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The History of Human Resource Development in Taiwan: 1950s-1990s

A THESIS
SUBMITTED TO THE FACULTY OF THE GRADUATE SCHOOL
OF THE UNIVERSITY OF MINNESOTA
BY

Min-Hsun Christine Kuo

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

Gary N. McLean, Adviser

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ABSTRACT

This study traced the history of Human Resource Development (HRD) in Taiwan from the 1950s through the 1990s. The author used an historical methodology to review the evolution of HRD strategies and policies adopted by the government, private and public enterprises, civic organizations, and research institutions in Taiwan. The purposes of this study were to trace the history of HRD in Taiwan since the 1950s, identify HRD patterns from the history of HRD in Taiwan since the 1950s, and posit an HRD definition that is derived from the history of HRD in Taiwan.

This overview of the government-initiated and government-encouraged emergence of developing human resources to boost Taiwan's economy and enhance Taiwanese welfare is analogous at the macro level to the concept of HRD in business management at the micro level. Since the 1960s, Taiwan's HRD strategy has been integrated with national economic objectives for the nation, and there exists a national structure of government agencies and organizations responsible for planning and implementing these strategies. Since the 1980s, the series of measures designed to liberalize and to restructure the economy have played a vital role in establishing a foundation for employee training and, in particular, enterprise training, in Taiwan. The upgrading of industries and the advancement of competitive ability in the international market since the 1990s certainly has been important in strengthening the role of HRD in Taiwan.

Three factors have been fundamental in shaping Taiwan's development of HRD: (1) Dr. Sun Yat-Sen's teachings; (2) the government's commitment to develop its

economy and to fulfill social expectations through the development of human resources; and (3) the pragmatic and pluralistic approaches adopted in policy formulation.

Finally, the author provided nine patterns derived from the history of HRD strategies, policies, and practices adopted in Taiwan since the 1950s, and she also posited three functions for Taiwan's HRD system. In addition, the author provided a definition of HRD derived from the history of HRD in Taiwan--HRD is an intentional, innovative, long-term, and committed process of developing an individual's work-related learning capabilities through vocational education and training, organization development, and career development with an aim to contribute to individual, organizational, and national growth.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER 1

INTRODUCTION

Taiwan is one of the world's most densely populated countries. According to census figures from the Council of Labor Affairs in Taiwan (2000), the population was about 22.2 million as of 2000. Of these, approximately 9.76 million are classified as human resources; that is, they are 15 years old or over and have the ability to work. Approximately 6.26 million are paid workers, as opposed to those who are self-employed or have some other working status. There are approximately 5.9 million males and 3.9 million females. In addition, 25-44 year olds are around 60% of the total labor force.

While industrial nations posted steady growth and expansion during the 1990s, the growth of developing nations in Asia towards the end of the decade was dragged down by financial turmoil. This financial crisis broke out in Thailand in July, 1997, and swiftly spread throughout the emerging market economies of Asia. The value of their currencies plunged and their stock markets collapsed. Within the six-month period at the end of 1997, the combined rates of currency depreciation against the US dollar and stock price decline together reached 97% in Indonesia and Korea, 75% in Thailand, 68% in the Philippines, 38% in Singapore and Japan, 29% in Hong Kong, and 24% in Taiwan (Kuo & Liu, 1998).

Compared to those of other troubled nations, Taiwan suffered the least from the financial crisis. According to Kuo, the Minister of State in charge of financial and economic policies and professor of economics in the National Taiwan University, the series of liberalizing and restructuring measures designed and implemented during the past ten years in Taiwan played a vital role in establishing an economy that could

withstand the shock of the East Asian crisis (Kuo & Liu, 1998). Some of the distinctive features of economic policies implemented in Taiwan in the past decade were reduction of tariffs, relaxation of import controls, relaxation of capital inflow and outflow, and upgrading of technology-intensive industries. This upgrading of industries provided an important foundation for enduring through the crisis. As the East Asian crisis eased, Taiwan reported a significant rise in industrial production and private investment. Economic growth in March, 2000, reached 7.92 %, the highest in five years (Council of Labor Affairs, 2000).

Not only in many ways is the economic structure of Taiwan relatively sound in comparison with those of the troubled economies (Kuo & Liu, 1998), but also a low unemployment rate has been recognized worldwide as one of Taiwan's great achievements. The average unemployment rate between 1990 to 1996 at 1.58% was the lowest among the world's major countries, compared with Canada's 10.15%, UK's 7.47%, US's 6.42%, Japan's 2.50%, and Korea's 2.38% (see Table 1) (Council of Labor Affairs, 2000).

Nevertheless, due to the East Asian crisis in 1997, the unemployment rate in Taiwan rose to a peak of 3.0% in February. Further, due to the new school graduates joining the labor market beginning in June and the financial turmoil that started in July, the unemployment rate went up again to 3.03% in August (Directorate-General of Budget, Accounting and Statistics, Taiwan Provincial Government, 1998a). Gradually, the unemployment rate dropped to 2.69% in 1998 (Council of Labor Affairs, 2000).

Table 1

Unemployment Rates in Major Countries

Year	R.O.C.	Canada	UK	US	Japan	Korea
Avg. 1990	1.67	8.1	6.8	5.6	2.1	2.4
Avg. 1991	1.51	10.4	8.4	6.8	2.1	2.3
Avg. 1992	1.51	11.3	9.7	7.5	2.2	2.4
Avg. 1993	1.45	11.2	10.3	6.9	2.5	2.8
Avg. 1994	1.56	10.3	9.6	6.1	2.9	2.4
Avg. 1995	1.79	9.6	8.6	5.6	3.2	2.0
Avg. 1996	2.6	9.7	8.2	5.4	3.4	2.0
Avg. 1997	2.72	9.2	7.1	4.9	3.4	2.6
Avg. 1998	2.69	8.3	6.1	4.5	4.1	6.8
Avg. 1999	2.92	7.6	---	4.2	4.7	6.3

Note: Council of Labor Affairs, Executive Yuan. (2000). Monthly bulletin of labor statistics, Taiwan area, R. O. C. Taipei, Taiwan: Author, pp. 226-227.

Because of the low unemployment rate, a shortage of labor became a major concern in Taiwan towards the end of the decade. The number of skilled workers, though increasing dramatically, is unable to keep pace with demand (Council for Economic Planning and Development, 1997a). Employment of foreign workers in recent years has reduced the labor shortage; however, business expansion has worsened the labor shortage since the fourth quarter of 1996. The number of workers needed increased from a monthly average of 176,000 workers in the fourth quarter of 1996 to a monthly average of 193,000 workers in 1997, and this labor shortage mainly happened in the manufacturing sector (Council of Labor Affairs, 1998).

The number of people who were not in the labor force in 1998 was 6.9 million; the potential labor force (the total population in not in the labor force minus the old aged and disabled populations) accounted for 5.25 million people and 76% of the total population not in the labor force. Among this potential labor force, about 2.6 million people

indicated that being "busy in house keeping" was the reason why they were not in the labor force; about 2.2 million people indicated that "intend to work but not seeking for" and "attending school or re-preparing to take entrance exams" were the reasons why they were not in the labor force (Directorate-General of Budget, Accounting and Statistics, 1998a). These two large groups occupied about 50% and 40% of the potential labor force, respectively.

Facing the diverse needs and problems of such a large population and work force on this small island, Taiwan's government has been working on this primary issue and challenge--developing and utilizing these human resources. Taiwan has built a solid foundation of labor-intensive industry by using its abundant and relatively less expensive labor force efficiently since the 1970s. Human resources have been critical in enabling Taiwan to succeed economically.

Human Resource Development (HRD) in Taiwan has been a key strategy for economic growth since its early beginning when the Taiwanese nationalist government moved to Taiwan island in 1949 (Council for Economic Planning and Development, 1997b; Huang, 1997; Kuo & McLean, 1999; H. H. Lee, 1995). To date, the HRD strategies and policies have been continuously revised and adjusted in conjunction with other national strategic economic policies (Employment and Vocational Training Administration, 1996). Although many scholars have revealed great interest in the roles and competencies HRD professionals should play and have in Taiwan (S. H. Lee, 1994), the kind of HRD practices in Taiwanese firms (H. Y. Chen & Mink, 1995; Jean, 1994a), and strategic HRD in Taiwanese small and medium companies in changing environment

(Jaw, 1997), few scholars have paid attention to the question of how HRD has evolved in Taiwan since the 1950s.

Statement of the Research Question

Taiwan has changed from a developing country to a developed country. As a consequence, HRD receives much attention in Taiwan (H. Chen, 1987; Hong, 1991). HRD is treated not only as an important organizational function, but also as a critical function to be performed in order to achieve success in a global economy.

During the past decades abundant literature has been published by a number of Chinese and other scholars on the development of Chinese vocational education. There have also been studies done on micro-level human resource development practices. As yet, very little research has been done on a macro-level to provide an historical perspective of HRD policies, strategies and practices in Taiwan.

Thus, the central research interest in this study is to trace the history of Human Resource Development in Taiwan since the 1950s. The statement of the research question is, "What is the History of Human Resource Development in Taiwan from the 1950s to the 1990s?"

Theoretical Framework

In Taiwan's case, HRD has received much attention recently and is now highly valued (H. Y. Chen, 1997; H. Y. Chen & Mink, 1995). It has aroused the attention of both scholars and the business/industry sector. Many Taiwanese HRD studies have been published in Taiwan and the U. S. during the 1990s. During the early 1990s, scholars in Taiwan were interested in the effects of employer-sponsored training on labor productivity (Lyau, 1994). Lyau's study showed a positive, significant relationship

between training and labor productivity at the firm level in Taiwan. In the middle of the 1990s, researchers turned to identifying the competencies HRD professionals should have and the roles HRD practitioners should play in Taiwan. For instance, S. H. Lee (1994) indicated that 34 HRD competencies and 12 roles of HRD professionals identified in Taiwan were similar to the competencies and roles in the U. S., as identified in a study conducted by the American Society for Training and Development (ASTD) (McLagan & Suhadolnik, 1989).

Cross-cultural HRD is also attracting attention in Taiwan. Business and industry in Taiwan are increasingly operating within a global environment in which HRD professionals must deal with employees from other cultures. This challenges both researchers and professionals of HRD that not only do they need to know how to deal with the issues caused by cultural differences, but they also need to know how to adapt the solutions established from other cultures.

As the number of multicultural and multinational organizations increase, an important question is whether organizations worldwide are becoming more similar or maintaining their culturally based dissimilarity. Negandhi (1979) argued that organizational characteristics across nations are mostly free of the particularities of specific cultures. The technological origin, institutional frameworks, organizational patterns and structures, and management practices across countries are becoming more similar. Child (1981) also argued that organizational variance today depends much more on contingencies other than culture--contingencies of technological development, large-scale production, and close interdependence with other organizations from all over the world. Cultural differences may therefore be of diminishing importance.

By contrast, however, other scholars have argued that organizations are cultural-bound and are remaining so (M. Chen, 1995; Hofstede, 1980; Lincoln, Hanada, & Olson, 1981). Hofstede (1980), studied 160,000 employees working in 40 countries for a major U.S. American multinational organization and identified four dimensions by which national cultures differed: power distance, uncertainty avoidance, individualism/collectivism, and masculinity/femininity. He further indicated that culture is often difficult to change, and, if it changes at all, it does so slowly. Hansen and Brooks (1994) also indicated that employee beliefs about what constitutes effective work behavior are shaped by social culture.

The issues of national differences and cross-cultural awareness are important for the HRD professional because of the market-driven competition to go global. This awareness has also stimulated lots of research on this matter. For example, the efforts to identify the competencies, work outputs, and roles needed for HRD professionals in Taiwan by S. H. Lee (1994) were intended to adapt and modify the study of "The Models," established by ASTD. H. Y. Chen and Mink (1995) examined the relationships between organizational climate and HRD practices in U.S. and Chinese corporations in Taiwan. By using Lippitt's (1982) Human Resource Development Assessment Inventory, they found that the organizational climates and HRD practices in U. S. firms and Chinese firms in Taiwan were different. Y. Y. Lin (1991) investigated the differences and similarities of management philosophy, organizational climate, and managers' learning among U. S. subsidiaries, Japanese subsidiaries, and local Taiwanese firms in Taiwan. One of her major findings was that supervisors in Taiwanese firms participated most

actively in company-sponsored learning programs, whereas supervisors in Japanese subsidiaries participated least actively.

In spite of this interest, however, few studies, surprisingly, have indicated what HRD is, that is, what the definition is of HRD in Taiwan. From the literature review, I found that the majority of Taiwanese HRD scholars and practitioners used the definition of HRD originated in the U.S. when they referred to HRD in their studies (Jean, 1995b; S. H. Lee, 1997). S. H. Lee is one of the few scholars who has studied what HRD is in Taiwan. Lee's study (1994), entitled, "A Preliminary Study of the Competencies, Work Outputs, and Roles of Human Resource Development Professionals in the Republic of China on Taiwan: A Cross-cultural Competency Study," indicated that the definition of HRD in Taiwan is the same as the definition in the U.S. By using a qualitative analysis technique known as method of agreement, Lee asked participants in his study to write a definition which meets the actual need of HRD professionals in Taiwan. This technique focused on the similarity of opinions from the available sources. It was concluded that "HRD is a profession that integrates the use of training and development, organization development, and career development to improve individual, group, and organizational effectiveness" (p. 88).

However, several studies that explored HRD activities in different countries all concluded that, although the majority of HRD principles applied internationally originated in the U.S., the nature and purposes of HRD activities differ in each country, as does its definition (Elliott, 1998; Harada, 1998; Hillion & McLean, 1997; McLean & McLean, 2001; Osman-Gani & Tan, 1998; Yang & McLean, 1997). The majority of articles that aimed at defining the field of HRD are written from the point of view of

North America, especially the USA; however, cultural norms vary from one country to another so that the US definition and functions do not and should not completely apply to other countries. As the field of HRD is becoming increasingly global, this variation in cultural norms from country to country should be recognized and understood by HRD professionals who work domestically and internationally.

Thus, without a review of HRD's history and its roots in Taiwan (or any other country), a comprehensive definition of HRD for that country cannot be established. Taiwanese scholars and researchers need to define what HRD is and to determine what functions the HRD system serves in Taiwan. Many existing studies examine current practice or describe the training and other dimensions of HRD in Taiwan; however, this study examines how HRD has evolved in Taiwan in a way that previous studies of the HRD field have not.

Purposes of the Study

To enhance the quality of research and practices in the field of HRD, it is essential to know how HRD policies, strategies and practices adopted by the Taiwanese government agencies, Taiwanese public and private enterprises, and the Taiwanese civic organizations have evolved since the 1950s. Thus, the purposes of this study were to:

- trace the history of HRD in Taiwan since the 1950s
- identify HRD patterns from the history of HRD in Taiwan since the 1950s
- posit an HRD definition that is derived from the history of HRD in Taiwan

This history of HRD in Taiwan was intended to help readers understand:

- the origins of HRD in Taiwan
- the major developments and events

- the reasons the profession is as it now exists
- forces that will likely shape its future

Significance of the Study

An ancient Chinese proverb says one should "...foresee the future by reviewing the past." To investigate and examine the factors and forces from the past that influence the present and future, I have traced the history of HRD in Taiwan. This comprehensive study will serve as a guide to a better understanding of the development of HRD in Taiwan and may provide Taiwan's education and business leaders with findings and recommendations for future program planning and innovations in HRD programs. In addition, this review of the evolution of HRD policies and strategies adopted by the Taiwan government provides an interesting and unique case study of HRD as a national strategy that might be useful for other developing countries.

Definitions of Terms

The following list provides definitions of terms that are used in this research. These terms provide a framework for understanding the study.

Manpower: According to Liu (1977), manpower--Chinese characters 人 力--means the population that performs economic activities in a country; in other words, manpower means those who have an employment capability and are willing to get paid work according to the education, training and experience they have had in order to support themselves and their family.

Manpower Development: In Taiwan, manpower development--in Chinese manpower development contains four characters: 人 力 發 展--is intended to give

citizens the opportunity for education and training, and to counsel citizens to choose an occupation that can meet the nation's needs best, improve the citizen's life, and obtain the most satisfaction for citizens. This is a job or function of a society and a nation (Liu, 1977). Thus, manpower development in Taiwan focuses on providing, through training, high quality human resources in the quantity necessary to meet the needs any place in the nation. The purpose of manpower development is to "enhance human resource quality, unleash human resource potential so that the whole nation's human resources can be used according to their skills, under reasonable planning and utilization, to reach the purpose of full-employment" (Liu, 1977, p. 2).

Human Resources: According to Liu (1977), human resources--in Chinese human resources contains four characters: 人力資源--covers the population which is performing economic activities in a country and the potential employable population that can be utilized, for example, women who are keeping households at home and taking care of children, those who are ill or injured and can not work temporally, and youth who are studying in schools to prepare for their future careers. The definition of human resources is broader than manpower.

Vocational Training: There are two types of vocational training in Taiwan--public training and enterprise training (Employment and Vocational Training Administration, 1996). In the broad sense, public training means training that is geared toward society at large. In the narrow sense, public training is limited to the training implemented by vocational training institutions. Categories of public training are pre-employment training, upgrading training, job transfer and second expertise training, and vocational training for the handicapped. Categories of enterprise training are pre-employment

training, upgrading training for employees, second-expertise training for employees, job-transfer training for employees, and cooperative or apprenticeship training.

Training and Education and Development: "Training means those activities, from an enterprise or a specific industry, that are given to employees to enhance their knowledge, skills and attitudes, or to cultivate their problem-solving skills needed to implement specific job" (Huang, 1993, p. 18). Education means individual general knowledge, cultivation of competency; education, of course, includes professional knowledge, skills and the cultivation of adaptability to one's living environment. It is a longer, broader and more objective development of competency. Thus, training is a narrower education. In Taiwan, the term training and education training are used interchangeably by enterprises (Jean, 1995b). Huang and Uen (1995) also indicated that Taiwan's enterprises, in practice, do not have a clear distinction among education, training and development; generally speaking, education training is the term Taiwan's enterprises use to indicate a special planned activity designed by organizations to expand learning experience for organization members.

Organization Development: Organization development (OD) is "A systemwide effort applying behavioral science knowledge to the planned creation and reinforcement of organizational strategies, structures, and processes for improving an organization's effectiveness" (Cummings & Worley, 1993, p. 691).

Management Consulting Firm: A management consulting firm is a firm that is : (a) Assisting an organization to solve the bottleneck in operation by diagnosing, analyzing its business, and making conclusions and providing recommendations, (b) providing

managerial training classes, and (c) providing information consultation services (Wu, 1979).

Career Development: "Assuring the alignment of individual career planning and organizational career-management processes to achieve an optimum match of individual and organizational needs" (McLagan, 1989, p. 52).

Yuan: The government of the R. O. C. was established by the Organic Law of October 4, 1928. The government consisted of a president and five formal branches, called Yuans, each with its own president, in correspondence with Sun Yat-Sen's outline—the Executive Yuan, Legislative Yuan, Judicial Yuan, Control Yuan, and Examination Yuan (Clark, 1989).

Ministry: The term as used in England [also in Taiwan] is wider than Cabinet and includes all the holders of public office who come in and go out with the Prime Minister (Black's Law Dictionary, 1990).

Parties: In Taiwan, there are three major parties. The Kuomintang is the current ruling party. The two current opposition parties are the New Party and the Democratic Progress Party.

Summary

The purpose of this historical study was to understand how HRD policies, strategies and practices adopted by the Taiwanese government agencies, public and private enterprises, civic organizations, and research institutions have evolved since the 1950s in Taiwan. This history of HRD not only can help the readers to understand the origins of HRD in Taiwan, through its major developments and events, but also it can help them to comprehend the reasons the profession there is as it now exists. This comprehensive

study may help Taiwan's education and business leaders to foresee the forces that will likely shape HRD's future and Taiwan's economy.

CHAPTER 2

THE NATURE OF HISTORY

One may decide to study history for many reasons. For me, the main reason was my curiosity about the past. After pursuing my higher education in the field of HRD in the U.S. since 1994, and being exposed to theories and practices of HRD in the U.S., I was curious about how human resources have been developed in Taiwan, my native country. The curiosity was heightened when I found conflicts among sources which were published in English and Chinese regarding HRD in Taiwan. I continuously questioned why some Chinese scholars defined HRD in the same ways HRD is defined in the U.S. if the cultures are different in both countries. Why did scholars in Taiwan indicate that HRD is a new field since the late 1980s when I found a dissertation, entitled, "A Study of the Role of HRD in the Economic Development of Taiwan," published in 1978? Both of these questions, along with my general interest in history, encouraged me to pursue this study.

Although history deserves to be studied out of curiosity if nothing else (Daniels, 1972), curiosity alone was not enough to convince me to do this study as my dissertation. In addition to curiosity, I felt that I was uniquely qualified to research this subject. First, as I had taken courses regarding historical research methods, I was knowledgeable and capable of conducting an historical study. Second, being a researcher in the field of HRD for several years, as well as an ordinary person who has been exposed to cross-cultural differences for almost a decade, I believed that I was able to conduct this history-writing journey.

Given that I had both interest and qualifications for the study, the next question was, "Does it need to be investigated?" In other words: has it ever been investigated? In spite of interest in building the theories and practices of HRD, and publications that indicate the popularity of HRD in Taiwan, no study, surprisingly, has developed a detailed history of HRD in Taiwan. Since no such study could be found, I was even more eager to investigate this history.

What is History?

Before investigating further the history of HRD in Taiwan, history in general should be described. What does this word, history, mean? History is derived from the Greek, meaning "learning" (Gottschalk, 1969). But, as Shafer (1974) indicated, history has several meanings in English. First, "it refers to the events of the past, to the actual happenings." Second, "history means a record or account of events." Finally, "history means a discipline, a field of study that has developed a set of methods and concepts by which historians collect evidence of past events, evaluate that evidence, and present a meaningful discussion of the subject." (p. 3)

In Chinese history contains two characters: 歷 史. There are two meanings in these two characters (Jung, 1969). The first refers to the recordings of large national events, or events that happened in a country; second, it means the recording of the changes and evolution of events. This definition, compared with English, is narrower in breadth and depth of meaning. It emphasizes the action of recording. In other words, history in Chinese refers to the events recorded by historians. In addition, changes and evolution are two characteristics within the events written by historians.

Similar to the above definitions of history, Fitzsimons (1983) indicated that history has two principal meanings: the past itself and the historians' presentation of the results of their inquiry into it. These two kinds of histories correspond, more or less; it is the historian's aim to make the correspondence as exact as possible. But the actual series of events exists for us only in terms of the order of events that seemed to be happening which we affirm and hold in memory. That is why Carl Becker identified history with "knowledge of history." Becker (1935), in his work, Everyman His Own Historian, defined history in a statement that reduces history to its lowest term and yet includes everything that is essential to understand what history really is: "History is the memory of things said and done" (p. 235). If the essence of history is the memory of things said and done, then it is clear that every person knows some history.

Other historians have also defined history. Rowse (1948) defined history as the time-aspect of all things--a statement of great truth and simplicity. There is a history not only for human beings, but anything and everything in the whole universe! In addition, the historian, Max Nordau (1910), defined "history in the widest sense" as "the sum of the episodes of the human struggle for existence" (p. 13). Nordau also indicated that:

> History is the record of all, great and small, that man [sic] has done and suffered, all that he has thought, imagined, and achieved within the limits of that natural and artificial environment into which he was born, in which he has to live, and by which any satisfaction of his needs and impulses is conditioned. (p. 13)

While broad in some aspects, Nordau's definition is also narrow as he referred to only human beings in his definition of history.

No matter how history or knowledge of history has been defined and what meanings have been given, the reconstruction of the total past of humanity is unattainable. History itself remains unchanged because its events already occurred in the past. However, as Becker said, "... the view of history, like the work of the historian, is and must be temporary and will change as mankind moves into the unknown future" (Smith, 1956, p. 82). It is the goal of historians in every generation to recapture the past. It is and should be an ongoing work.

History as Science and Art

History is a study of facts of humanity's social existence, which is essentially the common denominator of the social sciences. Both historians and social scientists are interested in regularities, tendencies, or repetitive elements in social behavior, but the former also are concerned with the unique event and person for their own sakes, and the latter are more uniformly dedicated to identifying laws of human conduct. As compared with the natural sciences, the historian is interested in what the natural scientist passes by, for the natural sciences aim to organize reality through an understanding of what objects have in common; the historian's aims are not to formulate generalizations--laws--but to construct complex, unique wholes. As the aims of the social and natural sciences are different, the methods are necessarily different.

Because the object of historical investigation is not to form generalizations or laws, there is a great deal of discussion as to whether history is a science or an art. Though the object of history is not to form laws as the result, history is claimed as a science by some historians (Gottschalk, 1969; Rowse, 1948). Gottschalk (1969) claimed that history is scientific in its methods because the truth of events is proved by a series of documents

carefully examined for authenticity and credibility. Rowse (1948) also indicated that history is not a matter of rough guessing nor an assemblage of individual facts without connections. The meaningful patterns and conclusions drawn from a mass of historical facts are reached by examining each document rigorously. As Rowse (1948) concluded:

> The insistence that history is a science, with rigorous scientific standards and methods, led to greater care and caution in ascertaining and stating the truth, to a watchful emphasis upon exact accuracy at every point, in examining evidence and arriving at conclusions from it, a constant awareness of the dangers of bias and attempts on every side to counteract it. (p. 87)

On the other hand, how is history an art? Some historians have said that art is selection--and historians must select. Historians have to select what to write in the history they choose to write, as it is not possible to write down everything. This act of subjective selection is an artistic function. In addition, writing history is an art because historians have to write it in a non-dull style--otherwise, it is much less interesting to read. This point of view makes history an art more than other subjects. Rowse (1948) even emphasized that there is a non-scientific element which is just as important in history-writing: that is, the feeling for the material. That feeling towards the materials allows historians to be creative in synthesizing all materials into an organic whole.

Does history have to be either science or art? No, not necessarily. History can be both science and art. As Jusserand, Abbott, Colby, and Bassett (1974) described: "History is not simply an art, nor simply a science...it participates in the nature of both" (p. 3). Historians have to select and examine facts in a rigid process to present the specific areas of history they try to investigate. Rowse (1948) also indicated that there

are two methods historians can use to convey history: one is intellectual and scientific, the other is intuitive and esthetic. Science and esthetics can complement and illuminate one another.

Objectivity and Subjectivity

In the process of doing historical research and writing a history, historians encounter the most challenging of problems: determining the important sources in the mass of information, criticizing and judging what is accurate or inaccurate, and reorganizing and synthesizing their own opinions, as well as the sources they selected. Subjectivity is thus inevitable. Because historians must do what they can to restore the total past of humanity, regardless of how it seemed while it was happening, in the end they must resort to creating a mental image based upon an application of their own experience. This re-creating the past by using and selecting available records to restore it is thus a subjective process.

To some historians, being scientific means being objective (Fogel & Elton, 1983). Objectivity is, of course, essential in historical research. This does not mean that historians have to give up their opinions and values when they are trying to reorganize the data to restore the past. Why not? Because history and the social sciences are still largely associated with human beings, and human beings cannot be totally objective when dealing with the past or other behaviors of human beings.

So, does that mean there is no objectivity in history? No, there certainly is. As affirmed earlier, objectivity is essential in historical research; however, what objectivity means in historical research is that historians need to have the ability to face the facts in

the process of recapturing the past. Whether they like the facts or not, historians must be willing to face the facts and report the facts.

The requirements of reasonable objectivity do not rule out individual interpretation and judgment. It should not be forgotten that the positivistic approach and statistical explanations have their limits in both history and the social sciences as a whole. We cannot totally understand the behaviors of human beings in the past because we were not them. Since history does not repeat itself exactly, it is not possible to use statistical explanations to predict what will happen in the future. For this reason, we see that interpretation is inherent in the historian's work of organizing records into a meaningful pattern.

In short, historical research and history-writing contain subjectivity and objectivity and do have scientific value. All historians are obliged to interpret the sources they are dealing with. Historians are subjective because they must make decisions in the process of collecting and selecting data, reorganizing facts, and interpreting what they have found into meaningful narratives. Historians are objective because they have to accept whatever they find in their sources, regardless of whether they like it or not. The only concession historians can make to history as a scientific discipline is to ensure that they disclose what their sources are, so that their readers will be informed as to the reasons for the choices they have made in their interpretations of the texts (Vansina, 1965). The results of historical inquiry definitely have scientific value because historians do not dream up their stories without reference to the primary documentary data.

Generalizations and Predictions

Whether or not to generalize from history has been an issue debated for years. Some historians have stressed the formulation of generalizations and the search for historical laws. Others have insisted that each historical fact and situation is unique.

Historical generalizations vary from the very limited to the very broad. Limited generalizations organize the details of historical observation into what are usually recognized as facts (Daniels, 1972). This kind of generalization is inevitable in the process of historical research and must go together with facts that historians highlight from the mass of data: "generalizations giving relevance to facts, facts giving life to generalizations" (Daniels, 1972, p. 51). Historians make generalizations out of facts if they want readers to know the big concepts in the histories they present. Not only is this kind of generalization inevitable in the process of reorganizing facts, but it is, in reality, a work of art, for historians can make history definite or indefinite as long as they stick with facts.

As to larger generalizations or laws of history, we need to re-examine the nature of historical facts. It is a truism that history presents no identical situations. History would be easy to understand if there were a perfect repetition. Because history is so complex and unpredictable, it is impossible to use the ordinary scientific notion of law to generalize something out of it.

But can we predict the future from the history revealed to us? Some historians believe that the main significance of history is to explain the present and predict the future; others have defended the concept that pure knowledge of the past is a value in itself. On this issue, I believe that, although history does not repeat itself in exact details,

for there are never the same persons or the same situations with precisely the same characters again, it does not mean that there are not similar situations which will happen again in the future. For similar situations, we may use similar solutions to get similar results. This does not mean, however, that history can predict the future. History definitely shapes the future because the future is determined by the combination of the past and present. People often plan or determine what to do in the future based on what was done before and what is being done at present. What is important, then, is the kind of future we want for ourselves and the kind of future we can create for ourselves based on our understanding of history.

Value and Use of History

People often ask, "What is the value of history?" and "What is the use of history?" A prior question, for me, is, "What is the enjoyment of history?" History gives a perspective and a meaning to things. Take this study as an example: I investigated the history of HRD in Taiwan because I was curious about the origin of HRD and how HRD has evolved to its current status. Through the process of investigating documents, interviewing people who witnessed what happened, and visiting HRD-related professional organizations, I was able to understand the world I live in and the world that came before it. This pleasure of discovery and interaction with history made it valuable to me.

But what is the value of history to readers who have not had a chance to do what I did in this study? Rowse (1928) best answered the question, "Has history value?":

> The chief value of the conception of history...is in that it provides a principle proper to the age for its summary of the past, and in the light of which we may survey the

> whole of the social process and not only the surface with occasional excursions into the depths. (p. 74)

Because of the glimpse of the past that history brings us, human beings are better able to understand the present in so far as history explains the origin of how things got to their existing status.

Unlike science, which is dominated by rigorous laws, history can not predict the future by observing the past. While history is the memory or experiences of human beings, history never repeats itself exactly. Each situation and event is distinct; each is connected to all the foregoing and succeeding ones by a complex web of cause and effect. The present may be the consequence of accidents, or of irresistible forces, but in either case the present consequences of past events are real and irreversible. We cannot handle our unique present unless we understand how it came to be. In addition, although there is little certainty in human affairs in our fast-changing world, current parallels with the past may suggest common-sense courses of action to us if we can draw them. Thus, though history cannot predict the future, it does not mean that history does not have utility or use. The lessons of history lie within the summary of the past.

Summary

The service the historian does for the reader is to arrive to certain degrees at the ultimate historical truth. As the sum of past records and events of human beings is so immense, we can never hope to understand everything. We cannot arrive at a full understanding of the past because the past is something outside our experience. It is also true that we cannot understand the past because people who lived then were different from us, and we can never completely understand their motivations for what they did. In

spite of this, I can take steps to arrive at a certain degree of historical truth by selecting and examining written documents carefully in an attempt to recreate the circumstances that existed at certain given moments in the past. It is hoped that readers will find that the value of this history of HRD in Taiwan lies in the richness of its recovery of the concrete life of the past.

CHAPTER 3

METHODOLOGY

This study traced the history of HRD in Taiwan from the 1950s to the 1990s. The purposes of this study were to trace the history of HRD in Taiwan since the 1950s, identify patterns of HRD from the evolution of HRD in Taiwan since the 1950s, and posit an HRD definition that is derived from the history of HRD in Taiwan since the 1950s. It was intended to help readers understand:

- the origins of HRD in Taiwan
- the major developments and events
- the reasons the profession is as it now exists
- forces that will likely shape its future

The major finding of this study--the history of HRD in Taiwan from the 1950s to the 1990s--will be discussed in chapters 4, 5, 6, 7, 8, 9, and 10. The selective history offered here pays particular attention to factors and institutions responsible for initiating, facilitating and implementing HRD policy and strategy. These findings are narrated by topical approach. These major topics are: early recognition of the importance of developing human resources, development of human resources through vocational education, development of human resources through vocational training, human resource dvelopment in large corporations and small and medium-sized enterprises, and current challenges and future plans. To this end, in chapter 11, attention will be paid to the patterns and functions of HRD and the definition of HRD drawn from the history of HRD just narrated.

The Search for Evidence

This study is an historical research. By using the historical method, I collected and examined evidence of past events to answer research questions.

The methods of writing history have been studied and debated for years by historians. In spite of the many schools, it is not difficult to find agreement on the essential steps for beginning historians, like myself, to follow. For instance, Gottschalk (1969) indicated four essentials in writing the history of any particular place, period, and set of events, institutions or persons:

- the collection of surviving objects of the printed, written and oral, of any materials that may be relevant
- the exclusion of those materials (or parts thereof) that are unauthentic
- the extraction from the authentic material of testimony that is credible
- the organization of that reliable testimony into a meaningful narrative or exposition (p. 28)

Similar to what Gottschalk provided, Shafer (1974) presented three well-agreed-upon elements of method in conducting an historical study: learning what categories of evidence exist, collecting evidence, and communicating evidence. These three elements, as well as the four essentials presented by Gottschalk, are not just simple mechanics which require little thought; rather, each element or step requires the historian's careful attention and intelligence to function efficiently.

With these essential elements in mind, I started my history-writing journey in June, 1998, by collecting published and written materials in Minnesota. The strategy for collecting the data was to perform a large bulk of the archival research before conducting

the oral histories. The development of technology and techniques make doing research much more manageable and doable than in the past. For instance, I was able to do a comprehensive bibliographic search by using various databases which were created in both the U.S. and Taiwan, and from Internet World Wide Web created in both the U.S. and Taiwan.

Primary and Secondary Sources

With this plan in mind, approximately one year, from June, 1998, to July, 1999, was spent examining materials obtained from the U.S. and Taiwan. The majority of materials obtained during this period were secondary sources. According to Gottschalk (1969), "A secondary source is the testimony of anyone who is not an eyewitness--that is, of one who was not present at the events of which he tells" (p. 53). These written secondary materials included relevant scholarly periodicals, bulletins, newspapers, and books published either in the U.S. or Taiwan. In the process of collecting secondary sources published in the U. S. and Taiwan, I identified common features and categories the data possessed and the different problems they posed.

After studying the secondary sources, I had a better outline and a clearer framework for the research questions I had in mind. Further, I was able to locate primary sources from the secondary sources. The next challenge for me was to obtain as many primary sources as possible.

"A primary source is the testimony of an eyewitness, or of a witness by any other of the senses, or of a mechanical device like the dictaphone--that is, of one who or that which was present at the events of which he or it tells" (Gottschalk, 1969, p. 53). If a

primary source is the testimony of an eyewitness, does that mean the primary source has to be an original document? And, what does original mean?

To resolve the confusion surrounding original sources, I utilized Gottschalk's methods to identify what primary sources are. The phrase original sources is best used by the historian in only two senses: "(1) to describe a source, unpolished, uncopied, untranslated, as it issued from the hands of the authors or (2) a source that gives the earliest available information regarding the question under investigation because earlier sources have been lost" (Gottschalk, 1969, p. 54). They need be original only in the sense of underived or first-hand as to their testimony (Gottschalk, 1969). Thus, it is used by historians as a synonym for manuscript or archive.

A trip to the National Central Library in Taipei, Taiwan, in September, 1999, resulted in obtaining a large amount of written documentation. The majority of the written materials are government documents from the various official publications of the Council for Economic Planning and Development, the Executive Yuan, the Ministry of the Interior, the Ministry of Education, the Ministry of Economic Affairs, and many others. Important documentation was also gathered from the Chinese Human Resource Management Association and the Human Resource Development Association, R. O. C. offices and archives in Taiwan. Printed material included newspapers, brochures, pamphlets, periodicals, official reports and books.

Oral Histories

If what is interesting in historical work is its personal and human challenge, one way to keep it interesting is to focus directly on human beings. Perhaps even more important than considering oral history resources as important primary sources of

material is the fact that oral history has helped influence the focus and scope of the study of the past. Oral history is based on documents that are spoken (Hoopes, 1979). Oral history refers to collecting from any individual spoken memories of his or her life, of people he or she has known, and events he or she has witnessed or participated in (Hoopes, 1979). With written documents as the basis of historical knowledge, oral history provided evidence which could not be obtained elsewhere.

Relevant literature of oral history suggests that there are presumed positive impacts of using oral history resources. Koons (1985) evaluated and tested these presumed impacts experimentally in an educational setting and concluded that research papers which utilized oral history resources appeared to: (a) humanize and personalize history more effectively, (b) create more effectively the context in which an event or phenomenon occurred, (c) reflect more accurately the inconsistencies and complexities of the human experience, (d) provide a greater number of concrete and appropriate details, (e) provide more solid, factual information, and (f) have greater interest in and enjoyment from the resources.

I added oral histories in this study to provide certain insights into this history that the archival evidence lacked. Most importantly, by adding vivid human stories and life experience related to the development of HRD in Taiwan, I could better bring the history of Taiwan's HRD to life.

In the search for oral histories, one thing leads to another, sometimes in the most extraordinary way. In March, 1998, I attended the annual Academy of Human Resource Development conference held in Washington, D. C., for the purpose of presenting my article and making the acquaintance of HRD expertise from all over the world. Dr.

Huang Tung-Chun[1], professor of the Institute of Human Resources Management at the National Central University in Taiwan, attended my presentation and also presented in the conference. He, in turn, introduced me to Yao, David Y. H. who had in his possession a large number of important information regarding how HRD has developed in Taiwan. Yao was the founder of the Chinese Human Resource Management Association which is one of the few HR professional organizations in Taiwan.

In September, 1999, I visited Taiwan to collect primary and secondary sources and to conduct interviews to obtain oral sources. In-depth interviews with Huang and Yao were conducted in their offices in October, 1999. Unfortunately, the interview with the third planned interviewee, Dr. Jean Chian-Chong, assistant professor of the Institute of Labor Studies at the National Chung Cheng University in Taiwan, was not conducted successfully due to an earthquake that occurred immediately prior to the interview.

After the trip to Taiwan, I went back to Minnesota in late October, 1999, and kept in touch with Huang, Yao, and Jean via electronic mail. The interviews with Jean was rescheduled and conducted via electronic mail from October to December, 2000.

Indulging myself in the excitement obtained from oral histories with previous interviewees, I was eager to interview more people whom I considered to be a witness of the development of HRD in Taiwan. From reading many sources from printed and oral material, I identified three more witnesses whom I thought might provide fresh material to my study: Dr. Hong Jon-Chao, professor of Industrial Education at the National Taiwan Normal University, Dr. Lee Shang-Hou, associate professor of Applied Life

[1] In writing Chinese names, the last name comes before the first name. In most cases, the first name contains two characters.

Sciences at the National Pingtung University of Science and Technology, and Dr. Lee Han-Hsiung, associate professor of the Institute of Labor Studies at the National Chung Cheng University in Taiwan. I was honored and fortunate that all three participants agreed to be interviewed via electronic mail. All interviews were conducted via electronic mail from October to December, 2000.

I had to admit that what made the oral history collecting journey more and more interesting was not only that I got a chance to obtain certain insights to this history that the archival evidence lacked, but I got to explore the history deeper and broader from the stories interviewees provided. I benefited from the positive impact of using oral history resources as Koons (1985) described. For example, the Human Resource Development Association of the Republic of China is a professional organization described by Hong as one of most influential in establishing HRD in Taiwan. I, thus, further tried to locate information related to this association, and I got a chance to know the founder of this association--Her Shou-Chuan. Her was too busy to respond to the electronic interview personally, but a chief manager, Ling Kun-Lung, was assigned by Her to respond to the interview. The interview with Lin was conducted, then, via electronic mail in December, 2000. Another good example of this type of fortuitous interview was with Dr. Lin Tsong-Ming, the Director-General of the Employment and Vocational Training Administration, Council of Labor Affairs, Executive Yuan in Taiwan. Dr. Lin was also too busy to respond to the electronic interview personally, but he assigned Chiang Shu-Jen, the Section Chief of the Employment and Vocational Training Administration, to answer some questions for me. Chiang was extremely helpful in providing publications of the Employment and Vocational Training Administration for me to use in this study.

From all of these interviews with interviewees referred by other interviewees, I was able to provide a greater number of concrete and appropriate details and provide more solid, factual information in this study. Knowing that all interviewees were extremely busy, I especially appreciated their willingness to assist in this study and wish to thank them.

A prior step before the interviews could be conducted was to get approval from the Institutional Review Board: Human Subjects Committee (see Appendix A). Upon receipt of the letter from the Institutional Review Board, I was allowed to begin the study.

In addition, a consent form--used to protect the interviewees and me--needed to be created prior to the interview and was given to interviewees to sign before the interviews started (see Appendix B). On the consent form, the background information of myself and the study, the interview procedures, the risks and benefits of being in the study, the confidentiality issue, and the voluntary nature of the study were addressed. Interviewees of in-person interviews reviewed the consent form, signed and dated it, and obtained a copy of the form to keep for their records.

During the process of collecting the archival materials, notes were taken, and questions for in-person interviews with Huang and Yao were shaped and prepared (see Appendices C & D).

During my initial contact with the interviewees, I obtained background information on them and attempted to develop rapport. A date and time were established for conducting the oral history once the background information was collected.

Oral evidence, especially when preserved on tape, often allows historians to record their observations informally with a minimum of effort shortly after the interview has occurred. Such recordings are a historian's memoirs, which can often offer the advantage

to historians of shortening the time span that elapses between the interview and the memoir publication. Thus, in this study, oral histories were recorded on tape and transcribed into English when they were conducted in Huang's and Yao's offices. For the interviews with the rest of the participants via electronic mail, the conversations were saved on computer disc. Some of the participants chose to answer the questions in English; for those who chose to answer the questions in Chinese, again, I transcribed their answers into English. Questions for electronic interviews for Hong, Jean, H. H. Lee, and S. H. Lee are included in Appendices E, F, G, and H.

Oral histories provided advantages over the written histories. One of the great advantages of oral accounts over written documents is that I, as an historian, can participate actively in creating the oral document and thus has more control over its creation. For example, in the in-person interviews with Huang and Yao, I was able to ask each of them related questions based on what they answered to the questions I prepared. The answers of the related and serial number of questions further revealed a bank of related sources which were not originally expected. Lots of light bulb moments occurred during the interviews. In addition, I could distinguish the importance of oral resources by observing the facial expressions and body language of the interviewees. For example, when Yao was describing how he gathered human resource professionals in Taiwan to discuss important issues related to human resources during the late 1970s and early 1980s, his eyes sparkled. He vividly recalled and described how human resource people of Taiwanese companies did not want to share their human resource strategies with other non-Taiwanese companies (D. Yao, personal communication, October 25, 1999). He then revealed what struggled the association faced before it was formally established.

Because of the personal contact experience shared with Yao, I was able to know how exactly the association was established and the struggles Yao had in the process of the establishment of the association. For me, such rich expressions of someone's passion and struggle is especially precious and valuable when this expression is no way to be found in any written documents and only can be found from someone who had witnessed the history.

