in which participants are encouraged to be creative. There is also a trend showing the differences in the Eastern-Singaporean and Western-German companies in supporting the training.

Both companies are involved in supporting the training, with the Eastern-Singaporean company showing more positive attitude than the Western-German company in delivering the results.

B) Approaches to training staff on problem solving techniques (Chapter 6:118-121, 130-131)

This is a question about learning to solve problems by using domain specific expertise. It is important to develop competencies with which existing domain specific knowledge is applied to solving new problems. This requires both reproductive skills and also productive skills, meaning the ability to act in new and ill-defined problem areas.

There is evidence showing differences in training development between Eastern-Singaporean and Western-German organizations. Findings show that both the Eastern and Western culture organizations recognize the importance of developing a learning climate at the workplace. They indicate the importance of acquiring intellectual capital in the knowledge-based economy. They highlight the importance of structuring an organizational learning curriculum to support a lifelong learning platform for the employees' and the organization's development. However, there is a continuous trend showing the differences in the Eastern-Singaporean and Western-German companies' culture in supporting problem-solving, with the former showing more positive attitude and approaches than the latter.

For business excellence and survival, both the Eastern and Western culture organizations adopt Western management tools and philosophy such as team building, benchmarking, performance management systems as well as Eastern techniques such as *kaizen* and lean manufacturing systems (from Toyota Manufacturing System). The primary objective is to move forward in pursuing business excellence and they will adopt whatever tools are available and appropriate for delivering their respective expected objectives. The origin of the tools or the management philosophy becomes of no significance to the Eastern or

Western culture organizations. Achieving business excellence becomes the driving force to bridge the gap and iron out the differences in cultural practices.

The research question has provided evidence of the Eastern and Western culture organizations cultivating and promoting a platform for acquiring new knowledge, building knowledge networks, redesigning business processes and pushing for radical innovation, although with some differences in the perceptions of the employees.

C) Approaches to develop reflective skills and meta-cognitive skills (Chapter 7:140-141, 145-14)

The purpose of this research question is to establish the Eastern-Singaporean and Western-German approaches – and possible differences between them - to developing reflective skills and meta-cognitive competence conducive to locating paths leading to new knowledge.

The data summarizes the Chi-square test results to have shown statistically significant relationship between the answers to those sub-questions in both the Eastern-Singaporean and Western-German case study companies. Findings show higher percentage of respondents from the Eastern-Singaporean company indicating very positively training structures in developing reflective skills and meta-cognitive skills that enable them to approach problems in their organization as opposed to the data from the Western-German company which shows an inclination to a less positive view, but nonetheless still positive. The researcher therefore concludes that both the Eastern and Western culture organizations promote the primary reflective skills and meta-cognitive skills in their training, but Kessels' (2001:503) concern that companies are not introducing skills training to the workforce to manage complexity outside the employees' domains is still very valid. In other words, the study so far gives sufficient evidence that lifelong learning at the workplace is being promoted in both case-study companies, but they are very 'restrictive' in approach.

This conclusion provides opportunities for both case-study companies to explore enhancement in their training curriculum to rectify the bias to restrictive approaches.

D) Approaches in providing climate of personal and social relationships for supporting new learning (Chapter 8:153-156 and 166-169)

This question aims at understanding the level of communication skills provided by the Eastern-Singaporean and Western-German organizations to the staff. It is recognized that securing the right communication skills and setting the right conducive environment is important in getting access to the knowledge network of others and that this will enrich the learning climate within a workplace.

Findings show that both case study companies have shown positive patterns towards establishing an environment for new learning. Apparently, the Eastern-Singaporean and the Western-German culture organizations do show significant differences in the way they drive new learning at the workplace. The Eastern-Singaporean company's respondents perceived strongly that their company has placed top priority in providing conducive environment to encourage and support them in accepting new learning. Although the Western-German company's respondents perceived this in the same way as their Eastern-Singaporean counterparts, they did so with lesser degree of agreement. The researcher concludes that both the Eastern and Western culture organizations have been perceived to be positively involved in structuring a corporate curriculum to motivate and encourage new learning for the workforce, but they do so with different degree of emphasis.