From the example with Yao, I was able to humanize and personalize history, particularly the history of the establishment of Chinese Human Resource Management Association, more effectively. From the stories Yao shared with, I was able to understand deeper the context in which an event or phenomenon related to the establishment of the Chinese Human Resource Management Association occurred. The concrete and appropriate details provided by Yao was not able to be found in any written sources published.

Another great advantage provided by oral histories was reflecting more accurately on the inconsistencies of the human experience. One of the examples I encountered was that I had to ask several interviewees to find out when the Human Resource Development Association of Republic of China was actually established. Getting all different answers from different resources, including written sources such as published articles, oral sources from the people who worked in the association, and oral sources from interviewees in this study, I faced the inconsistencies in the answers and finally checked the answer with the founder of the association.

The text of the study has previously distinguished between primary sources, which have some direct physical relationship to the events which are being reconstructed, and

secondary sources, which do not have a direct relationship to the event that is the subject of the study.

In restructuring and recapturing the development of HRD in Taiwan, the study identified those sources from which inferences were made concerning the nature of the events. Because the development of HRD within governmental agencies in Taiwan took place relatively early, the written Chinese sources of Taiwan governmental officers were primary and secondary sources to the events being reconstructed. Nevertheless, the development of HRD within local professional organizations and private enterprises happened relatively recently, and so oral histories were the primary sources.

The selection of sources involved the use of library services in the U.S. and Taiwan. The Wilson and Magrath libraries at the University of Minnesota provided materials with national circulation, and the availability of these sources was supplemented by interlibrary loan and additional source materials from the National Central Library in Taipei, Taiwan.

Historical Criticism

After having found the documents, read them, and extracted from them their general sense, it was necessary for me to examine them critically. This was the most difficult task for me. Documents needed to be examined for their authenticity and accuracy before they could be used as a data source; this process of examination is called historical criticism (Barzun & Graff, 1985; Gottschalk, 1969). In this study, the collection and examination of sources were subjected to external and internal criticism in accordance with procedures indicated by Barzun and Graff (1985) and Gottschalk (1969).

I, as an historian, first aimed in the examination of testimony to obtain a set of particulars relevant to some topic and questions that I had in mind. In the process of analysis, I constantly kept in mind the relevant particulars within the document rather than the document as a whole. Regarding each particular, I asked myself: Is this piece of information credible? This technique, by asking such a question, is called internal criticism.

Internal criticism weighs the document or book taken by itself (Daniels, 1972). In other words, internal criticism involves evaluating the accuracy and worth of the statements in a document. During the process of examining the documents, I continually raised questions such as: Is it probable that the events occurred in the way described by the author? Do the numerical data in the census records seem reasonable? Does the author appear biased or prejudiced? Since most documents used in this historical research were not research reports written for the scientific community but those written for private use or for the general public or members of organizations, they were especially prone to bias. In addition, people often exaggerated their own role in events, or they distorted events to conform to the values and prejudices of a group, such as a political party.

After a series of steps in examining the credibility of documents, I was comfortable to report what I had found in this study. First, the process of internal criticism began with an understanding of the words of the documents in their literal sense. For each document I read, I had to be certain that the literal and real meaning of the words of the document were identical. For example, in Taiwan, the term for HRD was written as 人

力發展or人力資源的發展in Chinese in the 1960s. The literal and real meaning of this term varied depending on where and when it was said and who said it. In this case, this term HRD meant "manpower development" or "development of manpower" for the government in Taiwan in the 1960s. Even more significant for me were the changes in language over the course of the years. Take the same example: the term HRD was written as 人力資源發展or人資發展 in the 1980s and 1990s in Taiwan. This latter term was used by the Taiwanese government; however, it was changed from 人力發展to人資發展; the former tem was used by enterprises in most cases. Thus, in order to understand the words of the document in their literal sense, I had to interpret the meaning of any particular statement in view of what precedes and follows it. I could not isolate particular phrases and sentences from the rest of the document.

Secondly, it was the task of internal criticism to deal with the accuracy and value of observations of details by witnesses of events. The ability of the witness to observe and to write down what he or she observed in detail was a matter of prime importance. For instance, while reading the document written by Li Kuo-ting about the relationship between the development of the economy and the development of human resources in Taiwan (Li, 1968), I found that, not only was Li familiar with the subject matter, but he also was capable of reporting what he had observed in detail. He understood the language he used related to the subject matter, and the reader did not have to guess at many of the meanings. However, only if this piece of evidence that Li provided is further checked for possible bias could this piece of evidence be used in the study.

As Shafer (1974) indicated, beginning researchers often get lost in the verbiage of discussions of internal criticism. I could not agree more. In order to perform the best I could in this study, I followed a list of questions provided by Shafer (1974) in connection with each piece of evidence collected: (1) Is the real meaning of the statement different from its literal meaning? Are words used in senses not employed today? (2) How well could the author observe the things he or she reported? (3) How did the author report? What was his or her ability to do so? (4) Are my own biases or preconceptions distorting my view of the document? (5) Does the document leave me sufficiently confident of my knowledge of that detail so that no corroboration is required? and (6) Consult reference works as required to resolve doubts.

External criticism, on the other hand, weighs the document or book in relation to other materials and to what is known about the subject in general (Daniels, 1972). To find out whether a document is original or copied, it is necessary to examine its source. This investigation of sources is the essential characteristic of external criticism. In this study, I asked myself first two questions about every document I had collected: *Who* wrote the document? *When* was it written? There should be an author or authors for each document because: (a) otherwise, there is suspicion that the document may be wholly or partially false; or (b) it is needed for internal criticism (Shafer, 1974). The date for each document is wanted because it can (a) "show whether the asserted or implied date of composition is correct," (b) "show whether the indicated author can indeed have been involved," and (c) "orient the researcher for the processes of internal criticism" (Shafer, 1974, pp. 119-120). In this study, what bothered me often was that some of the pamphlets from certain civic organizations did not have authors or dates on them. In this

case, I used these as references and tried not to use the information unless I made sure that the content was accurate.

Further, to apply external criticism to this study, it was necessary to ask of each document: *Where* was it written? *What* is the form in which it is preserved? *How* has it been preserved? This careful investigation of each document was to insure knowledge of the source from which the information was drawn. If possible, I liked to use the record of the original witness instead of second-hand reproduction. If the original could not be found, the reproduction may be used, with certain reservations to be considered later in connection with the establishment of the fact. For example, what happened to some of the scholarly articles printed in Taiwan was that the authors of those articles did not have an appropriate reference for the citations in the text nor a complete reference list. Reasons for this are probably many. It could be that one of the sources was borrowed so that it did not have an accurate reference; another possibility is that the reviewing process of publishing these scholarly papers in Taiwan was not rigorous enough to catch the flaw of incomplete references. I had to locate the original source if I was going to use that incomplete reference as a fact in the study. In addition, I had to read many more articles written by those who are independent from the previous authors to make sure that the content they provided was correct. This examining process was what Fling described: "The fact is established by the agreement of two or more independent witnesses" (1920, p. 48). Only through affirmation from different sources can the facts be established.

Historical Synthesis

The goal of historical analysis is a synthesis of the derived facts. The preceding step left me with a heterogeneous mass of data, some of which are certain, many only

probable. In other words, collecting all the relevant data and information regarding the evolution of HRD in Taiwan was just the beginning of the history-writing journey. More importantly, I, as an historian, must organize these data into a complex, unique, evolving whole, the parts of which stand in causal relation to each other. In other words, I must organize all of my theories and facts into some interpretation of the whole and explain it.

But in discussing explanations, historians become embroiled in a heated controversy. The problem of explanation is debated in modern philosophy because of the controversy over the logic of asserting connections among statements about phenomena (Berkhofer, 1969). In this study, there is neither the space nor fortunately the necessity to undertake a complete examination of this subject. We can simply say that there is no synthesis without explanation of some kind. Explanation as used here contains what historians usually call causation but also includes many other possible types of connections. As Daniels (1972) said, "What separates history from every other kind of inquiry about human affairs is its fundamental concern with time-the before and after, cause and effect relationship of events that occurred" (p. 37). In this study, in order to explain the phenomena in the world of Taiwanese experience in the field of HRD for the past five decades, I first inquired about and investigated activities related to HRD in the setting of particular times and sequences of events from one time to the next. What I was concerned with were the questions of change, or of uniqueness, or of continuity or development in Taiwanese affairs with HRD. After reviewing the relevant literature, I created a list of historical sequence on which significant legislation, events related to the development of HRD in Taiwan were listed in a chronological order (see Appendix I). I used the list as my writing guide and hoped that it could serve as a reference for readers.

With all the data I collected, as well as the causation which arose from the data, I faced the challenge of how to group all the data so that readers could understand it. For the purpose of exposition, it is usual and necessary to treat successively the steps in historical methods, as if each step were completed before the next had been begun. In practice this is not the case for this historical study. For me, the grouping of the facts began at the very outset of the investigation. I began my research with some general idea of the whole subject obtained from secondary works. As I read over the sources I have gathered, the original conception of the whole was constantly being enlarged and corrected, and this enlarged and corrected whole reacted upon the work of collecting and interpreting the evidence. In other words, the reading of a single source gave me the first idea of the subject as a whole, and with that conception in mind I read the next source, modifying my first conception to bring it into harmony with the new evidence. Thus, the process went on, weaving back and forth, from the fact to the general conception and from the general conception back to a new fact, until all the data had been examined.

History must be organized and mapped out in a meaningful way so that it can be understood. Different classifications used to organize historical knowledge are used in historical study--chronological, geographical, or topical (Daniels, 1972). "The principle of classification involves the division of historical data--both details and generalizations--into natural units of study" (Daniels, 1972, p. 57). After completing the general conception from the primary documentation, the oral histories and the secondary sources, I chose topical as a primary approach and chronological as a secondary approach to organize this history.

The topical approach is most appropriate when both the chronological and geographical limits of the subject are restricted, as in studying one country in a brief period (Daniel, 1972). For example, in this study, I studied the history of HRD in Taiwan for a period of time from the 1950s to the 1990s. The historical information was presented by classification according to topics of this particular history--early recognition of the importance of developing human resources, development of human resources through vocational education, development of human resources through vocational training, and human resource development in large corporations and small and medium-sized enterprises, and current challenges and future plans. These topics were important not only to allow a specialized attention to one aspect of human stories in Taiwan's HRD, but also to organize the stories of history of HRD in one brief period so that the readers can grasp some of its complexity.

Within a particular topic, sub-topics were used. For example, in chapters 6 and 7, I investigated how the Taiwanese government developed its human resources through vocational training. Within this topic, there were four stages: stage 1: 1953-1964, stage 2: 1965-1975, stage 3: 1976-1980, and stage 4: 1981-1986. These four stages were chronological. This particular type of classification in organizing historical knowledge is to order information by time sequence and divide it up into periods, if needed. This particular classification was chosen as the secondary approach in presenting this study because the history of Taiwan's human resources developed through vocational training is a long journey; not only did I have to represent the complexity of past experiences, but I also had to represent it in movement through time. "Without a trustworthy chronology, history would be but a darksome chaos" (Jusserand et al., 1974, p. 10). Also, as Marwick

(1970) pointed out, one effective technique in writing a history is to break the entire chronological period of study into a number of sub-series, chosen, not arbitrarily, but on the basis of some logic of historical development perceived by the historian in the course of the inquiry. In other words, these sub-series may be long or short, but they are based upon and marked off by significant events and developments and presented in a complex, causally connected whole. Each period of time was to determine what important developments occurred.

Finally, and most importantly, to finish the work, these topics had to be combined into an organic whole; otherwise, they would not become an historical synthesis. I used Fling's words to describe how I had learned from him to combine these topics as presented in this study into an organic whole:

> By bringing them into vital relation with each other and by shifting the narrative from one series to another as the interest shifts. Follow one series as long as it occupies the center of the stage, allowing the other series to drop out of sight. When the interest shifts to another series, drop the first, but before following the new series from the point where it impinges on the old, pick up as many of the back threads of the new series as may be necessary for the understanding of what is to follow. (Fing, 1920, pp. 141-142)

Summary

This study was an historical research intended to trace the history of HRD in Taiwan since the 1950s. By using the methods of written and oral history, I collected and examined evidence of past events to answer research questions.

The journey of history writing is both a science and an art. It is a science because I had to select and examine facts in a rigid process to present the specific areas of history I investigated. It is an art because I had to select what to write in this history I chose to write. In addition, writing history is an art because I had to write it in a non-dull style--otherwise, it is much less interesting to read. In other words, there is no need to write any history in a logical and systemic way. Thus, by following four essential steps Gottschalk (1969) suggested, I tried to present this history in a meaningful and interesting narrative or exposition. A topical approach was used in presenting findings in this study; within a particular topic, and further sub-topics were chronological.

Finally, what made this study special were the oral histories I collected. Oral history not only provides advantages over written history, but also it can bring the history to life. I was fortunate to have a chance to interview key people who have had expertise in HRD in Taiwan or who had witnessed the changes in HRD in Taiwan. By adding oral histories in this study to provide certain insights to this history that the archival evidence lacked, I was able to add vivid human stories and life experience related to the evolution of HRD in Taiwan.

CHAPTER 4

EARLY RECOGNITION OF THE IMPORTANCE OF DEVELOPING HUMAN RESOURCES

Taiwan, the Republic of China, has been internationally recognized as having made great strides in its economic and technological development in the past 40 years (Clark, 1989; Dessus, Shea & Shi, 1995; Galenson, 1979; Hwang, 1991; Kuo, 1983). During Taiwan's last 50 years of economic development, the Taiwanese government has directed its economy from one phase to another by adopting flexible strategies. There have been many elements contributing to this success, but one of the most important has been the effective utilization of the abundant and high quality human resources (H. H. Lee, 1995; Suen, 1991; Wey, 1992).

HRD in Taiwan: The Prelude, Pre-1945

A revolutionary outbreak in Wuhan, China, in October, 1911, set off a spark of takeovers throughout southern China by groups committed to Dr. Sun Yat-Sen's ideal of creating a republic. At that time, the Ching, or Manchu, dynasty was clearly in decline. The Ching sent Yuan Shih-kai to suppress the revolution led by Sun. As a result of Yuan's intrigues, the child emperor abdicated; Yuan became the president of the Republic of China (R. O. C.).

Although the Kuomintang party, which Dr. Sun founded in 1912 in China, won a victory in elections for a constituent assembly, Sun and his followers were forced into exile after a disagreement with Yuan. Dr. Sun Yat-Sen, Founder of the R. O. C., set a goal to base the construction of the nation on the Three Principles of the People--namely, Nationalism, Democracy, and People's Livelihood. Among these Three Principles,

People's Livelihood, in particular, focused on enhancing the quality of human resources. Dr. Sun Yat-Sen emphasized that, "... in order to strengthen and manage the nation, people must utilize their talents and skills. If our nation wishes to regain its strength, we must focus on human resources" (Tsay, 1989, p. 54). It was essential to implement a new system to nurture and educate people before the country could attain that goal.

Dr. Sun Yat-Sen emphasized education and vocational training. The ultimate purpose of education and vocational training is to fulfill the ideals contained in the Three Principles of the People. The first was nationalism. Sun argued that China needed to be strong and united to overcome its internal difficulties and exploitation by foreign powers; Sun believed that an emphasis on the ancient learning and values of Confucianism coupled with modern science would produce a strong and independent China (Clark, 1989). The second principle focused on democracy. Sun believed that the new government must be responsive to the needs of the people and proposed a democratic system based on a division of power among the three traditional branches of Western government (the executive, legislative, and judiciary) plus two others derived from traditional Chinese practice (one to oversee the examinations for government officials and one to act as an ombudsman to review government actions) (Clark, 1989). The last principle focused on people's livelihood. Sun believed that a government could be justified only if it promoted and protected the well-being of its citizens. A concern for economic justice was reflected in proposals for massive land transfers to end exploitative relations in the countryside, tax reform, and educational programs (Clark, 1989).

Geography and history were to be taught to build the sense of nationalism, lessons on social life and conduct were to be given to demonstrate the operation of democracy,

and vocational skills were to be offered to form the basis of the principle of livelihood. Within this philosophy, Dr. Sun Yat-Sen particularly advocated mandatory education, production education, and employment assistance and guidance (Tsay, 1989). Particularly, for those who are not capable of continuing advanced education, Dr. Sun Yat-Sen also stressed that it's government's responsibilities to teach them adequate skills to be able for them to make a living; it is hoping that, via production education, everybody can has a skill specialty in order to produce. The essence of Dr. Sun Yat-Sen's human resource development concept was:

> ... every person should have opportunities to get appropriate education, according to his own ability and interest, and not to waste his talent; to encourage is to utilize his talents, receive his worth, though there is difference between laboring mentally and laboring physically, however, there should be a balance between education and income, so that manpower wouldn't be under utilized; ... (Tsay, 1989, p. 61)

Taiwan Island before 1949

Taiwan, which at one time was better known in Western countries by its Portuguese name, Formosa, is a large island located on the Tropic of Cancer. It is approximately 100 miles from the coast of Fukien Province in China, about 700 miles south of Japan, and 200 miles north of the Philippines. The island is oval-shaped, approximately 250 miles long and 100 miles wide at its broadest point. As a tropical island, it has a hot and humid climate. Thus, it provides an excellent agricultural environment for the land that can be cultivated.

In the middle of the sixteenth century, there were only a small number of Han immigrants from Fukien Province in China and Malayo-Polynesian aborigines who had

dwelt on Taiwan for many thousands of years. Although presently these aborigines have become a minority, they were once the major inhabitants spread over the entire island. The initial Chinese settlement in the late sixteenth century was the result of growing commerce along China's coast. This commerce also brought outsiders to Taiwan island.

The Siraya aborigines, one of the tribes living on the island, who dwelled in the area of Tainan, called outsiders and visitors Taian or Tayan, and it had been misheard as "Taioan." Han immigrants and Japanese had applied different Han characters and Kanji, which became the name of the island itself. Between the years 1573 and 1620, the Ming government (Ming Dynasty) began calling the island Taiwan.

Portugal was the first European power to invade Asia. In 1517, a Portuguese fleet sailing through the Taiwan Strait on the way to Japan sighted Taiwan and called it Ilha Formosa, meaning "Beautiful Island." This is the origin of Taiwan's other name, Formosa. However, whenever they came across a beautiful island on the sea, Portuguese sailors had the habit of calling it "Ilha Formosa" so there are more than ten islands in Africa, South America and Asia which bear the same name. Nevertheless, Formosa became the proper name for Taiwan and was commonly used among Westerners. More importantly, the Dutch occupied Taiwan from 1624 to 1662; there were some shorter-lived Spanish settlements in the north, as well.

Under the administration of the Dutch East India Company, Formosa became a base for Dutch, Chinese, and Japanese merchants to meet. At that time, China was in the turmoil of a dynastic change--from the Ming to the Ching Dynasty, leading to a huge number of Chinese migrants in Taiwan. When the Dutch arrived in Taiwan in 1624, they reported a Chinese population (largely concentrated in the area of Tainan City) of 24,000;

in the 1650s, the Chinese population in the Tainan area was about 100,000 (Ho, 1978). In 1811, a Chinese population of 2,003,861 was recorded (Ho, 1978). The start of the Chinese migration to Taiwan was the most significant development in the Dutch period (Ho, 1978).

The Treaty of Shimonoseki, signed in 1895, terminated the Sino-Japanese War of 1894-1895 and required China to cede Taiwan to Japan. Taiwan was ceded to Japan and remained a Japanese colony until 1945. Under the guidance of the colonial government, Taiwan was developed as an agricultural appendage to Japan. Taiwan's agriculture exported rice and sugar to Japan, and its non-agricultural sector imported Japanese manufactured goods to sell. The fifty-year period of Japanese colonialism produced substantial growth in Taiwan (Clark, 1989).

From Japan's viewpoint, a profitable colony first required a productive economy, and second the economy must remain under direct Japanese control. At the beginning, the Taiwanese did not welcome their newcomers, but declared themselves a republic and militarily resisted for five months; thus, the initial Japanese goal was to promote security on this island. Because of rapid immigration growth from Japan to Taiwan island, the Japanese administration started to develop agriculture rapidly, which made a major contribution to Formosa's development by supplying a large inflow of capital (Clark, 1989). However, in spite of economic growth under the Japanese, there were many unfavorable aspects of colonialism. For example, the Japanese did not have much interest in broadening Taiwan's industry beyond agriculture and agriculturally related sectors because this would compete with the importation of Japanese manufactured goods. The Japanese also monopolized governmental and administrative positions at all

but the lowest levels; the Japanese viewed Formosa in terms of what it could contribute to the Empire and clearly exploited its colony for its own benefit (Clark, 1989). The population in Taiwan in 1905 was 2,890,485 (Ho, 1978). In 1945, after World War II, Taiwan again became a Chinese province.

Taiwan Island after 1949

When the Kuomintang government, which represented the central authority as it existed on mainland China, lost the mainland to the Chinese Communists during the Chinese civil war and sought retreat in Taiwan, Taipei became the capital of Taiwan. The Kuomintang government, led by Chiang Kai-shek, moved to Taiwan in 1949.

During the War, "three-quarters of industrial capacity, two-thirds of power, and one-half of the transport network" on Taiwan was destroyed by the heavy American bombing (Ranis, 1979). The mass evacuation of the Japanese at the end of the war also deprived the island of most of its skilled administrative and business leaders (Clark, 1989). After the war ended, Taiwanese soldiers, as well as civilians and laborers, started to return from the fronts of China and Southeast Asian countries. On the other hand, the withdrawal of Japanese in Taiwan to Japan proper also began. At the end of war, total Japanese population in Taiwan, including 166,000 soldiers, was about 488,000. There were about 200,000 Japanese who expressed a desire to stay in Taiwan. But the Kuomintang regime who took over Taiwan did not permit large numbers of Japanese to remain in Taiwan. Eventually, almost the total number of Japanese on the island were repatriated, including the military personnel, with about 28,000 technicians and teachers who were needed by the Kuomintang regime remaining in Taiwan.

The Kuomintang government regime viewed Taiwan as simply a resource for its desperate battle against the Communists. After moving to Taiwan, Chiang Kai-shek, the president of the Republic of China, insisted on implementing Dr. Sun Yat-Sen's Three Principles of the People to rebuild Taiwan.

Taiwan faced a rather grim situation at the time of the R. O. C.'s evacuation to the island in 1949. Restoring order to the economy was an urgent task involving almost insurmountable difficulties for the Kuomintang government. For instance, after the war there was a severe shortage of material supplies and foreign reserves, high import tariffs, and other economic hardships. In addition, population growth was another problem. Moving with the Kuomintang government were about one million political refugees from mainland China. The population on the island in 1905 was 3.12 million; in 1945, 6.02 million; and in 1949, 7.39 million, due to the influx of migrants from the Chinese mainland (Dessus, Shea, & Shi, 1995; Government Information Office, 1997). The next year, the natural rate of increase peaked at 38.4%. A baby boom in the post-war years put excessive population pressure on Taiwan's economy, and the Kuomintang government began implementing policies and strategies to educate its large number of workers. Thus, since 1953, Taiwan's government has carried out a series of economic development plans systematically to develop its human resources and natural resources in order to restructure the post-war economy.

Restructuring Post-War Economy

Since the government's early days in 1949, Taiwan's survival has been dependent on its ability to fix a collection of problems that threatened the economy--rampant inflation, mass unemployment, resettlement of a huge number of war refugees, and

devastating postwar economic conditions (Hwang, 1991; Kuo, 1983). These challenges required the Taiwanese government to make a drastic policy switch from its traditional commitment to military economic reconstruction (Hwang, 1991).

Several policies were directed at solving the problems which threatened the economy of Taiwan at that time. First, the government was as committed to stabilizing the economy as it was to promoting economic growth. By doing so, the government managed to avoid the nagging high inflation that often accompanies rapid economic growth and a widening gap between a country's rich and poor. Prices rose at an annual five-fold rate from 1946 to 1948 and then accelerated to about a 30-fold increase in the first half of 1949; successful stabilization policies brought this rapid inflation rate down to an average annual rate of 1.9% in the 1960s (Kuo, 1983).

Secondly, a series of land reform laws and the policy for promoting agriculture production in the 1950s raised the income level of the agricultural sector. For instance, the primary goal of the nation's land reform policy in the late 1940s and the early 1950s was to give the farmers needed production incentives--full ownership of their land and the sole benefits from their labor. Thus, the land reform policy--giving the people the title to the land they till--removed the major obstacle to entrepreneurial farming. To assist the farmers further in turning farming into a business enterprise, the government disseminated new agricultural technologies to farms, made available agricultural loans, and upgraded rural infrastructures. As the agricultural economy grew and expanded, the government even helped find international markets for agricultural products. Through the years, the government's guidance enabled farmers to develop their own business acumen and marketing abilities in agricultural exports. In the late 1950s the increased

agricultural production began to yield surpluses that were used to subsidize industry. The farmers' improved economic condition, in turn, made them a resourceful purchasing power in the marketplace. The successful growth of the agricultural economy not only satisfied domestic demand for agricultural products, but also generated enough capital to subsidize Taiwan's early industrial development.

The rapid growth in farm production in rural Taiwan caused excess labor to be quickly absorbed. During the period 1951 to 1961, the economy failed to absorb newcomers to Taiwan. As a result, the number of unemployed increased during the period. However, the rapid growth in farm production in rural Taiwan caused excess labor to be quickly absorbed. The unemployment rate fell from 4.52% in 1951 to 3.02% in 1966 and to less than 2% in the 1970s (Budget, Accounting and Statistics Department, 1998). The growth of employment occurred particularly for secondary industries. The higher speed of capital accumulation in the manufacturing sector also caused a rapid increase of capital growth in manufacturing after 1961.

Developing Human Resources

In order to restore order to the post-war economy and to utilize the abundant population, the Kuomintang government began implementing policies and strategies to develop its large number of human resources.

The strategy of developing human resources under the leadership of Chiang Kai-shek was one of the key reasons for Taiwan's economic emergence and growth after the war (Suen, 1991; Tzeng, 1992, Wey, 1992). It was clear that developing human resources was not isolated in relation to the other aspects of national objectives in general and economic strategies in particular; a pluralistic approach to developing human

resources was adopted. And, right from its early days, starting from the middle of the 1950s, the Taiwanese government began gradually establishing human resource policies systemically so that human resources could be developed, utilized, and motivated (Tzeng, 1992).

During the 1950s, human resource policies and strategies were focused on strengthening human resource administrations, improving family planning, implementing nine-year public mandatory education, expanding vocational and technical education, and establishing employment and career training (Gong, 1997). Among these objectives, the importance of human resources was realized early on, with a strong emphasis placed on vocational education and vocational training.

In 1961, while Li Kuo-ting was serving as the Vice Director in the US Aid Utilization Council, which was to utilize US aid effectively to restore Taiwan's economy, he reinforced the importance of developing human resources through education and training. In a presentation to the local science meeting in 1961, Li indicated that "Human resources is the needed manpower for a nation when it is developing. The development of a nation of course still needs natural resources, capital, political stabilization and other factors, but the most important one is definitely human resources" (Li, 1978, p. 165). Li (1978) added that human resources can be developed using the parallel channels of education and training.

While serving as the director of the Ministry of Economic Affairs, Li (1968) emphasized the planning and development of human resources in Taiwan. He first distinguished the difference between manpower and human resources, and he believed

that Taiwan's planning and development of manpower should emphasize human resources rather than manpower (Li, 1968). According to Li, manpower meant:

> Those who actually participate in economic activities in a nation, these people have working ability, have working willingness, and are participating in work. The scope of human resources is then broader than manpower, in addition to the population mentioned above, any potential population who can work but not yet participate in any economic activities is also included. (p. 14)

Further, the purpose of developing human resources, according to Li, was to enhance manpower quality and to bring human potential fully into play, so that the whole nation could find proper jobs to fit their proper talent under reasonable planning; the purpose was to reach full employment within the shortest possible scope.

Both education and training are related to manpower quality (Li, 1968). Although both education and training are main routes to enhance the quality of human resources, training is more mobile than education because training can better adapt to the needs of the workforce in the quick changing industrial world (Li, 1968). Because it takes time to develop human resources, it is better to start planning human resources early. The establishment of an administrative system for vocational training, the implementation of apprenticeships and the system of certificates, and the government compensation for training expenses were all important in developing needed human resources for economic development in Taiwan.

Summary

As acknowledged, Taiwan has been internationally recognized as having made great strides in its economic and technological developments in the past several decades

(Dessus, Shea, & Shi, 1995). There are many elements contributing to this success, but the most important is the effective utilization of the abundant and high quality of human resources (H. H. Lee, 1995).

From its beginning, the importance of human resources was realized early before the Kuomintang party moved the R. O. C. government from mainland China to Taiwan. While Dr. Sun was fighting for creating a republic in China, he advocated the Three Principles of the People--namely, Nationalism, Democracy, and People's Livelihood. Within this philosophy, Dr. Sun particularly advocated education and vocational training--the ultimate purpose of education and training is to fulfill the ideals contained in the Three Principles of the People

Reinforcing Dr. Sun's principles, the Kuomintang government--under the leadership of Chiang Kai-shek--focused on restoring order to the post-war economy. In order to reach the goal, the government recognized the importance of developing its human resources at its beginning, and it placed a strong emphasis on education and vocational training to develop and utilize its human resources.

Following in Chapter 5, a brief history of the development of Taiwan's human resources through vocational education will be presented. Notably, more detail and attention will be given to the history of the development of Taiwan's human resources through vocational training in Chapter 6, 7, 8, and 9.

CHAPTER 5

DEVELOPMENT OF HUMAN RESOURCES THROUGH VOCATIONAL EDUCATION

As Chang, Frank Tien-Jin, who had engaged in vocational education in Taiwan for years, put it: "Technological and vocational education is an education that teaches people how to catch fish. Giving people fish is much less significant than teaching them how to weave nets and catch fish themselves" (Chang, 1990, p. 16). The contents of technological and vocational education in Taiwan were adjusted appropriately in accordance with economic development. Since its beginning, in order to coordinate with U.S. aid utilization policies, the Taiwanese government gave special attention in expanding and reinventing agricultural, industrial, and technological vocational education in Taiwan (Council for Economic Planning and Development, 1997b). Since then, education policies coordinated with manpower development planning have been emphasized in Taiwan.

Many studies have also established the relationship between economic effect and vocational education (Land, 1990; Lucas, 1981; Gustman & Steinmeier, 1982) and indicated that vocational education provided the skilled labor force that directly contributed to economic development in Taiwan during the last several decades. Lucas (1981) also indicated that, without the efficient and highly skilled work force, Taiwan would not have held its economic advantage.

The Impact of U.S. Aid on Taiwan's Vocational Education

Beginning in 1951, U.S. aid to Taiwan was responsible for the successful establishment of vocational education policies in Taiwan (Executive Yuan U.S. Aid

Utilization Council, 1957). The following section discussed how Taiwan's vocational education system, with U.S. aid assistance, was designed and linked to the national's priority for economic development after war.

After the war, on top of rampant inflation, the unemployment rate in Taiwan reached 6.29% in 1953 (Kuo, 1983). In order to control inflation, assist huge numbers of war refugees in finding a job, and restructure the post-war economy, Taiwan's government started a series of economic development in 1953.

When the Economic Stabilization Board was created in 1953, Taiwan's government started its first Four-Year Economic Development Plan. The major tasks outlined in the first and second Four-Year Economic Development Plans (1953-1960) were to adopt tariffs and import controls to nurture the development of domestic industry, foster the growth of labor-intensive manufacturers producing substitutes for foreign imports, and conserve foreign exchange (Executive Yuan, 1965).

Even with so many projects to be implemented, the main focus of Taiwan's development of human and natural resources at that time was the restoration of the agriculture sector (Council for Economic Planning and Development, 1996). To restore Taiwan's agriculture, the government assisted displaced farmers and thereby ensured an adequate supply of agricultural labor; repaired damaged irrigation systems; advocated for various improvements in farming technologies; and guaranteed a sufficient supply of chemical fertilizers. Soon, agriculture began to show signs of recovery; the unemployment rate had also decreased to 5.63% when the first Four-Year Economic Development Plan ended in 1956 (Kuo, 1983).

Beginning in 1950 huge amounts of U.S. aid flowed into Taiwan (Executive Yuan US Aid Utilization Council, 1957; Ho, 1978). Utilizing US aid effectively to develop the economy was another major task outlined in the first and second Four-Year Economic Development Plans (1953-1960). U.S. assistance was classified into three programs: defense support, technical cooperation, and surplus agricultural commodity (Executive Yuan U.S. Aid Utilization Council, 1957; Ranis & Fei, 1988). Generally speaking, there were two ways to provide aid to Taiwan: (1) project type assistance, which focused on specific projects, such as agriculture and natural resources, transportation, labor, education, and others, and (2) non-project type assistance, which meant helping the nation with general material and food in order to meet economic needs (Executive Yuan US Aid Utilization Council, 1957). U.S. aid, made available to the Taiwanese government in the form of grants, loans, and military equipment, played an important role in Taiwan's quest for self-sustaining growth (Ranis & Fei, 1988).

U.S. aid to Taiwan was responsible for the successful establishment of vocational education policies in Taiwan beginning in 1951 (Executive Yuan U.S. Aid Utilization Council, 1957). For education assistance, U.S. aid emphasized vocational education, including industrial vocational and agricultural vocational education. In 1952, the Industrial Vocational Education Cooperative Project was an example. A consultant team headed by Dr. S. Lewis Land from Pennsylvania State University was brought to Taiwan in 1952 to study the educational situation. They helped review the industrial education system, modernize the existing curricula, and develop a teacher-training program. Vocational schools offered mainly theoretical training in engineering, agriculture, and business aimed at preparing students to enter employment as staff members--engineers,

scientists, and businessmen (Land, 1990). The curricula and facilities were out of date before the help from Dr. Lewis. Further, with grants from the U.S. government, the Taiwanese government selected eight senior vocational schools to carry out a pilot teaching program which followed the U.S. Unit Trade Training Curriculum (F. T. J. Chang, 1991). The purpose of the unit trade training model was to prepare students for entry-level jobs in single, specific trades (Lyau & Thomas, 1994). In addition, the U.S. aid also emphasized demonstration education and teacher training. For instance, under the Community School Demonstration project, eleven high schools were chosen and funded with basic vocational training facilities, such as gardening, sewing, typing, and others, in order to teach students basic skills for making a living (Executive Yuan US Aid Utilization Council, 1957).

Soon after the cooperative project, a contract financed by the International Cooperation Agency was negotiated between Taiwan Normal University and Pennsylvania State University to establish a department of industrial education and a department of home economics at the Taiwan Provincial Normal College (now National Taiwan Normal University) (F. T. J. Chang, 1991). The establishment of these two departments in the spring of 1953 marked a milestone in the history of vocational education in Taiwan. The formal education which provided training for industrial vocational teachers thus started. In addition, with aid assistance, some vocational agricultural schools were chosen to be demonstration schools to implement agricultural vocational education.

Six keys to the success of the cooperative project were identified: (1) strong support from both governments, (2) the provision of developmental funds by both governments,

(3) effective teacher training programs, (4) the exchange of ideas, (5) pilot schools, and (6) effective management (F. T. J. Chang, 1991). Although, "due to the industrial development and technological change, the unit-trade training programs were not able to meet the needs of the employment market" (F. T. J. Chang, 1986, p. 19). "The Cooperative Project was a great success that laid a solid foundation for the subsequent development of technical vocational education in the R. O. C. We owe much of what we are today to U.S. aid in the 1950s" (F. T. J. Chang, 1991, pp. 4-5).

In 1961, Taiwan's government invited experts from the Stanford Research Institute to initiate a research project entitled *The Role of Education Planning in Economic Development* (Council for Economic Planning and Development, 1997b). The focus of this project was to determine existing problems within Taiwan's educational system; appropriately 4,300 youths who graduated between 1957 to 1959 were surveyed. This study found that only one in seven youths chose vocational education to seek training leading to a career, and industry and commerce had given little encouragement to workers to improve their qualifications to further their occupational abilities (Ranis & Fei, 1988).

Due to a lack of human resource statistics in Taiwan at that time, the Stanford Research Institute study was not able to serve as a complete base for human resource planning; however, this study laid a foundation and introduced a new concept--treat education as an investment--to Taiwan's government.

Proactive Process of Vocational Education

From the time of the US aid packages in the 1950s, Taiwan's policy on vocational education has been proactive, progressive and constantly changing to meet manpower

needs in order to succeed in attaining its national objectives. Vocational education has been carefully planned and developed over the past fifty years to meet Taiwan's demands and challenges. To some extent, it appears that one of the major factors contributing to the successful economic development in Taiwan is the quality and quantity of the well educated and highly skilled work force provided by vocational education.

Because of the import-substitution policies initiated in the late 1950s and the export-promotion strategy in the 1960s, labor-intensive industries were chosen as the main thrust in Taiwan's economy (Hwang, 1991). Between 1962 and 1972, exports grew from 13% to 43% of GDP, and the share of previous industrial products in exports, primarily nondurable consumer goods, increased from 50% to 83% of all exports (Ranis, 1979). These results were achieved by reform policies and the growth of labor-intensive industries.

The incredible results mentioned above were achieved despite the rapid growth in the labor force, which exerted great pressure on Taiwan's job creation capability. Between 1961 and 1973 the population aged 15-24 increased 80% as the baby boom of the early 1950s came of age. In addition, the rate of labor from rural areas rose rapidly from 0.9% per year between 1952 and 1965 to 2.1% between 1965 and 1974 (Thornton & Lin, 1994).

Manpower Development Plan

In order to absorb these new entrants at relatively low wages into labor-intensive industries, the reform of vocational education was important to the supply of needed human resources in the increasing labor-intensive industries at that time. Within the Manpower Development Plan, covered from 1966 to 1974, several major changes related

to vocational education were made. First, the Taiwanese government expanded compulsory education and industrial vocational education (Council for Economic Planning and Development, 1997b). Nine-year compulsory education was introduced in 1968; the elementary school graduation rate increased from 62.3% in 1968 to 79.8% in 1970. All junior vocational schools stopped enrolling new classes due to the nine-year compulsory education; all vocational schools nowadays are senior vocational schools.

Second, in 1969, Taiwan's technological and vocational education moved into a new stage. The Ministry of Education adjusted the ratio between senior high school students and senior vocational school students from 3:2 to 2:3 in 1969 in order to develop vocational education and encourage the establishment of vocational schools (F. T. J. Chang, 1990). This legislation increased the enrollment numbers in senior vocational schools. The purpose of the senior vocational schools, in Taiwan, was to equip youth between 15 and 22 with vocational knowledge and skills (Government Information Office, 1997). In 1950, there was only 1 senior vocational school and 32 junior-senior vocational schools with a total of 11,226 students (Government Information Office, 1997). The number of vocational schools increased from 128 in 1966 to 173 in 1974; the number of students in senior vocational schools was 83,102 in 1966 and 255,965 in 1974 (Ministry of Education, 1999).

Further, along with the increasing enrollment in senior vocational schools, a parallel development was the increasing importance of high-quality facilities, curriculum, and faculty. For instance, in 1972, a program funded by an assistance loan from the United World Chinese Commercial Bank for equipment for senior industrial vocational schools was executed. In 1974, in order to make the technological and vocational educational

system consistent, and to allow vocational school graduates to have more channels and opportunities to pursue education further, the National Taiwan Institute of Technology--the first institute of technology in Taiwan--was founded. This institute offered technical programs in the last two years leading to a bachelor's degree in industrial technology, and it accepted graduates of technical institutes only through an entrance examination. Since then, the system of technological and vocational education at three levels--from senior vocational school to junior college to institute of technology--was thus established. Because of the establishment of institutes of technology, the Educational Department of the Ministry of Education was renamed the Technological and Vocational Education Department (Government Information Office, 1997).

Partly due to the establishment in 1972 of a National Vocational Training Fund, financed by a payroll tax of 1.5%, a diversity of vocational training sponsorship was achieved by 1974. A good deal of this money went to private enterprises for approved training programs, often in cooperation with vocational schools. Of the 562 training institutes in existence in 1974, 42 were operated by government agencies, 80 by public enterprises, 133 by private enterprises, 78 by universities and technical colleges, and 229 by private organizations (Galenson, 1979).

Two participant organizations that benefited in the National Vocational Training Fund programs were the Tung Yuan Electrical Works and the Yue Loong Motor Company. The Tung Yuan Electrical Works set up an apprenticeship training program in 1958 providing both theoretical and practical training, but it did not establish a formal training center until July, 1973, when it obtained the approval of the National Vocational Training Fund for the program. The Yue Loong Motor Company, the largest automobile

producer in Taiwan, was the site of a vocational training center in the metal trades and held six-month courses for about two hundred participants. It seems that, in view of the difficulties that most countries have had with public vocational schools, the Taiwan sponsorship scheme has probably made for a more effective program than others. Most importantly, because of the establishment of the Manpower Development Plan and the government's policies in promoting vocational education, students and parents gradually changed their traditional concept that the purpose of schooling was for more schooling (Council for Economic Planning and Development, 1997b).

Manpower Development Special Plan

From 1975, as the Taiwanese people started to understand the concept of human resources better, and as the government gained experience in planning human resources, the Manpower Development Special Plan was started in 1976 and lasted until 1981 (Council for Economic Planning and Development, 1997b). In this plan, policies related to vocational education were not much different from those in the Manpower Development Plans, except that the issue of training for industrial vocational education teacher was addressed. Thus, more universities started industrial education programs to develop teachers, administrative personnel, researchers, and manpower development experts to meet the needs of the industrial education system.

The National Kaohsiung Normal University, located in the south of Taiwan, already had the Department of Industrial Technology Education in 1972; in 1976, the National Taiwan Normal University, located in the north of Taiwan, established the Institute of Industrial Education; in 1977, the National Chunghua University of Education, located in the middle of Taiwan, established the Department of Industrial Education. The goals of

these industrial education programs were to develop professionals in industrial education, and these professionals could meet the future training needs required by the public vocational training centers and enterprises (National Chunghua University of Education, n.d.; National Kaohsiung Normal University, n.d.). These three programs served the needs of developing vocational training trainers in the north, middle, and south of Taiwan, respectively, and their contributions to the evolution of HRD in Taiwan are longstanding and enormous (C. C. Jean, personal communication, November 1, 2000; S. H. Lee, personal communication, December 10, 2000). These programs were established to adjust to national economic needs in providing vocational training to develop human resources.

At about the same time, in order to meet the actual needs of vocational training in Taiwan, the National Vocational Training Fund Board realized that there was a need to have a formal curriculum to develop trainers for vocational training. Thus, in 1975, a Department of Vocational Training was established in the Institute of Labor Studies at the Chinese Culture University (National Vocational Training Fund Board, 1984). Courses required at that time included planning and design of vocational training, methodology of vocational training, human resources and management, and others. From 1975, August, to 1980, July, there were a total of 23 graduates from this program. Two graduates worked for the National Vocational Training Fund Board after graduation, one went to the Central Vocational Training Center, and the rest went to government agencies, enterprises or other industrial technical schools (National Vocational Training Fund Board, 1984).

Vocational education history reached a turning point in 1976 with the passage and approval of the new Vocational School Act--the first major legislation in Taiwan to support and strengthen vocational education (Land, 1990). This act represented a national endorsement of the appropriateness of vocational education in the schools and a recognition of its value to the individual and to the nation.

Manpower Development Department Plan

The technological and vocational education system began to devote great attention to the training of high-level skilled workers from the beginning of the 1980s. Events of the last few years of the 1970s clearly indicated that the industrial sector was gradually entering a new era of secondary import substitution. The evidence for this shift within the overall impact of increasing relative labor shortage takes a number of forms (Ranis, 1979). For one, there was a gradual increase in the relative size of domestic intermediate and capital goods industries. Another sign is that huge numbers of domestic laborers were added to manufacturing and industrial sectors since all raw materials were imported in Taiwan at that time. A third sign is derived from the changing role of the public sector in Taiwan. The government's role in direct productive activities, both in industrial and manufacturing output, was substantial in the early 1950s. However, as an effect of policies relatively favoring the private sector over time, especially during the 1960s, the private sector's role in productive activities has increased since then.

The Manpower Development Department Plan lasted from 1980 to 1989 and was organized to coordinate with major economic development plans (Council for Economic Planning and Development, 1997b). The government listed technical and vocational education as one of the top priorities in the industrial construction project. To achieve its

primary goal of preparing human resources in order to meet the challenge of the increasing labor shortage, the Taiwanese government adjusted the ratio between senior high school students and vocational school students in the long run to 3:7 in favor of vocational school students in 1981, which turned out to be 2.8 to 7.2 (F. T. J. Chang, 1990). The student ratio between senior high school and senior vocational school further dropped to 2.7 to 7.3 in 1986 (Ranis & Fei, 1988).

Next, strengthening the qualities of junior colleges and institutes of technology was emphasized in this plan. A five-year junior college admitted junior high school graduates for five years of specialized or paraprofessional training. Three main categories were science and technology, humanities, and social science. These fields, further, were divided into sub-categories, such as math and computer science, mechanical and civil engineering, communication, agriculture, commerce, maritime affairs, home economics, and others. All of the junior colleges were vocational in nature. Because the five-year junior college students were included in senior vocational schools, the ratio between senior high school and senior vocational school changed rapidly after the 1970s. In 1980, the number of students in senior high schools was 180,665 and was 532,272 for senior vocational schools and junior colleges (Ministry of Education, 1999).

Traditionally, few Chinese accepted the idea of learning by doing. Chinese parents believed the concept--learning tops all trades--and focused their attention on preparing their children to enter the next level of education. After the 1970s, skilled students who graduated from vocational schools found it easy to find a job. As a result, students and their parents gradually changed their opinions about vocational schools. On the other hand, because vocational education graduates could attend any university by passing the

college entrance examination, more parents and students accepted the idea of attending vocational schools.

During the 1980s and 1990s, the program for vocational education underwent continuous change. The Taiwanese government realized that technological and vocational education had to be fashioned to equip students with both knowledge and skills. Apprenticeship training, especially, could be affiliated with local enterprises and, therefore, could be used to develop appropriate human resources at a lower cost than normal education did (Executive Yuan, 1965). The apprentice-training provisions of the Factory Law were outdated by those of the 1983 Vocational Training Act and the 1984 Labor Standards Law. Both laws required the employer to sign a written training agreement specifying the students' training programs when hiring apprentices (Ranis & Fei, 1988). More apprentice training and cooperative education programs were established to provide hands-on experience to students nation-wide.

In 1992, the Ministry of Education implemented the Prolonged National Education Based Upon Vocational Education program (Government Information Office, 1997). This special program was developed to increase work skills of youth who did not want to study further in a general education curriculum. The volunteer students who participated in this program expected to enter the work force after graduation, so they had the option of taking technical training courses in their third year of junior high school. After graduation, participating students could either take a job or choose to continue studies for another one or two years in vocational schools. Because of its flexible conditions, this program has attracted lots of attention from potential students since then.

Further, in 1996, policies related to cooperative education were promulgated by the Ministry of Education (Ministry of Education, n.d.a). As a matter of fact, for decades, cooperative programs were an integral part of vocational education in many major vocational schools in Taiwan. As early as 1953, the Committee for School-Industry Cooperation was formed. This committee recommended to the Ministry of Education a "Plan for Promoting Cooperation between Education and Industry," which was approved by the ministry in 1954 (Land, 1990). Under this plan, industries would help provide employment opportunities for graduates and supply funds and equipment to vocational schools for their research. The vocational schools, in return, would provide training programs that were relevant to the needs of industries. It combined and utilized school and community resources to provide the optimum learning environment for students (Chen & Shih, 1989). The rotation system of cooperative programs was the most common arrangement adopted by technological and vocational schools. Students alternated their schedules between academic courses in school and skill training in the factories. In their study exploring the status of cooperative education in junior colleges in 1993 and 1997, Tien and Chiang (n.d.) found that the types of cooperation through which cooperative education was conducted between schools and enterprises were research projects, outsoucing, internships, advanced-study observations, scholarships, rotation system, ladder system, and part-time work. The average cooperative duration for senior vocational schools, institutes of technology, and universities of technology was less than 6 months, and the duration for junior colleges was between 6 to 12 months. Unfortunately, regardless of its long history, the cooperative program was not as effective as expected by the ministry in Taiwan (Kuo, 1998). Thus, as major legislation in Taiwan

to support, strengthen, and improve cooperative education, this renewed policy again represented a national endorsement of the appropriateness of cooperative education for enterprises and vocational schools and a recognition of its value to the students, the businesses, and the schools.

Obviously, when the economy entered a new era in the 1990s, so did the technological and vocational education system. By school year 1995, a total of 523,412 students attended 203 senior vocational schools and 87 senior high schools with vocational classes; the ratio of senior high school students to those in senior vocational schools was 1:2 (Government Information Office, 1997). Further, the number of higher education institutions in 1995 reached 134, including 24 universities, 36 independent colleges, and 74 junior colleges. Some 394,751 students were enrolled in junior colleges, and 314,499 were enrolled in these universities and independent colleges (Ministry of Education, 1999).

In the last few years toward the end of the 20th century, in responding to the government's school upgrading policy, more junior colleges upgraded to institutes of technology and more institutes of technology upgraded to universities of technology gradually. In addition, the number of senior vocational schools decreased. By school year 1998, a total of 493,055 students attended 201 senior vocational schools (Ministry of Education, 1999). Further, the number of higher education institutions in 1998 reached 137, including 39 universities, 45 independent colleges, and 53 junior colleges. Some 452,346 students were enrolled in junior colleges, and 409,705 were enrolled in these universities and independent colleges. This result implies that the direction of

technological and vocational education system in Taiwan has been moving toward what has been planned by the government.

Strengthening Technological and Vocational Education System

Forging ahead with the internationalization of Taiwan's economy, the Taiwanese government especially emphasized the development of human resources through technological and vocational education and gave special attention to some areas within the technological and vocational education system (Kuo, 1998). First, attention was given to educating professional talent to coordinate the upgrading of industries. In order to develop Taiwan to become the Asia-Pacific Regional Operations Center, technological and vocational schools needed to give greater importance to educating students with industry-related technology and knowledge to meet the human resources needs in the areas of manufacturing, finance, telecommunication, media, and sea and air transportation. At the same time, the curricula of the technological and vocational education had to be adjusted accordingly.

Secondly, strengthened cooperative education was needed to enrich students with practical experience. Regardless of its long history, the cooperative programs were not as effective as expected by the ministry because schools and employers had biases against the programs (Kuo, 1998). It was hoped that, through incentive programs, Taiwan's industries and businesses would be more willing to support cooperative education.

Third, since "the major function of technological and vocational education is to educate skilled manpower for every level, practical pedagogy should be the feature of technological and vocational education," said Kuo, Wei-Fan, the former ministry of the Ministry of Education. "Because our technological and vocational education faculty have

lacked practical experiences persistently for a long time, it was not able to educate talent to meet the needs of businesses; it shows the flaw of technical and vocational education more" (Kuo, 1998, pp. 37-38). Thus, a more practical-oriented pedagogy should be emphasized and more on-the-job training for technological and vocational education teachers should be strengthened. A Lifelong Learning System for teachers was listed as one of the fourteen actions in the White Paper on Towards a Learning Society, promulgated in 1998, to increase lifelong learning paths for teachers (Ministry of Education, n.d.b).

Fourth, the Ministry of Education expanded institutes of technology and junior colleges continually to enhance the quality of professionals. At the same time, excellent junior colleges were encouraged to upgrade to institutes of technology gradually, and institutes of technology were encouraged to universities of technology.

Finally, the government would continually encourage in-service citizens to return to technological and vocational schools for more training and education. In the future, it is hoped to establish an overall system and recurrence scheme for technological and vocational education. The draft of the Technological and Vocational School Law was submitted to the Executive Yuan for review in 1998 (Ministry of Education, n.d.b). The emphasis on innovation for the future technological and vocational education system lies on establishing community colleges and universities (Wu, 1998). The draft of the Statute for Establishing Community Colleges was also submitted for review in 1998 (Ministry of Education, n.d.b). Through a more flexible system, it is hoped that more and more in-service citizens will return to community schools for more training and education to meet

their needs at work. The ultimate goal is to build a lifelong education system and a learning society.

Contributions of Vocational Education to a Skilled Work Force

The manner in which human resource development strategy is implemented in Taiwan can be illustrated by the technological and vocational education programs initiated in the early days. When it comes to evaluating the performance of vocational education, the Taiwanese government has used skill competition and skill testing. As early as 1968, in order to encourage youth to enroll in vocational education and to establish the concept of skill values, the government started the first National Skill Competition (Employment and Vocational Training Administration, 1996). Since then, the National Skill Competition has been held annually and has been one of the major annual events for the community of vocational training and vocational education. To ensure that the skill testing system was in line with international standards and practices, the government formally joined the International Vocational Training Organization in 1970. Since then, the winners of the National Skill Competition have been selected to participate in the International Vocational Training Competition (IVTC), and a remarkable achievement has been made in the IVTC. For instance, at the 34th IVTC held in Switzerland in 1997, the 35 ROC delegates participated in 34 trades. Together, they won 8 gold medals, 7 silver medals, 2 bronze medals, and 11 Outstanding Awards (Employment and Vocational Training Administration, 1999).

To raise the efficiency of using skilled human resources and to protect the rights of the skilled workforce, in 1972 the government proclaimed the Skill Testing and Certificate Issuing Regulations for Skilled Workers (Employment and Vocational

Training Administration, 1996). Further, according to the Vocational Training Act, there were three grades of skill certificates, namely A, B, and C. A level B certificate was considered equivalent to a vocational high school diploma, while a level A equates to a junior associate degree. This policy was to promote the establishment of the occupational certificate system in order to enhance workers' employment security. From 1974 to 1999, skilled workers in 127 trades were tested, and over 1,669,000 skill certificates were issued (Employment and Vocational Training Administration, 1999). The largest group of certified skilled workers by trades from 1974 to 1993 was in the category of metal operation and machine shop, accounting for 39.41% of total certificates. Interestingly, due to an increasing number of service industries over the years, the category of hair, dressmaker, and beauty consultant, accounted for 44.76% of total certificates, the largest group from 1974-1999; the percentage for metal operation and machine shop dropped to 22.31%.

Besides skill testing and certificates, what about the economic benefits gained from technological and vocational education in Taiwan? In the U.S., the percentage of employment among those who have received vocational or technical training has been much larger than for the population that has not been trained and is seeking employment (Hopkins, 1977). However, in terms of the contributions of skilled human resources from vocational education to Taiwan's economy, Taiwan's policy analysts, unfortunately, have avoided any cost-benefit model in trying to assess the return on the country's investment in vocational education. No study has shown what role vocational education and training have actually played in Taiwan's economic success. A few studies have shown that vocational students were less likely to be underemployed than general high school

students (Wang & Hsieh, 1995). In their study, Wang and Hsieh found that male vocational business high school participants were less likely to be underemployed than male general high school participants. To be underemployed means that an individual is working fewer hours per week or weeks per year than he or she would like--and yet are counted as employed in the official statistics (Henderson & Poole, 1991).

Official opinion inclines to the belief that vocational education supplies the pervasive infrastructure undergriding the national economy (Harbinson & Myers, 1964). The effect of increased investment in vocational education on economic growth can be addressed by considering the impact of education investment on the society's ability to produce (Hopkins, 1977). In Taiwan's case, thus, the fact that there is a significant relationship between economic effect and vocational education (Gustman & Steinmeier, 1982; Land, 1990; Lucas, 1981; Yuen, 1993) is further evidence of the benefit of investing in human capital. Moreover, some studies have indicated that the excellent work force in Taiwan results from outstanding vocational education (Chen & Shih, 1989); without the efficient and highly skilled work force, Taiwan would not have held its economic advantage (Lucas, 1981).

Summary

In Taiwan, the development of human resources has been a key strategy for its economic growth since the beginning. The importance of human resources was realized early with a strong emphasis placed on education and training by the Taiwanese government. In this chapter, developing Taiwan's human resources through vocational education was introduced.

There is an old Chinese proverb which says, "When you drink water, think of its source." US aid to Taiwan has been responsible for the successful establishment of vocational education policies in Taiwan since 1951. The establishment of these two departments--the department of industrial education and the department of home economics at the National Taiwan Normal University, with the help of Pennsylvania State University in 1953, marked a milestone in the history of vocational education.

From the time of the US aid packages in the 1950s, Taiwan's policy on vocational education has been proactive, progressive and constantly changing to meet manpower needs in order to succeed in attaining its national objectives. The programs and curricula in vocational education in Taiwan have been traditionally linked to the nation's priority for economic development. During the 1950s, the purposes of junior vocational schools were to equip elementary school graduates with skills to meet the demands in labor-intensive industries after the war. As the economy moved through the 1960s and into the 1970s, industries gradually became more capital- and skill-intensive. The Ministry of Education increased the rate of student participation in vocational school and high school and encouraged the establishment of vocational schools in order to meet the demand of human resources needed in the labor-intensive industries. Junior vocational schools were abolished during this stage; senior vocational schools were established rapidly to develop middle-level skilled students. Further, the government authorized the establishing private schools to expand junior colleges rapidly as well. In the 1970s, the government placed emphasis on enhancing the quality of facilities, curriculum, and faculty of vocational schools. Several industrial education programs were established in the north, middle, and south of Taiwan to develop teachers for vocational schools. The first institute of

technology was established to develop high-level skilled students. Because of the establishment of institute of technology, the Education Department of the Ministry of Education was renamed the Technological and Vocational Education Department in 1973. In the 1980s and 1990s, social and economic changes brought many problems which had become the most pressing challenges for technological and vocational education in Taiwan, such as a shortage of workers in traditional and high technology industries. Thus, the government implemented the advanced plan of industrial vocational education to increase work skills of youth. To meet the needs of students and parents, junior colleges were upgraded to institutes of technology step by step, and many universities of science and technology have been established since the 1990s.

In Taiwan, the overall educational programs, particularly in vocational education, have been carefully planned and developed over the past fifty years to meet the demand and challenge. Kuo, Wei-Fan, the former minister of the Ministry of Education, indicated that technological and vocational education system has been playing an important role in Taiwan's economic development (Kuo, 1998). It seemed that Taiwan's technological and vocational education kept pace with the growing economy and the changing technology. In spite of the fact that Taiwan's policy analysts have avoided any cost-benefit model in trying to assess the return on the country's investment in vocational education, some scholars have indicated that the excellent work force in Taiwan results from outstanding vocational education. Many economists and researchers have agreed that human resources played a key role in the economic development process.

Following in Chapter 6 is the story of how the development of human resources through the second element--vocational training--to develop Taiwan's human resources

advocated by Dr. Sun Yat-Sen and Chiang Kai-shek evolved in Taiwan during the past five decades.

CHAPTER 6

DEVELOPMENT OF HUMAN RESOURCES THROUGH VOCATIONAL TRAINING: 1953-1975

The development of human resources in Taiwan was carried out, by and large, through two approaches: vocational education and vocational training. While vocational education attempts to convey to citizens a core base of general knowledge, vocational training seeks to raise the level of occupational skills, making the population more employable and better equipped to meet the needs of the workplace (Huang, 1997).

Vocational training, including public training and enterprise training, can be a profitable investment for Taiwan, if it brings its functions fully into play (Council for Economic Planning and Development, 1997b). In the broad sense, public training means training that is geared toward society at large, whereas, in the narrow sense, public training is limited to the training implemented by vocational training institutions (Employment and Vocational Training Administration, 1996). From a national demand point of view, vocational training can help a nation increase the quality of its labor force, enhance the employment ability of its citizens, speed the development of its economy, adjust the supply and demand of its human resources, and acquire the effective development and utilization of its human resources. From an enterprise demand point of view, vocational training may be able to assist enterprises in adjusting to technical changes, understanding marketing directions, changing employee dispositions, promoting enterprise cultures, ensuring product quality, increasing productivity, and enhancing competitiveness. Finally, from an individual demand point of view, vocational training can help individuals in laying an employment skill foundation, enhancing employment

ability, unleashing individual potential, exploring promotion opportunities, and providing effective channels for self-development. Thus, the propagation of vocational training, adopted by the Taiwanese government, has been one of the main human resource development policies used to improve labor force quality and enhance human resource utilization.

This proactive process in Taiwan's vocational training will be introduced briefly in four stages; each stage represents a different kind of human resource development for Taiwan's economic development that the Taiwanese government has used to develop its needed human resources.

Stage 1: 1953-1964

No specific planning regarding the supply and demand of human resources, development and training occurred in the first three economic development plans (1953-1964). In fact, it was not until January, 1964, that the Council for International Economic Cooperation and Development, under Premier and concurrently chairman, Yen Chia-Kan, established the Manpower Resources Committee (Ranis & Fei, 1988). This committee was a product of Weiss's visit to Taiwan; Harry Weiss, of the U.S. Department of Labor, visited Taiwan soon after the Stanford Research Institute's project (Hu, 1964; Ranis & Fei, 1988). Weiss immediately identified as problems in Taiwan a growing population, serious unemployment and under-employment, a lack of planning and coordinated organization, an unbalanced education program, and an absence of apprenticeship programs to train skilled workers. Specifically, Weiss indicated that technical skills training programs were the weakest in the manpower planning and development of Taiwan; Taiwan lacked an apprenticeship or apprenticeship related skills training

planning, which was in serious need for the economic development of Taiwan (Hu, 1964). Further, he indicated that the Taiwanese government was moving forward blindly because it did not know its human resources at all; even worse, it did not know the manpower needed for the next five to ten years (Hu, 1964). Not only did Weiss make specific recommendations, but he also reached a most important conclusion--Taiwan's government, immediately, needed a manpower plan and an organization to support the plan.

Since 1965, the Taiwanese government has gradually strengthened the quality of the staff who work in the Manpower Resources Committee. It invited human resources professional, G. W. Hepler, as a consultant, after he was recommended by the U.S. Development of Labor. Hepler stated,

> At present, a shortage of skilled people is not serious in the Republic of China, but it is necessary to need more and better managers, supervisors, and skilled employees when the economy expands, new enterprises establish, and current enterprises renew equipments [sic] and machines. At the same time, due to the retirement or death of current employees, it also needs new people to take over. (Hepler, 1966, pp. 7-8)

With the help of G. W. Hepler, A. W. Shurcliff, M. R. Sugg, R. Behn, N. Strum, and A. Roberts, the Manpower Resources Committee coordinated and examined plans for the development of human resources (Council for Economic Planning and Development, 1997b). Among the functions charged to the Manpower Resources Committee were formulating policies and plans for manpower development; promoting programs and facilities for vocational training; adjusting the supply of and demand for labor;

coordinating education, training, recruitment, distribution, and utilization; and developing the manpower plan with the overall economic development plan (Council for Economic Planning and Development, 1997b; Ranis & Fei, 1988).

What Weiss concluded was correct: there was no comprehensive statutory basis for vocational training programs in Taiwan until the mid-1960s. Until then, existing laws dealt largely with apprenticeships and handicraft training and were simple and restricted. The Taiwanese government did not have the resources to promote nation-wide vocational training. Standards were not established; a system for screening and licensing schools was not created; there were no training budgets or coordination between societal needs and training programs (Ranis & Fei, 1988).

This stage was characterized by unorganized in-service training sponsored by individual organizations and firms; however, there were no official guidelines or policies with regard to an integrated system of vocational training in government agencies, public and private enterprises, schools, or private business organizations. Most of the training was conducted and sponsored by different levels of organizations within the government, and it was not monitored or guided by any official policies. Some public and private enterprises where vocational training programs were conducted included:

- Taiwan Sugar Corp., Taiwan Power Corp., and General Post Office, which set up Personnel Training Centers.
- Taiwan Machinery Manufacturing Corp., which set up the Employee Training Committee to offer in-service training for their employees and basic skill training for the public.

- Taiwan Provincial Construction Department, which offered training within industries.
- Taiwan Highway Bureau, which initiated vehicle skill training.
- China Productivity and Trade Center, which initiated managerial development training.
- The Metal Industry Development Center and the Vocational Training Center of Mainland China Refugee Relief Organization, both of which offered special skill training. .
- Driving and maintenance training, which was offered by the Bureau of Public Transportation. (Council for Economic Planning and Development, 1997b; Executive Yuan, 1965; National Vocational Training Fund Board, 1984; San & Chen, 1988)

During this stage, government agencies were the largest sponsors of training programs for employees. According to a 1966 report from a national in-service training implementation investigation, from 1952 to 1965, 35.6% of government agencies initiated training programs (Executive Yuan, 1965). In spite of the higher percentage of training provided and implemented within government agencies compared with other sponsors in Taiwan, training programs and advanced education for civil servants at that time was not dealt with by a single government agency. Each Taiwan provincial administrative organization established its own training department to train its own civil servants based on actual administrative needs. For example, the Judge Training Institute was established within the Ministry of Justice in 1955. Training programs initiated by these government agencies were focused not only on political issues--such as the nation's

current political conditions and relationships and an analysis of conditions in mainland China--but also on job-related skills and knowledge. There were also short-term training programs for administrative and managerial personnel and advanced skill professionals.

According to the same report, training programs provided by public enterprises accounted for 31.2% of the total training provided and ranked as the second largest group of sponsors. Enterprise training--also called in-service training or employer-sponsored training--is one channel for providing vocational training in Taiwan. Vaughan and Berryman (1989) defined the term "employer-sponsored training" as "training available in or through the auspices of the firm" (p.1). The definition did not necessarily mean that training has to occur within the firm that provides the training, and Vaughan and Berryman further asserted that the employer does not necessarily bear all of the cost of training. Lyau (1994) in his study defined "employer-sponsored training" as "a systematic intentional process of altering an employee's permanent behaviors with an aim to contribute to the firm's effectiveness, and such process, which may occur outside of the firm, is through the auspices of the firm" (p. 23). One of the implications of this definition is that the purpose of the provision of training by the employer has to be related to organizational goals.

Training programs initiated by well-known public enterprises emphasized management and skills training. During 1966, two to three thousand trainees came from each of the enterprises: the Taiwan Power Company, the Taiwan Highway Bureau, the Taiwan Sugar Corporation, and the Taiwan Tobacco and Wine Monopoly Bureau (National Vocational Training Commission, 1967). For example, the Employee Training Institute of the Taiwan Power Company was established in 1951. From 1963 to 1965,

there were 7,885 participants from 498 classes. Among 7,885 participants, 1,300 participants completed business administration seminars and 3,843 participants completed supervisor training. The average number of trainees for administrative and management skills training from 1952 to 1962 was 64.

Besides the training programs sponsored by government agencies and public enterprises, there was also training offered by private business organizations. The China Productivity Center was one of the noteworthy organizations and merits a closer look.

The China Productivity Center, established in 1955, later renamed the China Productivity and Trade Center in 1970 and renamed back to China Productivity Center in 1981, was the most noteworthy civic organization during this period of time. The purposes of the China Productivity Center were to assist Taiwanese industries--especially small and medium enterprises--to strengthen management, improve technologies, enhance efficiency, and reduce costs (China Productivity Center, 1957).

By 1964 the China Productivity Center had sponsored 397 training classes for about 12,996 employees in a variety of skills, such as production, business management, industrial engineering, marketing, sales, and others (National Vocational Training Commission, 1967). It attained these results even though there were no official guidelines regarding designing and implementing training for employees at that time.

Receiving aid from the U.S., the China Productivity Center sent their specialists to the U.S. to learn management education and management development. The China Productivity Center is also believed to be the earliest firm that provided management consulting services (Kao, 1990; Ministry of Economic Affairs, 1989; Tsai, 1993; Wu, 1979). High-level managers who worked in government agencies and public enterprises,

as well as professors from colleges and universities, were also sent to the U.S. to learn new industrial knowledge and management concepts--246 employees were sent overseas for advanced training through different training projects within the China Productivity Center (National Vocational Training Commission, 1967).

The China Productivity Center started advocating and accepting consulting services, including enterprise organizations, production management, material management, financial management, personnel management, sales management, quality control, industrial safety and industrial engineering, and others. Popular training programs provided by the China Productivity Center in 1966, for example, were:

- Quality Control Training, 18 classes with 540 trainees
- Foremen Training, 5 classes with 150 trainees
- General Management Seminar, 3 classes with 124 trainees
- Management Consultant Development Symposium, 1 class with 70 trainees.

(National Vocational Training Commission, 1967, p. 97)

Another remarkable civic organization that had the character of management consulting was the Metal Industrial Development Center. This center was established in 1963 with the help of the Taiwanese government, the United Nations Special Fund Committee, and the International Labor Department (National Vocational Training Commission, 1967). This center specialized in consulting and training services for metal industries; the purpose of this center was to develop and improve Taiwanese manufacture of metal, machinery, transportation equipment, electricity equipment, and others (National Vocational Training Commission, 1967). In addition to the vocational training given to the workers who work in the industries listed above, training programs for

foremen, general managerial training, managerial symposia for upper level managers, and other managerial related training were provided as well (National Vocational Training Commission, 1967).

During this stage, there were some on-the-job training programs, though on a small and short-term scale, run by large private enterprises; in most cases, they were not carried out on a regular basis. Among government agencies, public enterprises, private enterprises, schools, and private business organizations, private enterprises initiated the fewest training programs and trained the least number of employees (Executive Yuan, 1965). From 1952 to 1965, 35.6% of the training programs were managed and implemented by government agencies compared to 8.6% by private enterprises. The total number of trainees by public enterprises from the year 1952 to 1965 was 94,433, compared with 22,747 from private enterprises (Council for Economic Planning and Development, 1997b). In addition, although there were not many statistical records kept at this stage, there is not doubt that the large private enterprises were not aware of the importance of in-service training, not to mention small and medium sized private enterprises.

In terms of formal policies enforced by the government, a formal apprenticeship training system was not established by public or private enterprises during this period. However, without a planned training system, there were apprenticeship training classes initiated informally in public and private enterprises, especially in private enterprises. It was realized that an apprenticeship training system should be established in order to coordinate training with national economic growth and development (Executive Yuan ,

1965). Additionally, public enterprises and large private enterprises at that time had a limited variety of training programs for their employees.

Stage 2: 1965-1975

Policies regarding manpower planning were starting to be added in the third Four-Year Economic Development Plan; yet, policies regarding development of human resources and the purposes of human resource development in order to restructure the post-war economy were not established until 1965 in the fourth Four-Year Economic Development Plan under the Society Development Department Plan (Cheng, 1981; Executive Yuan, 1965). Since 1965, the Taiwanese government has included "improving human resource quality" as one of the major tasks in the series of plans to develop its economy systematically.

In 1965 (Executive Yuan, 1965), an additional chapter, entitled *Development of Human Resources*, was added to the fourth Four-Year Economic Development Plan. The plan stated:

> The supply and demand of human resources, training and education has not had a detailed planning in the past three Medium-Term Plans; there should be a detailed planning of "development of human resources" within the national economic plan so that human resources will be integrated with economic growth systemically. (p. 355)

At that time, the issue of whether treating human beings as one type of resource caused arguments in Taiwan. Because the legislature objected to the word "resources" as not being a proper way to describe human beings, the Manpower Resources Committee, mentioned earlier, was renamed to Manpower Development Committee in 1967 (Council

for Economic Planning and Development, 1997b; Liu, 1977; Ranis & Fei, 1988). But Li, in his presentation entitled, "The Planning of Human Resource Development," in 1966, openly advocated the term (Li, 1968). He said:

> Perhaps some people object to treating human beings as resources, object to treating human beings as the target for development; this is the perception without understanding the truth. Everybody knows, the ingredients of production include land, capital, labor and organizations as four items. The land, in the definition of economic theory, means all natural resources. Treating manpower as resources corresponds to the theory of natural resources; it does not have an improper definition nor is it harmful to the dignity and independence of human nature. (Li, 1968, p. 14)

During the 1960s, there were scholars who used the term development of manpower resources as well (Yum, 1968). In later literature, both Chinese characters 人力--manpower, and Chinese characters 人力資源--manpower resources or human resources were used interchangeably (Tsay, 1989).

In spite of many factors that fostered agricultural development in Taiwan after the war, with the limitation of land area in Taiwan, the expansion of agricultural output depended heavily upon additional working capital and labor inputs. In other words, under agricultural conditions in Taiwan, it was more favorable to adopt technological improvements, which required more intensive use of capital and labor, to increase land productivity and labor efficiency.

Late in the 1960s, the government set a new policy to encourage investments in business and decided to expand international trade strategically by developing labor-intensive industries in order to ease the unemployment problem. The policy was designed to induce savings, investments, and export expansion through tax exemptions and reductions. As a result, more than two-thirds of the economy's total labor absorption flowed to manufacturing and its directly related industries (Kuo, 1983). The electrical machinery industry took the place of the food processing industry as the leader in labor absorption (Kuo, 1983). The combined effects of these policies produced beneficial results in improved technology and productivity of those light industries that prospered during the earlier industrialization stage. The abundance of inexpensive and quality labor gave industries, such as textile, plastic products, plywood, and electronic product assembly, a strong competitive edge that earned them a secured place in the world market.

The incredible results mentioned above were achieved despite the rapid growth in the labor force, which exerted greater pressure on Taiwan's job creation capability. Between 1961 and 1973, the population aged 15 to 24 increased 80% as the large number of births of the early 1950s came of age. In addition, the rate of labor from rural areas rose rapidly from 0.9% per year between 1952 and 1965 to 2.1 % between 1965 and 1974 (Thornton & Lin, 1994). Conversely, the ability to absorb these new entrants at relatively low wages into labor-intensive industries helped fuel the rapid rise in exports and the overall growth of industrial production. To meet the needs for skilled workers, Taiwan's government had to formulate a consolidated policy of development and improvement in vocational and technical training.

In order to cope with such changes in the labor market, the first National Manpower Conference was held in 1966 (Ranis & Fei, 1988). This conference was initiated by the Council of International Economic Cooperation and Development--the former U.S. Aid Utilization Council--and was very significant in Taiwan's history (Council for Economic Planning and Development, 1997b). C. K. Yen, K. T. Li, and other governmental officials from various Ministries played significant roles in this conference (Council for Economic Planning and Development, 1997b). Yen, the director of the Ministry of Finance in 1958, was the director of the Council of International Economic Cooperation and Development at that time; Li , the director of the Ministry of Economic Affairs, was the vice director of the Council of International Economic Cooperation and Development at that time. While giving the presentation entitled, "The Direction of Developing Human Resources" at the end of the five-day-long National Manpower Conference, Yen stated:

> The development of human resources is able to establish the foundation for the development of the society and the development of the economy; in other words, there is a big connection between the development of human resources and social and economic development...In the past, although attention was paid to manpower problems, most of them were segments; there was no systematic and serial discussion. Thus, this time with this systematic and serial discussion, for sure there will be a workable proposal which can be actually effective. I, two years ago, worked at the Executive Yuan during which time, I advocated, "To stir up the trend of starting business, developing human resources," which meant that the trends of

> starting business and the resources of manpower should be mentioned and discussed as related things. (Council for Economic Planning and Development, 1997b, p. 259)

In this presentation, Yen not only stressed the importance of developing human resources, but he also presented principles and policies that he thought would be beneficial for Taiwan's human resource problems. Three concepts he advocated were that those developing human resources should pay attention to: (a) equality of opportunity, including education opportunity equality and employment opportunity equality for everybody, (b) the youth, especially their education and employment problems, and (c) the changes in society, especially the technical revolution and change (Council for Economic Planning and Development, 1997b).

During this five-day-long conference, there were about 150 participants and four sections: manpower planning, manpower development, manpower utilization, and manpower stabilization (Council for Economic Planning and Development, 1997b). The primary foci of this conference were to collect and communicate opinions and to publicize the concept of human resources in order to further understanding and support from society (Council for Economic Planning and Development, 1997b; San & Chen, 1988). Many valuable suggestions related to in-service vocational training were proposed and were eventually implemented (Li, 1968).

The conclusions reached from this conference related to education and improvement of human resources, in particular, attracted attention. For instance, one of the important conclusions reached at the symposium was that Taiwan should establish an administrative system of vocational training, implement an apprenticeship system and certificate system, and enforce laws for collecting training funds (Li, 1968). These

conclusions helped to lay a foundation for establishing a vocational training system and for regulating related laws.

Another significant contribution of the conference was the chapter on the human resource development plan, drafted during the national economic plan, edited after discussion at the conference and further approved by the Executive Yuan (Council for Economic Planning and Development, 1997b; Ranis & Fei, 1988). The Council of International Economic Cooperation and Development was then made responsible for overall coordination of policy implementation and review, working through the Manpower Development Committee. Thus, the first Manpower Development Plan, approved by the Executive Yuan in 1966, was the first integrated manpower plan promulgated and implemented officially by the government in Taiwan's history (Council for Economic Planning and Development, 1997b; Ranis & Fei, 1988).

The concrete implementation of manpower development occurred when the Plan of Operation Agreement for the Vocational Training Service for Industry Project was signed. In April, 1968, K. T. Li co-signed this plan with David Morse from the United Nations; further, the Industrial Vocational Training Association, and its affiliated demonstration training center, were established with the assistance of the United National Development Program and the International Labor Organization to carry out the components of the plan (Council for Economic Planning and Development, 1997b).

This particular plan proposed the following goals for Taiwan:

- Introduce updated techniques to improve apprenticeship training systems.
- Develop factory training in order to enhance the skill and knowledge of industrial technical employees.

- Assist industry in training supervisors and administrative personnel in factories.
- Provide vocational training information and material.
- Improve training curricula, material and methods.
- Develop training standards, training schedules, skills tests, and effective training projects for demonstration training for skilled employees.
- Establish a training organization network to provide training needed by vocational trainers, administrative personnel, and new employees in industries.
- An affiliated vocational training center--Tai-Shan Vocational Training Center--providing demonstration training and trainer training for industries. (Council for Economic Planning and Development, 1997b)

Thus, in the same year as the plan was signed, the Tai-Shan Vocational Training Center, affiliated with the Industrial Vocational Training Association, was founded by the Ministry of the Interior (Council for Economic Planning and Development, 1997b). This center, located in the north of Taiwan, provided eight industrial factories where demonstration training and trainer training could be carried out. The training programs provided by this center were to train more instructors and supervisors for industries than any other center (Council for Economic Planning and Development, 1997b).

Meanwhile, later that year, K. T. Li asked two government enterprises to set up two more national vocational training centers. Taiwan Shipbuilding Corporation in Keelung (a northern city of Taiwan) set up the Northern Vocational Training Center, concentrating on the training of qualified mechanical and electrical engineers, welders, and others (Ranis & Fei, 1988). Taiwan Machinery Manufacturing Corporation in Kaohsiung (a southern city of Taiwan) was asked to set up the Southern Vocational

Training Center, concentrating on the training of qualified welders, machinists, and other skilled trades people in great demand by industry (Ranis & Fei, 1988). Both centers were under the jurisdiction of the Ministry of Economic Affairs and were founded to cultivate multi-skilled workers for government enterprises and agencies and private corporations.

In 1966, instead of government agencies, public enterprises became the largest sponsors of training programs for in-service employees in 1966 (National Vocational Training Commission, 1967). The number of training classes and trainees by sponsorship in 1966 was quite different from that before 1966. There were a total of 20,432 trainees trained from public enterprises, compared with 9,219 from government agencies (see Table 2) (National Vocational Training Commission, 1967).

Table 2

Number of Vocational Training Classes and Trainees by Sponsorship in 1966

Sponsoring Establishment	No. of Enterprises	No. of Classes	No. of Trainees
Public Enterprises	33	669	20,432
Private Enterprises	39	311	7,015
Government Agencies	20	163	9,219
Schools and Colleges	46	374	9,632
Private Business Organizations	22	174	7,434
Total	160	1691	53,732

Note: National Vocational Training Commission, R. O. C. (1967). A catalogue of vocational training programs in Republic of China. Taipei, Taiwan: Author, p. 1.

Noteworthy public enterprises remained the same as listed earlier in stage one: the Taiwan Highway Bureau, the Taiwan Power Company, the Taiwan Fertilizer Corporation, the Taiwan Sugar Corporation, and the Taiwan Tobacco and Wine Monopoly Bureau (National Vocational Training Commission, 1967). The average number of trainees for administrative and management skills from 1963 to 1965 was

2,059; however, the average number from 1952 to 1962 was 64, reflecting a great increase in the number of trainees in that particular category of training.

Surprisingly, the second largest group of sponsors of training programs for in-service employees were schools and colleges in 1966 (National Vocational Training Commission, 1967). There were 46 schools and colleges providing training programs for the public, according to the 1967 vocational training statistics. Among them, the most well-known was the Center for Public and Business Administration Education, National Cheng-Chi University. Operated jointly with the University of Michigan, the Center was established to train civil servants from government agencies and managers from business and industries. From 1962, when the center was established, to the end of 1965, the total participants numbered 2,096; however, in 1965 and 1966 alone, 1,036 and 1,137 trainees participated in the training programs, respectively. Thus, it was clear that the demand for training had increased, and the number of trainees had increased dramatically.

The number one sponsor of training programs (1952 to 1965)--government agencies--dropped to number three by 1966 (National Vocational Training Commission, 1967). In addition, government agencies provided only 16% of the total number of trainees from 1966 to 1975, compared to 27% from civic organizations, 24% from private enterprises, 21% from public enterprises, and 12% from schools (see Table 3) (Ministry of the Interior, 1978).

Private enterprises still sponsored the least number of trainees during 1966. The statistics from the National Vocational Training Commission (1967) revealed that the total number of trainees from private enterprises in 1966 was 7,015, still the smallest compared to other sponsors. Among 39 sponsors from private enterprises, about 21%

Table 3

Number of Trainees by Year and Sponsorships: 1966-1975

Year	Total	Public Enterprises	Private Enterprises	Govern-ment Agencies	Schools	Civic Organization
1966	53,732	20,432 (38%)	7,015 (13%)	9,219 (17%)	9,632 (18%)	7,434 (14%)
1967	87,611	28,324 (32%)	19,481 (22%)	16,290 (19%)	15,428 (18%)	8,088 (9%)
1968	124,033	37,841 (31%)	30,193 (24%)	20,536 (17%)	16,387 (13%)	19,076 (15%)
1969	143,710	35,794 (25%)	28,319 (20%)	18,680 (13%)	19,636 (14%)	41,281 (29%)
1970	169,527	29,982 (18%)	29,909 (18%)	22,876 (13%)	31,330 (18%)	55,430 (33%)
1971	200,542	32,171 (16%)	35,331 (18%)	29,167 (15%)	19,714 (10%)	84,159 (42%)
1972	183,507	32,118 (18%)	31,021 (17%)	31,801 (17%)	22,805 (12%)	65,762 (36%)
1973	234,231	33,491 (14%)	72,382 (31%)	36,377 (16%)	20,514 (9%)	71,467 (31%)
1974	339,045	39,830 (12%)	144,300 (43%)	51,235 (15%)	19,469 (6%)	84,211 (25%)
1975	233,621	22,980 (10%)	87,218 (37%)	38,055 (16%)	10,685 (5%)	74,683 (32%)
Average: 1966-75		31,296 (21%)	48,516 (24%)	27,423 (16%)	18,560 (12%)	51,159 (27%)

Note: Ministry of the Interior, R. O. C. (1978). Vocational training in Republic of China. Taipei, Taiwan: Author, p. 1.

were textile companies, 17% were paper factories, and 17% were coal mining companies. Though engineering and motor companies at that time were not big sponsors compared to textile, paper and coal mining companies, the former trained more employees in 1966 (National Vocational Training Commission, 1967). The Ta-Tung Engineering Company

and the Yue-Lung Motor Company trained 824 and 663 employees, respectively. The Air Asia Company, according to the same report, trained 1,015 employees in that year.

In addition to the training programs provided by the government agencies, public and private enterprises, colleges, and civic organizations started to play a significant role in providing vocational training to in-service employees (Ministry of the Interior, 1978). According to a vocational training statistic from the Ministry of the Interior (1978), from 1966 to 1968, the percentage of trainees from civic organizations and supplementary classes for 1966-68 was 14%, 9%, and 15%, respectively for each year (see Table 3). Compared to other types of sponsorships, civic organizations and supplementary classes ranked last or second from the last during that period of time. Surprisingly, from 1969 to 1972, civic organizations and supplementary classes became the largest sponsors of training in terms of the number of trainees, the number of sponsors, and the number of classes (see Table 3).

One of the outstanding civic organizations was, again, the China Productivity Center. As mentioned in the first stage, the China Productivity Center played a major role in assisting the Executive Yuan in moving economic development forward. The China Productivity Center had continually played a significant role during the second stage from 1965 to 1975. For instance, the Chinese Professional Management Association and the Metals Industry Development Center were established under the assistance of the China Productivity Center in 1963 (China Productivity Center, n.d.) With 251 civic organization and supplementary class sponsors, the training provided by the China Productivity Center, the Chinese Professional Management Association (established with the assistance of the China Productivity Center in 1963), and the Metal

Industry Development Center (established with the assistance of the China Productivity Center in 1963) accounted for about 18% of the total training provided by civic organizations and supplementary classes in 1976 (Ministry of the Interior, 1978).

Another outstanding civic organizations was the Chinese Management Association. Aimed at developing management science and technology, the Chinese Management Association was established in 1973 with the approval of the Ministry of the Interior (Chinese Management Association, n.d.). Some of the committee who worked for this association were those who worked for the National Vocational Training Fund Board.

During this stage, the Chinese Management Association played a major role in uniting government agencies, enterprises, and academia in conducting the development of management science and technology. It was hoped that, through academic research, training seminars, and management consulting activities, management theories and practical applications could be combined in order to improve the standard of management in Taiwan.

Civil Servant Training

While in-service training began to emerge during this stage, so also was the training for civil servants in Taiwan. Not until the establishment of the Central Personnel Administration within the Executive Yuan in 1967 was there a government entity that planned training and development for civil servants systematically and strategically (C. L. Chang, 1991). The Taiwanese government restructured government agencies and the personnel organizations of the central government in 1966, and, in the same year, it established the Central Personnel Administration (C. L. Chang, 1991). The Central Personnel Administration was therefore responsible for planning and designing training

programs and related regulations for civil servants, including pre-employment training, on-the-job training, job seminars, off-the-job advanced study, planning of government-funded field trips, and others (C. L. Chang, 1991). Since then, the Central Personnel Administration has been the official department responsible for civil servant training for government agencies.

Previously, Taiwan's provincial government had, in 1965, promulgated the Taiwan Province Civil Servant Training and Advanced-Study Act (C. L. Chang, 1991). Taipei's city government in 1967 promulgated a similar law for civil servants who worked in government agencies belonging to the city. But, with the Central Personnel Administration, for the first time there was pre-employment training for those who passed the High and Ordinary Examinations to serve as civil servants and teachers. After pre-employment training, those employees were then assigned to different government agencies to start their jobs.

To meet the needs for training civil servants, the Central Personnel Administration then established a Civil Servant Training Institute (February, 1968). The audience for the training provided by this institute was those who passed the High and Ordinary Examinations to serve as government employees. The average number of people who passed the High Examinations between 1968 to 1971 was 1,622, and 2,267 for Ordinary Examinations (Budget, Accounting and Statistics Department, Taiwan Provincial Government, 1998). Approximately 30 sessions were provided within one year, and about 2,100 people were served by that institute.

According to the available data, there were about 30 training institutes when the Central Personnel Administration was established, including some noteworthy

government agencies which provided vocational training to in-service employees in 1967, such as the Taiwan Province Primary School Teachers Symposium, the Taiwan Province Women and Children's Health Research Office, the Taiwan Province Training Corps, and the Judge Training Institute in the Ministry of Justice (C. L. Chang, 1991). Besides the longer training programs provided by the Judge Training and Air Traffic Controller Training, the average number of weeks of training sponsored by government agencies, according to the available data, was around five. The content of training programs was primarily skill training, and they varied depending on the types of government agency. For instance, the classes sponsored by the Comptroller General of the Executive Yuan were statistics personnel seminars (general and senior class), Comptroller Reserve knowledge training classes, and statistics personnel training classes (C. L. Chang, 1991). Other examples are Radio Communication Training sponsored by the Aviation Bureau, Ministry of Communications for civil servants working in the Aviation Bureau, and Civil Law and Account classes for civil servants working in the Ministry of Audit (C. L. Chang, 1991).