9.2 Other Findings

1. The CEO of SFI has strong western contacts (Chapter 4: section 4.2). One of the ways in which business excellence impacts on people at work is through the mechanism of cultural transmission built into the personal networks and experiences of business leaders. In this sense, the logic of performing well in the business is not impersonal; it is interpreted and enacted by people and the way in which that is done is related to their experience, understanding, passion and ambition. In organizations where the leaders possess these qualities and contacts we would expect a strong customer-focus and a positive attitude to learning. When this is the case, traditional cultural orientations of people at work will be under great pressure of change. Where they are absent, business failure is a possibility.
2. The first and second research questions on 'subject matter expertise' and 'provision of problem solving techniques' show that both case study companies have shown positive pattern towards establishing some form of corporate curriculum, as the review done by Kessels (2000:2) would lead us to expect. Although the Eastern and Western culture organizations have shown significant differences in the way they drive learning at the workplace, both Eastern and Western culture organizations have been perceived to be positively involved in structuring formal and informal training for the workforce. Whether this will help them become knowledge-productive in the sense described by Kessels, is however, another matter.
3. The two companies discussed in this study are successful. They have developed rapidly and look outwards from their home market in Singapore. Unlike a previous generation of Singaporean companies they are not content merely to engage in low added-value manufacturing. That is the way to business failure. If they (and companies like them) continue to succeed, they will come to represent a serious competitive challenge to companies throughout the developed world. On the other hand, they may need to change even more profoundly than they have done so far. If it is the case that success in the knowledge economy depends upon training and

development and creativity, these companies will need to improve some dimension of their corporate curricula. In particular, they will need to develop 'expansive' rather than 'restrictive' forms of work-base learning. The feedbacks, especially those that show less positive perceptions, offer excellent opportunities for the management of the two case-study companies to relook at their training policy and the leadership styles in supporting the training curriculum.

9.3 Limitations of the Findings

As with any other research, there are limitations to the findings obtained. This research work is no exception.

The first limitation is the intent to generalize the study, keeping the study within the Singapore context. This limitation that has been explained in Chapter 3, Section 3.2, where comparisons are made between the findings of this project, meaning the Eastern and Western culture of the two case-study companies operating in Singapore. It is a limitation because the findings may not reflect the general practices of other Eastern and Western organizations in Singapore. In some ways this is a strength, because the concentration on just two companies enables the researcher to keep constant the cultural factors that might shape the attitudes and motivations of employees. In this way, the researcher could therefore expose a little more clearly the influence of factors such as behavior and habits that are related to management and leadership in the organization.

Of course, it is not possible to generalize from Singapore to make statements about all Asian countries. On the other hand, any generalization that can be made about the Asian-Pacific economic area must be rich enough, or qualified enough to encompass the Singapore experience described in this study.

The second limitation is the lack of data showing the quantitative effect of lifelong learning at the workplace on participants' and organizations' achievement. This

study reveals the 'voices' of employees in the two case study organizations. This is also a form of respect given to the employees and the mutual effort will synergize the training and learning. However, we have not heard the customers' voice which also must be considered in order to deliver the most optimum results for the organizations. The researcher has no data to assess empirically whether investment in these organizations in training and development shows up 'on the bottom line' of their profit and loss accounts. This whole field of research requires different kinds of studies to explore the full significance of lifelong learning in the workplace.

9.4 Originality

The researcher discusses the two aspects pertaining to the originality of this thesis writing. They are (i) originality of his empirical work, and (ii) the implications of the empirical work for the study by Hofstede.

Firstly, the researcher likes to share his rationale for the choice of this topic for his thesis writing. In the Singaporean context, there is a general perception by the general workforce that lifelong learning in the workplace is often made available in multi-national companies (western) operating in Singapore. These companies will provide effective training curriculum to develop their staff in their career development within the organizations. This also implies that they will become more mobile in the industry and, given appropriate opportunities, they have a better propensity to secure higher earning power through a more vertical career path growth within and outside the companies where they are engaged. There is a perception that the domestic (eastern) multi-national companies in Singapore are more focused in achieving business excellence rather than investing in the human dimension. There is a strong belief that the well trained staff equipped with better knowledge-based talent will become more employable and will ultimately leave their organizations. So the question is why train them to benefit other

organizations. Through these two case-study companies, the researcher has an opportunity to verify this perception and whether this perception is valid.