There were also civil servant training institutes that belonged to the provincial government. The Finance Training Institute within the Ministry of Finance was established in 1969 with help from K. T. Li. Because of a lack of facilities, the Finance Training Institute borrowed classrooms from schools and colleges to provide training continuously for years. The purposes of training were to educate financial civil servants to be competent in skills and ethics through cultivating a respectful attitude and an honest sentiment toward the profession, imparting the concept of correct rule of law and service of the public, and strengthening the financial professional's skill and knowledge (C. L.

Chang, 1991). The ultimate purpose was to increase the efficiency and quality of administration.

Both pre-employment training and on-the-job training were provided to those who passed the High, Ordinary, and Special Examinations of financial and banking subjects (Hsieh, 1997). Upon the completion of pre-employment training, trainees were tested and given certificates if they passed the examination, based on the training material. Those who passed the examination were then assigned to related jobs based on the type of training they received.

One of the main players in civil servant training institutes belonging to local city governments was the Taipei City Government Civil Servant Training Institute, established in 1971 (Hsieh, 1997). As mentioned previously, in 1967, the Taipei city government promulgated the Taipei City Government Civil Servant Training and Advanced Study Act. As a result, the Taipei City Government Civil Servant Training Institute was established to train those who worked in city government.

Similar to the provincial government institutes, the training provided by the Taipei city government was to nourish and educate city government employees to be competent in skills and ethics through cultivating a respectful attitude toward the job, imparting patriotism toward the nation, and strengthening professional practices and management skills (Hsieh, 1997). The ultimate purpose was to increase the efficiency and quality of service to the public.

The scope of training programs provided by the City Government Training Institute was broader than the ones in the Finance Training Institute. In addition to the pre-employment training covering orientation information and on-the-job training covering

professional skill and knowledge, managerial development training was also provided (Hsieh, 1997). Three-week-long managerial development workshops and two-week-long strategic leadership seminars were provided to managers; eight-week-long succession training was provided for section chiefs or heads of sub-divisions. Upon the completion of training, trainees were tested as an evaluation of the training.

Vocational Training Fund Statute

During this stage, most enterprises and factories still lacked the concept of long-term and integrated human resource development and did not emphasize the education and training for their human resources (Council for Economic Planning and Development, 1997b). Except for public enterprises and a few large companies, most enterprises did not have a budget specifically for training purposes (Council for Economic Planning and Development, 1997b).

The lack of a skilled labor force became a problem when Taiwan's economy was interrupted by the oil crisis in 1973. During 1961-1971, the real GNP grew at an annual average rate of 10.2%. Prices were also stable. The price rise of 22.9% in 1973 was a severe shock, although the growth rate still remained high that year. In 1974, the inflation rate in Taiwan jumped to 40.6% and the growth rate dropped to 1.1%. Later in 1975, because of drastic measures taken by the Taiwanese government, inflation was controlled and dropped to a negative 5.1%, and the economy recovered to register a 4.2% growth.

In order to cope with the skyrocketing inflation rate caused by the worldwide oil crisis, the Taiwanese government was active and took drastic actions. Government policies adopted in the wake of the oil crisis could be categorized as a high interest rate

policy, a one-shot adjustment of oil prices, significant tax reductions, and heavy public spending (Kuo, 1983). Among these policies and strategies, the huge amount of public spending on the Ten Major Construction Projects that spanned 1973 to 1978 had a significant relationship effect on economic growth and human resource development.

The Ten Major Construction Projects were designed by the Taiwanese government to develop the infrastructure and heavy industry. They included six transportation projects, three heavy industry projects, and one nuclear power generation project. In order to cope with the problem of labor supply to the Ten Major Construction Projects, the Taiwanese government took action to develop more skilled workers in a short period of time.

After studying the experiences of many developed and developing countries, such as the U.S., England, Germany, Japan, Brazil, and Chili, in the field of vocational training, the government began to consider the idea of collecting a certain percent tax for vocational training from the total wage bill for both public and private enterprises. The government began to understand that the success of vocational training was not only dependent upon the efforts made by the public sector, but also upon sponsorships by the private sector. To facilitate this idea, the passage of the Vocational Training Fund Statute became necessary. It was anticipated that such regulated vocational training, together with vocational education, would develop an adequately skilled workforce to meet the demand for industrialization.

It was not until February, 1972, that the Legislative Yuan promulgated the Vocational Training Fund Statute (Council for Economic Planning and Development, 1997b). The purpose of this statute was to strengthen vocational training and enhance the

nation's job skills in order to meet the needs of economic development. In the statute's first draft, enterprises, whether public or private, in manufacturing, mining, construction, water, electricity and gas, and transportation, with 20 employees or above, were subject by law to make contributions to a Vocational Training Fund. The minimum monthly contribution was no less than 2% of the total payroll of all workers. Enterprises could be reimbursed by the fund if they held any in-service training during the year (National Vocational Training Fund Board, 1984).

After several meetings, this first draft of the statute was revised over and over in order to meet actual needs. Several articles within this statute were changed. For instance, the minimum number of employees requirement was revised from 20 to 50 to 40; and the minimum monthly contribution was no less than 1.5% of the total payroll of all workers (National Vocational Training Fund Board, 1984).

A year later, in 1973, the National Vocational Training Fund Board was also established. This board consisted of 36 members from public enterprises, private enterprises, and laborers. At the National Vocational Training Fund Board opening ceremony, the Minister of the Ministry of the Interior, C. S. Lin, , said:

> Today is the official established date of the National Vocational Training Fund Board. From today, the National Vocational Training Fund Board starts to be responsible and to implement the tasks given by the government. This is a national milestone in our vocational training history....Since the collection of the vocational training fund and the planning and promotion of vocational training from the vocational training fund is an epochal and unprecedented undertaking, thus today there are many enterprises who [sic] haven't quite understood the importance of the

vocational training fund nor completely realized the special efforts made by the government to implement this vocational training fund statute. (National Vocational Training Fund Board, 1984, p. 62)

The Minister of the Ministry of Economic Affairs, Y. H. Sun, also said:

...From now on the Four-Year National Economic Plan should especially emphasize manpower development and research of industrial technology. Manpower development is the engine of economic development. Actively cultivated and developed skilled manpower is the set of tasks emphasized in the process of our national economic development....I would like to use this opportunity to express two individual opinions: first,...promoting vocational training is not to collect the vocational training fund so that problems are solved [sic], but we must be responsible to do the work, to know the job direction to promote training jobs, hope that every committee can attend the committee meetings in your free times, contribute knowledge and experience in order to implement vocational training well. Second, give up individuality, to fully bring the team spirit into play. We need to have a concept of integrated economic development, it should be taken into consideration as to which industries should have training first....The majority of all committee are from large enterprises; large enterprises can apply for self-training with your own training facilities. Small and medium enterprises with no training facilities thus must outsource training, hoping that it should not overlook the small and medium enterprises in the future planning process and should express more for them.... (National Vocational Training Fund Board, 1984, p. 64)

Beginning in March, 1973, the employers on the detailed list of industries that had identifiable forms of vocational training were required to pay their share of the training fund into an appointed bank. When the fund was first implemented, most of the private and public enterprises were very skeptical about the determination of the government. Not too many firms actually contributed. But shortly thereafter, with the support of the government, most public enterprises contributed to the fund, and the private enterprises slowly followed behind (San & Chen, 1988).

To help the enterprises fully understand the system of the Vocational Training Fund Statute and vocational training, the Ministry of the Interior and the National Vocational Training Fund Board started to publicize the fund fully via seminars, meetings, TV interviews, and publications. Through interview programs on TV, which were the most direct broadcasting medium by which people could be influenced, the Ministry of the Interior and the director of the National Vocational Training Fund Board addressed the answers to the questions: (a) What are the purposes of implementing the vocational training fund? (b) How are these purposes to be reached? (c) How should the vocational training fund be used? (d) What should be done to the enterprises that do not pay the vocational training fund as required? (e) Should there be rewards for the enterprises that pay more than required or that have great performance in conducting training? (f) After implementing the Vocational Training Fund Statute, what are the expectations of the enterprises and the society? (g) What are the duties of the National Vocational Training Fund Board? (h) What do you think of the government's policy regarding this statute? and (i) How will the National Vocational Training Fund serve the enterprises that pay the training fund? (National Vocational Training Fund Board, 1984).

Moreover, the Ministry of the Interior, the National Vocational Training Fund Board, and affiliated organizations made special efforts in encouraging enterprises to follow the statute by paying into the vocational training fund and to apply for funds to do training. Since collecting vocational training funds had been an unprecedented undertaking, in spite of multiple communications and publicity, many higher levels of managers of enterprises, especially the highest levels, still did not understand the importance of the vocational training funds (National Vocational Training Fund Board, 1984). Thus, the central principal of the National Vocational Training Fund Board addressed a letter to approximately 3,700 enterprises to encourage them to support this vocational training statute--to enhance Taiwan's international trade status through promoting vocational training, enhancing skill standards, promoting product quality, and increasing productivity.

In addition, in order for foreign companies in Taiwan to understand fully the statute and to pay into the vocational training fund, the National Vocational Training Fund Board published an English version volume, entitled *Vocational Training Fund Statute*, and *Enforcement Rules of the Vocational Training Fund Statute*, and sent them to foreign companies for their reference. In the beginning, when the statute was promulgated, public enterprises and a few large enterprises paid their vocational training fund as required. Others were still waiting to see what would happen and did not pay as required. There were more public enterprises contributing to the fund than private ones. This occurred also with the use of the funds. Of the five industries, water, electricity, and gas, and the transportation industries had the highest reimbursement rates (68.71% and 71.58% respectively) (San & Chen, 1988). Reasons for such high rates in these two

industries were (1) most of the enterprises in these industries were public enterprises, and they were more willing to carry out training because most of the public enterprises were large in size, and therefore it was easier for them to organize their own training programs; and (2) public enterprises were not as concerned about the possibility that in-service training might adversely affect the normal production schedule as were the private enterprises (San & Chen, 1988).

During the first month (April) after the promulgation in 1973, the National Vocational Training Fund Board collected a little more than NT$8,000,000 (approximately U.S. $200,000); however, by December of the same year, it had collected NT$249,586,675 for 1973 (approximately U.S. $6.2 million) (National Vocational Training Fund Board, 1984). This exceeded what they had expected to collect. This showed the result of the hard work of the Board and affiliated organizations; it also indicated that enterprises supported the government policy.

The total funds the National Vocational Training Fund Board received between January, 1974, to November, 1974, was NT$682,536,024 (equivalent to U.S. $17.5 million at that time) (San & Chen, 1988). The manufacturing sector was the primary contributor, accounting for 81.09% of the total funding collected; the transportation sector was the second largest contributor, accounting for 12.03% of the total funding collected (San & Chen, 1988).

According to the statute, the enterprises had to implement vocational training in order to apply for training fund reimbursement. The total training funds reimbursed increased from 39.34% in 1973 to 51.76% in 1974 (San & Chen, 1988). The most significant increase in reimbursement was in the mining industry: from 2.81% in 1973 to

24.08% in 1974; for the construction industry, it was from 21.88% in 1973 to 38.13% in 1974.

There was a huge increase in the number of employee training programs during 1973 and 1974. As a result, the total number of trainees in the manufacturing industry rose from 30,293 in 1972 to 65,454 in 1973, and then almost doubled to 127,700 in 1974 (San & Chen, 1988). In the case of civic organizations and private enterprises, the increase in the share of training was primarily due to the establishment of the Vocational Training Fund Statute.

In order to get training fund reimbursement, enterprises had to have training specialists from training organizations do the training. Except for the affiliated training departments within a few large enterprises, most of the enterprises did not have training facilities. Thus, the consulting business mushroomed like bamboo shoots.

So, what kind of services did those management consulting firms sell? Management consulting firm is defined as the firm (change agent) which is: (a) Assisting an organization (client) to solve bottlenecks in operation by diagnosing, analyzing its business, and making conclusions and providing recommendations, (b) providing managerial training classes, and (c) providing information consultation services (Wu, 1979). According to the China Productivity Center, management consultants are defined as "high-degree knowledge specialists who plan solutions, make suggestions and proposals, and help in implementation and consultation after adjusting, analyzing, and exploring problems within production, sales, and financial functions systemically according to the needs of enterprises" (China Productivity Center, 1985, p. 72).

Generally speaking, in addition to the training classes for the firms that have outsourced training, "diagnosing operations consultation" was another type of service provided by consulting firms back to the 1970s. This type of service is similar to what is called "organization development" in the U.S., which is defined as: "A system-wide effort applying behavioral science knowledge to the planned creation and reinforcement of organizational strategies, structures, and processes for improving an organization's effectiveness" (Cummings & Worley, 1993, p. 691). Management consultants from the consulting firms assisted the client organization in becoming more effective by making suggestions to clients regarding organizational strategies, structures, and processes. In Taiwan, many of the consulting firms listed this item as one of the services provided; however, this consultation service existed in name only because:

- Taiwan's enterprises are conservative; they treated their business strategies as confidential,
- More than 95% of enterprises were SMEs; it lacks a budget to hire professional consulting management consultants,
- Taiwan's enterprises do not emphasize the concept of team work; they believe that they should work on the problems themselves, especially if they have hired people who have graduated from the field of business administration,
- The experts from the consulting firms emphasize theory more than practice; thus, enterprises do not care for their help,
- The pay for the management consultants is low; Taiwan's enterprises like to lure away the consultants by making them attractive offers, and

- The government agencies outsource help from research institutions or foreign consulting firms rather than from domestic consulting firms; thus, it is hard to develop the concept of high-level management consulting skills. (Wu, 1979, pp. 62-63)

Due to all the reasons listed above, the service of offering consultations to improve organizational effectiveness did not exist in reality among consulting firms. Thus, during the 1970s, offering training classes, including specialty training and management training, was considered the most popular service requested. By 1974, there were a total of 32 management consulting firms, of which 15 had registered through the Ministry of the Interior (Wu, 1979).

According to the vocational training statistics compiled from the Ministry of the Interior (1978), the number of management consulting firms reached a maximum in 1972 There were 261 civic organizations that provided vocational training compared to 22 in 1966. None of these 261 civic organizations were named "management consulting organizations" exactly. Though these organizations were named differently, for example, management development centers, advisory committees, supplementary classes, and others (Ministry of the Interior, 1978), they all had to apply to the vocational training fund in the Ministry of the Interior to provide training programs to those enterprises that oursourced from them. The main service these consulting firms provided was initiating training classes.

Because most of the enterprises did not have training facilities, it was of the greatest urgency at that time for the government to assist in setting up training departments within enterprises, help establish specialized training organizations, and help train

trainers. For instance, in order to encourage vocational training to be conducted not only by major businesses but also SMEs, the National Vocational Training Fund Board in 1974 started the *Circulating Training Program* (National Vocational Training Fund Board, 1984). Although this program did not last long--from 1974, December, to 1975, October--this program served 1,062 trainees and was the most economically efficient training program for the SMEs; it was a successful experiment (National Vocational Training Fund Board, 1984).

As a result, these urgent tasks performed by the government not only resulted in an increased number of vocational training departments within enterprises, but also an increased number of public and private vocational training organizations. According to the statistics compiled from the Ministry of the Interior and the National Vocational Training Fund Board (1984), by August, 1973, there were 63 vocational training institutions that were qualified and registered; by January, 1974, there were 337 institutions added; by August, 1974, there were another 297 institutions added. By the end of 1976, there were a total of 714 vocational training institutions registered at the Ministry of the Interior: 578 institutions within enterprises, 80 institutions were affiliated with schools, and 56 institutions were independent training organizations. It was clear that, with this Vocational Training Fund Statute, not only did the number of vocational training institutions increase and expand, but also the volume of vocational training implemented increased.

What came along with the increasing number of training institutions and trainees in the public and private sectors was the fast-growing number of managers and trainers for the training institutions. According to the *Enforcement Rules of the Vocational Training*

Fund Statute, the National Vocational Training Fund Board was the agency responsible for the following four types of training: (a) manager training for the vocational training institutions, (b) trainer training, (c) basic industrial skill training, and (d) foremen training (National Vocational Training Fund Board, 1984). The Board entrusted the Industrial Vocational Training Association to train those who wanted to be managers of the vocational training institutions. The number of students in the first class, run from June 11 to June 23, increased from 30 to 40 due to a demand from enterprises. Because many of the students were in-house training managers of the enterprises where they worked, the quality of the students was quite high (National Vocational Training Fund Board, 1984). From 1973 to 1975, there were 29 classes with a total of 853 graduates from the manager training classes. The vocational training manager certificates were issued to the graduates from the Ministry of the Interior.

For vocational training trainers, the Board entrusted the Industrial Vocational Training Association, the Southern Public Vocational Training Center, the National Chunghua University of Education, and the National Taiwan Normal University to do the job. The training material was published by the Board. Particularly in 1975, the vocational training committee of the mining industry asked the Board to open a class for their mining training trainers (National Vocational Training Fund Board, 1984). For basic industrial skill training to the public, the Board entrusted a total of 29 vocational training institutions, senior vocational schools, and colleges and universities, such as the Industrial Vocational Training Association, the Northern Public Vocational Training Center, the Vocational Training Center of Mainland China Refugee Relief Organization,

Training Center of the Bureau of Public Transportation, and others (National Vocational Training Fund Board, 1984).

Although the Vocational Training Fund Statute stopped after 18 months, some, if not most, of Taiwan's enterprises had experience with employee training by then. Under the statute, the total training classes in 1973 was 4,021, 9,754 for 1974. And, from the beginning to the end of implementing this Vocational Training Fund Statute, the total number of trainees was 478,096, including in-service training for 307,337 people and orientation for 170,759 people (National Vocational Training Fund Board, 1984). In addition, the National Vocational Training Fund Board indicated that basic skill training conducted by the National Vocational Training Fund Board not only was able to adjust the relationship of supply and demand of laborers, but also satisfy the needs of the Ten Major Construction Projects (National Vocational Training Fund Board, 1984). The increase of laborers with basic skills produced a positive influence in Taiwan's economy and society.

What the quality of training? Although the consulting business mushroomed like bamboo shoots, due to a lack of regulation and monitoring from the Taiwanese government, the quality of services provided by these consulting firms varied (Kao, 1990). Enterprises did not have a standard to follow when choosing which consulting service to contact. As Jean (personal communication, December 4, 2000) indicated, those consulting firms did help companies save some money in tax deductions; however, they did not offer training programs but did paper work for clients who asked for services. In addition, Wu's (1979) study showed that the biggest obstacle for management consulting firms in the 1970s was that there was a shortage of professional

management consultants in the industry. The same study concluded that the small-scaled consulting firms were not able to develop their own consultants. Further, there was almost no specialized organization where professional management consultants could be trained and developed. In the same study, surveying clients of management consulting firms, Wu also found these reasons for not wanting to outsource training programs or organization development services from consulting firms: (a) consulting firms focused on theory more than on practices, (b) consulting firms were not able to grasp core problems, and (c) the suggestions provided by consulting firms were not applicable.

Nevertheless, there are always drawbacks to any policy. After the Taiwanese government started to promote employee training within enterprises because of the Vocational Training Fund Statute, some scholars in Taiwan indicated that the Vocational Training Fund Statute did not really create any training effect in the private sector in Taiwan. For example, a study showed that 61% of large enterprises did not consider that paying their vocational training fund to the government was necessary, as with 67% of small and medium enterprises (Wu, 1979). The same study indicated that the two main reasons for such enterprises not agreeing with the vocational training fund were that (a) there was a high turn-over rate; thus, it seemed like investing in training for other companies, and (b) they did not obtain the actual training they needed.

This begs the question: What really caused the failure of the Vocational Training Fund Statute? Was the Oil Crisis the only reason behind it? Between 1976 to 1977, right after the end of the statute, several Taiwanese economists were asked by the government research and development examination organization to conduct a special project on the Vocational Training Fund. The study reported three findings: (a) The small and medium

enterprises accounted for the majority of the enterprises in Taiwan, and the small and medium enterprises were not able to conduct vocational training by themselves, (b) self-sponsoring vocational training is not economically efficient, and (c) currently, there were not sufficient vocational training organizations from which the enterprises could outsource training (National Vocational Training Fund Board, 1984).

In addition, scholars believed that the failure of the promotion of the Vocational Training Fund could be mainly attributed to the fact that the skill levels and the needs for vocational training in different industries are diverse. As such, it is not reasonable to require every firm to contribute the same percentage of its total wages to this fund (Chang, 1986; San & Chen, 1988). It was estimated that only 41% of the disbursement coming from the Vocational Training Fund was requested by the private sector (Wu, 1978). In Table 4, of the five industries, water, electricity and gas, as well as transportation industries, had the highest reimbursement rates of 68.71% and 71.58%, respectively. Because most of the enterprises in these two industries were public enterprises, and most of them were large in size so that it was easier for them to organize their own training programs than private enterprises.

After all, most of the firms lacked experience in conducting vocational training programs. The vocational training fund was widely criticized for being implemented too quickly to allow enough time for proper preparation. Thus, the effectiveness of the training was somewhat doubtful (San & Chen, 1988).

To sum up, although the Vocational Training Fund Statute was suspended only 18 months after its implementation, it did make an increasing number of employees and

Table 4

Total Vocational Training Fund Reimbursed by Industries: 1973-1974

Industries	Reimbursement (NT$)	Reimbursement Percentage	Reimbursement/ Contribution (%)
Manufacturing	243,691,658	75.32	44.02
Mining	2,581,409	0.79	20.92
Construction	4,619,680	1.43	32.02
Water, Electricity and Gas	13,913,654	4.3	68.71
Transportation	58,725,263	18.15	71.58
Total	323,531,554	100	47.40

Note: San, G. & Chen, C. N. (1988). In-service training in Taiwan, R. O. C. Taipei, Taiwan: Chung-Hua Institution for Economic Research, p. 72.

employers realize the positive impact of vocational training on individual careers and enterprises, especially in increasing voluntary training programs in the private sector.

Accompanying the increasing number of training programs in the private sector was the fast-growing number of management consulting firms; the roles that these firms played should be recognized (C. C. Jean, personal communication, December 4, 2000). In addition, those enterprises that followed the statute did benefit from tax deductions and solid training programs that they insisted the consulting firms had given to them (C. C. Jean, personal communication, December 4, 2000). This expansion of skill training provided by private enterprises and civic organizations in this stage was of critical importance to the nation's economic progress (Galenson, 1979).

Summary

Historically, there have been four stages in establishing the vocational training system in Taiwan, including public training and enterprise training. It was stated that, besides education, training was an important tool in enhancing the quality of human

resources. Vocational training was rich in flexibility and could be adapted to the needs of changing occupations.

Starting from the middle of the 1950s, the Taiwanese government began gradually establishing human resource policies systemically so that the needs of manpower for Taiwan's development after the war could be met. During the first stage from 1953 to 1964, in terms of formal policies enforced by the government, a formal apprenticeship training system was not established by public or private enterprises during this period. However, without a planned training system, there were apprenticeship training classes initiated informally in public and private enterprises, especially in private enterprises. It was realized that an apprenticeship training system should be established in order to coordinate training with national economic growth and development. Additionally, public enterprises and large private enterprises at that time had a limited variety of training programs for their employees.

The second stage in the evolution of vocational training in Taiwan extended from approximately 1965 to 1975. The labor-intensive industrial production expanding in the 1960s and 1970s required and absorbed a mass labor force with basic labor skills. Taiwan's vocational training policies, gradually established from the mid-1960s, enabled the development and utilization of human resources to take place in accordance with the manpower requirements of economic development nationally. During this period of time, four Manpower Development Plans (1966-1974) were initiated and implemented; in addition, the National Manpower Conference was held in 1966. Suggestions proposed at the conference were related to enhanced vocational training, implementing new forms of apprenticeship training, and establishing training institutions in both the public and the

private sectors (Li, 1968). Taiwan's government--under the leadership of the Director of the Ministry of Economic Affairs, K. T. Li--paid much attention to these suggestions and implemented them to meet the needs of the country economically and socially. In order to provide long-term vocational training, Taiwan completed legislation to establish a vocational training fund in 1972. Due to the establishment of the National Vocational Training Fund, a diversity of vocational training sponsorship thus started.

An increase in the share of training done by private business organizations or civic organizations, particularly since 1972, was primarily due to the establishment of the National Vocational Training Fund. It is believed that the development of human resources in Taiwan was not an isolated affair but was related to other aspects of national objectives in general and economic strategies in particular.

The final two stages in the development of vocational training in Taiwan are presented in the next chapter.

CHAPTER 7

DEVELOPMENT OF HUMAN RESOURCES THROUGH VOCATIONAL TRAINING: 1976-1986

This proactive development of vocational training through which Taiwan's human resources was developed after 1975 again showed how the Taiwanese government had integrated human resource development with its national economic development. Continually, during stage 3 (1976 to 1980) and stage 4 (1981 to 1986), it could be concluded that government's propagation of vacation training has been one of the main human resource development policies used to improve labor force quality and enhance human resource utilization.

Stage 3: 1976-1980

The years after the Vocational Training Fund Statute came to an end were a period when vocational training was done primarily by the Taiwanese government. The public vocational training centers were not able to operate efficiently due to a shortage of funds. Therefore, in order to cope with needs to enhance the skilled labor force for the Ten Major Construction Projects--under the seventh Economic Development Plan (1976-1981), the government in 1976 set up the Special Techniques and Vocational Training Committee. The third stage in the development of vocational training in Taiwan began when the Special Techniques and Vocational Training Committee was set up.

An immediate result of the halt of the Vocational Training Fund Statute was a huge decrease in the number of employee training programs offered. The total of trainees dropped from 315,891 in 1974 to 198,185 in 1975; the total of training classes dropped from 11,021 in 1974 to 7,159 in 1975 (see Table 5) (Employment and Vocational

Training Administration, 1998). At the same time, the number of training programs provided by the civic organizations and supplementary classes decreased abruptly. The statistical report from the Ministry of the Interior (1978) also showed that the number of civic organizations and supplementary classes fell from 261 in 1972 to 203 in 1975.

Table 5

Number of Training Classes and Trainees by Industry of Sponsorship: 1972-1976

Industries/Year	1972 No. of Trainees/ (Classes)*	1973 No. of Trainees/ (Classes)	1974 No. of Trainees/ (Classes)	1975 No. of Trainees/ (Classes)	1976 No. of Trainees/ (Classes)
Total	156,036 (4,686)	20,925 (6,743)	315,891 (11,021)	198,185 (7,159)	202,192 (8,179)
Agriculture, Forestry, Fishing & Animal Husbandary	1,247 (38)	880 (28)	4,032 (109)	764 (21)	792 (23)
Mining & Quarrying	621 (15)	6,287 (182)	8,223 (228)	1,205 (24)	1,448 (29)
Manufacturing	30,293 (886)	65,454 (2,616)	127,700 (5,775)	71,984 (3,183)	80,304 (4,530)
Electricity, Gas & Water	3,634 (194)	3,652 (175)	4,679 (212)	2,965 (171)	4,271 (234)
Construction	- -	644 (15)	364 (7)	232 (7)	186 (5)
Transport, Storage & Communicate	20,095 (736)	40,257 (1145)	33,249 (1,189)	26,575 (1,098)	27,264 (1,009)
Financing, Insurance Real Estate & Business Services	21,677 (649)	40,997 (1,108)	61,762 (1,611)	16,662 (484)	21,375 (550)
Trade & Eating-Drinking Places, Public Administration, Social & Personal Services	78,469 (2,168)	5,134 (1,474)	75,882 (1,890)	77,798 (2,171)	66,552 (1,799)

Note: Employment & Vocational Training Administration, Council of Labor Affairs, Executive Yuan. (1998). The statistics of vocational training, skill test & employment service in Taiwan area of the Republic of China. Taipei, Taiwan: Author, p. 5.
* Number of training classes are in parentheses.

The business conditions for the management consulting firms did not recover entirely after the economic crisis. In terms of the size of management consulting firms, in his 1979 study investigating the status of management consulting firms in Taiwan, Wu found that 60% of registered firms had fewer than 25 employees, 25% of firms had between 25-50 employees, 5% of firms had 50-100 employees, and 10% of firms had more than 100 employees. In terms of registered capital, 47% of firms had less than NT$500,000 (approximately U.S. $12,500), 20% of firms had between NT$500,000 to NT$1,000,000 (approximately U.S. $25,000), 20% of firms had between NT$1000,000 to NT$2,000,000 (approximately U.S. $500,000) dollars, and only 13% of firms had more than NT$2,000,000. (The number was overlapped in the original source.)

Who were the clients to whom management consulting firms sold their services and products in Taiwan? As noted earlier, back to the period of the Vocational Training Fund, enterprises which liked to have their training fund reimbursed from the National Vocational Training Fund Board would outsource their training programs to the management consulting firms. From a phone interview with 507 companies in 1979, Wu found that 84 companies--16.67%--had purchased services from management consulting firms. When analyzing the size of the enterprises, Wu found that 24.68% of large enterprises purchased the services, 12.43% of medium enterprises, and only 13.33% of small enterprises.

By 1979, there were a total of 39 management consulting firms, including 28 private firms, 5 public firms, and 6 firms affiliated with government agencies; they had a hard time running their businesses even after the crisis (Wu, 1979). The termination of

the statute not only caused training facilities to sit idle, but also caused a shortage of skilled laborers for the nation.

Promoting Vocational Training Five-Year Plan Initiated

When the Special Techniques and Vocational Training Committee was set up, T. H. Lee was assigned by the Executive Yuan to direct the Committee to coordinate special techniques and vocational training policies planning; to coordinate vocational training implementation among government agencies; and to evaluate other projects related to development and utilization of human resources (Council for Economic Planning and Development, 1997b). Lee realized the important role that vocational training had played in transforming Taiwan from an agricultural to an industrial society and knew that the members of the National Vocational Training Fund Board continued to promote vocational training activities with insufficient funding. A significant plan--Promoting Vocational Training Five-Year Plan--was thus promulgated by this Special Techniques and Vocational Training Committee in 1977 (Council for Economic Planning and Development, 1997b). In implementing this plan, the government began formally to set up a budget of NT$40 million (approximately U.S. $2 million) to support vocational training in Taiwan; yet, most importantly, 1978 was the first year in which the vocational training budget was listed in the national budget in order to aid the government in promoting vocational training nation-wide (National Vocational Training Fund Board, 1984).

The most notable agenda of the Promoting Vocational Training Five-Year Plan was to provide skilled laborers to meet the needs of the seventh Economic Development Plan (1976-1981). According to the plan, it was estimated that 37,500 skilled laborers needed

to be added per year; with the 25,000 laborers provided by industrial vocational schools, there was a shortfall of 12,500 laborers (National Vocational Training Fund Board, 1984). This shortage needed to be filled by a supply from vocational training. The goal was partially met in 1978 with 10,810 trainees graduating from special vocational training institutions, the Industrial Vocational Training Association, public vocational training centers, senior industrial vocational schools, and others (National Vocational Training Fund Board, 1984).

Another notable agenda of the Promoting Vocational Training Five-Year Plan was to start manpower surveys nation-wide (Council for Economic Planning and Development, 1997b). It was important for manpower planners in Taiwan to understand the current and short-run problems in the labor market. To serve this purpose, one of the most effective methods was to conduct surveys, since surveys can provide important information concerning problems in manpower demand and supply which will be useful in policy making and manpower planning. The Taiwanese government has fully recognized the importance of surveys and has expended much effort in conducting them.

Two of the three major surveys conducted regularly since 1978 are the Supplementary Survey on the Demand for Vocational Training (SSDVT) and the Survey on General Information about Vocational Training (SGIVT). In the SSDVT and the SGIVT surveys, the interviewees are firms and organizations. These two large scale surveys are conducted and published jointly by the Council for Economic Planning & Development and the Directorate-General of Budget, Accounting and Statistics (DGBAS) of the Executive Yuan, and the Employment and Vocational Training Administration of the Council of Labor Affairs, working together. The purpose of the

SSDVT is to determine the demand for vocational training in respective industries in order to estimate future demand for various categories of skilled labor in each industry. The purpose of the SGIVT is to provide information as to how in-service training is actually implemented. This particular survey covers in-service training implemented in all public enterprises, private enterprises with 150 employees or more, all vocational schools, training institutes sponsored by central or provincial governments, and training sponsored by civil organizations.

Another type of survey, smaller in scale compared to the previous two, is the Vocational Training Survey (VTS). The DGBAS began this survey in 1979 in order to understand the attitude of the public towards vocational and in-service training. Since then, it has been continued annually in December. The interviewees are asked questions, such as whether they have received any vocational training for more than four consecutive weeks before the reference date of 15th December. For those who respond positively, detailed questions as to what kind of training institution, what type of training, the duration of the training, the purpose of participation, and the assessment of the training are asked. Those who have not received any training for more than one month before the reference date are asked whether they intend to participate in vocational training in order to understand their intentions and desires to receive further training.

First Manpower Development Special Plan Initiated

In addition to the Promoting Vocational Training Plan of the Special Techniques and Vocational Training Committee, the first Manpower Development Special Plan was another noteworthy initiative begun during this period from 1976 to 1980. While there had been Manpower Plans since 1966, when several National Manpower Conferences

were held between 1966 to 1973, all Manpower Plans were initiated by the Manpower Development Committee led by K. T. Li. This Committee was renamed several times, and it was discarded in 1973 when the International Economy Cooperation and Development Council was renamed to the Economic Planning Council (Council for Economic Planning and Development, 1997b).

From 1973 to early 1980, no single manpower planning organization existed to coordinate different departments. Thus, a separate manpower administrative department from each cabinet was in charge of its own needs. In March, 1976, the Executive Yuan asked the Economic Planning Council to form a committee to be in charge of manpower planning and related issues; but the Economic Planning Council did not respond to this request positively because it was busy with economic development issues nation-wide (Council for Economic Planning and Development, 1997b).

Thus, the first Manpower Development Special Plan began when the four Manpower Plans ended in 1974. This special plan was carried out by different departments within different cabinets to meet the goals set. The goals of vocational training included:

- Expand training facilities in public vocational training centers, establish modern apprenticeship systems, and strengthen skilled labor training in every industry in order to meet the needs of skilled laborers.
- Establish a vocational certificate system and expand the implementation of skills tests in order to reach 45 main industrial and service skills by 1981.
- Research and examine the Vocational Training Act, and speed the legislation process. (Council for Economic Planning and Development, 1997b, p. 39)

While not all of the agendas listed were completed, this period of time (1976 to 1980) did play a vital role in the history of vocational training in Taiwan; it was the preparation period for the legislation of the Vocational Training Act in 1983. The importance of the system of manpower surveys was established, and the role of these surveys should not be ignored. The efforts that the government, in coordination with the Ministry of the Interior, Ministry of Economic Affairs, Ministry of Education, National Youth Commission, and Council for Economic Planning and Development, made to support vocational training with industries made a significant impact. In 1980, in order to promote human resource development to develop its economy, the National Vocational Training Fund Board set up the Vocational Training Research and Development Center to enhance the techniques and content of vocational training from a long-term perspective. Moreover, the supply of skilled laborers for the seventh Economic Plan was significant to Taiwan's development. No wonder that, by the late 1970s, Taiwan had became widely recognized as an economic miracle by the world.

Stage 4: 1981-1986

At the beginning of the 1980s, the increasing competition from other Asian countries, such as China and Thailand, for Taiwan's market share of low-cost manufacturing products pressured Taiwan's industries to change (Hwang, 1991). To escape cruel competition with other Asian developing countries, the Taiwanese government decided to develop those industries that produced high value-added goods. It was hoped that producing and exporting higher value goods would generate a series of backward supply chain reactions that would create a new wave of growth of high value-added industries in Taiwan (Hwang, 1991). In other words, it was hoped that by

exporting higher value products would take Taiwan out of competition with other Asian developing countries for the market share of low-cost manufacturing products and bring in more requests of higher value products from U.S. and Western European markets.

Also, with this changing emphasis economically and socially, industrialization in Taiwan began a new stage--the development of high tech industries--during the 1980s. The government selected eight high tech industries for intensive development during the 1980s, such as energy, metallurgy, information technology, manufacturing automation, and others. These industries were chosen because of their potential to solve specific economic development problems in Taiwan (Hwang, 1991). Research divisions and centers were established in the Industrial Technology Research Institute to carry out the R&D of these technologies. The Electronics Research Division was the largest division in terms of the number of personnel and the most distinguished in terms of the publicity its research projects attracted. This division was responsible for the birth of Taiwan's integrated circuit (IC) industry. In fact, major IC development projects were begun by the Ministry of Economic Affairs through the Industrial Technology Research Institute during 1979. The major goals of these projects were not only to upgrade IC design, testing, and application capability, but also to transfer the research institute's IC technology to the private sector. In 1979, Taiwan's first private IC manufacturer came into existence (Hwang, 1991).

Establishment of Employment and Vocational Training Administration

Notwithstanding, in this stage, Taiwan faced new human resource problems in its domestic economy; that is an unskilled labor force had been almost fully employed, wages were rising, and an abundant number of high school and college graduates needed

more training. In order to pursue the national goals of the high tech industries, the nation needed to address these new problems. Government and entrepreneurs responded promptly to the new challenges, and effective economic policies were designed and implemented to meet the new circumstances.

To maintain full employment continuously, while fully utilizing human resources in production, manpower demand needed to adjust itself to the changes in the structure and supply of human resources. Thus, in spite of the fact that the Vocational Training Fund Statute was suspended in 1974, with in-service training suffering a major setback, the Taiwanese government was still concerned about the demand for labor of higher quality to meet the needs of the upgraded labor structure. Since then, the Taiwanese government has implemented numerous improvements in developing vocational education and training and in promoting the role that senior high schools and vocational school graduates play in industrial production. Among the improvements, a five-year in-service training plan was implemented in July, 1977, which eventually led to the establishment of the Employment and Vocational Training Administration in March, 1981 (Employment and Vocational Training Administration, 1999).

The Employment and Vocational Training Administration 's major functions were to promote vocational training, to expand the scope of trade skills tests, and to strengthen a wide range of employment services. It was hoped that full employment could be achieved through employment services, skills levels could be enhanced though skill certification, and constructive manpower could be cultivated through vocational training (Employment and Vocational Training Administration, 1999). The ultimate goals were

to promote economic and social prosperity and to ensure the employment security of the people.

However, not until the Employment and Vocational Training Administration was founded in 1981 were the specifications provided regarding government-assisted enterprise training. Categories of enterprise training programs provided by the Employment and Vocational Training Administration (1999) were:

- pre-employment training for new employees
- upgrading training for in-service employees
- second-expertise training for employees
- job-transfer training for employees
- cooperative education and training (p. 11)

There were several approaches that the Employment and Vocational Training Administration used in promoting enterprise training. For example, through financial help, the government provided stipends for instructors, teaching materials, and printing materials for training held by industrial and commercial associations and trade unions. Also, enterprises could obtain tax-exemption and tax deduction for training expenses under certain conditions.

Another major approach was to assist industrial and commercial associations and trade unions in setting up and delivering in-plant training programs. It was believed that enterprise training conducted by these inter- and intra-industry associations could meet the needs of enterprises better because they understood the needs within a particular industry better (Tsai, 1995). Because most of the associations did not have experiences in conducting enterprise training, it was urgent for the Employment and Vocational

Training Administration to assist them and enhance their ability in setting up and delivering training programs. The first workshop for preparing professional trainers was held in May, 1982 (Tsai, 1995). Labor unions were invited to the workshop to learn how to conduct training step by step, including designing, developing, delivering and evaluating. In addition to workshops, in 1983, 35 associations were invited to attend a vocational training seminar to share the mission of promoting enterprise training. Further, providing demonstrations was another effective way to publicize the importance of effective training programs. The Employment and Vocational Training Administration also invited the Taiwan Garment Industry Association, the Taiwan Footwear Manufacturers Association, and the Association of Allied Industries in Science Base Industrial Park that had experience in conducting enterprise training to share their experience and knowledge with other associations.

Establishment of Small and Medium Enterprise Administration

As was revealed in the 1981 Census of Manufacturing and Commerce, in the Taiwan Area about 96% of manufacturing factories had fewer than 100 employees (San & Chen, 1988). The small scale of the factories imposed many constraints in terms of finance, facilities, instructors, and so forth, with respect to the ability of individual factories to establish in-service training programs. Due to this rapid increase in the number of SMEs and the important role SMEs played in the national economy, the Small and Medium Enterprise Administration was created by the Ministry of Economic Affairs in 1981. The history of the Small and Medium Enterprise Administration is long standing. As a matter of fact, in order to enhance the healthy growth of SMEs, the International Economic Cooperation Council had set up the SME Guidance Work Group,

which coordinated relevant government departments to provide guidance and assistance to SMEs' development since the early 1960s. In 1967, this work group was expanded to the SME Guidance Office, which followed the successful examples of the U.S. and Japan to provide SMEs with guidance in technology, management, finance, and cooperative organizations. Three years later, in 1970, the Industrial Development Bureau of the Ministry of Economic Affairs took over this work group. Later on, due to the rapid increase in the number of SME's and as the work to guide and assist SMEs grew heavier, more complicated and more diversified, the Ministry of Economic Affairs in 1981 established the Small and Medium Enterprise Administration (SMEA)--a department solely charged with the responsibility of assisting SMEs.

The SMEA is responsible for strengthening the development of SMEs through the formulation of SME development policies and the implementation of the SME development and assistance provisions of the Statute for Development of Small and Medium Enterprises. One of the major tasks of the Employment and Vocational Training Administration after its establishment was to work on legislation associated with the Vocational Training Act. Through the Employment and Vocational Training Administration 's enduring efforts, the Vocational Training Act was finally passed by the Legislative Yuan and was promulgated in 1983. This law further enhanced the implementation of in-service training in Taiwan.

The Vocational Training Act described the coverage of vocational training, which included basic training, apprenticeship training, upgrading training, job-transfer training, handicapped training, and instructor training. The potential trainees for both basic training and apprenticeship training consisted of junior high school graduates. Basic

training was primarily sponsored by governmental or non-profit training organizations, while apprenticeship training was sponsored primarily by private enterprises. The Enforcement Rules of the Vocational Training Act were designed to specify how to enforce apprenticeship training carried out by private firms. For in-service employees, job-transfer training, handicapped training, and instructor training were to be sponsored primarily by the government training centers and targeted in-service employees.

An important survey conducted occasionally in private firms covering manufacturing and service sectors, but not the agriculture sector, is the Vocational Training Needs Survey (VTNS) (Taiwan's Bureau of Employment and Training, Labor Department, 1992b). The VTNS specifies a different duration for each of the four types of training: basic training, advanced training, apprentice training, and co-operative training. The VTNS counts a firm that has conducted enterprise training for any occupational group in a firm only if the firm provided one month or more for basic training, one week or more for advanced training, and one year or more for apprentice training. These data are published annually in Statistics on Vocational Training, Skills Testing, and Employment Services in the Taiwan Area of the Republic of China.

The Vocational Training Act reintroduced the Vocational Training Fund in Taiwan. It was specifically required by the Vocational Training Act that those industries that were selected by the government had to contribute a certain proportion of their annual sales to the training fund in order to support nation-wide vocational training activities. Such industries were eligible to have their own training expenses reimbursed.

However, in a way that was different from the Vocational Training Fund Statute, the Vocational Training Act specifically required that the rate of contribution for each

organization be determined by the industry it belonged to and by its size. Clearly, the Vocational Training Act abandoned the idea of a flat rate of contribution as existed for the Vocational Training Fund and adopted the idea of a variable rate of contribution for each organization.

As described earlier, the small scale of the factories had many constraints to establishing in-service training programs. One feasible approach to overcoming such problems was through enterprise training service teams monitored by the Council of Labor Affairs to provide small and medium-sized enterprises with technical services, subsidies, tax exemptions, and other incentives. According to the Guidelines for Identifying SMEs issued by the Ministry of Economic Affairs, all firms that had legally completed company registration or commercial registration and met the following requirements were considered small and medium enterprises:

- In the cases of manufacturing, construction, mining, and quarrying enterprises, paid-in capital must be less than NT$60 million or the number of regular employees must not exceed 200.
- In the cases of forestry, agriculture, fishing, animal husbandry, hunting, plumbing, electrical, gas and fuel oil, commerce, transportation, warehouse, courier, finance, insurance, real estate, industrial and commercial service, social service, and personal service enterprises, sales must be less than NT$80 million for the previous year or the number of regular employees must not exceed 50 (Ministry of Economic Affairs, 1999).

Although the clauses related to compulsory contribution to the vocational training fund were reintroduced to the Vocational Training Act, the compulsory rate of contribution was not enforced due to a lack of enforcement rules (San & Chen, 1988).

Training Administered by Employment and Vocational Training Administration and Others

As stated earlier, during the period from 1966 to 1976, nine training centers were set up, each being under the supervision of different levels of organizations within the government. After the establishment of the Employment and Vocational Training Administration in 1981, both the Tai-Shan Vocational Training Center and the Central Vocational Training Center were directly under the Employment and Vocational Training Administration. In addition, both the North and South Training Centers that were previously under the Ministry of Economic Affairs also came under the Employment and Vocational Training Administration.

Of the four training centers directly administrated under the Employment and Vocational Training Administration, the Tai-Shan and the Central Centers were the largest. Somewhat different from the other three training centers, the Tai-Shan Center had the important task of preparing vocational-training instructors.

The public sector's vocational and in-service training were not limited to the Employment and Vocational Training Administration's training centers. As the Employment and Vocational Training Administration was not established until 1981, many training centers sponsored by various government organizations had already established their own training centers and training programs to meet their own specific needs. From Table 6, it is clear that the Employment and Vocational Training

Administration 's trainees accounted for only 1.2% of total trainees in 1983, while the public sector's trainees accounted for 57.3% of total trainees in that year. The total number of trainees trained by the Employment and Vocational Training Administration training centers was only a small fraction of the total number of trainees in the public sector or in the nation as a whole.

Table 6

Number of Trainees by Sponsorship in 1983

Sponsorships	Number of Trainees	%
Private Enterprises	93,355	42.7
Public Enterprises	48,110	22.0
EVTA Training Centers	2,715	1.2
Other Public Training Institutes	20,031	9.1
Civic Organizations	27,594	12.6
Supplementary School Classes	16,130	7.4
Government Agencies	10,510	4.8

Note: Employment & Vocational Training Administration, Council of Labor Affairs, Executive Yuan. (1998). The statistics of vocational training, skill test & employment service in Taiwan area of the Republic of China. Taipei, Taiwan: Author, pp. 2-3.

During this stage, enterprise training was widely practiced in industry and business in Taiwan (San, 1990; San & Chen, 1988). According to the results of a survey of 1,180 firms, official statistics showed that the percent of firms that conducted training in 1985 to the total number of surveyed firms for the manufacturing sector as a whole was 24.2% and for the transportation equipment industry was 35.4% (San & Chen, 1988). In addition, the survey also indicated that, among firms in the manufacturing sector, 55.8% in the beverage and tobacco industry conducted in-service training--this ranked the highest among all industries in the manufacturing sector (San & Chen, 1988). However, most of the firms in the beverage and tobacco industry were state-owned enterprises

under the Tobacco and Wine Monopoly Bureau of the Taiwan Provincial Government. Perhaps this is the main reason why firms in this industry have a higher rate of conducting training.

After receiving assistance from the Employment and Vocational Training Administration in designing and delivering training, some industrial and commercial associations also started to play a significant role in conducting enterprise training. Some of the associations that received assistance were the Taiwan Toy Manufacturers Association, Taiwan Garment Industry Association, Taiwan Footwear Manufacturers Association, Taiwan Association of Machinery Industry, the Association of Allied Industries in Science Based Industrial Park, and many others (Tsai, 1995).

Besides industrial and commercial associations, civic organizations played important roles in providing enterprise training during this stage as well. It was believed that the first HR community in Taiwan came to birth during this stage. This stage would be incomplete without mention of The HR Management and Development Commission. In 1982, while serving IBM-Taiwan as its personnel manager, David Yao first assembled a group of local HR managers to organize a forum for human resource management and development in order to meet the challenge of upgrading Taiwan's human capital and to foster long-term development (D. Yao, personal communication, October 25, 1999). This was the first instance of such cooperation for the HR community in Taiwan ("First Enterprise," 1983).

Yao recalled that, during the 1970s, he and other local personnel managers of large corporations already had their get-together activities to discuss issues and trends within HR on their own (personal communication, October 25, 1999). The first Enterprise

Human Resource Management and Development Seminar was held at the China Productivity Center under the leadership of Yao in 1983 January 15 ("First Enterprise," 1983). This seminar was sponsored by the China Productivity Center and coordinated by fifteen members, including Yao. These fifteen members were from major corporations in Taiwan, including IBM, Philip, GTE, Taiwan Plastic, Hewlett Packard, Sampo, and others. Yao, in his opening speech, said:

> ... Today is a very special and meaningful day because this is the first time for our domestic enterprise personnel managers to have such an opportunity to attend a more solid in content and a larger-scaled seminar, it is also the first time for all of us to have opportunities to walk out from our own jobs and to discuss the knowledge and experience of modern human resource management and development in order to improve each other.
>
> ...We this time initiate this seminar; the main purposes can be catorgized into the following two points: First, strengthen the connection between industry and business personnel managers in order to enhance each other's opinions and experience communication. Second, through a more planned, organized method, canvass various opinions and benefit together to enhance the professional standards from our enterprises towards human resource management and development.
>
> ... The above two points are only short-term goals; we hope that, through our enthusiasm and participation, we can make our regular seminars a more professional organization in order to build the bridge between personnel management organizations of developed countries and Taiwan. Moreover, through the collaboration with academia, we hope that theory and practice can be linked

together in order to enhance the quality and standards of enterprise personnel management in Taiwan. (p. 2)

Soon after the seminar, to foster long-term development, the same group resolved in 1984 to establish an HR Management and Development Commission under the aegis of the Chinese Management Association. Yao and other charter members were not able to have their HR Management and Development Association approved by the government because there was already a similar organization existing--the Chinese Management Association (D. Yao, personal communication, October 25, 1999). The Taiwanese government did not allow two organizations with similar characteristics to exist at that time; thus, the HR Management and Development Commission had to be under the aegis of the Chinese Management Association.

Since the establishment of the HR Management and Development Commission, an HR cooperation network began to take form. Yao gathered domestic and multinational personnel managers who shared knowledge and practices in HR management and development. Within two years, six seminars were held. Yao recalled proudly that, unlike other "feast" seminars held by other agencies, they were serious about discussing, sharing, and learning from each other in each seminar; each time, they set agendas to discuss, and participants were eager to learn something which they could bring with them back to work (personal communication, October 25, 1999). The contents of the six seminars covered a variety of issues within HR management and development (see Appendix J).

Besides conducting seminars, the commission also provided cutting-edge news and information to its members. For example, articles from U.S. journals, such as Personnel,

Training, Training and Development, Management Review, International Management, and Asian Wall Street Journal, were translated into Chinese and shared with the members of the organization. Another service provided by the commission was consulting--providing HR and related information to local organizations, and accepting requests for enterprise training planning, designing and delivering. Yao emphasized that issues in both Human Resource Management and Human Resource Development were emphasized by the HR Management and Development Commission (personal communication, October 25, 1999).

Another significant non-profit organization established during this stage was the Research and Development Institute of Vocational Training, Republic of China. It was inaugurated in 1982 under the supervision of the Chinese National Federation of Industries (Council for Economic Planning and Development, 1997b). Its main function was to continue the activities of its former body, the Vocational Training Research and Development Institute, which was set up in 1980 by the National Vocational Training Fund Board under the 1972 Vocational Training Fund Statute.

Playing the role of bridging between government and private enterprises, the Institute was to advance the development and cultivation of human resources based on the actual needs of industries. The mission was to develop and promote the adoption of state-of-the-art training strategy, training media and facilities; conduct training programs; and compile related publications so as to exchange information and experiences in vocational training (Council for Economic Planning and Development, 1997b).

"The Research and Development Institute of Vocational Training, Republic of China, was influential in training Taiwan's HRD talents," said Lee, Han-Hsiung, an

experienced HRD professor who has devoted himself to Taiwan's industrial education, vocational training and enterprise training for more than a decade. Over the years, he added, "The consultation and assistance for enterprises regarding enterprise training" provided by this Institute was most meaningful (H, H, Lee, personal communication, December 19, 2000). But, in the process of achieving its goals, the Research and Development Institute of Vocational Training, Republic of China, faced struggles--fewer resources from the government, a lack of long-term planning and vision, and staff unable to enhance their professional skills (H, H, Lee, personal communication, December 19, 2000).

To sum up, the Employment and Vocational Training Administration played a significant role in promoting enterprise training in Taiwan. Part of the outcomes of its hard work can be seen in the increasing number of trainees who had received work-related vocational training from public vocational training centers, public enterprises, private enterprises, civic organizations or schools. The number of trainees increased from 218,445 in 1983 to 220,969 in 1986 (Employment and Vocational Training Administration, 1987). Obviously, all these efforts in promoting enterprise training also resulted in an increasing number of inter-associations and trade unions that were capable of conducting enterprise training for their member organizations. At the same time, the number of training programs conducted by government agencies was decreasing gradually because government agencies could outsource the training programs they needed from those professional training institutions and associations.

Summary

Continually, this proactive development of vocational training through which Taiwan's human resources was developed, from 1976 to 1986, again showed how the Taiwanese government had integrated human resource development with its national economic development. It was, therefore, not surprising that a multiple approach to developing human resources was adopted by the Taiwanese government. The coordination of human resource planning and developing at all levels rested with the Council for Economic Planning and Development of the Executive Yuan, which undertook macro-studies and formulated human resources policies. It could be concluded that the propagation of vocational training, adopted by the Taiwanese government, has been one of the main human resource development policies used to improve labor force quality and enhance human resource utilization.

During the 1970s, the concept of outsourcing training and HR related services from management consulting firms was not yet widespread nor affordable by the small and medium enterprises. During the 1980s, because of a slowing growth in the export market, Taiwan's government recognized quickly that labor-intensive manufacturing was a growing burden for the nation's economy. Instead, a step moving toward high industrial productivity with domestic and oversees businesses was necessary. Taking a longer-term view, the government responded, in the 1980s, with a systematic program for the development of science and technology to help raise industrial productivity (Robins, 1998). In responding to the economic development needs during the 1980s--developing strategic industries, undertaking Major Construction Plans, and initiating liberalization of economic policy, the Taiwanese government established the Employment and Vocational

Training Administration in 1981 and the Vocational Training Act in 1983. Because of these policies, an increasing number of employees and employers realized the positive impact of vocational training on individual careers and enterprises. The fact that there were increased voluntary training programs in the private sector was very important for increased productivity in the future in Taiwan. The establishment of the HR Management and Development Commission in 1984 showed that an HR cooperation network began to take form in Taiwan.

What happened to Taiwan's HRD after 1986? The lifting of martial law in 1987 certainly began a new stage economically, politically and socially in Taiwan. In the next three chapters, closer attention will be given to the kinds of human resources challenges Taiwan has faced since 1987 and how HRD policies and strategies have been adopted since then.

CHAPTER 8

HUMAN RESOURCE DEVELOPMENT IN LARGE CORPORATIONS: 1987-1999

The lifting of martial law in 1987 in Taiwan began a new stage--civil rights, such as the freedom of speech and publication, and the freedom of assembly and association, were restored. Before martial law was lifted, Taiwan was an authoritarian party-state, in which civil rights were suppressed and no political opposition was allowed (Cheng, 1989). Economically, with this liberalization, all controls on both deposit and lending interest rates were removed, and foreign bank branches were permitted to accept long-term savings deposits. In addition, the establishment of new private banks was also allowed. Since then, the political system of Taiwan was transformed into a democracy.

Entering an Industrialized Economy

By the end of the 1980s, Taiwan had a newly industrialized economy facing the new task of how to integrate into international society. Forging ahead with the liberalization and internationalization of Taiwan's economy, Taiwan's government aimed to develop Taiwan into an Island of Science and Technology. Taiwanese firms hoped to be able to design their own products and establish their own brand names in markets such as the U.S. and Europe. Some firms, Acer, Inc., for example, have had major successes, but most have not. Rather, firms have been demonstrating growing strength in making small changes to product designs in computers and related products.

Taiwan is now viewed by many major transnational corporations as the world purchasing source for the computer industry (Hobday, 2000). In 1987, Taiwan's second IC manufacturing corporation was established. Soon after that, a 1988 Electronics Division Report reported that IC chips produced in Taiwan had reached above the 20th

percentile among IC chip producers in the world (Hwang, 1991). Many global brand companies depend heavily on Taiwanese suppliers' low-cost and innovative computer parts and models.

Many of these successes were supported by the Statute for Upgrading Industries of December, 1990 (Industrial Development Bureau, Ministry of Economic Affairs, n.d.). The Industrial Development Bureau of the Ministry of Economic Affairs promulgated this statute, intended to give income tax benefits to those industries that upgraded their businesses. To meet the requirement for industrial upgrading, a company may be credited with five to twenty percent of the amount of the funds disbursed for any of the following purposes:

- Funds invested in equipment or technology used for automation
- Funds invested in equipment or technology used for reclamation of resources and/or pollution control
- Funds invested in equipment or technology used for employing new, clean energy, energy saving, or recycling of water for industrial use
- Funds invested in equipment or technology used for the reduction of greenhouse gas emission or the enhancement of energy efficiency (Industrial Development Bureau, Ministry of Economic Affair, n.d., p. 1)

If a company invests in R&D and personnel training, it may take a credit of five to twenty-five percent of the amount invested against the amount of profit of the enterprise's income tax payable for the current year. In addition, according to the Vocational Training Act, and still in effect, firms in Taiwan are obligated to report the status of their training to the Bureau of Employment and Training within two months after the end of

the fiscal year. The Bureau of Employment and Training has conducted an annual Vocational Training Survey (VTS) within both the public sector and private organizations since 1988 (Taiwan's Bureau of Employment and Training, Labor Department, 1992a). The VTS specifies several groups of occupations that can be included in the scope of enterprise training. These groups include managers, professionals, engineers, technicians, and skilled and clerical workers. Second, it takes into account training for the disabled, cooperative training between vocational schools and firms, and apprenticeship training, but not those involving diploma-oriented school-based vocational training. Finally, the non-production-related training or seminars, such as new employee orientation, fire safety training, and foreign language training (if not required in work) are excluded from the scope of the survey.

In advocating the development of human resources, as preciously described, the Taiwanese government has been very concerned with the development of and coordination among governmental agencies, public vocational training centers, private and public enterprises, schools and other civic organizations. In Taiwan, the establishment and promotion of enterprise training and related policies during the last decade relied on active efforts of the Council for Economic Planning and Development and the Employment and Vocational Training Administration, Executive Yuan. In addition to employee-training facilities set up within large enterprises, there has also been a variety of enterprise training institutions in existence to provide training in those companies that can not conduct training programs themselves, such as industrial and commercial associations, trade unions, management consulting firms, professional education training and academic research institutions, vocational training agencies,

academic research organizations, vocational schools and institutions of technology. The statistics showed that, by 1990, besides the 13 public vocational training centers, there were 337 training institutions set up by private enterprises, 114 by public enterprises, 32 by government agencies, 29 by civic organizations, and 61 by schools (Tsai, 1993). This number was, without a doubt, much higher than before. And, in 1999 alone, a total of 669,561 people had received training from a variety of training institutions (see Table 7); the number of trainees in 1999 tripled since 1988 (see Table 8) (Employment and Vocational Training Administration, Council of Labor Affairs, 1998).

Having a strategic national economic plan in which human resource development strategies were integrated is insufficient at a national level--what is required is a host of innovative and pluralistic delivery systems. It is believed that this delivery system for HRD practices and activities--a complicated net through which governmental agencies, public vocational training centers, public and private enterprises, schools, and civic organizations are connected to provide training and development to Taiwan's people--has been gradually developed since 1987. Taiwan has adopted a multi-sector approach to its HRD policy decisions, be it planning or implementation. This multi-sector approach takes place formally in the form of departments and committees and informally in the form of meetings and discussions. What follows is a closer look at how HRD practices were taking place after 1987 in Taiwan and how they were embedded within this multi-sector net.

Table 7

Number of Trainees by Sponsorship in 1999

Sponsorships	Number of Trainees	%
Public Enterprises	305,760	45.67
Private Enterprises	163,100	24.36
Government Agencies	88,289	13.19
Civic Organizations	50,710	7.57
Supplementary School Classes	34,637	5.17
EVTA Training Centers	27,065	4.04
Total	669,561	100

Note: Employment and Vocational Training Administration, Council of Labor Affairs, Executive Yuan. (2000). The statistics of vocational training, skill test & employment service in Taiwan area of the Republic of China. Taipei, Taiwan: Author, p. 6.

Table 8

Number of Trainees and Sponsorship Units by Year: 1988-1999

Year	1988	1989	1990	1991	1992	1993
Trainees	223,478	232,130	295,356	298,747	347,520	479,010
Units	661	604	586	562	837	764

Year	1994	1995	1996	1997	1998	1999
Trainees	487,920	565,768	610,898	631,764	623,495	669,561
Units	894	958	911	865	924	935

Note: Employment and Vocational Training Administration, Council of Labor Affairs, Executive Yuan. (2000). The statistics of vocational training, skill test & employment service in Taiwan area of the Republic of China. Taipei, Taiwan: Author, p. 5.

A Multi-Sector Approach to HRD

In the 1970s, the local Taiwanese firm, by and large, was unable to utilize effectively their high-level human resources and had difficulty in adapting to environmental changes (Negandhi, 1973). Negandhi interviewed a sample of nine American subsidiaries, seven Japanese subsidiaries, and eleven local Taiwanese firms

and compared their management practices. He found out that, in the Taiwanese firms, training programs were not well developed with emphasis only on operations. Not until the mid-1980s were enterprise training systems begun by some of the U.S. American companies in Taiwan (Chen, 1997).

After years of hard work, enterprise training has been widely practiced in industry and business in Taiwan since the mid-1980s (San, 1990; San & Chen, 1988). Since the early 1990s, the concept of training within large corporations has been accepted and emphasized; further, large corporations are positive toward training functions (Jean, 1995b). "Large corporations, such as Acer, Inc., and the China Steel Corporation, were influential in establishing HRD in Taiwan," said Professor Lee, Han-Hsiung, National Chung Cheng University. With years of experiences in planning training systems and promoting TQM at Xerox-Taiwan and assisting in business reengineering at the China Trust Commercial Bank, Lee indicated that the reasons that these large corporations took such a leadership role in Taiwan were the "owner's business philosophy" and "continual growth of the corporation requires eager demand for talent" (personal communication, December 19, 2000). These large corporations continually look for innovation, change, and excellence.

Facing enterprise transformation due to increasing international competitiveness and changing roles of HRD, more and more large corporations in Taiwan not only conducted training for their employees but also had some sort of written plans for employee training since the early 1990s. In their study setting up a model for human resources planning and analyzing the current status of human resources planning in Taiwan's 500 largest public and private enterprises, Chu, Yang, and Chang (1992) found

that, although most of the enterprises applying human resources planning have not reached a satisfactory level, most enterprises had some sort of proposal for employee education and training plans. Enterprises that had written plans for employee education and training was 92.3%. In addition, large corporations in Taiwan have paid attention to the issue of career development. Phillip-Taiwan, established in 1967, combined an organization staffing plan with personal career plans as its manpower development plan (Hsu & Chang, 1991). Studies also showed that the main motive for adults to engage in training was highly related to adult's career needs. Jean (1995a) surveyed 563 people who attended training programs provided by a variety of consulting management firms or training institutions and found that "improve professional skills" and "assigned by the company" were the most influential motives (p. 68).

While more and more large corporations emphasized employee training and other HRD activities, there were struggles and obstacles. "Companies consider training results and worry that their trained-employees are lured away by other corporations," said H. H. Lee. (personal communication, December 19, 2000). "Most bosses understand the importance of HRD practices in their companies, but they hate to invest in those employees who leave after training. That makes bosses invest their money in technology or machines rather than their HR," said C. C. Jean (personal communication, November 1, 2000). Two main struggles in conducting employee training were a lack of training professionals and a lack of enthusiasm of employees (Jean, 1995b). Thus, the negative attitudes of employers toward training, of employees toward training participation, and of stakeholders toward training implementation were the major causes of failure in enhancing training efficiency (Jean, 1995b).

In addition, there was a lack of a strategic role within HRD departments in Taiwan's corporations. Although many corporations in Taiwan changed the names of their personnel departments to human resource departments or divisions, there was no significant changes in terms of functions and roles these departments played (Tu, 1994). Most of the human resource departments still focused on employee recruitment, employee compensation, employee training, and employee relationships; basically, the foci were around administration, distribution of information, and management.

In-House Training

In order to understand the current status, emphasis, and struggles domestic large corporations faced in enterprise training, Jean (1995b) conducted a large scale study of the 1,000 largest corporations in Taiwan, including 744 manufacturing corporations and 256 service industrial corporations. Despite a low return rate of 36%, 93.1% of participant corporations had initiated training programs, and 55.2% actually had their own training departments. The main training subject was on-the-job professional training for employees, and the second was pre-employee training for new employees. One might surmise that there is less likelihood that the 64% non-respondents had such training support.

Some outstanding large enterprises that provided corporate education and training in their own training departments were the Chinese Petroleum Corporation, the President Enterprise Corporation, the Taiwan Sugar Corporation, and the China Steel Corporation. The Taiwan Sugar Corporation, for example, established in 1946, had a total of 8,481 employees by 1997. Its training center not only provided training to its own employees, but also to other enterprises that asked for help. The Ministry of Economic Affairs also

entrusted the Taiwan Sugar Corporation with a variety of training programs, such as agricultural engineering skills, industrial engineering skills, industrial skills, managerial skills, and computer skills. In 1994, a total of 5,153 trainees were from this training center, 5,516 in 1995, and 6,282 in 1996 (Lin, 1997).

Chinese Petroleum, established in 1946, provided education and training to its employees through a variety of channels. The primary channels were the training center of the company's central personnel department and the company's individual divisions. For example, each individual division supported its own training, such as pre-employment training, training for individual employees, and safety training to meet the needs in that particular division; orientation training, managerial training, or common skill training were provided by the central personnel department (Chiang, 1991). In 1989, there were a total of 143 training classes offered in the training center, compared to an average of 80 classes in the early 1980s; there was a total of 66,993 trainees from this training center (Chiang, 1991).

President Enterprise Corporation, established in 1967, is one of the biggest private food enterprises. Education training initiated in President Enterprise Corporation was very employee-oriented (Chiang, 1991). Three divisions--vocational training division, education training committee under TQC, and education training committee--offered four types of training: new-employee training, managerial training, professional skill training, and self-teaching training. Training and development spending by President Enterprise Corporation amounted to NT$12,920,000 (approximately U.S. $461,000) in 1988 and NT $20,500,000 (approximately U.S. $788,000) in 1989 (Chiang, 1991).

In addition to training centers or divisions within large corporations, there has been a proliferation of another form of education and training centers emerging--corporate universities. "When the new century came, knowledge became new tool for competition and the significance of intellectual capital showed," said P. Y. Chang, the Director of Computer Education Department in Acer, Inc. (Chang, n.d., p. 2). "A corporate university not only serves to train talent, but it also serves to communicate the vision, value, culture, and strategies of the corporation," said Chang. "It can use different methods to promote action learning in order to build complete knowledge and skills" (Chang, n.d., p. 2). Establishing a corporate university and cumulating intellectual capital have been important tasks for enterprises in Taiwan during the last few years of the 20th century.

Corporate universities normally evolve from on-site development of training centers or departments into workplace education institutions with broader aims and scopes. Basically, they are wholly owned facilities providing education and training services for employees of their organizations. It was 1989 when the Sampo Corporation, established in 1936 in Taiwan, established the Sampo Corporation University (Sampo Corporation, n.d.). It is believed that the Sampo Corporate University was the first corporate university in Taiwan (Council for Economic Planning and Development, 1997b). "The Sampo Corporation emphasized 'corporate university' within its education training system," said C. C. Huang, who is the director of the Human Resource Division at the Sampo. "At that time, there were many excellent employees who would like to leave the corporation for graduate schools....the training for them was wasted; thus, the company should implement the corporate university" (Huang, n.d., p. 2). The course

credits earned in the corporate university were recognized within the Sampo Corporation. In order to cope with urgent needs for high-level talent at Sampo, Sampo Corporation renamed Sampo University in 1999: it is now called Succession Plan (Sampo Corporation, n.d.). It was hoped that this Succession Plan not only could hasten educating and training employees to satisfy urgent needs within the organization, but also could complete the training system to reach the organizational mission of endless growth.

Unlike the Sampo Corporation University, the enterprise university within Taiwan Cellular Corporation (TCC) was formed by the cooperation of the TCC and the National Taiwan University. Despite its short history, the TCC, established in 1997, is now the largest of Taiwan's civil telecom companies and ranked 9th for the most favored 100 enterprises for new graduates in 2000 (Mo, 2000). From the beginning, TCC held regular seminars--domestic and foreign scholars and experts were invited to introduce techniques, codes, and trends of the communication market. In 1999, TCC and the National Taiwan University founded an enterprise university. Offering telecom and communication related courses, the university's commitment was to cultivate native communication talent in Taiwan because all earnings in Taiwan should go back to Taiwan's people (Mo, 2000).

Shih, Stan--chairman and co-founder of Taiwan computer company, Acer, Inc.--called for a "professional organization that is permanently dedicated to training corporate managers" (Aspire Academy, n.d.c, p. 1). Shih indicated that his biggest management challenge was the development of international business managers; further, he wanted to show the way towards a non-family style of management (Bedi, 1993). This led to the establishment of the Aspire Academy in 1999--a non-profit professional training

institution committed to providing professional management and corporate development skills for sustaining future growth. With an aim of becoming a global center for the exchange of experiences regarding management methods in Asian corporations, "The Aspire Academy was established with the mission to provide research, training, and consulting services to corporations in Taiwan and the Asia Pacific region, helping them to upgrade their global competitive ability and achieve growth" (Aspire Academy, n.d.c, p. 1).

Dr. Yeung, Arthur, Chief Learning Officer of Acer Group and president of Aspire Academy, is responsible for leadership and organization development of Acer Group worldwide (Aspire Academy, n.d.a). Before joining Acer, Yeung was the Executive Director of the University of Michigan Business School (Asia-Pacific) and an HR faculty member at the University of Michigan Executive Education Center. This young leader has gained extensive knowledge of HR functions and practices of more than 40 leading corporations worldwide, including Boeing, Hwelett-Packard, Phillips, and Taiwan Semiconductor Manufacturing Company. He was also the founding Executive Director of the California Strategic Human Resource Partnership and the Executive Director of the Asia-Pacific Human Resource partnership.

The Acer's Aspire Academy hoped to meet the needs of managers from Taiwan organizations through high-quality programs. To develop Asian talent in international business management, the Aspire Academy partnered with the University of Michigan Business School's Executive Education Center to develop the Asian Executive Development Network and with the Thunderbird International Management Institute to develop the Global Executive Development Series. In addition to the joint programs with

other world-renowned universities, the Aspire Academy offered public programs for both senior and middle managers. Further, its organization clinic was to address customers' specific management or organizational challenges. An "Organization Clinic" often involved three processes: "(a) thorough diagnosis of specific problems prior to the workshop, (b) the development of a prescribed solution during the workshop, and (c) implementation of the agreed solution after the workshop" (Aspire Academy, n.d.b, p.1).

For theory-based classes in the Aspire Academy, the majority of the instructors were professors from the University of Michigan. Some were from the University of Southern California, the National University of Singapore, and the Hong Kong University of Science and Technology. For practice-based classes, the majority of the instructors were from the Acer Group.

As few secondary data are available, the total number of corporate universities in Taiwan is unknown. It is predicted that, in the long run, the Aspire Academy may take the lead (C. C. Jean, personal communication, November 1, 2000). As Jean, Chian-Chong, an assistant professor of the Institute of Labor Studies at the National Chung Cheng University, put it: "Aspire HR Institute has a good shot because it has strong financial support from Acer." In addition, "People in Aspire HR Institute are eager to learn and become the best HR provider in Taiwan" (personal communication, November 1, 2000). It seems that the future of corporate universities in Taiwan--in grooming outstanding corporate leaders to ensure the continuous growth of the company through enhancement for the company's core competency--is promising.

Joint Training

Besides in-house training, large corporations also have part of their training done by inter- and intra-industry associations. Joint training initiated by industrial or commercial association is popular among large corporations. For example, the Taiwan Refrigerating and Air-Conditioning Engineer Association of the Republic of China conducted air-conditioning and refrigeration technology training classes (Council for Economic Planning and Development, 1997b) for its member firms. It acted as a bridge between government and industry to improve the development of the AC&R industry. The association, established in 1978, now belongs to one of the 139 industrial professional associations in Taiwan (Taiwan Refrigerating and Air-Conditioning Engineer Association of the Republic of China, n.d.). The member firms, including sectors like construction engineering, equipment manufacturing, and parts and sales, increased from 228 at the beginning to 493 at present. Assisting foreign technology transfer and delivering technology training to the member firms was one of the goals of the association.

For computer manufacturers, the Taipei Hsien Computer Manufacturers Association, for example, provided numerous joint training to its member firms, including organized seminars, expositions, and symposia. The association, established in 1987, is a trade union formed by new computer manufacturers in Taiwan (Taipei Hsien Computer Manufacturers Association, n.d.). Since its establishment, this association has provided information to its members on local and overseas investment opportunities, united members to undertake government projects to improve overall power of the industry, and provided numerous education and training seminars and workshops. Some government agencies also contracted part of their training with this association.

As an association of stock brokers, the Chinese Securities Association (CSA) and the Securities Investment Trust and Consulting Association of the Republic of China (SITCA) are two of the associations to protect the interests of stock investors. The CSA, established earlier but upgraded to a national association in 1998, has its own education and training department. In-service training classes related to investment, accounting, auditing, and others were available to in-service employees from member firms. Currently, there are 998 member firms in this association (Chinese Securities Association, n.d.).

Outsourced Training

Due to insufficient internal training specialists, outsourcing of training has been a major tool for obtaining training resources for enterprises in Taiwan (Jean, 1994b). Outsourcing education and training from educational centers; training centers, such as the government's public training centers; and civic organizations that are specialized in in-service training institutions often is popular among large corporations. For example, besides self-developed training and joint training, the Chinese Petroleum Corporation also contracts part of its training with external training institutions. Training programs that the Chinese Petroleum Corporation outsourced from external institutions were: (a) special technical skill training, (b) high-cost training if developed in-house, and (c) training requested by a small group of employees (Chiang, 1991).

Management Consulting Firms

Training programs provided by management consulting firms were in demand from all corporations regardless of size, a study from the Ministry of Economic Affairs in 1989 said (Ministry of Economic Affairs, 1989). Further, a study from the Council for

Economic Planning and Development in 1990 indicated that training initiated internally and training provided by management consulting firms were the two main channels for information technology and banking industries when providing off-the-job training to their employees (Council for Economic Planning and Development, 1990).

A study by the SMEA, Ministry of Economic Affairs, indicated that education training was still the number one demand from Taiwan's enterprises of management consulting firms (Ministry of Economic Affairs, 1989). Among the sales percentage of management consulting firms, the first four highest percentages were managerial systems design and consultation, 30.2%; employee education training, 21.3%; short-term investigation on operations management, 15.8%; and long-term consulting consultation, 12.1%. According to Kao (1990), most of the training classes provided were communication relationships, leadership, motivation, and related topics.

In addition, according to Kao (1990), participating firms indicated that, in the future, education training will be Organization Management (47.8%), Sales Management (34.8%), and Financial Management and Development (15.2%). According to the *Republic of China Year 1999 Small and Medium Enterprises White Paper,* there were twelve categories of education and training programs available in management consulting firms in 1999, including organizational change and culture, business strategy and management systems, leadership, problem solving and communication, marketing and customer services, finance management, quality improvement, and management, information technology, and others (Ministry of Economic Affairs, 1999).

Unfortunately, there have not been many studies related to management consulting firms published in Taiwan; however, from the available documents, it is clear that

management consulting firms have played a vital role in delivering HRD activities to Taiwan's enterprises. A study by the Council for Economic Planning and Development in 1990 indicated that, when the electronic and banking industries choose channels to receive off-the-job training, both training from the companies themselves and from consulting firms were more beneficial compared with other types of channels (Council for Economic Planning and Development, 1990). Further, compared with the small number of management consulting firms during the 1950s and 1960s, there were 2,237 management consulting firms by 1992 in Taiwan, including 90% capitalized under NT$5 million (approximately U.S. $200,000) and 10% capitalized over NT$5 million (Kao, 1990).

Professional HR Organizations

Besides management consulting firms, another major training source was professional HR organizations. The upgrading of industries and the advancement of competitive ability in the international market since the 1990s certainly has evolved into an important voice for strengthening the role of HRD in Taiwan. Responding to the increasing popularity of HRD, associations have positioned themselves to help local enterprises and government agencies to develop and manage their human resources in order to create another economic miracle in the future. Professional associations related to HRD have been founded locally but to serve at a national level, such as the Human Resource Development Association of the Republic of China and the Chinese Human Resource Management Association. These are two of the major organizations comprised primarily of human resource professionals in Taiwan. These associations have been

serving as a delivery channel of HRD activities and playing a vital role in Taiwan's HRD since the late 1980s.

The Human Resource Development Association of the Republic of China (HRDAROC) is a large alliance of human resource professionals in Taiwan. The HRDAROC was formally established in 1987 by Mr. Her, Shou-Chuan, the President of the YPU Paper Company (K. L. Lin, personal communication, February 22, 2001). Since 1985, Taiwanese enterprises, especially small and medium enterprises, have been in the stage of transforming. In order to provide industry, government, and academia with important experiences and knowledge and to encourage them to devote themselves to developing appropriate theories and practices of HRD, Her and other charter members initiated this association.

In spite of the fact that the name of the HRDAROC includes Human Resource Development, the major goals of this association are, by coordinating with governmental policies, to research and develop practices and systems for Human Resource Management in modern Chinese enterprises, improve human resource quality, enhance employer-employee relations in order to enhance productivity, and support the development of the economy in Taiwan (Human Resource Development Association of Republic of China, n.d., brochure). Both human resource management and development are emphasized.

Although the backgrounds of the members in both organizations include training specialists, administrators, managers, secondary and post-secondary teachers, and staff within organizations in Taiwan, charter members who are running the HRDAROC are human resources related professors. In 1993, two branch associations were set up in

Kaoshung city and Changhwa city. One of the major activities of the HRDAROC is giving workshops and HRD professional development seminars. The current chairperson for Changhwa branch association in 2001 is Tai, Wen-Hsiung, the director of the Department of Industrial Education at National Chunghua Normal University; the current chairperson for Kaoshung branch association in 2001 is Lin, Tsai-Yuan, the vice president of National Sun Yat-Sen Univeristy (Human Resource Development Association of Republic of China, n.d., brochure).

A series of seminars provided by HRDAROC is available for new HRD professionals. These seminars also provide intensive training courses for basic HRM work, such as a human resource planning series, a Qualify of Work Life seminar, and a business seminar series. In addition, there are courses designed for HRD professionals, such as management training courses, a training program design series, an HRD systems course series, and a train-the-trainer course series. Instructors of these courses were professors from well-known universities (such as National Chung Cheng University, National Taiwan Normal University, and National Cheng Chi University), staff from government agencies (such as the Employment and Vocational Training Administration), top managers from large corporations (such as Acer, Inc., Microlife), and consultants from management consulting firms.

Professor Lee, Han-Hsiung, who currently teaches HRD and related courses at National Chung Cheng University, indicated that this association has been quite influential in the development of Taiwan's HRD. Particularly, the activity of the Campaign of Outstanding Human Resource Professional was one of the most important activities directed by HRDAROC in recognizing outstanding HRD professionals and

promoting HRD in Taiwan (J. C. Hong, personal communication, December 27, 2000). In addition, "the association members are eager to promote human capital," said Hong Jon-Chao, a professor who has served as a deputy secretary in this association for more than ten years and has taught in industrial education specializing in human resource development at the National Taiwan Normal University since the mid-1980s (personal communication, October 26, 2000).

Unfortunately, Lee and Hong also stressed four struggles HRDAROC has faced in past years: (1) a budget shortage, (2) few contacts with foreign institutions, (3) over dependence on government projects, and (4) inability to sustain growth and improve academic services (J. C. Hong, personal communication, October 26, 2000 ; H. H. Lee, personal communication, December 19, 2000).

Besides HRDAROC, the HR Management and Development Commission established in 1984 under the aegis of the Chinese Management Association continually did an outstanding job in conducting workshops and seminars for Taiwanese enterprises from 1987 to the end of the 20th century. From the beginning of its establishment to 1991, there were more than 150 seminars related to training held nation-wide; more than 7,000 participants attended these seminars (Chen, 1992). In addition, starting from 1987, the Commission conducted Human Resource Management and Development Week that lasted 5 to 7 days every September. Major HR and related topics, such as human resource internationalization, foreign labor questions, discussion of human resources from the new generation's values, and others, were addressed and covered. This activity attracted more than 3,000 participants; the majority of the participants were chief managers and personnel managers from small and medium enterprises (Chen, 1992).

Starting in 1989, the Commission established human resources service activities--helping Taiwan's corporations to resolve their personnel management systems and related questions. For three years from 1989, more than 200 corporations registered for their help, and more than 5,500 people participated in the activities nation-wide (Chen, 1992).

Due to a fast growth, the HR Management and Development Commission decided to separate from the Chinese Management Association. In January, 1992, under the leadership of David Yao and nine other charter members, the HR Management and Development Commission became the Chinese Human Resource Management Association (CHRMA). With approval from the Ministry of the Interior, the CHRMA was formally established and became one of the largest alliances of human resource professionals in Taiwan; among those attending the ceremony were the director of the Employment and Vocational Training Administration of the Council of Labor Affairs ("Chinese Human Resources," 1992).

Why did Yao and other charter members want to separate the HR Management and Development Commission from the Chinese Management Association and establish the CHRMA? As one of the charter members pointed out, the main reason was for future convenience if it wanted to join an international human resource organization (Lin, 1992).

Yao also shared the stories behind the CHRMA:

> At the beginning, we thought management contains development; in addition to development, training and development, and career development, there is an HR operation, compensation management...In Taiwan's environment, management is better accepted. In fact, this association has focused equally on management and

> development.... This name, Management and Development Association is too long. We want to use Chinese rather than Republic of China because we anticipate that we won't expand into the world if we use Republic of China in the name. Thus, the name, Chinese Human Resource Management Association, was then decided. (personal communication, October 25, 1999)

One of the primary objectives of the CHRMA, Yao indicated to a news reporter, is to help small and medium enterprises in the country to upgrade the quality of human resources ("Chinese Human Resources," 1992). Disliking only feasts and parties, as was typical of some professional organizations, Yao emphasized practice and action as the characteristics of the Chinese Human Resource Management Association right from the beginning.

Soon after the association was established, Yao led a team of 16 members to Mainland China to inspect and study the situation of HRD and HRM. This field trip team contained high-quality and hard-working members, including general managers or HR related directors in domestic corporations, MNCs or consulting firms, and others. Yao insisted on and emphasized preparation before the field trip. In order to reach the expected results completely, several meetings were held before the trip, teams were formed, and projects were assigned (D. Yao, personal communication, October 25, 1999).

During the eight-day field trip to Mainland China, the team not only got a chance to visit HRM and HRD related organizations, including government, industry and academia, but they also had a chance to interview some influential professionals (Chinese Human Resource Management Association, 1992). A month after returning from the field trip,

the team published the book, Human Resource Management in Mainland China, in which the team's articles were collected and published. This book is the first book to investigate Mainland China's HRD systemically by authors in Taiwan. Most importantly, this field trip opened up communication channels for future long-term cooperation and communication in the field of Human Resources between Taiwan and Mainland China.

The CHRMA has grown fast since its establishment in 1992. In 1999, this association had about 2,000 members and was full of academicians, entrepreneurs, chief executives, personnel managers from private and public enterprises, government agencies, multinational corporations, and small and medium enterprises in Taiwan. The major activities and services of the CHRMA, used to create growth opportunities for all CHRMA members, include:

- Seminars and lectures
  - Hold monthly HR management and development seminars
  - Provide regular lectures in HR related topics
- Visiting tours and group sharing
  - Arrange visits to, and on-site discussions with, companies that have successful HR management and development systems
  - Set up get-together meetings for exchanging experiences among members
- Monthly newsletter and other publications
- Consulting services
  - Accept commissions for designing and conducting in-house training projects
  - Provide HR management related consulting and evaluation services

- Provide training for Chinese Human Resource Management Association members to become trainers in HR management and development
- Enhance ties with overseas HR management organizations (Chinese Human Resource Management Association, 1996, p. 6)

Because of a close relationship with the former Chinese Management Association, the CHRMA has had close collaboration with Taiwan's government. For example, in 1993, the CHRMA invited the Council of Labor Affairs, the Youth Commission, the Employment and Vocational Training Administration, and the Mainland China Committee to co-sponsor a three-day seminar. Presenters and hosts for the seminars were chief executives, managers, and directors from large enterprises and government agencies in Taiwan. More examples of collaboration projects were the Council of Labor Affairs, Executive Yuan, collaborated on an Employee Assistance Projects Conference with the CHRMA; the National Youth Commission, Executive Yuan, asked the CHRMA for workshops on the practice of HRM and marketing; the Employment and Vocational Training Administration asked the CHRMA for a series of enterprises HRM seminars; and the Taoyuan County government asked the CHRMA to initiate labor education and training. Obviously, the CHRMA has promoted cooperation among industry, academia and government to improve HR management and development in Taiwan's enterprises and thus enhance their competitiveness.

The establishment of the CHRMA has influenced to the development of HRD in Taiwan. When asked, Yao (personal communication, October 25, 1999) and S. H. Lee (personal communication, December 10, 2000) both agreed that the CHRMA has been one of the most influential professional organizations in establishing HRD in Taiwan and

has positively influenced Taiwan's HRD development. Since its establishment in 1992, not only has the membership increased, but also sponsorship to support its activities has increased. Moreover, as an initial step in gradually internationalizing its services and to test its ability to conduct regional HR conferences as learning experiences, the association held a regional HRM&D conference, "Conference on Human Resource Management & Development in Chinese Enterprises," November 16-17, 2000. A great number of sponsors were from government agencies, such as the Employment and Vocational Training Administration; private enterprises, such as the Primax Company, the Watson Wyatt Worldwide in Taiwan, the China Steel Company, the Ericsson Company, and many others; and research institutions, such as the College of Management of Taiwan Normal University.

Although this conference was for only two days, it was an eye-opener for HR professionals in Taiwan to have learned so much, especially from overseas speakers and those with multinational exposure. There were approximately 500 business executives, HR practitioners, and academicians from Hong Kong, China, and Singapore who attended the conference. The theme was, "Optimizing Human Capital in Creating a Competitive Edge," and participants were engaged in discussing the most up-to-date issues and trends in HRM and HRD. Cross-cultural HRM and HRD topics drew the attention of these Asian participants.

During the interview with me in October, 1999, David Yao, the main actor behind this conference, shared his long-term vision. He said that he wanted to gather Chinese from all over the world to learn from each other; he hoped to initiate regional HRM and HRD conferences in Taiwan on a professional scale (D. Yao, personal communication,

October 25, 1999). The conference was as successful as he expected, and I foresee its continuing and growing in the future.