The findings of the study have shown that this perception is too simplistic, that the local and foreign case study companies have a more complex response than this common perception allows. This is of importance for the Singaporean situation and could be of significance in bringing a more realistic analysis to Singapore.

Secondly, the nuances discovered in the analysis of these two case study companies in one country challenges Hofstede's work which assumes that the common national culture is homogenous; his characterisation of cultural factors such as individualism/collectivism and high/low power distance is again too simplistic. He does not consider the economic and political factors that are very dynamic and have big impact in the behavior of the employees and the employers at different timeframe of business development. For example, the researcher observes that some but not all Singapore-born Chinese have a tendency to respect and listen to the superiors because of the big distance power in place. As a result, the action plans that are developed collectively for continuous improvement are being carried out promptly. On the other hand, both case study companies are overwhelmingly staffed by Singaporeans – there is just one German manager in the German company – and the findings show that there are differences among Singaporeans in the two cases.

Another critique of Hofstede's simplification can be mentioned from recent personal experience. The researcher who is now stationed in a Tianjin manufacturing facility, notices one significant difference in the mainland Chinese behavior. Owing to the high power distance, they do give the impression of obeying, supporting and agreeing on making changes collectively, but their actions very often imply 'individualism' characteristics as they respond superficially as if in a high power distance and collectivist situation, but in fact react as individuals when carrying out – or not – the required actions..

9.5 Post-script Reflection

The researcher now considers this question “What I have learned/would do again differently?” if given an opportunity to work on this thesis.

Firstly, I may consider using a combination of Trompenaars’s works on seven cultural dimensions (rules, group feelings, involvement, status, time and nature) and Hofstede’s five national culture dimensions. This combination might allow a more subtle analysis and perhaps a more powerful academic application. Hofstede’s work has its weakness of assuming the national culture is homogenous. Given the opportunity, further study has also to be sensitive to consider the views of those ‘imported foreign talents’ now working in Singapore.

Furthermore, a section of the current study shows how the different east/west organizational cultures can interplay with Kessels’ study on the need to have training curriculum in the workplace of which this is not mentioned in Kessels’ work. I would in future challenge this work more directly from my findings.

Secondly, I would probably like to extend any future study to include China. With globalization and more free trade agreements being committed with many countries, China’s economy will grow fast. Therefore future findings on organizational cultures from west-multi-national companies and China national culture will prove to be interesting and challenging.

9.6 Future Research

The researcher wishes now to discuss the remedies to the above limitations. These problems also shed light on the future direction of research in the study of lifelong learning and whether it will help organizations to become knowledge-productive.

Firstly, it would be useful to extend the research of this study to include other Eastern and Western culture organizations operating in the Asia-Pacific (AP) countries such as Indonesia, China and Japan. The researcher thinks that this would offer the possibility of varying both cultural factors and other situation constraints, including differences in the ways in which globalization pressures are absorbed and articulated both into national economic policies and strategic management decisions in particular companies. Given this thesis, the researcher would expect that even in these different environments, the same pressures would be discernable. The way to achieve this would be to initiate similar projects in different organizations operating in AP and compare the results.

The researcher understands that one approach is rarely adequate, and if the results from different countries converge, i.e. agree, or fit together with this project, then greater confidence in the findings can be demonstrated.

Secondly, future research to capture more quantitative details of the impact of participants' achievement in lifelong learning at the workplace would also benefit greatly the evaluation process. Perhaps, a standardized list of achievement tests may be set up to evaluate participants' achievement and contribution to the organizations in terms of their knowledge-productivity. Some could be longitudinal studies of particular companies. Others could be comparative studies across different industries or countries. There is room, too, for detailed biographical studies of the learning and training experiences of different individuals e.g. men and women or migrant workers, skilled and unskilled employees etc to explore how they each experienced their learning careers. Such

focused micro studies would illuminate greatly changes in attitudes, values and competencies that occur as a consequence of new learning.