To sum up, despite their short history, both the CHRMA and the HRDAROC are dynamic, professional groups to which most human resource practitioners and business managers in Taiwan belong. Although these two organizations are facing the problem of a shortage of budget and limited connection with foreign organizations (H. H. Lee, personal communication, December 19, 2000), they are deeply committed to elevating the nation's human resource development and management, as well as its business and national competitiveness. This channel through which HR professionals from private and public enterprises, government agencies, and academia have shared experiences in managing their human resource management and development seems to work well and has had a positive impact in enhancing the awareness of HRD in Taiwan.

Advanced Education for Employees

Appointing employees to have more advanced education and training in foreign countries is also popular among large corporations. For instance, Chinese Petroleum Corporation sent its employees to France for more petroleum-related training, Taiwan Phillip Corporation sent its employees to the Netherlands for electronic skill training (Council for Economic Planning and Development, 1997b). President Enterprises Corporation sent its employees to Japan for further research needs (Chiang, 1991).

There were also large corporations that sent their employees to institutions that were set up by domestic colleges or universities for advanced education and training needs. The statistics showed that, by the 1990s, there were 61 such training institutions set up by schools in Taiwan (Tsai, 1993). In addition, colleges of business located in

colleges and universities are popular places where large corporations send their employees for advanced managerial and business related studies.

Some universities in Taiwan have a long history of providing training and advanced studies to employees from corporations regardless of size. For example, the Center for Public and Business Administration Education was founded in 1962 at the National Chengchi University. The National Chengchi University, founded in 1927, has been known for its humanities and social sciences in Taiwan. The former director from the Department of Public Administration of the University of Michigan, Dr. John W. Lederle, visited Taiwan and investigated the status of business administration education (National Chengchi University, n.d.). After the investigation, the Center for Public and Business Administration Education, aimed at assisting governmental agencies and enterprises to design and implement on-the-job training, was founded. The Center was co-managed by the National Chengchi University and the University of Michigan.

In addition to the Center for Public and Business Administration Education, more and more four-year research institutions started to offer HRD related courses to their students in the 1980s. Particularly since the middle of the 1980s, responding to the increasing demand for employee skills, expertise, and performance in rapidly changing technical, economic and social environments, many universities in Taiwan, like those in other countries, implemented academic programs to educate and train HRD related practitioners particularly. Since then, more similar programs have been established in universities and are in high demand among students from a variety of academic and occupational backgrounds.

It is believed that, as early as 1984, Dr. Hong, Jon-Chao started to offer HRD courses to masters students at the National Taiwan Normal University in Taiwan. (personal communication, December 27, 2000). Dr. Hong, an HRD professor who obtained his doctoral degree specializing in HRD from the University of Illinois at Urbana-Champaign in 1984, believed that he was the first to offer HRD courses at the National Taiwan Normal University. He also indicated that, as far as he knew, there were no other schools that offered courses in HRD in Taiwan at that time.

In 1991, HRD and HRD related courses were offered in the Institute of Labor Studies at National Chung Cheng University. Professor Jean, Chian-Chang, who obtained his doctoral degree in HRD from the Pennsylvania State University in 1990, said that he was the first faculty member to teach HRD and HRD related courses at the National Chung Cheng University at that time (personal communication, November 1, 2000). "I taught HR related courses both undergraduate and graduate levels in NCCU, gave seminars to labor unions, and offered HR related courses to extension programs in NCCU.... I conducted several research studies to explore the development of HRD practices in Taiwan in the early 1990s," said Jean. When asked how the courses were designed, he answered: "I chose textbooks that were used in the U.S. and recommended reading materials, such as articles from Training and Development, Training, HRDQ, HR Magazine, etc." (personal communication, November 1, 2000).

But what about other universities? When trying to investigate the characteristics of HRD programs, I faced the first problem--how to define the universe of HRD programs in Taiwan. In the absence of a central accrediting body at the program and institution level, little is known about the total number of programs in Taiwan.

However, thanks to today's technology, by focusing on the information from the web site of major universities in Taiwan, I gained a glimpse of the institutional and curricular characteristics of Taiwanese HRD programs. While there are questions that surround the validity and reliability of web-based data, in this case it was the universities' own web sites that were being searched, and, therefore, their information posted on the web has been taken at face value. In addition, through interviews with several well-known faculty members who have taught and currently are teaching HRD related courses in Taiwan, I was able to form a brief summary. The findings here do not represent the universe of Taiwan's HRD programs. A larger-scale and more systematic investigation into academic HRD programs is needed in the future.

From a sample of eight four-year universities, which have a long history and are well-known institutions with a high reputation for linking research to practice in Taiwan, I tried to get a glimpse of HRD and HRD related courses which have been offered in these schools. First, I found that none of the programs actually carried the name HRD in their titles, although, based on self-identification and listing in professional directories in their mission, all are actively engaged more or less in educating and training HR related undergraduate, masters and doctoral students. For example, the mission of the masters program in Human Resource Management at National Sun Yat-Sen University states:

> To meet the needs of national growth and economic development, we devote ourselves to advancing the human resources quality in our society, as well as in the business world....Human resource is the most important resource in the business organization; the factors and conditions involved are rather complicated....
> (National Sun Yat-Sen University, n.d.a)

In addition, the mission of the masters program in Human Resource Management at National Central University states:

> The masters program in Human Resource Management is designed to cultivate human resource specialists for the purpose of enhancing organizational effectiveness, quality of work life, and labor management relations in a highly competitive era.... (National Central University, n.d.)

These two institutions' Human Resource Management programs were established in 1993 and 1994, respectively, and are the only two universities with masters programs in Human Resource Management in Taiwan. Both offer a broad spectrum of courses in Human Resource Management and Development, although neither program actually carried the name HRD in its title. Examples of courses related to HRD offered in both institutions include Human Resource Development, Organization Development, and Training and Development (see Appendices K & L). Other courses related to HRD offered in these institutions include Learning Organization, Leadership Development, Quality of Working Life, Creative Thinking, Knowledge Management, Organization Innovation, Instructional Systems Design, Organization Reengineering, and many others.

More or less, HRD and HRD related courses are provided in all eight of these universities. These courses are located in departments or larger units that are very heterogeneous in name, ranging from Department of Business Administration, to Education and Continuing Education, to Industrial Technology Education, to Department of Public Administration, and others. The reasons behind this, the author believes, are (1) HRD is part of HRM in Taiwan, (2) the term HRD has been transformed from manpower development and development of human resources in Taiwan, (3) HRD has originated

from vocational education, labor education, and industrial education in Taiwan, and (4) the government was closely aligned to HRD from early in its history. In fact, some other universities in Taiwan, besides these two, have started to offer HRD and HRD related courses since the early 1990s, with the majority of the courses offered in the Department of Business Administration (see Appendices M & N). Appendices M and N exclude statistics and methods courses that were presumed to be part of all students' preparation and focus on HRD content areas only. Comparing curricula across programs and institutions was difficult because of the wide variation in course titles and the fact that course names often revealed little about actual course content. Thus, I chose samples of programs and listed course titles from websites of the universities that are HRD and HRD-related for readers' reference.

Finally, the majority of the faculty who have taught and are teaching HRD and HRD related courses graduated from well-known universities in the U.S. Likewise, the majority of the course materials are from the U.S. Still, there is not a comprehensive HRD curriculum in any college or university in Taiwan (C. C. Jean, personal communication, November 1, 2000).

Summary

This chapter presented a net of pluralistic HRD delivery channels developed gradually from the late 1980s to the end of the 20th century. In this chapter, this overview of what could be termed the government-initiated and government-encouraged emergence of developing human resources to boost Taiwan's economy and enhance Taiwanese welfare was analogous at the macro level to the concept of self-awareness of HRD in business management.

Since the late 1980s, the concept and trend of conducting enterprise training has been more accepted than before by Taiwan's enterprises, especially large corporations. Because of their sufficient finances, large corporations carried out HRD activities through a variety of channels--in-house training, joint training, outsourced training, and appointing employees for advanced education.

Large corporations, particularly, not only were able to conduct training programs for their employees in their own training centers or divisions, but they were also able to provide training to other enterprises that asked for help. Moreover, more and more large corporations started to build their own corporate universities that not only served the needs in their own corporations, but also served needs as requested by other corporations.

Besides in-house training, joint training initiated by industrial or commercial associations was popular among large corporations as well. Because of combined capital and resources, inter- and intra-industry associations were able to provide relevant training programs to meet the needs of corporations. This type of association not only provided education and training seminars and workshops, but also accepted government training contracts.

In addition, there has been an increasing demand for management consulting firms in Taiwan since the late 1980s. These management consulting firms, started and promoted by the Taiwanese government during the mid-1950s and the mid-1960s, provided training and other HRD related activities to Taiwanese enterprises that were short of training specialists in house. Studies indicated that off-the-job training from companies themselves and from management consulting firms were beneficial compared to other types of delivering channels.

Further, responding to the increasing popularity of HRD to meet needs in the international market since the 1990s, professional HR associations have positioned themselves to help local companies and government agencies to develop and manage their human resources. Despite their short history, these associations, such as Human Resource Development Association of the Republic of China and Chinese Human Resource Management Association, played significant roles in developing HRD in Taiwan. Further, scholars and HRD practitioners indicated that these associations were committed to elevating that nation's human resource development and management, as well as its business and national competitiveness.

Finally, for a long time Taiwan's corporations have sent their employees to colleges and universities to receive more relevant training and education. For example, the Center for Public and Business Administration Education, founded in 1962 at the National Chengchi University, was one of the institutions where business administration courses were offered to in-service employees.

Particularly since the middle of the 1980s, some universities in Taiwan have implemented academic programs to educate and train HRD-related practitioners to respond to the increasing demand for employee skills and performance in corporations. Since then, due to high demand from students in a variety of academic and occupational backgrounds, more and more universities have provided HRD and HRD-related courses, even though none of them actually carries the name HRD in their program titles. Actively engaged in cultivating HR-related professionals, both National Sun Yat-Sen University and National Central University established their Human Resource Management programs in 1993 and 1994, respectively.

Unfortunately, in the absence of a central accrediting body at the program and instituion level, little is known about the total number of HRD programs in Taiwan. What is known is that the majority of the faculty who have taught and are teaching HRD and HRD-related courses graduated from universities in the U.S.; likewise, the majority of the course titles and materials are similar to those in the U.S. Still, there is not a comprehensive HRD curriculum in any college or university in Taiwan, and a larger-scale and more systematic investigation into academic HRD programs is needed in the future.

CHAPTER 9

HUMAN RESOURCE DEVELOPMENT IN SMEs: 1987-1999

The Taiwanese government has continually helped small and medium-sized enterprises (SMEs) as the total number of SMEs in 1996 was 1,003,000, which accounted for 97.92% of the total firms, and the export contribution from the SMEs was up to U.S. $57 billion, which accounted for almost 50% of total export value (Ministry of Economic Affairs, Small and Medium Enterprise Administration, n.d.a). The number of SMEs in 1998 was 1,045,117, which accounted for 97.76% of all enterprises, and the growth was about 301,843 in comparison with that in 1987 (Ministry of Economic Affairs, 1999). The number of employees working in SMEs in 1998 reached 4,536,000, and this provided 69.19% of employment in Taiwan.

SMEs as Management Consulting Firms

During 1987-1999, as a result of increasing industrialization, increases in Taiwanese incomes, and the greater division of labor in industry, there was increasing demand on Taiwan's service sector. As a consequence, the service sector has taken a place in the mainstream of society and the economy and has become interdependent with other economic sectors.

Among the newly-increasing industrial and commercial service enterprises in Taipei, the principal sectors included consulting, information, advertising, packaging design, and equipment leasing (Ministry of Economic Affairs, SMEA, n.d.a). According to the Ministry of Economic Affairs, SMEA (n.d.a), management consulting firms was one of the principal sectors among the newly-increasing industrial and commercial

service enterprises in Taipei. Small and medium-sized enterprises, particularly, occupied a very large portion of firms specializing in these areas (see Table 9).

Table 9

Proportion of SMEs among Newly-Increasing Commercial and Industrial Service Enterprises (%)

Type of Enterprise	Small and Medium Enterprises	Large Enterprises
Consulting Firms	98.00	2.00
Information Firms	94.95	5.05
Advertising Firms	98.42	1.58
Packaging Design	99.52	0.48
Equipment Leasing	99.74	0.26
Average	98.13	1.87

Note: Ministry of Economic Affairs, SMEA, R. O. C. (n.d.a). The experience and achievements in providing guidance and assistance to small and medium enterprises. (http://www.moeasmea.gov.tw/smea-a4e.htm#5).

According to the definition from the Small and Medium Enterprise Administration, a management consulting firm is defined as one that operates one of the following businesses:

- implementing corporate operations management, investigation, and consultation
- providing corporate operations management consulting, marketing investigation, investment estimation
- implementing design and establishing corporate operations management systems and operation management computerization
- introducing, suggesting, and spreading new knowledge for corporate operation management
- implementing training of corporate operations managers (Ministry of Economic Affairs, 1989)

Also, in his study to investigate the current status of management consulting firms, Kao (1990), relying in part on the definition from the Small and Medium Enterprise Administration, defined management consulting firms as those that provide the following services:

- employee education training classes
- promoting new management knowledge, including conducting seminars and publishing
- planning, directing, and implementing management systems
- analyzing and directing short-term business management
- consulting for long-term business strategies
- planning and directing computerized management (p. 4)

Although training programs provided by management consulting firms were in demand from all corporations regardless of size, Taiwan's management consulting firms faced struggles. According to Kao (1990), the struggles consulting firms faced were insufficient traffic, inadequate instructors, expensive rental, and a high degree of competition within the same location. In addition, the small scale of consulting firms was also a factor causing a development problem within management consulting industries (Ministry of Economic Affairs, 1989). In a 1990 study investigating the status of management consulting firms in Taiwan, Kao found that the majority of management consulting firms in Taiwan were still small in terms of number of employees and capital (Kao, 1990). In addition, some other studies also showed that one-person firms accounted for 50% of management consulting firms; operational capital in 1986 was less than NT$10 million (approximately U.S. $384,600) for 77.8% of firms and less than

NT$3 million (approximately U.S. $115,000) for 37% (Ministry of Economic Affairs, 1989).

Regardless of these struggles, Tsai (1993) found that providing training is not the main reason why 268 consulting firms--those management consulting firms with capital of more than NT$5 million (approximately U.S. $200,000) and those that were legalized by the SME Department, the Ministry of Economic Affairs--in her study exist. Instead, assisting enterprises to improve operational management skills ranked number one, followed by introducing and spreading new managerial production information, while education training ranked number seven (Tsai, 1993). Thus, the types of services provided by management consulting firms have changed due to different needs requested from the market.

HRD in SMEs

During the past few years, due to a shortage of labor, an upgraded demand for industrial skills and automation, and increasing international competitiveness, Taiwan's SMEs have been facing challenges and a bottleneck (Ministry of Economic Affairs, Small and Medium Enterprise Administration, n.d.a). Particularly compared with large corporations, the SMEs are more labor-intensive; thus, HRD strategies are more critical for the future existence and development of SMEs.

The SMEs in Taiwan have adopted different HRD strategies in training for individual functions, every level of employee, training content, and training methods for responding to different kinds of external environments (Jaw, 1997). Jaw obtained the list of SMEs from the Ministry of Economic Affairs and surveyed 1,000 to investigate how HRD strategies have been adopted for responding to the changing external environment.

The results indicated that the SMEs have adopted various HRD strategies. For example, due to the speedy changes in products, skills, and market demands, the SMEs pay more attention to different types of training based on different types of job functions:

- specialty skill training, communication and interrelationship skill, work-attitude training, off-the-job training for the sales department
- work attitude training, off-the-job training for the R&D department
- on-the-job and off-the-job training for upper level managers
- off-the-job training for front-line employees
- on-the-job training for front-line managers (Jaw, 1997)

In addition, due to the exploration and competitiveness in international markets, strategic HRD in SMEs considers both operational management theory and interpersonal skill training for upper level managers more than in the past. Jaw also found that different types of industries have influenced corporate HRD strategies differently. For instance, SMEs in manufacturing sectors pay more attention to exploration of international markets and diversification of products than SMEs in service sectors do. Facing increasing competition in international markets and low-cost advantages owned by the large enterprises, the SMEs have to work harder to adjust their product development to the international markets. In addition, in order to analyze market information quickly and to hasten the development of new products, manufacturing sectors focus on providing more R&D skill training and higher training budgets for information technology departments than the SMEs in service sectors do.

In Taiwan, the percentage of organizations implementing training for employees in large corporations is higher than that of SMEs. According to a telephone survey

conducted by the Strategy Productivity Magazine (owned by the CPC) of 7,107 corporations in 1991, human resources was the most influential factor to a company's competitiveness among other factors, such as competitors, supply and demand systems, sales systems, and others ("Human Resources & Competitors," 1991). So, why are there firms in Taiwan that do not conduct enterprise training if they know that human resources is the main factor which influences current corporate competitiveness?

Reasons why Taiwan's SMEs do not apply HRD strategies more are quite extensive, including a misunderstanding of HRD and struggles in implementing HRD (Chang, 1992). First, head hunting and buying out competitors' best people are still important business practices in Taiwan (Chang, 1992; Jean, 1994b; D. Yao, personal communication, October 25, 1999). Corporations believe that they can obtain any high-quality people they want from the market. In addition, there is a high turnover rate with SMEs; thus, they believe they do not need to train the people they want to use. The large-scale VTS survey in 1985 showed that high labor mobility was considered to be the most important reason for not conducting enterprise training (San & Chen, 1988). Firms are afraid that employees will leave after completing training. Further, the results from the VTNS surveys in the same year also showed that a high turnover rate accompanied by a high rate of conducting enterprise training is generally true for other levels of workers except managers. Nevertheless, firms are forced to conduct more enterprise training in order to counterbalance the manpower losses caused by high turnover rates (San & Chen, 1988).

Second, corporations have a misunderstanding about the character of employee training. They consider training as a trendy thing to do because others are conducting

training for employees; moreover, they treat training as a benefit for employees (Chang, 1992; Jean, 1994b; D. Yao, personal communication, October 25, 1999). This attitude toward implementing training needs to be changed; otherwise, the results of not providing employee training are predicable in terms of not being competitive in international markets.

Third, the reason enterprises are not conducting enough training for employees is due to insufficient support from managers at every level (Chang, 1992; Jean, 1994b; D. Yao, personal communication, October 25, 1999). The success of HRD, and the attitudes of personnel and those who operate HRD functions in corporations are highly related. Shih (1990) surveyed 540 people who were members of the HR Management and Development Commission, which was under the aegis of the Chinese Management Association, to investigate the factors that influence personnel attitudes toward HRD. In the study, personnel was defined as those who implement HRD activities and are able to develop learning activities in order to enhance employees' and organizational efficiency. The profiles of participants in this study was 26.1% personnel, 15.8% front-line managers, 50.2% middle managers, and 7.9% upper managers. Most participants had a similar perception and attitude toward the importance of HRD as what Shih defined as the mission and purpose of HRD; further, the organizations where the participants worked, generally speaking, supported HRD. In terms of influential factors determining the success of HRD, this study indicated that the degree of support from top level managers is the most influential factor which determines the success of HRD projects implemented in organizations. Shih's results matched other scholars and HRD professionals. Jean (1995b) showed that the negative attitude of employers' support of

training was and is one of the biggest obstacles corporations face when implementing training programs.

In Taiwan, managers at every level overlook the duties of developing employees because what they focus on most is current sales (D. Yao, personal communication, October 25, 1999). What is worse is that managers object to giving training to employees not only because they do not think the training is necessary, but also because they are afraid that the employees who have trained will have higher ability then they do (Chang, 1992). This attitude is highly associated with the large power-distance dimension within Chinese culture as determined by Hofstede (1980).

Fourth, quantity of training is focused on more than quality of training (Chang, 1992). Most available reports of training results revealed the number of training classes and trainees, the types of training classes, and the hours of each training class; however, in terms of the quality of training, the processes of designing, implementing and evaluating training are often overlooked due to the insufficient professional knowledge of those who initiate training programs (Chang, 1992). In addition, due to a lack of evaluation of training programs, trainees are not utilized based on their training. Thus, trainees' jobs are not adjusted to coordinate with the training they have received.

Finally, most local Taiwanese companies are still struggling with basic frameworks for HRD practices (Chen, 1997). Some scholars have predicted that, if the experiences of localization and the frameworks for HRD practice in U.S. American companies can be transplanted to Taiwanese companies, it will be a great opportunity to improve HRD practices in local companies, including increasing employee training (D. Yao, personal communication, October 25, 1999). It is expected that the human resource practices of

Taiwanese firms will keep changing because of the changes of management practices of U.S. American and Japanese firms and the Taiwanese social environment. Chen (1997) and Yeh (1990) predicted that local Taiwanese firms, similar to the past, will adopt some of the effective human resource practices demonstrated by foreign firms in Taiwan and may further use their experiences and creativity to develop unique managerial techniques to deal with new problems.

Thus, in order to help SMEs create competitive advantage and adapt to the demand for human resources, the Small and Medium Enterprise Bureau of the Ministry of Economic Affairs has made joint efforts with related government agencies, research institutions, public and private enterprises, and civic organizations to set up ten individual guidance systems to provide HRD and related assistance to Taiwan's SMEs. A major duty of the Small and Medium-Sized Enterprises Administration is to prepare related laws to promote and protect SMEs in Taiwan. The Statute for the Development of Small and Medium-Sized Enterprises was promulgated in 1991(Small and Medium Enterprise Administration, n.d.b). An SMEs Development Fund was established according to this statute. The primary purpose of the fund is to support expenditures for all SME assistance programs and cover the shortage of government funds for assistance programs for SMEs for programs to be carried out successfully.

Two duties of the SMEA are significant relating to HRD practices in SMEs: (1) educate and train SMEs' human resources, and (2) enhance SMEs' competitive advantages (Ministry of Economic Affairs, 1999).

Educating and Training SMEs' Human Resources

From the establishment of the Statute for Development of Small and Medium Enterprises in 1991 (Ministry of Economic Affairs, 1999), the Taiwanese government had a clear focus and objective in mind to guide the SMEs in Taiwan. In order to help the SMEs create competitive advantages and adapt to the demand for human resources, the SMEA designed several programs to help the SMEs to train their employees on a regular basis. These programs designed for SME employees were categorized as vocational training and expertise cultivation; they were also designed to include both short-term and long-term courses. Vocational training programs targeted the employees who worked in industrial and service industries. According to the demands of industry, vocational training programs were held regularly, including courses such as machinery, chemistry, electronics, computer operations, restaurant management, and many others. As for professional training, there were courses on systems planning, computer processing of optic-electronics and semi-conductor fabrication, quality control, industrial pollution prevention, and many others. Courses were also designed for business managers and managerial personnel.

One channel through which personnel training programs have been provided is the Research and Training Center of SMEs in northern Taiwan. This Center, established in 1996, is located at the College of Commerce of National Chengchi University, Taipei, Taiwan. Along with two other centers located in the middle and south of Taiwan, the mission of these three centers is to enhance the competitiveness of SMEs nation-wide through developing human resources of SMEs to upgrade service quality. To meet short-term objectives, these centers coordinate various private and public training organizations

contracted by the SMEA to provide seminars and training courses for the purpose of effectively utilizing limited resources. To meet long-term objectives, these centers not only conduct research related to management of SMEs, but also accumulate and disseminate the results of enterprise training of SMEs. The centers have invited professors from colleges and universities, executive chief officers or human resource managers from private and public enterprises, and experts from professional HR organizations, management consulting firms and county SME service centers to give seminars and workshops to the SMEs. In 1999, these three centers had a NT $45 million (approximately U.S. $1.4 million) budget; these three centers used this fund to unite a total of 28 colleges and universities to investigate training curricula needs for SMEs, start to educate trainers, and build a curriculum database (Ministry of Economic Affairs, 1999).

Further, the Taiwanese government has made an effort to help the SMEs to strengthen employees' career paths. In their study to set up a model for human resources planning and to analyze the current status of human resources planning in Taiwan's 500 large public and private enterprises, Chu et al. (1992) found that about 42.7% of participant enterprises had written plans for employee career development. Only 10.3% had one to three year written plans; only 9% had the written plan which covered more than three years. Thus, most enterprises using employee career development planning were still in the introductory stage. Chu et al. concluded that this effect occurred because of the lack of clear human resources objectives, policies, strategies, and long-term plans.

Thus, by inviting and coordinating with the three Research and Training Centers of SMEs, the SMEA established the Passport of Life-Long Learning program in 1999 with

the aim of encouraging employees to learn continuously (National Sun Yat-Sen University, n.d.b). Whether the training is a free seminar provided by government agencies, paid training provided by local professional organizations, or training provided by the companies themselves, all of the training and advanced study taken are recorded on the Life-Long Learning Passport. In order for these Life-Long Learning Passports to be effective as expected, the SMEA awards learning certificates to those who cumulate a total of 250 hours of training, conducts annual awards for hard-working individuals, and awards those enterprises that support this project and their employees' learning. It is hoped that the Life-Long Learning Passport can be a part of enterprise training for Taiwan's enterprises; it is hoped that enterprises can recognize and reward employees' learning so that employees can be evaluated and promoted accordingly (National Sun Yat-Sen University, n.d.b).

Who is qualified to apply for a Life-Long Learning Passport? Any Taiwanese citizen who is at least 20 years old and eager to learn SME management and related subjects qualifies (National Sun Yat-Sen University, n.d.b). The training institution where qualified individuals receive training programs has to be one of those that are identified by the SMEA. Through the SMEA, by March, 1997, there were 124 training institutions registered as qualified institutions according to the requirements listed on the Vocational Training Institution Establishment and Management Act, including 11 public corporations, 44 private corporations, and 69 civic organizations (Hu & Tsai, 1997). By March, 2001, 129 training institutions had registered as qualified institutions (National Sun Yat-Sen University, n.d.b). Categories of training institutions are education centers affiliated with colleges and universities, management consulting firms, public and private

corporations, industrial associations, commerce associations, civic organizations, and government agencies.

Another type of personnel training programs provided by the SMEA is personnel training in automation, information technology, service industries, mid-level staff management, and advanced technicians. Technicians make up the highest percentage of SME employees; the numbers of managerial personnel, technical staff and engineers have grown rapidly in the SMEs. In order to enhance competitiveness, SMEs not only have to add automated equipment to production lines, but also have to have computerized management. Technical staff who operate automated equipment and computers need to receive professional training.

Besides providing technical assistance to the SMEs, the Taiwanese government wants to assist general enterprises or industrial and commercial associations in setting up and delivering in-plant training programs. The Employment and Vocational Training Administration is planning for future enterprise training (Hu & Tsai, 1998). Hu was the current department chair of Enterprise Training Department at the time of this study, and he wanted to remove obstacles for enterprise training, motivate enterprises to have their own training, and explore employees' self-learning.

In addition, Dr. Mei, Ko-Wan (1997), the former president of the Tunghai University and the founder and president of the Taiwan Regional Development Institute, stressed that enterprise training in the future not only needs to be innovative and adaptive, but also needs to integrate and combine collective intelligence and experience to solve the current bottleneck in order to strengthen productivity and competitiveness. With more than ten years of promoting enterprise training himself, Mei (1997) continued:

> Thus, either government or local entity should combine resources and power to develop a complete set of enterprise training plans, based on the goal of 21st century national economic development; categorize them into different subjects; and cultivate future human resources for industrial, manufacturing, international trade, and other professionals, with international standards. The cultivation of human resources and the development of the economy are highly related; they should assist each other, must complement each other, and move forward hand to hand. (p. 7)

Hence, under this promotion policy, over 898 business enterprises in Taiwan have established training departments offering various types of training activities to up to 590,000 employees annually (Employment and Vocational Training Administration, n.d.). In addition, a nation-wide network of 63 employee service centers, offering career counseling and planning, labor education services, welfare and other programs, served 60,000 employees in 1994 (Government of Information Office, 1997). A regional Labor Education Promotion Team in each city and county also offered a total of 13,172 training programs to over 477,336 laborers in 1995 (Government Information Office, 1997). In 1996, the Council of Labor Affairs assisted private businesses in setting up a total of 43 vocational training centers which have completed training for nearly 1,450 job hunters, as well as on-the-job training for more than 23,090 workers (Government Information Office, 1997). The outcomes from the efforts the Taiwanese government has made to promote enterprise training in SMEs has been quite fruitful.

Enhancing SMEs' Competitive Advantages

With all the changes in industrial structure, said Kuan, C. J., an agricultural economic professor in National Taiwan University, "Taiwan's SMEs have transformed

from labor-intensive to skill-intensive." However, regardless which economic condition exist any industry, "the SMEs generally are not able to complete the whole process from production to sale by themselves; they must cooperate and integrate with other enterprises within different production levels in order to promote the development of the industry" (Kuan, 1997, p. 33). Based on the necessity of mutual cooperation between firms for the SMEs, the SMEA also created several projects designed specifically to enhance SMEs' competitive advantages: utilizing ten individual guidance systems to strengthen SMEs, assisting SMEs in individual or joint R&D efforts to develop new products and technologies, and providing SMEs with technical assistance through "immediate solution centers" (Ministry of Economic Affairs, 1999).

According to the Statute for Development of Small and Medium Enterprises, the SMEA made joint efforts with related government agencies to set up ten individual guidance systems to provide assistance to the SMEs in financing, operation management, information management, mutual support and cooperation, quality improvement, production technology, research and development, industrial safety, pollution control and marketing. Note that human resources was not explicitly included. In order to strengthen SMEs, these guidance systems not only provided information but also consulting services to SMEs.

These ten individual guidance systems have achieved great results in assisting SMEs. For instance, the purposes of the operations management guidance system were to: (1) promote SMEs' development, provide assistance in operations management, (2) direct and assist SMEs to increase operation efficiency and utilize human resources efficiently, and (3) increase SMEs' future industrial competitiveness (Ministry of

Economic Affairs, n.d.). Operations management assistance conducted by this guidance system included business strategic planning, mission establishment, organizational planning, process reengineering, and management for individual functions in production, sales, research, finance, information technology, and human resources (Ministry of Economic Affairs, n.d.). In 1999, the operations management guidance program provided a total of 2,853 consulting services, managed short-term visiting consultation for 11,085 SMEs, managed individual case assistance for 47 SMEs, managed demonstration case assistance for 41 SMEs, and provided 39 showcases for demonstration cases. In addition, there were 39 seminars held attracting a total of 3,000 participants (Ministry of Economic Affairs, 1999).

Take another guidance system--quality improvement--as an example, this particular system was designed to assist Taiwan's SMEs improve products and services quality (Ministry of Economic Affairs, Small and Medium Enterprise Administration, n.d.b). Four purposes of this system were to (1) assist SMEs establish a quality management system in order to obtain certificate, such as ISO 9000 series, QS 9000 series, and others; (2) urge SMEs strengthen their product design ability, and improve product quality; (3) assist small and medium business improve their service quality; and (4) conduct seminars of product quality testing and evaluation regularly, make successful cases public (Ministry of Economic Affairs, Small and Medium Enterprise Administration, n.d.b).

The quality improvement guidance system provides assistance through the following channels (Ministry of Economic Affairs, Small and Medium Enterprise Administration, n.d.b):

- Short-term investigation visiting: According to specific assistance items, the system sends appropriate experts to the individual firm to conduct investigation. An investigation report and the improvement proposal is provided to the firm.
- Individual firm assistance: According to the investigation report and improvement proposal, the firm can apply for individual firm assistance if it would like to implement the improvement suggestions as proposed. If the firm would like to be a demonstration firm when the assistance is done, it has to cooperate with the SMEA and the assistance sponsors to make the results public and to provide demonstration workshop activities to the public, thus achieving recognition.
- Consulting services: For questions regarding improving product and service quality, the SMEs can call or visit an "immediate solution center" in counties and cities throughout Taiwan for help.

Some of the assistance results from the quality improvement guidance system in 1999 were: a total of 26 seminars that focused on SMEs' total quality were held, attracting 2,019 participants; there were 12 demonstration exhibitions, attracting 732 participants; a total of 26,000 quality manuals were edited and printed for the automobile industry, food industry, telecommunication equipment industry, and precision equipment and machinery industry (Ministry of Economic Affairs, 1999).

To sum up, in spite of the fact that Taiwan's SMEs have a shortage of in-house training professionals, training facilities and budget, most of the SMEs still provide training for their employees. How? Relying on government-assisted vocational training

centers, universities and colleges, and management consulting firms, is how most of the SMEs have their non on-the-job training done (Jaw, 1997). Cheng, P. C. (1991), the former director of the Manpower Planning Division of the Council for Economic Planning, indicated that the SMEs can consider different strategies to solve their human resource problems: by uniting with other enterprises within the same industry to conduct training plans, for example, both the shoe industry and the clothing industry have had great results, or by requesting assistance from the large corporations with which the SMEs are affiliated when the SMEs have a shortage in technical skilled human resources. Jean (1994b) also suggested that the SMEs should make good use of external training resources to benefit from free or low-cost training programs, and to establish and unite in an information network with other enterprises within the same and different industries so that each can learn from each other in order to promote training functions. The purpose of HRD in SMEs is not to meet individual needs; instead, the purpose is to enhance organizational ability to meet changes in the industrial environment and operational strategy in order to reach organizational goals (Jaw, 1997).

Summary

Taiwan's small and medium-sized enterprises (SMEs), which accounted for 97.96% of the total firms in 1998 and which provided 69.19% of employment in the same year, have been the backbone of Taiwan's economic development from its beginning. Compared with large corporations, the SMEs are more labor intensive; thus, it is believed that HRD strategies are more critical for the future existence and development of SMEs in Taiwan.

Due to a shortage of human resources and capital in Taiwan's SMEs, the percentage of organizations implementing enterprise training in large corporations has been higher than in SMEs. Although SMEs have been aware of the fact that human resources are the most influential factor for corporate competitiveness, they have not conducted enterprise training as much as large corporations have. Reasons why Taiwan's SMEs have not applied HRD strategies effectively include misunderstanding of the character of employee training, insufficient support from management levels, over-emphasis on current and short-term profits, emphasis on quantity of training rather than quality of training, and struggling with basic frameworks for HRD practices.

To help SMEs create competitive advantage and adapt to the demand for human resources in the international market, Taiwan's government continued to assist SMEs. In particular, the Small and Medium Enterprise Administration (SMEA) was established and has been playing a vital role in preparing related laws to promote and protect SMEs. Besides management consulting firms and research institutions where SMEs sent their in-service employees to have more advanced education and training, there were also a variety of channels through which the SMEA provided education and training to SMEs' employees. For example, the SMEA designed several programs that were categorized as vocational training and expertise preparation to help the SMEs train their employees on a regular basis. In addition, for the purpose of effectively making good use of limited resources of SMEs, three Research and Training Centers for SMEs were located in northern, middle, and southern Taiwan. They coordinated various public and private training organizations contracted by the SMEA to provide seminars and training courses. Further, the Passport of Life-Long Learning program--coordinated by the three Research

and Training Centers of SMEs--was launched in 1999 with the aim of encouraging employees to learn continuously. It was hoped that the attitude of life-long learning could be rooted not only within individuals, but also within enterprises and the whole society.

Assisting SMEs in educating and training their employees was only one of the roles the SMEA played. Another significant role the SMEA played was to make joint efforts with related government agencies to strengthen SMEs and to enhance SMEs' competitiveness. Although human resources was not explicitly included in ten individual guidance systems the SMEA designed to assist SMEs, some of the systems achieved great results in assisting SMEs. For example, the quality improvement guidance system--designed to assist SMEs in improving product and service quality--assisted SMEs in establishing a quality management system, improved SMEs' product and service quality, and conducted seminars on product quality testing and evaluation, and others. Another example, the operations management guidance system--designed to assist SMEs in improving their operations management--also provided short-term visiting consultation and consulting services to SMEs. This system achieved great results in assisting SMEs in conjunction with multiple sectors, such as large corporations, inter- and intra-industry associations, government agencies, and research institutions.

Through these programs, the Taiwanese government hoped that the SMEs could enhance their organizational abilities to make changes and meet challenges in the industrial environment and operational strategy in order to reach organizational goals. The outcomes from the efforts of the Taiwanese government has made to promote

enterprise training in SMEs and to increase SMEs' ability to compete in markets has been quite fruitful.

CHAPTER 10

CURRENT CHALLENGES AND FUTURE PLANS

In spite of the success, because of particular labor situations created by the overall structural changes in industrial sectors and the increasing competitiveness in international markets in the 1990s, the Taiwanese government has faced challenges in the development of human resources. Particularly, economic growth and changing society brought changes in labor situations. First, since 1990, the labor force participation rate in Taiwan has decreased gradually. The labor force participation rate in 1998 was 58.03%, a new low ever (see Table 10) (Directorate-General of Budget, Accounting and Statistics, 1998a). This could be attributed to a drop of 1.02% in labor force participation rate for the young (aged 15-24) to 35.86% in 1998, down from 36.88% in the preceding year.

Table 10

Labor Force Participation Rate by Age Group: 1990-1998

Unit: %

Year	Grand Total	Young age (15-24)	Middle age (25-49)	Senior age (50-64)	Old age (65 and plus)
1990	59.24	43.93	75.71	54.70	9.77
1991	59.11	42.63	76.01	55.20	9.93
1992	59.34	41.55	76.88	55.56	9.69
1993	58.82	39.65	77.13	55.23	9.83
1994	58.96	39.78	77.59	54.93	9.68
1995	58.71	38.46	77.67	54.97	9.79
1996	58.44	37.40	77.97	54.12	8.95
1997	58.33	36.88	78.07	53.99	8.76
1998	58.03	35.86	78.27	53.30	8.52

Note: Directorate-General of Budget, Accounting and Statistics, Executive Yuan (1998a). Monthly bulletin of manpower statistics, Taiwan area, Republic of China. Taipei, Taiwan: Author, pp. 10-11.

Second, the underemployment rate increased. According to the Yearbook of Labor Statistics (Council of Labor Affairs, 1998), the underemployment in May of 1997 in

Taiwan accounted for 20.32% of the labor force. The rate was 2.35% higher than the 1996 level and 3.46% higher than the 1995 level. In 1997, by composition, 8.20% of underemployment was attributed to low income, 6.42% to incompatibility between education and occupation, 3.19% to part time working hours per day, and 2.51% to unemployment.

Third, as the Taiwanese government no longer enjoyed arbitrary power, there appeared strong environmental, labor, and consumer movements, which had been suppressed under Kuomintang's rule for decades. Many small and medium businesses shifted their investment abroad, especially to Southeast Asian countries. Taiwan's exports to the U.S. shrank from 35.9% in 1989 to 25.9% in 1999, while those from Hong Kong and China went up from 10.4% to 23.1% (Directorate General of Customs, Ministry of Finance, R. O. C., n.d.b). This wave of investment was surpassed by investment in China. The total trade to China has increased dramatically since then; it increased from U.S. $144 million in 1989 to U.S. $7 billion in 1999 (Directorate General of Customs, Ministry of Finance, R. O. C., n.d.a).

Fourth, in view of the nation's economic development and social needs, as well as to solve labor shortage problems, foreign workers have been brought in from Indonesia, Malaysia, the Philippines, and Thailand since 1989 for major public construction, major production industries, domestic helpers and caretakers. The policy on foreign workers in Taiwan upholds the principle of supplementing the local workforce instead of replacing it. Employment of foreign workers reduced the labor shortage domestically; however, the number of foreign workers needed increased dramatically from 2,999 persons by the end of 1991 to 248,396 persons by the end of 1997 (Council of Labor Affairs, 1998).

Fifth, on the supply side of the labor force, there are trends in the employment market toward older aged laborers, those with higher education, and a limiting insufficient supply of basic skill laborers; on the demand side, the employment rate in service industries has increased continually and innovation in technology is needed in the upgraded industries (Council for Economic Planning and Development, 1997a).

So, how should Taiwan deal with the challenges of development of human resources created by the overall structural changes in industrial sectors and the increasing competitiveness in international markets?

First, adjusting training categories provided by the public Vocational Training Centers is essential to train the needed skilled human resources. In order to carry out the Asia-Pacific Regional Operations Center (APROC) plan successfully, from the measures of vocational training, Taiwan's human resources should be prepared and trained to meet the needs of the plan.

On January, 5, 1995, the Executive Yuan passed the proposal--Developing Taiwan to Become the Asia-Pacific Regional Operations Center (Jean, 1996). In the proposal, Taiwan planned to establish six centers, including a manufacturing center, a sea and air transportation centers, a financial center, a telecommunications center, and a media center, to make Taiwan an international communications and transportation node. Among several measures, research and development of new categories of vocational training to meet the needs for the APROC plan have been advocated. In the *Cross Century Manpower Development Plan-1997-2000*, the Council for Economic Planning and Development suggested preparing needed human resources to move industries

forward. While (a) "the quantity of middle level human resources cultivated by the mainstream education is sufficient; for those who lack employment experience, training should be reinforced and strengthened," and (b) "revise curricula in order to meet the needs of internationalization and industrial development; strengthen foreign language ability and the understanding and problem solving skills of international affairs" (Council for Economic Planning and Development, 1997a, p. 50). The Employment and Vocational Training Administration needs to update vocational training programs to develop needed human resources for upgraded industries, such as training programs with international standards to prepare for professional human resources to work in those six centers.

Next, for special human resource needs required by enterprises, enterprises should conduct their own training; however, the government should actively counsel enterprises with their on-the-job training for employees. Some of the measures to promote enterprise training are to: (a) assist businesses, trade unions or employer associations in establishing affiliated training agencies and in conducting training themselves, (b) formulate enterprise training rules and regulations and encourage investment in business training, (c) establish enterprise training networks to promote information and experience exchanges, and (d) recognize distinguished agencies and groups for excellent performance in conducting enterprise training (Employment and Vocational Training Administration, 1999).

In order for each industry to formulate its own training, "a Regional HRD Promotion Council which is composed of the representatives of business/industries, labor unions, educational institutions, and the local government should be established" (H. H.

Lee, 1995). Lee advocated that the responsibility for training should be left with employers. He hoped that a regional council would enable the delivery of HRD programs to be placed firmly under the control of employers and anticipate more responsiveness to the needs of the labor market.

Third, regardless of the greater interests and increased popularity in providing HRD and HRD related courses in Taiwan's universities since the mid-1980s, none of the universities has established undergraduate and graduate programs in HRD. It is time to establish such an institute throughout the country to prepare professional researchers and practitioners within the field of HRD. It is certain that HRD undergraduate and graduate programs will play a more important role in Taiwan's system of human resource development, educating and training future practitioners, researchers, and instructors than those of loose courses that are currently available.

Finally, moving Taiwan towards a learning society is a goal of HRD (Huang, 1998). In order to promote lifelong education and establish a learning society, the Ministry of Education assigned the year 1998 as national "Life-Long Learning Year." A series of life-long learning promotions was started. For instance, the White Paper on Towards a Learning Society, promulgated on March 18, 1998, was designed to promote the concept of lifelong education. A total of fourteen tasks were addressed in the White Paper. Some noteworthy tasks were promotion of learning organizations for industries, government staff, correctional institutions, family and community; certification system for individual achievement; trial launch of a Life-Long Learning card; and many others (Ministry of Education, n.d.b). For those enterprises that are interested in becoming a learning organization, enterprises can fill out a Learning Organization Project application in which

a solid learning project has to be addressed and apply for financial support from the Ministry of Education. Huang, Fu-Shun, president of the National ChaiYi Teachers College, defined a learning organization as:

> An organization which can support its members' learning activities; at the same time, the function, structure, and culture of the organization also can be innovative and growing continuously; the ultimate goal is to reach growth and development for both members and organization simultaneously. (Huang, 1998, p. 136)

It is a sure thing that the role of human resource development has changed much because it has been improving in order to coordinate with the trends and meet the social needs (Yang, 1998). Indeed, there is a close relationship between a learning society and human resource development, and the development of learning organizations is an important step to becoming a learning society (Huang, 1998).