The above suggestions made are intended to be indicative rather than exhaustive. Nor do these suggestions undermine the main approaches – both theoretical and methodological – of this study. Its conclusions stand despite the inevitable weakness of studies of this kind. Achieving business excellence is ironing out differences of work place practices among organizations both between and within national cultures. The mechanism that achieves this is competition. The mechanisms that mediate the pressures of competition are related to the experience and skills and leadership visions of managers. Singaporean managers operate under their own distinctive set of pressures that stem from government policies. It is likely, however, that these same pressures will grow through the Asian-Pacific rim. Given this, the task in Singapore is to look further ahead to retain its economic leadership through further education, training and lifelong learning. Change is needed even to stand still.

Finally, the researcher shares Kessels' (2000:2,5) view that "Learning to learn is a competence of universal value and importance. Individuals need this special learning ability to remain abreast of constantly changing working conditions. This applies more than ever when knowledge productivity becomes the main economic drive." He further emphasizes "Therefore, each company should consciously design a corporate curriculum that turns the day to day work environment into a powerful learning environment."

The implications of the views set out in these two quotations nevertheless converge onto one point: globalization pressures have highlighted everywhere in the world, the need for lifelong learning in the workplace. This is not a 'soft' conclusion that hard-headed business people can agree with but then ignore. Workplace learning under the competitive pressures of the modern economy is a vital ingredient of success. But to be successful it has to be planned and managed and supported. Whether this happens depends to a great degree on the level of commitment and

understanding of senior managers and leaders. In Singapore, many of the elements of successful work-based learning are in place. Nevertheless, in many companies, even in those where there is an apparently strong commitment to work-based learning, many other elements are still missing. My hope is that this study will help inform, not only my own working practices but those of other managers in other companies so that we can all contribute more effectively to the development of the knowledge economy in Singapore.

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Appendix I: Questionnaire

1 Name of Participant

2 Organization Name

Local
SME
MNC

Eastern Co.
Western Co.

3 Organization headcount

--

4 Nature of Business

Manufacturing
Service
Others

If others, please specify:

5 Your Profession

6 Course currently attending

ADBS
ADQM
DBA
DPM
DIE
Others

If others, please specify:

7 Is course sponsored by company?

No
Yes
Others

If others, please specify:

8 Age

Below
20
21-30
31-40
41-50
Above
51

9 Sex

Male
Female

10 Qualification - higher level

Primary
Secondary
Tertiary

11.1 Does your Co. provide specific **formal** training pertaining to job? No
Yes

If yes, please indicate type of training _____

11.2 Does your Company. provide **informal** training pertaining to job? No
Yes

If yes, please indicate type of training _____

11.3 Does training provided by your Company enhance your skills? No
Yes

11.4 Does training help to develop your area of expertise? No
Yes

11.5 Is training seen as a form of career development in the organization? No
Yes

11.6 Is there special plan for learning in your organization? No
Yes

If yes, please indicate type of training _____

	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
11.7 In the training I have experienced, they are directly related to the scope of the target competencies.					
11.8 Main objective of training is to Improve my knowledge for application.					
11.9 A highly specialised work force does not make a learning organization that becomes knowledge productive					

12.1	Does your Company provide formal training in problem solving?	No Yes	<table border="1" style="border-collapse: collapse; width: 100px; height: 40px;"> <tr><td style="width: 50%; height: 20px;"></td></tr> <tr><td style="width: 50%; height: 20px;"></td></tr> </table>			
	If yes, please indicate type of training		<hr style="border: 0.5px solid black;"/> <hr style="border: 0.5px solid black;"/>			
12.2	Where do you see your strength in problem solving?	Technical People dimension Both	<table border="1" style="border-collapse: collapse; width: 100px; height: 60px;"> <tr><td style="width: 50%; height: 20px;"></td></tr> <tr><td style="width: 50%; height: 20px;"></td></tr> <tr><td style="width: 50%; height: 20px;"></td></tr> </table>			
12.3	Does your supervisor/manager provide opportunities for you to participate in group-base problem solving?	No Yes	<table border="1" style="border-collapse: collapse; width: 100px; height: 40px;"> <tr><td style="width: 50%; height: 20px;"></td></tr> <tr><td style="width: 50%; height: 20px;"></td></tr> </table>			
12.4	Does your supervisor/manager promote team-approach in problem solving?	No Yes	<table border="1" style="border-collapse: collapse; width: 100px; height: 40px;"> <tr><td style="width: 50%; height: 20px;"></td></tr> <tr><td style="width: 50%; height: 20px;"></td></tr> </table>			
12.5	Does your supervisor/manager provide good facilities for the group in problem solving?	No Yes	<table border="1" style="border-collapse: collapse; width: 100px; height: 40px;"> <tr><td style="width: 50%; height: 20px;"></td></tr> <tr><td style="width: 50%; height: 20px;"></td></tr> </table>			
12.6	Do you personally benefit in group-base problem solving technique?	No Yes	<table border="1" style="border-collapse: collapse; width: 100px; height: 40px;"> <tr><td style="width: 50%; height: 20px;"></td></tr> <tr><td style="width: 50%; height: 20px;"></td></tr> </table>			
12.7	Do you find it helpful in your job?	No Yes	<table border="1" style="border-collapse: collapse; width: 100px; height: 40px;"> <tr><td style="width: 50%; height: 20px;"></td></tr> <tr><td style="width: 50%; height: 20px;"></td></tr> </table>			
12.8	Do you agree that this form of making tacit knowledge explicit important to improving your job competencies?	No Yes	<table border="1" style="border-collapse: collapse; width: 100px; height: 40px;"> <tr><td style="width: 50%; height: 20px;"></td></tr> <tr><td style="width: 50%; height: 20px;"></td></tr> </table>			
12.9	Can this explicit knowledge help you in solving new technical problems?	No Yes	<table border="1" style="border-collapse: collapse; width: 100px; height: 40px;"> <tr><td style="width: 50%; height: 20px;"></td></tr> <tr><td style="width: 50%; height: 20px;"></td></tr> </table>			
12.10	Is there a structured training program to enhance your trouble-shooting skills?	No Yes	<table border="1" style="border-collapse: collapse; width: 100px; height: 40px;"> <tr><td style="width: 50%; height: 20px;"></td></tr> <tr><td style="width: 50%; height: 20px;"></td></tr> </table>			

	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
12.11 I can only solve problems related to those specific knowledge I had acquired.					
12.12 It is important to continue to upgrade my existing field of knowledge.					
12.13 There is a need to acquire productive skills to enable me to solve new and not well defined problem areas.					

- 13.1 Do you feel confident in solving all current problems No
Yes
- 13.2 Can your current technical strength be transferred? No
Yes
- 13.3 Have you received sufficient technical problem solving techniques for handling complex problems and handling several tasks simultaneously? No
Yes
- 13.4 Is your expertise very focused at one specific area? No
Yes

	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
13.5 I am competent in resolving all simple recurring problems.					
13.6 I have difficulty in resolving complex problems because of lack of new knowledge.					
13.7 My intelligence/expertise is focused in present domain/tasks assigned to me.					
13.8 I am making good progress in current technology I have been exposed to, but lagging in other domain.					

14.1	Do you have access to the knowledge networks of other divisions?	No Yes	<input type="checkbox"/> <input type="checkbox"/>
14.2	Are you trained in interpersonal skills?	No Yes	<input type="checkbox"/> <input type="checkbox"/>
14.3	Have you been trained on listening skills?	No Yes	<input type="checkbox"/> <input type="checkbox"/>
14.4	Are you able to promote a favorable learning climate?	No Yes	<input type="checkbox"/> <input type="checkbox"/>
14.5	What other formal communication skill training have you been exposed to?	Please specify:	<input type="text"/> <hr/>
14.6	Do you think other people listen easily to you?	No Yes	<input type="checkbox"/> <input type="checkbox"/>
14.7	How often do you participate in networks of other division?	Very often Often Sometime Seldom	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
14.8	Without social skills there can be no favorable learning climate within a Workplace.					
14.9	Without highly developed communication skills there can be no favorable learning climate within a workplace.					
14.10	My friendly interaction at the workplace allows me to participate communication network with my peers.					