Summary

Since the late 1980s, the Taiwanese government has faced challenges in the development of human resources because of particular labor situations created by the overall structural changes in industrial sectors and the increasing competitiveness in international markets. Facing a combination of situations, such as a lower labor force participation rate, a higher underemployment rate, and an insufficient supply of basic skilled labor force, the Taiwanese government started a five-year industrial workforce development plan and began the workforce training for women and the disadvantaged.

Further, in order to develop Taiwan as the Asia-Pacific Regional Operations Center, the role of HRD policy was more significant than before. Without a doubt, the propagation of vocational training, adopted by the Taiwanese government, will continue

to be one of the main human resource development strategies used to improve labor force quality and make good use of it. Adjusting training programs with international standards provided by the public vocational training centers will be essential in training the needed skilled human resources. In addition, scholars in Taiwan hoped that a regional council will enable the delivery of HRD programs to be placed under the control of employers for each industry. It was also hoped that individual enterprises would conduct their own training for their employees. The government used several measures to promote enterprise training. Finally, moving Taiwan towards a learning society is a goal of HRD; however, first, undergraduate and graduate programs in HRD should be established throughout the country; second, the fourteen tasks addressed in the White Paper on Towards a Learning Society should be implemented successfully. Without a doubt, the role of HRD has changed much because it has been improving in its coordination in light of the current trends to meet the social and corporate needs in Taiwan (Yang, 1998).

To sum up, given this chapter's emphasis, in Taiwan, government-initiated and supported HRD activities, which were pragmatic responses to national economic development, proved successful because of the growing acceptance of enterprise training and the concept of life-long learning. How to utilize human resource development policies and strategies to assist the transformation of economic structures efficiently is thus a challenging task for policy makers and economic development planners (Lee, 1998).

CHAPTER 11

DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this study was to trace the history of HRD in Taiwan from the 1950s to the 1990s. My goal was to describe the topical history of HRD in Taiwan since the 1950s, identify patterns and functions of HRD from the evolution of HRD in Taiwan since the 1950s, and posit a definition of HRD that is derived from the history of HRD in Taiwan. The paper was intended to help the reader understand:

- The origins of HRD in Taiwan
- The major developments and events
- The reasons the profession is as it now exists
- Forces that will likely shape its future

The major findings of this study were narrated in the previous chapters. In this chapter, the patterns, functions, and a definition of HRD drawn from the findings will be discussed.

A summary of the HRD policies, strategies and practices adopted by Taiwan's government agencies, Taiwanese public and private enterprises, and the Taiwanese civic organizations since the 1950s follows in three parts: (1) patterns drawn from the evolution of HRD in Taiwan; (2) functions of HRD drawn from the evolution of HRD in Taiwan; and (3) definition of HRD drawn from the history of HRD in Taiwan.

HRD Patterns

The following patterns derived from the history of HRD strategies, polices and practices adopted in Taiwan since the early 1950s:

- Because the organization which is responsible for the development of major HRD policies is under the jurisdiction of the Council for Economic Planning and Development of the Executive Yuan, and the Ministry of Economic Affairs, past and present HRD policies and strategies in Taiwan have emphasized economic growth nation-wide.
- A pattern of in-service training has developed, with much of the training provided by the vocational training centers under the jurisdiction of the Employment and Vocational Training Administration. The pragmatic mixture of government- and private enterprise-sponsored institutes seems to have worked well (Galenson, 1979). The Taiwanese government has utilized sources not only from governmental agencies, but also from public and private business enterprises, local civic organizations, universities and colleges.
- Both senior vocational schools and the public vocational training centers frequently emphasize the immediate placement of young job seekers with basic occupational skills instead of training them for long-term job security. Training administrated by the Employment and Vocational Training Administration has put more emphasis on basic skill training than on any other types of training. In addition, the types of training offered depend on the kinds of facilities available in the training centers rather than the kinds of skill needed in the employment markets (San & Chen, 1988).
- One of the persistent administrative problems in coordinating policies and strategies related to human resource development matters has been the overlapping of authority and responsibilities assigned to government agencies.

Coordination has been charged, at different times, to the Ministry of the Interior, the Ministry of Education, and the Ministry of Economic Affairs. In additions, there have been relevant departments at the provincial and city level. An autonomous HRD system at the provincial, municipal, and local level has not been established (Chen, Yu, & Chang, 1983). H. H. Lee (1996) suggested that the Taiwanese government should integrate labor unions, schools and public vocational training centers to advocate a local HRD strategy in order to assist enterprises and the labor force in obtaining a high degree of competitiveness, while integrating and coordinating with local economic development. But this has not yet happened.

- Because of the costs of an HRD program, and the high labor turnover rates, there is still a lack of participation among private firms in providing enterprise training to employees. However, enterprise training has been actively encouraged and financially supported by the Taiwanese government in order to encourage the business sector to place more importance on employee training. It is hoped that this will steadily raise the nation's level of labor productivity, service quality, and management technology.
- There is a continuing effort to expand the role played by public vocational training. The government's commitment to developing human resources through formal vocational education and informal vocational training is a long-term goal. Changes are needed continually in the training curricula, in the targeted training recipients, and in the trades for which training is offered.

Higher levels of training are called for; those youth who are not pursuing higher education will be encouraged to participate in vocational training.

- Due to its unique industrial styles with SMEs, the Taiwanese government has been playing and will continue to play a leadership role in combining resources and removing obstacles for SMEs. The Small and Medium Enterprise Administration of the Ministry of Economic Affairs has established several programs nation-wide from northern Taiwan to southern Taiwan to assist the SMEs with organization development, employee training and development, and employee career development. The small and medium enterprise service network--SME activity centers and SME service centers through the whole nation--has assisted the SMEs in many ways.
- In order to resolve problems stemming from the small size of SMEs, the Small and Medium Enterprise Administration of the Ministry of Economic Affairs has been promoting mutual cooperation between firms. Specific policies--such as promoting inter- and intra-industry exchanges, implementing cooperative projects, assisting in the development of cooperative organizations, and supporting the establishment of common facilities--have produced sound results in fostering mutual cooperation between firms.
- Human resource development and management associations founded locally but serving the nation are not only developing and growing fast, but are also attracting more and more attention from HR professionals and scholars, business and industry leaders, and local communities. It seems that these HR professional organizations have worked well in coordinating professionals from

industry, government agencies, and academia. These are the bridges through which HR professional resources can be used more efficiently.

HRD Functions

After reviewing the HRD system which has developed during the past five decades and examining the patterns that have been drawn from the evolution of HRD, three perspectives as posited from which one can view the functions for Taiwan's HRD system.

From a macro-economic point of view, HRD makes laborers more employable, improves the quality of labor, decreases unemployment, and develops and utilizes human resources in order to accelerate the economic growth in the whole country (Peng, 1990). For instance, youth can develop their work-related capabilities through senior vocational schools, junior colleges, and institutes of technology; they also can receive pre-employment training through public vocational training centers. In-service employees can enhance their work-related skills and develop their second expertise through upgrading training and second-expertise training programs offered in public vocational training centers or civic organizations operated jointly by the government and enterprises. From a micro-economic point of view, HRD assists enterprises in adapting new technology, changing employees' attitudes in order to ensure product quality, improving production efficiency, and strengthening competitiveness.

From a social point of view, HRD helps disadvantaged people develop the needed skills for jobs (Peng, 1990). For example, the public vocational training centers provide vocational training for disadvantaged people, including the middle-aged, elderly, the handicapped, aborigines, and female householders. In addition, from the guidance systems the Small and Medium Enterprise Administration launched in the 1990s, it is

hoped that Taiwan's enterprises, especially SMEs, will make good use of these external resources to enhance the quality of their employees and increase management efficiency of the organizations. The ultimate goal is to have a learning society in Taiwan.

From a scientific and technological point of view, HRD improves laborers' skill levels, upgrades their technological levels, increases their mobility, and avoids the phenomenon of structural unemployment (Peng, 1990). For instance, individuals can pursue higher grades of skill certificates in the public vocational training centers and upgrade their skill levels. Also, the training programs and R&D activities sponsored by the Council for Economic Planning and Development and the Small and Medium Enterprise Administration allow employees to update technical and professional levels. In addition, the service centers throughout the nation provided by the Small and Medium Enterprise Administration assist individuals and organizations with technical support and provide immediate solutions.

HRD Definition

So, what is HRD in Taiwan? Despite various definitions originating in the United States and in other countries, none quite fits Taiwan's situation. Before the answer is provided, two questions should be considered.

First, should HRD be defined? Monica Lee, who taught a master's program in HRD at Lancaster University, UK, argued that "although it is necessary at times to define HRD for political reasons, a philosophical, theoretical, professional, and practical grounds HRD should not be defined" (Lee, 2001, p. 1072). She made the point that "to offer definitions of HRD is to misrepresent HRD as a thing or being rather than a process of becoming, and the defining of HRD is a moral issue" (p. 1072).

Second, can HRD be defined? When the word "development" indicates different roles that the professional developer might adopt (Lee, 2001) in one country, not to mention its complex role in a global context, how can HRD be defined to accommodate different cultural perspectives? Or, whose perspective is to be met even within one single culture? Several studies that explored HRD activities in different countries all concluded that, although the majority of HRD principles applied internationally originated in the U.S., the nature and purposes of HRD activities differ in each country, as does its definition (Elliott, 1998; Harada, 1998; Hillion & McLean, 1997; McLean & McLean, 2001; Osman-Gani & Tan, 1998; Yang & McLean, 1997). Cultural norms vary from one country to another so that the US definitions and functions do not and should not completely apply to other countries. As the field of HRD is becoming increasingly global, this variation in cultural norms from country to country should be recognized and understood by HRD professionals who work domestically and internationally. In order to accommodate the variation they found in definitions of HRD, McLean and McLean (2001) offered a global definition of HRD, which they hoped to serve as a beginning point for dialogue in forwarding the development of a global definition of HRD.

Thus, in order to provide a definition which fits Taiwan's situation, HRD needs to be reviewed in the content of Taiwan. For this study, the following definition of HRD is derived from the history of HRD investigated. This definition is described by its nature and basic qualities by articulating what HRD in Taiwan is really about--what it does, for whom, and why; it is a statement of how HRD is in Taiwan, not what it can or should be.

HRD is an intentional, innovative, long-term, and committed process of developing an individual's work-related learning capabilities through vocational education and

training, organization development, and career development with an aim to contribute to individual, organizational, and national growth.

There are several key points to this definition. First, the purposes of vocational education and vocational training emphasize development and growth. Vocational education and training are to complement each other. The latter is rich in flexibility and can be adapted to the needs of changing occupations. In order to achieve its intended goal, participants need to be engaged in an environment in which they are involved with learning activities continuously. Second, the process of vocational education, vocational training, and career development focus on the individual. Individuals are the mediating forces through which development is done and the impact of HRD is experienced. Third, HRD is work-related. The whole nation grows through the work done by each individual.

As scholars in Western countries indicated, "HRD has yet to agree on one definition and some assert that it will not likely do so" (Ruona & Swanson, 1997, p. 1), "We can never have a well-defined core for a discipline for which we do not have even a common definition--nor should we" (McLean, 1999, p. 7). The definition of HRD will change from time to time since its concept and scope are expanding and the methods of delivery are improving to meet the needs in the fast changing economic environment. Thus, the definition of HRD, in Taiwan or elsewhere, will need to change periodically to reflect the changes in both the external environment surrounding HRD and the internal knowledge base. Thus, the definition developed today may be revised by other scholars tomorrow to suit the situation better. Last but not least, despite the debate of whether HRD can or can not, and should or should not, be defined, Lee (2001) has an encouragement to all of us:

> Each of us, in our professional lives, carries some responsibility as we contribute to what HRD is becoming. We need to be aware that to attempt to define HRD is to serve political or social needs of the minute--to give the appearance of being in control. Instead I suggest we seek to establish, in a moral and inclusive way, what we would like HRD to become, in the knowledge that it will never be, but that we might thus influence its becoming. (p. 1078)

Conclusions and Recommendations

From this review of the evolution of HRD policies and strategies adopted in Taiwan since the early 1950s, we see a unique case study of HRD starting and continuing as a national strategy. Given this historical investigation, I concluded that in many ways the HRD structure of Taiwan is highly based on the Taiwanese government in comparison with those of the U.S. Taiwan's HRD strategy is integrated with the national economic objectives for the nation, and there exists a national structure of government agencies and organizations responsible for planning and implementing the strategies. However, this does not deny the fact that Taiwan's HRD was influenced by other countries, particularly by the U.S. The Industrial Vocational Education Cooperative Project from the Pennsylvania State University and the Role of Education Planning in the Economic Development from the Stanford Research Institute, for instance, laid a solid foundation for the successful establishment of vocational education policies in Taiwan. In addition, the assistance from the U.S. Department of Labor in helping the Taiwanese government identify human resources problems, and the National Manpower Conference and the Manpower Development Committee were thus held and established. Obviously, with the

help of human resource professionals from the U.S., the journey of planning, developing, and utilizing human resources systematically in Taiwan began.

In order to develop the economy further, the Taiwanese government and its people have figured out a long-term approach to developing its human resources. After all, economic growth was something that Taiwan's government and people have wanted since the beginning. This will--to develop people in order to develop the economy--is probably a necessary condition for Taiwan's economic growth along with the overall growth of its human resources.

The contention is that the evolution of Taiwan's HRD has been propelled in part by government policies that progressively increased the awareness of developing human resources among the public and adjusted the strategies to meet the demands of the economy. This evolution was not itself an explicit policy; there was no timetable for reforms. But there was, from the beginning of Taiwan's postwar development, at least a nominal commitment to the national economy by those charged with running the government.

Recommendations for Other Countries

What can we learn from the history of HRD in Taiwan? More specifically, given this study's emphasis, what can other countries learn from Taiwan's policy experience in shaping HRD? There are obviously some experiences that are transferable and some that are not. Of those that are transferable, first is the Taiwanese government's early recognition of the importance of investing in human capital. Second, Taiwan's experience shows that deliberate government involvement, or intervention, in the development of human resources can bring long-term material gain. Since the 1950s, the

government has been committed to developing human resources to promote national economic growth and integrated macro-economic HRD strategies with other national economic objectives. Third, Taiwan's experience shows that effective policy mechanisms towards HRD reflect their time, purpose, and particular government and business environment; there are no completely standard tools available, and certainly not for all time. Through a pluralistic approach which has been planned, implemented, and evaluated by multiple government departments, people in Taiwan have different channels to get pre-employment training, advanced training, job transfer training, second expertise training, and vocational training for disadvantaged people. Finally, in the case of Taiwan's development of HRD, many believe that the government has played and continues to play a pivotal role. In this study, there is repeated mention of government policy and plans, particular policy decisions and deliberate government efforts to achieve specific economic results through developing human resources. Yet, government-initiated and supported HRD activities, which have been pragmatic responses to national economic development, proved successful because of the growing acceptance of enterprise training and the concept of life-long learning.

In summary, this overview of what can be termed the government-initiated and government-encouraged emergence of developing human resources to boost Taiwan's economy and enhance Taiwanese welfare is analogous at the macro level to the concept of self-awareness of HRD in business management. The series of liberalizing and restructuring measures designed and implemented since the 1980s played a vital role in establishing a foundation for vocational training and, in particular, enterprise training. The upgrading of industries and the advancement of competitive ability in the

international market since the 1990s certainly evoke an important voice for strengthening the role of HRD in large corporations and SMEs.

Thus, in Taiwan's case, with the whole nation at the end of the war having only limited experience and capability, direct government involvement in HRD might have been the most effective way to achieve results, but there is really no way to know. The financial support for the SMEs, especially, has increased and has been more valuable than before since the 1990s when the SMEs have realized the increasing importance of HRD. Three factors have been fundamental in shaping Taiwan's development of HRD: (1) Sun Yat-Sen's teachings; (2) the government's commitment to develop its economy and to fulfill social expectations through the development of human resources; and (3) the pragmatic and pluralistic approaches adopted in policy formulation.

Knowing the origin of HRD practices, the evolution of HRD policies and strategies, and the functions of the HRD system are essential for a better understanding of the current HRD status and implications in Taiwan. The hope is that this historical study will help the field to guide the nation through key issues it is facing after understanding its past and how it has evolved.

Recommendations for Taiwan

The findings from this study--the history of HRD in Taiwan--can lead to some recommendations for what more Taiwan may need to do in HRD.

- In order to resolve the problem of labor shortage, Taiwan has been facing challenges caused by bringing in foreign workers since the late 1980s. At present, programs and forms of assistance from enterprises to foreign workers include recreational activities on weekends, cultural and recreation centers,

counseling sessions, weekend religious activities, and Chinese language training (Government Information Office, 1997). Facing these increasing cross-cultural issues--which rarely existed previously because Taiwan was a rather closed environment before the end of the 1980s--in workplaces, the future challenges for HRD professionals from the government and enterprises will be to educate both Taiwanese and foreign workers about cultural diversity issues. The Taiwanese enterprises will need to know appropriate solutions regarding racial conflicts between local workers and foreign workers, language problems, equal opportunity, cultural and custom differences. Besides current regulations regarding managing foreign workers, the Taiwanese government will need to add new regulations regarding training and development for the foreign workers to increase their skill levels.

- Forging ahead with the liberalization and internationalization of Taiwan's economy, the Taiwanese government needs to transform current vocational schools--that serve those who do not have a good academic background--to highly specialized and professional vocational schools to which students are attracted and where they are willing to be trained as technicians and skilled crafts professionals. Certainly, this transformation can not be done without cooperation between businesses and schools; this transformation needs a change in the perception that vocational schools are second among students, parents, and entrepreneurs. Further, this transformation needs a change of curriculum that is designed to link theory to practice.

- Due to its unique industrial styles with SMEs, the Taiwanese government has been playing and will continue to play a leadership role in combining resources and removing financial and human resource obstacles for the SMEs to conduct more HRD and HRD-related practices. There will be a continuing effort to expand the role played by public vocational training. During the past twenty years, public vocational training leaned heavily towards pre-employment training for youth. Changes will need to be made in training curricula, in the targeted training recipients, in the training methods, and in the trades for which training is offered in order to meet the needs for Taiwan to be the Asia-Pacific Region Operation Center. Further, because of the impacts of the government's HRD activities on the SMEs, continuing professional development is needed for the trainers and educators who serve to assist the SMEs with organization development, employee training and development, and employee career development.
- As the Small and Medium Enterprise Administration will continue to assist with personnel training and make plans to establish research and training centers, there are needs for improvement in the operations of the SMEA. By surveying the needs of SMEs, compiling appropriate curricula and teaching materials, and providing SMEs with information on training courses, these research and training centers can serve more individuals and corporations effectively.
- According to the Statute for Upgrading Industries, a company may credit 5% to 25% of the amount of fund investing for R&D and personnel training against the amount of income tax payable for the current year. However, a company

has to spend at least NT$600,000 (approximately U.S. $19,000) in order to apply for the income tax deduction. Scholars have indicated that this regulation has impacted SMEs that do not want to invest in R&D and employee training because they are not eligible to apply for the deduction if they spend less than NT$600,000 (Ministry of Economic Affairs, 1999). Thus, eliminating a minimum amount for a deduction is a possible way for the government to extend assistance.

- Scholars in Taiwan have indicated that the earliest establishment of management consulting firms were affiliated with the Taiwanese government during the mid-1950s and the mid-1960s. In other words, management consulting businesses in Taiwan were started and promoted by the Taiwanese government (Kao, 1990; Wu, 1979). Facing a higher demand for management consulting firm services requested by corporations in Taiwan, the Taiwanese government may consider establishing policies to monitor the quality of management consulting firms.
- As Taiwanese scholars have indicated that Taiwan's SMEs do not know how to make good use of external resources (Jean, 1994b; "Why aren't Tawan," 1992), future challenges for the Ministry of Economic Affairs are to publicize current guidance systems more and encourage the SMEs to make active use of external sources. Giving them more incentives and recognition can be one approach. Conducting a business-focused evaluation of existing guidance systems and providing the results to the public is another way to publicize the benefits of the government's programs.

- In terms of mutual cooperation between firms, the Small and Medium Enterprise Administration can consider more creative ways to promote inter- and intra-industry exchanges and encourage the SMEs to engage more in mutual help and cooperation with other firms. Cooperation among regional industries should be more widespread among regional SMEs. The Small and Medium Enterprise Administration should provide more guidance for community-level cooperation among small firms.
- Regardless of the greater interests and increased popularity in providing HRD and HRD related courses in Taiwan's universities since the mid-1980s, none of the universities has established undergraduate and graduate programs in HRD. Right now, there is a need to establish both programs throughout the country because it is certain that both programs will play a significant role in Taiwan's system of human resource development, educating and training future practitioners, researchers, and instructors.
- There is a need to advance the profession through a high-quality academic journal for Taiwan's HRD. A good journal provides a place for academicians, practitioners from businesses and professional associations, leaders and stakeholders from local and multinational corporations, authorities from governmental sectors, to be aware of cutting edge research. This will not only serve a place where information is exchanged, but also a place where a dialogue is encouraged. The amount of work to establish high-quality HRD journals in the U.S. like the Human Resource Development Quarterly, the Human Resource Development International, the Performance Improvement Quarterly, and many

others, is enormous; as expected, the roles these journals have played in the field are immense. A highly professional journal like this is what Taiwan needs to have in the profession of HRD.

- Regardless of the greater interests in providing HRD activities and greater challenges to link practice and theory in Taiwan's workplace, few studies were found that focused on expanding the theoretical knowledge base to support future studies in Taiwan. It seems that Taiwanese researchers, through quantitative research, have been doing a good job at finding the kinds of HRD practices that have been implemented in Taiwan. These researchers described their results from the data but fell short in using the data to build theory. In addition, there is a lack of research that examines how HRD practices are implemented in dealing with rapidly changing work environments. In other words, the theoretical knowledge base should be expanded; a formal, grounded theory can further be built. As Chalofsky (1998) said: "Without reliable theory development and research, HRD can never become a viable discipline with a solid knowledge base. We can learn from practice, but we will not grow and be recognized without research guiding the evolution of the field" (p. 666). HRD professionals in Taiwan should place more emphasis on the methodological rigors of conducting research, use the data to expand theoretical knowledge, and further develop formal and grounded theories.

Recommendations for Future Research

Future research should include in-depth studies of beliefs underlying Taiwan's HRD from different points of views--from the perspectives of the academic community,

governmental agencies, private and public enterprises, and labor unions. What are the underlying values and assumptions promoted in HRD in Taiwan? Whose voices are represented? Whose are neglected? Whose interests are promoted and why? We must acknowledge the importance of knowing who HRD really serves in a nation; only by understanding what the beliefs are and how they vary from one another can we figure out how the practice of HRD is influenced.

Further, a larger-scale and more systematic investigation into university-based HRD education in needed. Though, in Taiwan, it has been in existence as a field of practice for many decades and under various names, the past ten years have seen the institutionalization of HRD as a field of study. Due to a growth in demand and knowledge, there has been an emergence of HRD as academic specialization and departments located primarily in schools of management and education since the late 1980s. In spite of the fact that, in Taiwan, none of the HRD programs located in departments or larger units in colleges or universities actually carried the name HRD but were very heterogeneous in name, there is an increasing popularity in offering HRD and related courses in Taiwan's colleges and universities. In addition to increasing student enrollments, there has been growing employment opportunities for HRD practitioners and university faculty, and an increasing number of professional associations and conferences. Thus, given the size and importance of university-based HRD programs, an in-depth knowledge about the characteristics of these HRD programs is important. Research related to questions about the effectiveness of HRD education and research needs and knowledge gaps related to academic HRD programs should be further explored. After all, the role of HRD in academia has grown continually in preparing

current and future HRD practitioners and in conducting research to advance HRD knowledge.

Third, past and current literature appeared to offer little in the evaluation of Taiwan's HRD. Particularly, the Small and Medium Enterprises Administration in Taiwan has provided Taiwan's SMEs with interventions that help their general business operations, enterprise training, strategic planning, quality improvement, and many others. Thus, a study to measure and evaluate the efficiency and effectiveness of these interventions to a particular enterprise or industry will be beneficial to those who are being evaluated and those who are evaluating, in addition to informing government policy. The failure of past evaluation of training programs or other HRD activities had to do with the fact the most organizations in Taiwan did not have experts to do the right kind of evaluation. "A useful evaluation should be responsive to the questions and needs that organizations and their stakeholders must face," said Bae and Jacobs (2001). A good evaluation can boost Taiwan's SMEs' confidence in making better use of the HRD interventions the government provides.

Finally, a case study on the China Productivity Center would be interesting. The China Productivity Center has had a very close relationship with the Taiwanese government and has played a central role as a trainer, management consultant, and productivity promoter during the development of the Taiwanese economy over the past fifty years (China Productivity Center, n.d.). Not only did it play a major role in facilitating Taiwan's remarkable economic growth over the past several decades (China Productivity Center, n.d.), but it also was one of the most influential organizations in establishing HRD in Taiwan (C. C. Jean, personal communication, November 1, 2000).

REFERENCES

Aspire Academy. (n.d.a). Instructor president. Available online at: http://www.aspireacademy.com/english/qualify/qualify_a.htm

Aspire Academy. (n.d.b). Service. Available online at: http://www.aspireacademy.com/english/service/service_index.htm

Aspire Academy. (n.d.c). Words from Stan Shih. Available online at: http://www.aspireacademy.com/english/about/about_1.htm

Bae, E. K., & Jacobs, R. L. (2001). Three perspectives of training evaluation based on organizational needs. In O. A. Aliaga (Ed.), Academy of Human Resource Development 2001 conference proceedings (pp. 712-718). Baton Rouge, LA: Academy of Human Resource Development.

Barzun, J., & Graff, H. F. (1985). The modern researcher. New York: Harcourt.

Becker, C. L. (1935). Everyman his own historian. New York: F. S. Crofts & Co.

Bedi, H. (1993). Stan Shih's dragon dream. Asian Business, 29(9), 50-54.

Berkhofer, R. F. (1969). A behavioral approach to historical analysis. New York: The Free Press.

Black's law dictionary (6th ed.). (1990). St. Paul, MN: West Publishing.

Budget, Accounting and Statistics Department, Taiwan Provincial Government, R. O. C. (1998). Statistical yearbook of Taiwan province. Nan-Tou, Taiwan: Author. (Chinese)

Chalofsky, N. E. (1998). Professionalization comes from theory and research: The "why" instead of the "how-to." In R. J. Torraco (Ed.), Academy of Human Resource

Development 1998 conference proceedings (pp. 666-670). Baton Rouge, LA: Academy of Human Resource Development.

Chang, C. L. (1991). Central public sector employers in-service advanced-study and training in our country. Unpublished master's thesis, Tung-Hai University, Taichung, Taiwan. (Chinese)

Chang, F. T. J. (1986). Taiwan industrial vocational education: The personnel development program. Dallas, TX: International Conference of the American Vocational Association and the International Vocational Education and Training Association. (ERIC Document Reproduction Service No. ED 276 859)

Chang, F. T. J. (1990). A study of technological and vocational education in the Republic of China: Some concepts and their implementation. Cincinnati, OH: Annual Meeting of the International Vocational Education and Training Association. (ERIC Document Reproduction Service No. ED 326 658)

Chang, F. T. J. (1991). The impact of the 1950s' Sino-American Industrial Vocational Education Cooperative Project on the current technical vocational education in the Republic of China. Los Angeles: American Vocational Association Convention. (ERIC Document Reproduction Service No. ED 339 827)

Chang, H. T. (1992). Problems and strategies to SMEs human resource development. Employment and Training, 10(3), 43-46. (Chinese)

Chang, P. Y. (n.d.). New trends of HRD for the 21st century. Available online at: http://www.pstc.tcg.gov.tw/copyright/quality/87/87-23.htm (Chinese)

Chen, C. M. (1992, January 22). Chinese human resource management established. Economic Times, p. 31. (Chinese)

Chen, G. C., & Shih, M. (1989). Vocational education at the crossroads: The case of Taiwan. Orlando, FL: Annual Meeting of the International Vocational Education and Training Association. (ERIC Document Reproduction Service No. ED 316 652)

Chen, H. (1987). Put human resource management on the ground. Management Magazine, (155), 82-84. (Chinese)

Chen, C. M. (1992, January 22). Chinese human resource management established. Economic Times, p. 31. (Chinese)

Chen, H. Y. (1997). Human resource development practices in American and Chinese high-technology companies in Taiwan. In R. J. Torraco (Ed.), Academy of Human Resource Development 1997 conference proceedings (pp. 108-113). Baton Rouge, LA: Academy of Human Resource Development.

Chen, H. Y., & Mink, O. G. (1995). Relationships between organizational climate and HRD practices: A comparative study of American and Chinese firms in Taiwan. In E. F. Holton III (Ed.), Academy of Human Resource Development 1995 conference proceedings (section 23-3). Baton Rouge, LA: Academy of Human Resource Development.

Chen, G. C., & Shih, M. (1989). Vocational education at the crossroads: The case of Taiwan. Orlando, FL: Annual Meeting of the International Vocational Education and Training Association. (ERIC Document Reproduction Service No. ED 316 652)

Chen, M. (1995). Asian management systems: Chinese, Japanese and Korean styles of business. New York: Routledge.

Chen, T. H., Yu, H. M., & Chang, P. J. (1983). The formulation and implementation of manpower policy. Taipei, Taiwan: Lien-Ching. (Chinese)

Cheng, C. L. (1981). National economic development. Taipei, Taiwan: The World. (Chinese)

Cheng, P. C. (1991). The exchange of human resources and exchange of information for Small and medium enterprises. Chung Hsin Tung Hsun, (180), 44-46. (Chinese)

Cheng, T. J. (1989). Democratizing the quasi-Leninist regime in Taiwan. World Politics, (41), 461-499.

Chiang, C. Y. (1991). The influence of personal variables on employees' needs and attitude toward corporate education and training--A case study for Chinese Petroleum Corporation and President Enterprises Corporation. Unpublished master's thesis, Chung Yuan University, Taipei, Taiwan. (Chinese)

Child, J. (1981). Culture, contingency and capitalism in the cross-national study of organizations. In L. J. Cummings and B. M. Staw (Eds.), Research in organizational behavior (pp. 303-356). Greenwich, CT: JAI Press.

China Productivity Center (1957). China Productivity Center. Taipei, Taiwan: Author. (Chinese)

China Productivity Center. (1985). Operational management consultant training. China Productivity Center Monthly, (357), 72-75. (Chinese)

China Productivity Center. (n.d.). China Productivity Center: Mission. Available online at: http://www.cpc.org.tw/english/mission.htm

Chinese Human Resource Management Association. (1992). Human resource management in Mainland China. Taipei, Taiwan: Career Magazine Company. (Chinese)

Chinese Human Resource Management Association. (1996). Chinese Human Resource Management Association introduction (2nd ed.). [Brochure]. Taipei, Taiwan: Author. (Chinese)

Chinese Human Resources Management Group set up. (1992, February 3). The China News, p. 2.

Chinese Management Association. (n.d.). Introduction. Available online at: http://www.management.org.tw/introduce/history.htm (Chinese)

Chinese Management Association, Human Resource Management & Development Committee. (n.d.). Introduction. [Brochure]. Taipei, Taiwan: Author. (Chinese)

Chinese Securities Association. (n.d.). Chinese Securities Association: History. Available online at: http://www.csa.org.tw/csa3.htm (Chinese)

Chu, C. M., Yang, C. C., & Chang, S. K. C. (1992). The analysis of applying human resources planning on Taiwanese enterprises. Journal of HRD, (2), 1-15. (Chinese)

Clark, C. (1989). Taiwan's development: Implications for contending political economy paradigms. Westport, CT: Greenwood Press.

Council for Economic Planning and Development, Executive Yuan, R. O. C. (1990). The study of strengthening national corporate managerial training to promote economic development. Taipei, Taiwan: Author. (Chinese)

Council for Economic Planning and Development, Executive Yuan, R. O. C. (1996). Major themes of the ROC. Available online at: http://spring.nii.nchc.gov.tw/CEPD/English/Economic/con16-3.html

Council for Economic Planning and Development, Executive Yuan, R. O. C. (1997a). Cross century manpower development plan--1997-2000. Taipei, Taiwan: Author. (Chinese)

Council for Economic Planning and Development, Executive Yuan, R. O. C. (1997b). The evolution of manpower development policies and strategies in Taiwan for the past 30 years. Taipei, Taiwan: Author. (Chinese)

Council of Labor Affairs, Executive Yuan. (1998). Yearbook of labor statistics, Taiwan area, R. O. C. Taipei, Taiwan: Author. (Chinese)

Council of Labor Affairs, Executive Yuan. (2000). Monthly bulletin of labor statistics, Taiwan area, R. O. C. Taipei, Taiwan: Author. (Chinese)

Cummings, T. G., & Worley, C. G. (1993). Organization development and change (5th ed.). St. Paul, MN: West Publishing.

Daniels, R. V. (1972). Studying history: How and why. Englewood Cliffs, NJ: Prentice-Hall.

Department of Business Administration at National Central University. (n.d.). Profession. Available online at: http://basrv.mgt.ncu.edu.tw/class/profession.htm (Chinese)

Dessus, S., Shea, J. D., & Shi, M. S. (1995). Chinese Taipei: The origins of the economic "miracle." Paris: Organization for Economic Co-operation and Development.

Directorate-General of Budget, Accounting and Statistics, (1998a). Monthly bulletin of manpower statistics, Taiwan area, R. O. C. Taipei, Taiwan: Author. (Chinese)

Directorate-General of Budget, Accounting and Statistics, (1998b). Report on the manpower utilization survey, Taiwan area, R. O. C. Taipei, Taiwan: Author. (Chinese)

Directorate General of Custom, Ministry of Finance, R. O. C. (n.d.a). Exports and imports value list. Available online at: http://cus.moeaboft.gov.tw/cgi bin/pbisa60.dll/customs/uo_e_roc/of_o_fsr10_report?

Directorate General of Custom, Ministry of Finance, R. O. C. (n.d.b). Value of exports and imports by country. Available online at: http://cus.moeaboft.gov.tw/cgi-bin/pbisa60.dll/customs/uo_e_roc/of_o_fsr11_report?

Elliott, C. (1998). Human Resource Development in the UK–A review of the literature. In R. J. Torraco (Ed.), Academy of Human Resource Development 1998 conference proceedings (pp. 536-543). Baton Rouge, LA: Academy of Human Resource Development.

Employment and Vocational Training Administration, Council of Labor Affairs, Executive Yuan. (1987). The statistics of vocational training, skill test & employment service in Taiwan area of the Republic of China. Taipei, Taiwan: Author. (Chinese)

Employment and Vocational Training Administration, Council of Labor Affairs, Executive Yuan. (1996). Vocational training, employment services, skill testing, skill competitions. Taipei, Taiwan: Author.

Employment and Vocational Training Administration, Council of Labor Affairs, Executive Yuan. (1998). The statistics of vocational training, skill test & employment service in Taiwan area of the Republic of China. Taipei, Taiwan: Author. (Chinese)

Employment and Vocational Training Administration, Council of Labor Affairs, Executive Yuan. (2000). The statistics of vocational training, skill test & employment service in Taiwan area of the Republic of China. Taipei, Taiwan: Author. (Chinese)

Employment and Vocational Training Administration, Executive Yuan, R. O. C. (1999). Executive Yuan, Employment and Vocational Training Administration 1999 annual report. Taipei, Taiwan: Author. (Chinese)

Employment and Vocational Training Administration, Republic of China. (n.d.). Public vocational training centers trainees numbers by training locations table. Available online at: http://www.evta.gov.tw/

Executive Yuan, R. O. C. (1965). R. O. C. ten year long-term economic development plan and the fourth four-year plan (First draft). Taipei, Taiwan: Author. (Chinese)

Executive Yuan, U.S. Aid Utilization Council (1957). R. O. C.-U.S. cooperation: Economic aid development introduction. Taipei, Taiwan: Author. (Chinese)

First enterprise human resource management and development seminar fact recording. (1983). Industrial Business Management, (18),1-2. (Chinese)

Fitzsimons, M. A. (1983). The past recaptured: Great historians and the history of history. Notre Dame, IN: University of Notre Dame Press.

Fling, F. M. (1920). The writing of history: An introduction to historical method. New Haven, CT: Yale University Press.

Fogel, R. W., & Elton, G. R. (1983). Which road to the past? Two views of history. New Haven, CT: Yale University Press.

Galenson, W. (Ed.). (1979). Economic growth and structural changes in Taiwan: The postwar experience of the Republic of China. Ithaca, NY: Cornell University Press.

Gong, W. G. (1997). Human resource development in a new industrial country: R. O. C. labor force quality and productivity experience. Labor Review, (112), 18-21. (Chinese)

Gottschalk, L. (1969). Understanding history: A primer of historical method. New York: Alfred A. Knopf.

Government Information Office. (1997). The Republic of China yearbook. Taipei, Taiwan: Author.

Gustman, A. L., & Steinmeier, T. L. (1982). The relation between vocational training in high school and economic outcomes. Industrial and Labor Review, 36(1), 73-87.

Hansen, C., & Brooks, A. (1994). A review of cross-cultural research on HRD. Human Resource Development Quarterly, 5(1), 55-72.

Harada, K. (1998). The Japanese human resource development system. In R. J. Torraco (Ed.), Academy of Human Resource Development 1998 conference proceedings (pp. 91-97). Baton Rouge, LA: Academy of Human Resource Development.

Harbinson, R., & Myers, C. A. (1964). Education, manpower, and economic growth: Strategies of human resource development. New York: McGraw-Hill.

Henderson, J. V., & Poole, W. (1991). Principles of macroeconomics. Lexington, MA: D. C. Heath and Company.

Hepler, G. W. (1966). Plan to thrive. In Manpower Development Committee, Council for International Economic Cooperation and Development, Executive Yuan (Ed.), Human resources series volume one: Human resources planning (pp. 7-11). Taipei, Taiwan: Author. (Chinese)

Hillion, B., & McLean, G. N. (1997). The status of human resource development in French companies. In R. J. Torraco (Ed.), Academy of Human Resource Development 1997 conference proceedings (pp. 694-701). Baton Rouge, LA: Academy of Human Resource Development.

Ho, S. P. S. (1978). Economic Development of Taiwan, 1860-1970. New Haven, CT: Yale University Press.

Hobday, M. (2000). Industrial reform: Insights from the electronics sector. In G. Segal., D. S. G. Goodman. (Eds.), Towards recovery in Pacific Asia (pp. 26-38). New York: Routledge.

Hofstede, G. (1980). Motivation, leadership, and organization: Do American theories apply abroad? Organizational dynamics, 9(1), 42-62.

Hoopes, J. (1979). Oral history: An introduction for students. Chapel Hill, NC: The University of North Carolina Press.

Hong, J. C. (1991). Human resource development: A complete manual of enterprise education and training. Taipei, Taiwan: National Normal University Press. (Chinese)

Hopkins, C. O. (1977). Decision making investments in vocational education. In W. Meyer (Ed.), Vocational education and the nation's economy (pp. 153-170). Washington, DC: American Vocational Association.

Hsieh, S. M. (1997). The study of improving civil servant training system and enhancing human resources: Dr. Sun Yat-Sen's strategies of developing talent. Unpublished master's thesis, Chinese Culture University, Taipei, Taiwan. (Chinese)

Hsu, L. P., & Chang, C. M. (1991). The philosophy and action of manpower development for the Taiwan Phillip Corporation. Employment and training, 9(4), 31-35. (Chinese)

Hu, H. Y., & Tsai, L. C. (1997). The past and future of the enterprise training business in the Republic of China. Employment & Training, 15(3), 8-13. (Chinese)

Hu, H. Y., & Tsai, L. C. (1998). Expand new areas of enterprise training to correspond to the trend of manpower development. Employment & Training, 16(4), 7-12. (Chinese)

Hu, S. H. (1964). Taiwan's manpower problems and planning: U.S. Department of Labor Weiss's report to the U.S. Aid Council director. Industry of Free China, 21(2), p. 15-19. (Chinese)

Huang, C. C. (n.d.). Utilize talent: Case study--Sampo Corporation. Available online at: http://www.career.com.tw/scripts/asp/hrmaster/c404.asp (Chinese)

Huang, F. S. (1998). Learning society and human resource development. In Kaoshiung City Government Civil Servant Human Resource Development Center (Ed.), Human resource development (pp. 117-139). Kaoshiung, Taiwan: Author. (Chinese)

Huang, I. C. (1993). Industrial training essay. Taipei, Taiwan: San-Min. (Chinese)

Huang, T. C. (1997, August). Vocational training in Taiwan: Current state and future challenges. Industry of Free China, 61-78.

Huang, I. C., & Uen, J. F. (1995). A study of the relationships between environmental factors, training implementation decisions and performance. Journal of Human Resources Development, (5), 41-61. (Chinese)

Human resources and competitors: Two major factors influencing current competitiveness. (1991, May). Strategy Productivity, 22-27. (Chinese)

Human Resource Development Association, Republic of China. (n.d.). Human Resource Development Association, Republic of China, introduction. [Brochure]. Taipei, Taiwan: Author. (Chinese)

Hwang, Y. D. (1991). The rise of a new world economic power: Postwar Taiwan. Westport, CT: Greenwood Press.

Industrial Development Bureau, Ministry of Economic Affairs. (n.d.). Statute for upgrading industries. Available online at: http://www.moeaidb.gov.tw/law/up_derate/upgrade_eng.htm

Institute of Human Resource Management at National Central University. (n.d.). Human resource management. Available online at: http://ww.ncu.edu.tw/~hr/new/english/index.htm

Institute of Human Resource Management at National Sun Yat-Sen University. (n.d.a). Course planning: Masters. Availabone online at: http://cm.nsysu.edu.tw/~hrm/masters.htm (Chinese)

Institute of Human Resource Management at National Sun Yat-Sen University. (n.d.b). Course planning: Ph.D. Availabone online at: http://cm.nsysu.edu.tw/~hrm/dr.htm (Chinese)

Jaw, B. S. (1997). Strategic human resource development of Taiwanese medium and small companies in a changing environment. Asia Pacific Management Review, 2(2), 101-119. (Chinese)

Jean, C. C. (1994a). Corporate HRD practices in Taiwan, Republic of China. Labor Relations Journal, (1), 109-130. (Chinese)

Jean, C. C. (1994b). The current status and expectations of talent training in small and medium enterprises. Labor Relations Monthly, 13(6), 13-23. (Chinese)

Jean, C. C. (1995a). The analysis of learning motives and obstacles of adult learners in Taiwan, R. O. C. Journal of HRD,(5), 63-77. (Chinese)

Jean, C. C. (1995b). The training practices of the top 1000 companies in Taiwan, Republic of China. Labor Research,(121), 1-18. (Chinese)

Jean, C. C. (1996). The influences of human resource development to the Asia-Pacific Regional Operations Center. Labor Relations Journal, 15(8), 6-15. (Chinese)

Jung, H. (1969). Chinese Daily Newspaper dictionary. Taipei, Taiwan. (Chinese)

Jusserand, J. J., Abbott, W. C., Colby, C. W., & Bassett, J. S. (1974). The writing of history. New York: Burt Franklin Reprints.

Kao, J. H. (1990). The study of education and training services provided by management consulting industry. Unpublished master's thesis, Tung-Hai University, Taichung, Taiwan. (Chinese)

Koons, J. E. (1985). Utilization of oral history resources in a classroom setting: A study of impacts. Unpublished doctoral dissertation, University of Minnesota, Minneapolis, MN.

Kuan, C. J. (1997, November). The theory of Taiwan's small and medium enterprise developmental system. Industry of Free China, 33-46. (Chinese)

Kuo, C. M., & McLean, G. N. (1999). The history of human resource development in Taiwan from 1949 to 1999. In K. P. Kuchinke (Ed.), Academy of Human Resource

Development 1999 conference proceedings (pp. 443-451). Baton Rouge, LA: Academy of Human Resource Development.

Kuo, S. W. Y. (1983). The Taiwan economy in transition. Boulder, CO: Westview Press.

Kuo, S. W. Y., & Liu, C. Y. (1998). Taiwan. In R. H. McLeod, & R. Garnaut (Eds.), East Asia in crisis from being a miracle to needing one? (pp. 179-188). New York: Routledge.