15.1	Do you see in yourself a need to continue to learn?	No Yes	<table border="1" style="border-collapse: collapse; width: 100px; height: 20px;"> <tr><td> </td></tr> <tr><td> </td></tr> </table>				
15.2	Does your immediate supervisor motivate you to have continuous learning?	No Yes	<table border="1" style="border-collapse: collapse; width: 100px; height: 20px;"> <tr><td> </td></tr> <tr><td> </td></tr> </table>				
15.3	Who else motivates you to further your learning opportunity?	Colleague Family member Self Others	<table border="1" style="border-collapse: collapse; width: 100px; height: 40px;"> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>				
	If others, please specify:		<hr/> <hr/>				
15.4	What is the main driver for you to pursue continuous learning?	Money Status Promotion Others	<table border="1" style="border-collapse: collapse; width: 100px; height: 40px;"> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>				
	If others, please specify:		<hr/> <hr/>				
15.5	Do you become emotionally involved in your job performance?	No Yes	<table border="1" style="border-collapse: collapse; width: 100px; height: 20px;"> <tr><td> </td></tr> <tr><td> </td></tr> </table>				
	If yes, does this improve your job performance?	No Yes	<table border="1" style="border-collapse: collapse; width: 100px; height: 20px;"> <tr><td> </td></tr> <tr><td> </td></tr> </table>				
15.6	Are there any affections for the current job you are doing?	No Yes	<table border="1" style="border-collapse: collapse; width: 100px; height: 20px;"> <tr><td> </td></tr> <tr><td> </td></tr> </table>				
15.7	Do you work more than is normally expected of you?	No Yes	<table border="1" style="border-collapse: collapse; width: 100px; height: 20px;"> <tr><td> </td></tr> <tr><td> </td></tr> </table>				
	If yes, please specify:		<hr/> <hr/>				

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
15.8	My emotions play an important role in motivating me to acquire more knowledge					
15.9	When I am well motivated I can be more creative and innovative at the workplace.					
15.10	I am more committed to my job when meaningful tasks are assigned to me.					
15.11	It is important for my organization to recognize my emotional and effective drive so that I can perform better.					

- 16.1 Is your working environment peaceful? No Yes
- 16.2 Is there often restructuring in your organization? No Yes
- 16.3 Is there often changes in your own job? No Yes
- 16.4 Is labor-turnover high at your workplace? No Yes
- 16.5 Are you happy working at your current office environment? No Yes

	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
16.6 Peace and stability in an organization are necessary for gradual improvement.					
16.7 Company undergoes frequent reorganization will disturb the employees' performance.					
16.8 Lack of peace and stability in a firm results in not able to optimize the utilization of intellectual assets.					

- 17.1 Does your supervisor encourage creative and innovative idea from you? No Yes
- 17.2 Do you see a need for contributing creativity at your work-place? No Yes
- 17.3 Does your organization as a whole encourage innovation? No Yes
- 17.4 Do you enjoy change for new ideas or new way of doing things? No Yes
- 17.5 Do you think that creativity and innovation promotes continuous learning? No Yes

	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
17.6 Organization needs to establish corporate curriculum to encourage learning.					
17.7 The economy today is transforming into a knowledge economy,					
17.8 Companies, individuals and teams need to develop the necessary competencies to be able to participate in a working life that is based on productivity -- the ability to add value to products and services.					

Appendix II: Semi-Structured Interview Questions

1. What is your thought of lifelong learning at your work place?
2. Is organization learning important?
3. Does training help your company to achieve better results?
4. Do you see your company promoting lifelong learning?
5. Does your company support training?
6. What form of formal training is provided to your employees?
7. What form of informal training is provided to your employees?
8. Do you experience any difficulty in getting your employees in training?
9. What is your company's expectation from employees who have received formal or informal training?
10. Have you come across any employees reluctant to be trained?
11. How do you encourage your employees to accept training?
12. Do you foresee your employees leaving you after acquiring their training?
13. What are key success factors to cultivate your company to adopt a learning organization environment?
14. Do you create earning opportunities for your employees?
15. Do your superiors support training?
16. What is your CEO vision in terms of training?
17. What type of leadership style is seen in your manager?
18. What are the benefits of training --- your opinion?
19. What is your company turnover rate?
20. Does your company promote learning platform at your work place?

Profession: _____

Age: _____

Type of Company: Eastern / Western