Kuo, W. F. (1998). Transformation and innovation of technological and vocational education. In Department of Technical and Vocational Education, the Ministry of Education (Eds.), Promotional material: Strengthen technological and vocational education (pp. 31-44). Taipei, Taiwan: Author. (Chinese)

Land, M. H. (1990). A new era of vo-ed in Taiwan. School Shop, 50(1), 30-31.

Lee, H. H. (1995). Strategic human resource development: A model for Taiwan economic labor market structural adjustment. (Doctoral dissertation, Colorado State University, 1995). Dissertation Abstracts International, 56, 2529.

Lee, H. H. (1996). From employment and training policies and corporate HRD to labor force quality improvement. Labor Review, 85(5), 35-38. (Chinese)

Lee, H. H. (1998). From human resource development strategies to the strategies of labor market structural adjustment. Human Resource Development Monthly, (126), 1-5. (Chinese)

Lee, M. (2001). A refusal to define HRD. In O. A. Aliaga (Ed.), Academy of Human Resource Development 2001 conference proceedings (pp. 1072-1079). Baton Rouge, LA: Academy of Human Resource Development.

Lee, S. H. (1994). A preliminary study of the competencies, work outputs, and roles of human resource development professionals in the Republic of China on Taiwan: A cross-cultural competency study. (Doctoral dissertation, The Pennsylvania State University, 1994). Dissertation Abstracts International, 55, 2745.

Lee, S. H. (1997). Human resource development. Taipei, Taiwan: Wu-Nan. (Chinese)

Li, K. T. (1968). Economic policy and economic development. Taipei, Taiwan: The International Economy and Cooperation and Development Council. (Chinese)

Li, K. T. (1978). The experience of growing fast in Taiwan's economy. Taipei, Taiwan: Cheng Chung. (Chinese)

Lin, K. M. (1997). The effectiveness of organizational transfer of training from a strategic human resources management concept--A case study of Taiwan Sugar Corporation. Unpublished master's thesis, National Tung Hua University, Hua Lien, Taiwan. (Chinese)

Lin, S. Y. (1992, January 23). Human Resource Consumer Foundation Association establishment. Industrial Business Daily, p. 23. (Chinese)

Lin, Y. Y. (1991). Implications of management philosophy, organizational climate, and managers' learning for human resource development: A comparative study of American, Japanese, and Taiwanese firms in Taiwan. (Doctoral dissertation, The University of Texas at Austin, 1991). Dissertation Abstracts International, 53, 0378.

Lincoln, J. R., Hanada, M., & Olson, J. (1981). Cultural orientations and individual reactions to organizations: A study of employees of Japanese-owned firms. Administrative Science Quarterly, 26, 93-115.

Lippitt, G. (1982). Organization renewal: A holistic approach to organizational development. NJ: Prentice-Hall.

Liu, K. H. (1977). The discussion of manpower development problems. Labor Research, (48),1-9. (Chinese)

Lucas, C. J. (1981). National socio-economic development and industrial-vocational education: Taiwan as a case study. Journal of Industrial Teacher Education, 18(2), 4-15.

Lyau, N. M. (1994). The effects of the employer-sponsored training on labor productivity. (Doctoral dissertation, University of Minnesota, 1994). Dissertation Abstracts International, 55, 1924.

Lyau, N. M., & Thomas, R. G. (1994). Origins of the dual track educational system and the unit-trade training model of vocational education in Taiwan, R. O. C. Journal of Vocational and Technical Education, 10(2), 31-36.

Marwick, A. (1970). The nature of history. London: MacMillan.

McLagan, P. A. (1989). Models for HRD practice. Training and Development Journal, 43(9), 49-59.

McLagan, P., & Suhadolnik, D. (1989). Models for HRD practice: The research report. Alexandria, VA: American Society for Training and Development.

McLean, G. N. (1999). Get out the drill, glue and more legs. Human Resource Development International, 2(1), 6-7.

McLean, G. N., & McLean, L. D. (2001). If we can't define HRD in one country, how can we define it in an international context? In O. A. Aliaga (Ed.), Academy of

Human Resource Development 2001 conference proceedings (pp. 1064-1071). Baton Rouge, LA: Academy of Human Resource Development.

Mei, K. W. (1997). Enterprise training and economic development. Employment & Training, 15(3), 6-7. (Chinese)

Ministry of Economic Affairs, R. O. C. (1989). The development and assistance strategy of Taiwan's management consulting industry. The Ministry of Economic Affairs 1998 Research Project number 12. Taipei, Taiwan: Author. (Chinese)

Ministry of Economic Affairs. (1999). The Republic of China small and medium enterprises white paper. Taipei, Taiwan: Ministry of Economic Affairs, Small and Medium Enterprise Administration. (Chinese)

Ministry of Economic Affairs. (n.d.). Introduction: SMEA management guidance system. Available online at: http://www.moea-management.org.tw/html/intro2.html (Chinese)

Ministry of Economic Affairs, Small and Medium Enterprise Administration. (n.d.a). The experience and achievements in providing guidance and assistance to small and medium enterprises. Available online at: http://www.moeasmea.gov.tw/smea-a4e.htm#5

Ministry of Economic Affairs, Small and Medium Enterprise Administration. (n.d.b). Small and medium enterprise quality enhancement guidance system. Available online at: http://www.moeasmea.gov.tw/html/workitem/qualityenhancement/index.htm (Chinese)

Ministry of Education. (1999). Education statistics of the Republic of China. Taipei, Taiwan: Author. (Chinese)

Ministry of Education. (n.d.a). Cooperative education implementation act. Available online at: http://www.ntust.edu.tw/~academic/eedu/eeducooperration.html (Chinese)

Ministry of Education. (n.d.b). The Ministry of Education 1999 progress report. Available online at: http://www.edu.tw/english/menu.htm

Ministry of the Interior. (1978). Vocational training in the Republic of China. Taipei, Taiwan: Author. (Chinese)

Mo, N. C. (2000). College students' most favored 100 enterprises: Number nine--Taiwan Cellular Corporation. Available online at: http://www.cheers.com/special/001101/top-9.htm (Chinese)

National Central University. (n.d.). School of Management introduction. Available online at: http://www.ncu.edu.tw/cnormal/intro/intro.html

National Chengchi University. (n.d.). The Center for Public and Business Administration Education. Available online at: http://nccu.edu.tw/~cpbae/i0000002.htm

National Chung Cheng University, Department of Business Administration and Institute of Business Administration. (2001a). Course planning: Maters course guides and course planning charts. Available online at: http://www.ccunix.ccu.edu.tw/~busadm/course/institute.htm (Chinese)

National Chung Cheng University, Department of Business Administration and Institute of Business Administration. (2001b). Course planning: Undergraduate course requirement. Available online at: http://www.ccunix.ccu.edu.tw/~busadm (Chinese)

National Chunghua University. (n.d.). Department of Industrial Education. Available online at: http://www.ncue.edu.tw/ncue/department/indus.html (Chinese)

National Kaohsiung Normal University. (n.d.). Department introduction. Available online at: http://www.nknu.edu.tw/~ite/default.html

National Sun Yat-Sen University. (n.d.a). Institute of Human Resource Management. Available online at: http://ntwww.ora.nsysu.edu.tw/ensysu/academic/departments/e-hrm.html

National Sun Yat-Sen University. (n.d.b). Life-long learning. Available online at: http://111.nsysu.edu.tw/intro.asp (Chinese)

National Taiwan Normal University. (n.d.). National Taiwan Normal University, Department of Industrial Education: Brief history. Available online at: http://www.ie.ntnu.edu.tw/english/text/html/introduction/brief_history.htm

National Vocational Training Commission. (1967). A catalogue of vocational training programs in the Republic of China. Taipei, Taiwan: Author. (Chinese)

National Vocational Training Fund Board. (1984). Vocational training fund system: A recording of facts from the beginning to the end. Taipei, Taiwan: Author. (Chinese)

Negandhi, A. R. (1979). Convergence in organizational practices: An empirical study of industrial enterprise in developing countries. In C. J. Lanners & D. J. Hickson (Eds.), Organizations alike and unlike (pp. 323-345). New York: Routledge.

Negandhi, A. R. (1973). Management and economic development: The case of Taiwan. The Hague, Netherlands: Martinus Nijhoff.

Nordau, M. (1910). The interpretation of history. New York: Willey.

Osman-Gani, A. M., & Tan, W. L. (1998). Human resource development: The key to sustainable growth and competitiveness of Singapore. In R. J. Torraco (Ed.), Academy

of Human Resource Development 1998 conference proceedings (pp. 111-119). Baton Rouge, LA: Academy of Human Resource Development.

Peng, T. L. (1990). Socio-economical development and the HRD strategies. Labor Relations, 8(12), 6-17.

Ranis, G. (1979). Industrial development. In Walter Galenson (Ed.), Economic growth and structural change in Taiwan: The postwar experience of the Republic of China (pp. 207-262). Ithaca, NY: Cornell University Press.

Ranis, G., & Fei, J. C. (1988). The evolution of policy behind Taiwan's development success. New Haven, CT : Yale University Press.

Robins, F. (1998). Taiwan's economic success. In K. Sheridan (Ed.), Emerging economic systems in Asia (pp. 45-77). St. Leonards, Australia: Allen & Unwin.

Rowse, A. L. (1928). Science and history: A new view of history. New York: W. W. Norton & Co.

Rowse, A. L. (1948). The use of history. London: Hodder & Stoughton.

Ruona, W. E., & Swanson, R. A. (1997). Foundations of human resource development. St. Paul, MN: University of Minnesota Human Resource Development Research Center.

Sampo Corporation. (n.d.). Corporate university. Available online at: http://www.sampo.com.tw/people/college.html (Chinese)

San, G. (1990). Enterprise training in Taiwan: Results from the vocational training needs survey. Economics of Education Review, 9(4), 411-418.

San, G., & Chen, C. N. (1988). In-service training in Taiwan, R. O. C. Taipei, Taiwan: Chung-Hua Institution for Economic Research.

Shafer, R. J. (1974). A guide to historical method. Homewood, IL: The Dorsey Press.

Shih, C. Y. (1990). The study of corporate personnel attitude toward HRD. Unpublished master's thesis, Chinese Culture University, Taipei, Taiwan. (Chinese)

Small and Medium Enterprise Administration. (n.d.a). Small and Medium Enterprise Bureau: Duty. Available online at: http://www.moeasmea.gov.tw/english/html/duty.htm

Small and Medium Enterprise Administration. (n.d.b). Statute for the development of small and medium-sized enterprises. Available online at: http://www.moeasmea.gov.tw/html/ (Chinese)

Smith, C. W. (1956). Carl Becker: On history and the climate of opinion. Ithaca, NY: Cornell University Press.

Suen, J. (1991). Look back and review manpower development in Taiwan. Insurance Journal, (23), 1-3. (Chinese)

Taipei Hsien Computer Manufacturers Association. (n.d.). Taipei Hsien Computer Manufacturers Association: Evolution of the association. Available online at: http://www.thca.org.tw/EngIntro/menu.html

Taiwan's Bureau of Training & Employment, Labor Department. (1992a). The statistics of vocational training, skill test & employment service in Taiwan, area of the Republic of China. Taipei, Taiwan: Author. (Chinese)

Taiwan's Bureau of Training & Employment, Labor Department. (1992b). Vocational training needs investigation report for the area of Taiwan, R. O. C. Taipei, Taiwan: Author. (Chinese)

Taiwan Refrigerating and Air-Conditioning Engineering Association of the Republic of China. (n.d.). Taiwan Refrigerating and Air-Conditioning Engineering Association of the Republic of China: Organization profile. Available online at: http://www.hvac.org.tw/data1/data.htm (Chinese)

Tien, C. J., & Chiang, W. H. (n.d.). Improvement planning of cooperative education. Available online at: http://www.ite.ntnu.edu.tw/~TVEC/announce/result26.htm (Chinese)

Thornton, A., & Lin, H. S. (1994). Social change and the family in Taiwan. Chicago: University of Chicago Press.

Tsai, C. C. (1993). Investigation of the status of enterprise training provided by the management consulting firms. Unpublished master's thesis, National Chung Cheng University, Chia-Yi, Taiwan. (Chinese)

Tsai, H. H. (1995). Assist labor unions in conducting enterprise training. Employment and Training, 13(3), 15-18. (Chinese).

Tsay, J. Y. (1989). The Doctrine of the People's Livelihood human resource development strategy: A study of Taiwan's experience. Unpublished master's thesis, Chinese Culture University, Taipei, Taiwan. (Chinese)

Tzeng, B. Y. (1992). The role of human resources in Taiwan's economic development. Labor's Friend, (500), 6-11. (Chinese)

Tu, C. L. (1994). Hot industry in 21st century: HRD. Strategy Productivity, (461), 56-59. (Chinese)

Vansina, J. (1965). Oral tradition: A study in historical methodology. Chicago: Aldine.

Vaughan, R. J., & Berryman, S. E. (1989). Employer-sponsored training: Current status, future possibilities. Alexandria, VA: Conference on Employer-Sponsored Training. (ERIC Document Reproduction Service No. ED 315 531)

Wang, D. S., & Hsieh, Y. E. (1995). Vocational education influence on underemployment in Taiwan, Republic of China. Denver, CO: Annual Meeting of the International Vocational Education and Training Association, American Vocational Association Convention. (ERIC Document Reproduction Service No. ED 391 040)

Wey, E. (1992). What is the model for Taiwan's successful economic development? Asia and World Monthly, 16(6), 16-28. (Chinese)

Why aren't Taiwan SMEs willing to invest in R&D? (1992). Strategy Productivity, (436), 13-15. (Chinese)

Wu, C. C. (1998). The development and transformation of higher technological and vocational education. In Department of Technical and Vocational Education, the Ministry of Education (Eds.), Promotional material: Strengthening technological and vocational education (pp. 65-77). Taipei, Taiwan: Author. (Chinese)

Wu, R. Y. (1978). Strengthening the vocational training system. Taipei, Taiwan: Council for Research and Evaluation, Executive Yuan. (Chinese)

Wu, T. K. (1979). The study of the service function of management consulting firms. Unpublished master's thesis, National Chengchi University, Taipei, Taiwan. (Chinese)

Yang, B., & McLean, G. N. (1997). Human resource development in the People's Republic of China. In R. J. Torraco (Ed.), Academy of Human Resource Development

1997 conference proceedings (pp. 120-127). Baton Rouge, LA: Academy of Human Resource Development.

Yang, K. D. (1998). From learning organization to human resource development and lifelong learning. In Kaoshiung City Government Civil Servant Human Resource Development Center (Ed.), Human resource development (pp. 141-163). Kaoshiung, Taiwan: Author. (Chinese)

Yeh, R. S. (1990). Management practices of Taiwanese firms: As compared to those of American and Japanese subsidiaries in Taiwan. Asia Pacific Journal of Management, 8(1), 1-14.

Yuen, S. C. (1993). Vocational education and training plays an important role in Taiwan's economic miracle. Nashville, TN: Joint Meeting of the International Vocational Education and Training Association and the American Vocational Association. (ERIC Document Reproduction Service No. ED 363 795)

Yum, K. S. (1968). Successful economic development of the Republic of China in Taiwan. New York: Vantage Press.

APPENDICES

Appendix A: Approval from the IRB: Human Subjects Committee

UNIVERSITY OF MINNESOTA

Twin Cities Campus

Research Subjects' Protection Programs
Institutional Review Board: Human Subjects Committee (IRB)
Institutional Animal Care and Use Committee (IACUC)

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September 8, 1999

Min-Hsun c. Kuo
3800 Hillsboro Ave. N.
New Hope MN 55427

RE: "The History of Human Resource Development in Taiwan: 1950's - 1990's"

Human Subjects Code Number: 9909E16841

Dear Ms. Kuo:

The IRB: Human Subjects Committee determined that the referenced study is exempt from review under federal guidelines 45 CFR Part 46.101(b) category #2 SURVEYS/INTERVIEWS; STANDARDIZED EDUCATIONAL TESTS; OBSERVATION OF PUBLIC BEHAVIOR.

The code number above is assigned to your research. That number and the title of your study must be used in all communication with the IRB office.

Upon receipt of this letter, you may begin your research. If you have questions, please call the IRB office at (612) 626-5654.

The IRB wishes you success with this research.

Sincerely,

Carol Siegel
Assistant Director

CS/md

CC: Gary Mclean

Appendix B: Consent Form

CONSENT FORM

The History of Human Resource Development in Taiwan: 1950s-1990s

You are invited to be in a research study tracing the history of Human Resource Development in Taiwan from the 1950s to 1990s. You were selected as a key participant because of your profession in the field of Human Resource Development in Taiwan. I would like to ask that you read this form and ask any questions you may have before agreeing to be in the study.

Background Information:

To enhance the quality of research and practice in the field of Human Resource Development, it is essential to know how HRD policies and strategies adopted by Taiwanese government, Taiwanese public and private corporations, and Taiwanese academy have evolved since the 1950s. The purposes of this study are to:

1. trace the chronological history of HRD adopted in Taiwan since the 1950s;
2. identify topical patterns in the evolution of HRD in Taiwan since the 1950s;
3. posit an HRD definition that is derived from the patterns and functions of HRD in Taiwan.

Procedures:

If you agree to be in this study, I would ask you to do the following:

1. One two-hour interview will be conducted with you in a private setting. You will be asked questions regarding the evolution of Human Resource Development in Taiwan since the 1950s. You will be asked open questions and the conversations will be tape recorded.

2. If there is a need to clarify the answers with you after the interview, you will be asked to clarify the answer via either e-mail or phone calls.

Risks and Benefits of Being in the Study:

There are no risks involved in this study.

You will receive a gift certificate for NT$1000 after the interview is done.

Confidentiality:

The records of this study will be kept private. In any sort of report I might publish, I will not include any information that will make it possible to identify a subject. Research records, written notes, and tape recordings will be kept in a locked file; only I will have access to the records. All of the records will be used for educational purposes, and they will be erased a year after the research is done.

Voluntary Nature of the Study:

Your decision whether or not to participate will not affect your current or future relations with the University or institution. If you decide to participate, you are free to withdraw at any time without affecting those relationships.

Contacts and Questions:

The researcher conducting this study is Min-Hsun (Christine) Kuo. You may ask any questions you have now. If you have questions later, you may contact her at 2251-7657 (Panchiao, Taiwan) or at 0021-612-543-1783 (Minnesota, U.S.), or via e-mail at kuox0002@tc.umn.edu.

Dr. Gary N. McLean is the adviser. You may contact him at 0021-612-624-4901 (Minnesota, U.S.), or via e-mail at mclea002@tc.umn.edu.

You will be given a copy of this form to keep for your records.

Statement of Consent:

I have read the above information. I have asked questions and have received answers. I consent to participate in the study.

Signature _____ **Date** _____

Signature of Investigator _____ **Date** _____

Appendix C: In-Person Interview with Dr. Huang Tung-Chun, professor of the Institute of Human Resources Management at the National Central University in Taiwan

Part I. Definitions of HRD in Taiwan

Q1: What is the definition of HRD in Taiwan?

Q2: Why do you think most people in Taiwan use Nadler's definition of HRD?

Q3: Do you think it is appropriate to adopt US's definition of HRD without studying HRD's situation in Taiwan first?

Q4. How would you describe the following terms:

Taiwan's Manpower Development (人力發展),

Taiwan's Development of Human Resources (人力資源的發展), and

Taiwan's Human Resource Development (HRD, 人力資源發展).

Part II. Components of HRD in Taiwan

Q1: What are the components of HRD in Taiwan? And, how are they formed?

Q2: Do you agree that Taiwan's vocational education and vocational training are part of HRD in Taiwan?

Part III. Status of HRD in Taiwan

Q1: In Taiwan, who has paid most attention to HRD? Government? Private large enterprises? Small and medium sized enterprises? or Individuals?

Q2: Taiwan's enterprises are starting to pay attention to education training. What are the main reasons behind that?

Q3: What is the relationship between HRM and HRD in Taiwan?

Part IV. Future of HRD in Taiwan

Q1: What is the future of HRD in academia? What are the opportunity for HRD's further development? What are the obstacles?

Q2: In enterprises, currently, HRM is still the main task for the personnel department. In the future, will greater HRD attention be paid to?

Q3: What do you think is the future development of HRD in Taiwan? Will it be developed toward US's model of HRD?

Appendix D: In-Person Interview with Mr. Yao David Y. H., first chairman of the Chinese Human Resource Management Association in Taiwan

Part I. Background information

Q1: Please briefly describe yourself.

Q2: Why and how did you start devoting yourself to the field of Human Resource Development in Taiwan?

Part II. Questions related to Chinese Human Resource Management Association

Q1. What was the mission and purpose of the Chinese Human Resource Management Association when it was established in 1992?

Q2: What are the main activities of the Chinese Human Resource Management Association?

Q3: How much do enterprises value those who are trained by the Chinese Human Resource Management Association?

Q4: The Chinese Human Resource Management Association was established after the Human Resource Development Association of Republic of China; however, Chinese Human Resource Management Association is growing faster than Human Resource Development Association of Republic of China. What do you think the main reason is?

Part II. Essence of HRD in Taiwan

Q1: How would you describe the following terms:

Taiwan's Manpower Development (人力發展),

Taiwan's Development of Human Resources (人力資源的發展), and

Taiwan's Human Resource Development (HRD, 人力資源發展).

Q2: What do you think the relationship between Taiwan's HRD and HRM is?

Q3: What are the components of Taiwan's HRD and of HRM?

Part III. Trainees from Chinese Human Resource Management Association

Q1: Who are those trained in the Chinese Human Resource Management Association? Are they from government agencies, large private enterprises, small and medium enterprises, or individuals?

Q2: What do you think of the quality of training programs provided by management consulting firms in Taiwan?

Q3: What are the main reasons that cause enterprises in Taiwan to start paying attention to Education Training?

Part IV: Future

Q1: What do you think the future development of HRD is in Taiwan? Will it be developed towards US models? What are the struggles you foresee? Will HRD be separated from HRM?

Q2: What are the contributions of professional HR organizations, such as Chinese Human Resource Management Association and Human Resource Development Association of Republic of China, to Taiwan's HRD? What is the goal of Chinese Human Resource Management Association in the near future?

Appendix E: Electronic Interview with Dr. Hong Jon-Chao, professor of Industrial Education at the National Taiwan Normal University in Taiwan

Part I. Background information

Q1: Please briefly describe your educational background.

Q2: Please briefly describe your work experience.

Q3: Please briefly describe your teaching experience, including when, where, and what courses.

Q4: Why and how did you start devoting yourself to the field of Human Resource Development in Taiwan?

Part II. Essence of HRD in Taiwan

Q1: How would you describe the following terms:

Taiwan's Manpower Development (人力發展),

Taiwan's Development of Human Resources (人力資源的發展), and

Taiwan's Human Resource Development (HRD, 人力資源發展).

Q2: What are the areas of HRD that have been practiced in Taiwan? Please briefly describe how they are mostly practiced and by whom.

Q3: Based on your answers to question 2, how are those HRD professionals (including practitioners and scholars) working in the areas you mentioned prepared and educated to do such work in Taiwan?

Q4: What would you consider as milestones in the history of HRD in Taiwan? In other words, please briefly describe key events or legislation you would consider as milestones in the evolution of HRD in Taiwan.

Part III. Evolution of HRD in Taiwan: People

Q1: What people were most influential in establishing HRD in Taiwan? And, how would you describe these people?

Q2: What is there about these people that allowed them to take such a leadership role?

Q3: What personal experiences can you share of your interactions with these people that reflect these leadership characteristics?

Q4: What struggles did these people have in the process of establishing HRD in Taiwan?

Q5: What sayings from these leaders are the most meaningful to you?

Part IV. Evolution of HRD in Taiwan: Schools, Professional organizations, MNCs

Q1: What research institutions, professional organizations, or multinational corporations in Taiwan were most influential in establishing HRD in Taiwan? And, how would you describe them?

Q2: What is there about these organizations that allowed them to take such a leadership role?

Q3: What personal experiences can you share of your interactions with these organizations?

Q4: What struggles did these organizations have in the process of establishing HRD in Taiwan?

Q5: What sayings from these organizations are the most meaningful to you?

Appendix F: Electronic Interview with Dr. Jean Chian-Chong, assistant professor of the Institute of Labor Studies at the National Chung Cheng University in Taiwan

Part I. Background information

Q1: Please briefly describe your educational background.

Q2: Please briefly describe your work experience.

Q3: Please briefly describe your teaching experience, including when, where, and what courses.

Q4: Why and how did you start devoting yourself to the field of Human Resource Development in Taiwan?

Part II. Essence of HRD in Taiwan

Q1: How would you describe the following terms:

Taiwan's Manpower Development (人力發展),

Taiwan's Development of Human Resources (人力資源的發展), and

Taiwan's Human Resource Development (HRD, 人力資源發展).

Q2: What are the areas of HRD that have been practiced in Taiwan? Please briefly describe how they are mostly practiced and by whom.

Q3: Based on your answers to question 2, how are those HRD professionals (including practitioners and scholars) working in the areas you mentioned prepared and educated to do such work in Taiwan?

Q4: In your previous publication in 1994, entitled, "Corporate HRD practices in Taiwan, R. O. C.," several important laws related to vocational training in Taiwan were mentioned, including "Vocational Training Fund Act" in 1972, "Vocational Training

Act" in 1983, and "Promote Industrial Upgrading Act" in 1990. Do you consider these as milestones in the history of HRD in Taiwan? Are there other events or legislation you would also consider as milestones in the history of HRD in Taiwan?

Part III. Evolution of HRD in Taiwan: People

Q1: What people were most influential in establishing HRD in Taiwan? And, how would you describe these people?

Q2: What is there about these people that allowed them to take such a leadership role?

Q3: What personal experiences can you share of your interactions with these people that reflect these leadership characteristics?

Q4: What struggles did these people have in the process of establishing HRD in Taiwan?

Q5: What sayings from these leaders are the most meaningful to you?

Part IV. Evolution of HRD in Taiwan: Schools, Professional organizations, MNCs

Q1: What research institutions, professional organizations, or multinational corporations in Taiwan were most influential in establishing HRD in Taiwan? And, how would you describe them?

Q2: What is there about these organizations that allowed them to take such a leadership role?

Q3: What personal experiences can you share of your interactions with these organizations?

Q4: What struggles did these organizations have in the process of establishing HRD in Taiwan?

Q5: What sayings from these organizations are the most meaningful to you?

Appendix G: Electronic Interview with Dr. Lee Han-Hsiung, associate professor of the Institute of Labor Studies at the National Chung Cheng University in Taiwan

Part I. Background information

Q1: Why did you start devoting yourself to the field of Human Resource Development in Taiwan? Has anyone or anything inspired you?

Q2: From your work experience serving as Education and Training Director and Human Resources Director in the China Trust Company and Taiwan Xerox Company, how would you describe the degree of HRD practiced in these two companies?

Part II. Essence of HRD in Taiwan

Q1: How would you describe the following terms--particularly in Taiwan:

Manpower Development (人力發展),

Development of Human Resources (人力資源的發展), and

Human Resource Development (HRD, 人力資源發展).

Q2: Based on your answers to Q1, what's the difference between the profession of HRD in the U.S. and the one in Taiwan?

Q3: What are the areas/components/elements of HRD that have been practiced in Taiwan (areas/components/elements are such as training development, organization development, career development, public vocational training, employment safety, and others)? Please briefly describe how they are mostly practiced, and by whom.

Q4: Based on your answers to Q3, how are those HRD professionals (including practitioners and scholars) working in the areas/components/elements you mentioned prepared and educated to do such work in Taiwan?

Q5: What would you consider as milestones in the evolution of HRD in Taiwan? In other words, in your opinion, were there any event(s) that happened or legislation promulgated that were so significant that the nature of HRD in Taiwan changed since then?

Part III. Evolution of HRD in Taiwan: People

Q1: What people were most influential in establishing HRD in Taiwan? And, how would you describe these people?

Q2: What is there about these people that allowed them to take such a leadership role?

Q3: What personal experience can you share of your interactions with these people that reflect these leadership characteristics?

Q4: What struggles did these people have in the process of establishing HRD in Taiwan?

Q5: What sayings from these leaders are the most meaningful to you?

Part IV. Evolution of HRD in Taiwan: Research institutions

Q1: What research institutions in Taiwan were most influential in establishing HRD in Taiwan? And, how would you describe them?

Q2: What is there about these institutions that allowed them to take such a leadership role?

Q3: What personal experience can you share of your interactions with these institutions?

Q4: What struggles did these institutions have in the process of establishing HRD in Taiwan?

Q5: What sayings from these institutions are the most meaningful to you?

Part V. Evolution of HRD in Taiwan: Professional organizations

Q1: What professional organizations in Taiwan were most influential in establishing HRD in Taiwan? And, how would you describe them?

Q2: What is there about these organizations that allowed them to take such a leadership role?

Q3: What personal experience can you share of your interactions with these organizations?

Q4: What struggles did these organizations have in the process of establishing HRD in Taiwan?

Q5: What sayings from these organizations are the most meaningful to you?

Part VI. Evolution of HRD in Taiwan: MNCs or domestic corporations

Q1: What domestic corporations or multinational corporations in Taiwan were most influential in establishing HRD in Taiwan? And, how would you describe them?

Q2: What is there about these corporations that allowed them to take such a leadership role?

Q3: What personal experience can you share of your interactions with these corporations?

Q4: What struggles did these corporations have in the process of establishing HRD in Taiwan?

Q5: What sayings from these corporations are the most meaningful to you?

Appendix H: Electronic Interview with Dr. Lee Shang-Hou, associate professor of Applied Life Sciences at the National Pingtung University of Science and Technology in Taiwan

Part I. Background information

Q1: Please briefly describe your educational background.

Q2: Please briefly describe your work experience.

Q3: Please briefly describe your teaching experience, including when, where, and what courses.

Q4: Why and how did you start devoting yourself to the field of Human Resource Development in Taiwan?

Part II. Essence of HRD in Taiwan

Q1: How would you describe the following terms:

Taiwan's Manpower Development (人力發展),

Taiwan's Development of Human Resources (人力資源的發展), and

Taiwan's Human Resource Development (HRD, 人力資源發展).

Q2: What are the areas of HRD that have been practiced in Taiwan? Please briefly describe how they are mostly practiced and by whom.

Q3: Based on your answers to question 2, how are those HRD professionals (including practitioners and scholars) working in the areas you mentioned prepared and educated to do such work in Taiwan?

Q4: What would you consider as milestones in the history of HRD in Taiwan? In other words, please briefly describe key events or legislation you would consider as milestones in the evolution of HRD in Taiwan.

Part III. Evolution of HRD in Taiwan: People

Q1: What people were most influential in establishing HRD in Taiwan? And, how would you describe these people?

Q2: What is there about these people that allowed them to take such a leadership role?

Q3: What personal experiences can you share of your interactions with these people that reflect these leadership characteristics?

Q4: What struggles did these people have in the process of establishing HRD in Taiwan?

Q5: What sayings from these leaders are the most meaningful to you?

Part IV. Evolution of HRD in Taiwan: Schools, Professional organizations, MNCs

Q1: What research institutions, professional organizations, or multinational corporations in Taiwan were most influential in establishing HRD in Taiwan? And, how would you describe them?

Q2: What is there about these organizations that allowed them to take such a leadership role?

Q3: What personal experiences can you share of your interactions with these organizations?

Q4: What struggles did these organizations have in the process of establishing HRD in Taiwan?

Q5: What sayings from these organizations are the most meaningful to you?

Appendix I: Historical Sequence

1953 First Four-Year Economic Development Plan begun (1953-1956)

1953 Economic Stabilization Board formulated

1955 China Productivity Center established

1955 Judge Training Institute established

1956 First Four-Year Economic Development Plan ended (1953-1956)

1956 Taiwan Province Training Corps established (belonging to local government civil servant training center, later renamed to Taiwan Province Government Civil Servant Training Department)

1957 Second Four-Year Economic Development Plan begun (1957-1960)

1958 Economic Stabilization Board disbanded and planning decentralized

1960 Second Four-Year Economic Development Plan ended (1957-1960)

1961 Third Four-Year Economic Development Plan begun (1961-1964); produced by coordinating committee under K. T. Li

1962 Public Enterprise Center established (U.S.- Taiwan government corporation)

1962 Stanford Research Institute made a study on Education and Development

1963 US Aid Utilization Council changed name to the Council for International Economy Cooperation and Development

1963 Harry Weiss from U.S. Department of Labor visited Taiwan in October

1964 Third Four-Year Economic Development Plan ended (1961-1964)

1964 Manpower Resources Committee established within the Council for International Economic Cooperation and Development

1965 Fourth Four-Year Economic Development Plan begun (1965-1968), recentralized under Council of International Economic Cooperation and Development policy coordination

1966 First National Manpower Conference held

1966 Manpower Development Plans begun (1966-1974)

1967 Manpower Resources Committee renamed to Manpower Development Committee

1967 Small and Medium-sized Enterprise Guidance Regulations promulgated

1967 Central Personnel Administration Executive Yuan, implemented employee training and advanced study programs

1967 Telecommunication Training Institution established

1968 Fourth Four-Year Economic Development Plan ended (1965-1968)

1968 Industrial Vocational Training Association established between UNDP/ILO

1968 Civil Servant Training Institute established by the Central Personnel Administration, Executive Yuan

1968 Three public Vocational Training Centers founded

1969 Civil Servant In-Service Training and Study Abroad Act promulgated

1969 Public Finance Training Institution of the Ministry of Finance established

1969 Fifth Four-Year Economic Development Plan begun (1969-1972), Council for International Economic Cooperation and Development coordinating rather than planning

1971 Taipei City Government Civil Servant Training Institute established

1972 Fifth Four-Year Economic Development Plan ended (1969-1972)

1972 Vocational Training Fund Statute begun

1973 Sixth Four-Year Economic Development Plan begun (1973-1976), partial decentralization under new Economic Planning Council

1973 National Vocational Training Fund Statute Board established

1973 Professional Training Center of the Ministry of Economic Affairs established

1973 First Oil Crisis

1973 Tze-Chiang Foundation of Science and Technology established, appointed by Employment and Vocational Training Administration

1973 Chinese Management Association established

1973 Ten Major Construction Projects begun (1973-1978)

1974 Vocational Training Fund Statute ended

1974 Manpower Development Plans ended (1966-1974)

1976 Sixth Four-Year Economic Development Plan ended (1973-1976)

1976 Special Techniques and Vocational Training Committee set up

1976 First Manpower Development Special Plan begun (1976-1981)

1977 Promoting Vocational Training Five-Year Plan begun (1977-1982)

1977 Executive Yuan, Economy Planning Council renamed to Council for Economic Planning and Development

1978 Ten Major Construction Projects ended

1978 Youth Vocational Training Center began implementing training

1979 Science and Technology Development Program established

1979 Kaochung City Government, Civil Servant Training Center established, later renamed to Civil Servants and Teachers Human Resource Development Center

1979 Taipei City Government, Civil Servant Training Center established, renamed from the one in 1971

1980 First Manpower Development Department Plan begun (1980-1989)

1980 Vocational Training Research and Development Center set up, under the National Vocational Training Fund Board

1980 Ten Major Construction Projects begun (1980-1989)

1981 First Manpower Development Special Plan ended (1976-1981)

1981 Employment and Vocational Training Administration established

1982 Promoting Vocational Training Five-Year Plan ended (1977-1982)

1982 Strengthen Promoting Vocational Training Four-Year Plan begun (1982-1985)

1982 Research & Development Institute of Vocational Training, R. O. C. established, renamed from the former Vocational Training Research and Development Center

1983 Vocational Training Act promulgated

1983 Civil Servant Education Center of Political University established, under the Ministry of Education

1984 HR Management and Development Commission established within the Chinese Management Association

1985 Strengthen Promoting Vocational Training Four-Year Plan ended (1982-1985)

1986 Ninth Medium-Term Economic Development Plan begun

1986 Human Resource Development Association, Republic of China established

1986 Second Manpower Development Department Plan begun (1986-1989)

1987 Taiwan's Economic Liberalization begun

1987 Employment for Vocational Training Administration shifted from Ministry of Interior to Council of Labor Affairs, under Executive Yuan

1988 Civil Servant Training and Advanced Study Domestic Act promulgated (revised again in 1993 and 1998)

1989 Ten Major Construction Projects ended (1980-1989)

1989 Ninth Medium-Term Economic Development Plan ended

1989 First Manpower Development Department Plan ended (1980-1989)

1989 Second Manpower Development Department Plan ended (1986-1989)

1990 Third Manpower Development Department Plan begun (1990-1993)

1990 Tenth Medium-Term Plan (1990-1993) begun

1990 Statute for Upgrading Industries promulgated

1991 Civil Servant Training Assignment Guidelines Act promulgated

1991 Statute for the Development of Small and Medium-Sized Enterprises promulgated

1992 Prolonged National Education Based Upon Vocational Education established

1992 Chinese Human Resource Management Association established

1993 Third Manpower Development Department Plan ended (1990-1993)

1993 Tenth Medium-Term Plan ended (1990-1993)

1993 Enterprise Education and Training Association of R.O.C. established

1993 Organization Act promulgated, under the Central Personnel Administration, Executive Yuan

1994 Second Manpower Development Special Plan begun (1994-1996)

1994 Civil Servant Protection and Training Committee established, after the Ministry of Examination passed the Organization Act

1995 Asia-Pacific Regional Operations Center Plan phase one begun (1995-1997)

1996 Second Manpower Development Special Plan ended (1994-1996)

1996 Civil Servant Human Resource Development Center established, renamed from Civil Servant Training Institute

1996 Civil Servant Protection and Training Committee Organization Act promulgated

1997 Taiwan Province Government Civil Servant Human Resource Training Department established, renamed from Taiwan Province Training Corps

1997 Asia-Pacific Regional Operations Center Plan phase one ended (1995-1997)

1997 Cross Century Manpower Development Plan begun (1997-2000)

1998 Asia-Pacific Regional Operations Center Plan phase two begun (1998-2000)

1998 Enterprise Training Network established

2000 Asia-Pacific Regional Operations Center Plan phase two ended (1998-2000)

2000 Second Manpower Development Department Plan ended (1986-2000)

2000 Cross Century Manpower Development Plan ended (1997-2000)

Appendix J: HR Management and Development Commission Activities: 1985-1991

1985.10~1986.8
1. Domestic and foreign personnel management study
2. Employee performance evaluation system and methods study
3. Performance bonus system study
4. Employee selection study
5. Employee mobility study
6. Taiwan middle area, HRM seminar
7. HRM seminar for service industry
8. Field trip
9. HRD seminar
10. How to promote enterprise training seminar
11. Employee motivation study

1986. 9~1987. 8
1. "Hays" compensation management system introduction
2. Employee Relationship Q&A seminar
3. Personnel's self-development seminar
4. US compensation management training seminar
5. Training management application seminar
6. Organization planning and development seminar
7. Organization activation and job task design seminar

8. Employee counseling seminar

1987. 9~1988. 8
1. First HRM week
2. Training management application seminar
3. Personnel job computerized seminar
4. Employee motivation activities seminar
5. How to establish and maintain labor-union relationship seminar
6. Discussion after the field trip to Japan
7. New employee orientation practice seminar
8. Campus employment assistance
9. Occupational career planning and career management seminar
10. Field trip
11. Goal-setting and evaluation of performance seminar
12. Design and application of questionnaire seminar

1988. 9~1989. 8
1. Second HRM week
2. Design and application of questionnaire seminar
3. Confidentiality of compensation
4. Discussion of end-of-year bonus
5. Discussion of shortening working time and increasing work efficiency

6. Training management application seminar
7. Compensation management seminar
8. Training for enterprise training instructor seminar
9. How to keep employees seminar
10. Chinese-Japanese HR management and development seminar
11. Field trip
12. Exceed Myself--new book discussion
13. Non-financial managers understand financial managers seminar
14. Labor-union negotiation speech
15. Case study-Establishment of organizational culture in Acer

1989. 9~1990. 8
1. Establish "Interview" manual
2. Seminars in personnel management, OD theory and practice, and others
3. Japan personnel system seminar
4. Initiate HR services (total 58)
5. Initiate enterprise training for enterprises (total 7)
6. Cooperated with CPC for the personnel manager training
7. Case study--Airline labor-union negotiation and future development
8. The changing manufacturing and service industries-Labor-union relationship
9. Introduction--Investing in China labor-union relationship
10. Initiate training in trainer's training, performance management training,

employee selection training, training management application, and others

1990. 9~1991. 8
1. Human Resource Development (Training) integration seminar
2. How should personnel department cope with economic depression seminar
3. Cross-national HRM application seminar
4. Training management application seminar
5. Initiate enterprise training instruction application seminar (total 2)
6. Compensation management application seminar
7. Enterprise employee insurance application seminar
8. HR performance evaluation application seminar
9. HRM and employee motivation application seminar
10. Employee selection application training
11. Enterprise communication and relationship seminar

Note: Chinese Management Association, Human Resource Management & Development Committee (n.d.). Introduction. [Brochure]. Taipei, Taiwan: Author. (Chinese)

Appendix K: HRD and HRD-Related Courses at the Institute of Human Resource Management at National Sun Yat-Sen University

Required/Elective Curricula: Masters

Organizational Theory and Management
Economics of Human Resources
Leadership Theory
Manpower Development and Management
Organization Planning and Development
Organizational Behavior
Human Resource Information System
Seminar on Taiwan's Human Resources
Organization Development
International Organizational Behavior
Business Ethics

Note: Institute of Human Resource Management at National Sun Yat-Sen University (n.d.a). Course planning: Masters. Available online at: http://cm.nsysu.edu.tw/~hrm/masters.htm (Chinese)

Required/Elective Curricula: Ph.D

Advanced Organizational Theory and Management
Advanced Economics of Human Resources
Seminar on Human Resources Psychology
Seminar on Organizational Behavior
Seminar on Manpower Development and Management
Seminar on Business Ethics
Seminar on Organization Development
Seminar on Cross-Cultural Organizational Behavior

Note: Institute of Human Resource Management at National Sun Yat-Sen University (n.d.b). Course planning: Ph.D. Available online at: http://cm.nsysu.edu.tw/~hrm/dr.htm (Chinese)

Appendix L: HRD and HRD-Related Courses in Required/Elective Curricula at the Institute of Human Resource Management at National Central University

Organizational Theory and Management
Manpower and Industrial Environment
Training and Development
Organization Development
Human Resource Development Theory and Practice
Performance Management
Seminar on Performance Management
Motivation Theory in Application
Knowledge Management and Organization Innovation

Note: Institute of Human Resource Management at National Central University (n.d.). Human resource management. Available online at: http://www.ncu.edu.tw/~hr/new/english/index.htm

Appendix M: HRD and HRD-Related Courses at Department of Business Administration and Institute of Business Administration at National Chung Cheng University

Required/Elective Curricula: Masters

Organizational Theory and Management
Organizational Behavior
Human Resource Development
Economics of Organization
Organization Learning
Industrial Organization Psychology
Organization Development
Emotional Management
Performance Management

Note: National Chung Cheng University, Department of Business Administration and Institute of Business Administration. (2001a). Course planning: Maters course guides and course planning charts. Available online at: http://www.ccunix.ccu.edu.tw/~busadm/course/institute.htm (Chinese)

Required/Elective Curricula: Undergraduate

Organization Learning
Industrial Organization Psychology
Human Resource Development
Organization Development and Change
Training and Development
Performance Management
Leadership

Note: National Chung Cheng University, Department of Business Administration and Institute of Business Administration. (2001b). Course planning: Undergraduate course requirement. Available online at: http://www.ccunix.ccu.edu.tw/~busadm (Chinese)

Appendix N: HRD and HRD-Related Courses in Required/Elective Curricula:

Undergraduate at Department of Business Administration at National Central University

Organization Development
Organizational Theory and Practice
Career Planning and Development
Organization Design
Management Psychology
Training and Development

Note: Department of Business Administration at National Central University. (n.d.). Profession. Available online at: http://basrv.mgt.ncu.edu.tw/class/profession.htm (Chinese)