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KRIVET Research Abstracts

KRIVET Korea Research Institute for Vocational Education & Training

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Foreword

The Korea Research Institute for Vocational Education and Training(KRIVET) was established in 1997 to carry out researches on technical and vocational education, training, and Human Resources Development(HRD). KRIVET has played a central role in finding creative solutions to Korea's HRD and TVET issues through its policy research on national HRD and TVET.

Since 1998, KRIVET has annually published compilation of abstracts from the research reports of each year to share with other related institutions, policy makers, educators and students throughout the international community.

The abstracts in this volume are from 44 research reports among the researches conducted in 2009 by KRIVET. This compilation of abstracts include topics on alternative schools, career education support system, continuing professional development(CPD), improving adolescents' vocational competence, vocational programs, and more.

It is hoped that this “2009 KRIVET Research Abstracts” will serve as an useful channel for the readers who may be concerned with human resource development and lifelong vocational education and training.

Prof. Dr. Dae-Bong Kwon
President, KRIVET

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A Study on Vocational Education in Alternative Schools

Mee-Souk Kim, Sung-Joon Paik, Jun-Pil Ok

This study aims to analyze the operation of vocational education in order grasp its current status. By examining the current issues in the area of vocational education, we expect to establish a plan for the future activation of vocational education in alternative schools.

There are two types of alternative schools: authorized, and unauthorized. Authorized and unauthorized alternative schools are also individually divided into two types: specialized schools and entrusted schools. In addition, there are 'pastoral type' alternative schools for secondary education and 'city type' alternative schools.

In order to grasp the courses related to vocational education in detail, this study investigated the 2009 curriculum for each type of alternative school, by referring to the management plans of individual schools. In particular, we dealt with specialized subjects of specialized high schools, alternative subjects of entrusted schools, internships and project classes in 'city type' secondary schools, and self-reliance subjects. We also consider the frequency of the classes, and the total annual class time of 'pastoral type' secondary schools.

In addition, we conducted a complete survey of vocational education operations. The subjects of this survey are specialized high schools, pastoral-type secondary schools, city-type secondary schools, and entrusted alternative schools for alternative education. The survey was conducted in October, and 39 of the 56 schools queried (70%) responded. In terms of the item related to the main body of establishment, schools that were privately financed took the largest proportion at 35%, while school supported by religious organizations and civic groups were second with 20.5%.

Many people view the various meanings of vocational education conducted by alternative schools as a general educational curriculum. Because it shows the mean value of item as a general education is 3.85 of the 5-point scale, the mean of basic vocational education is 3.41, and the mean of vocational professional education is 2.56 in the survey about the item of the meaning of vocational education conducted by alternative schools.

Examining the actual operating conditions of vocational education of

alternative schools, we found that there are 104 subjects and programs related to vocational education offered in alternative schools. We also found that every alternative school was different in terms of its management type and its level of programs related to vocational education, and that there were an average of 2.7 programs on vocational education in each school.

Furthermore, we conducted a case study on vocational education in alternative schools. The 56 targeted schools targeted went through several processes to be selected as subjects for the case study. In particular, we investigated their homepages to analyze their 2009 curriculum. From this investigation, we were able to ascertain whether they provided specialized subjects or other vocational education subjects as technical courses, internships or project classes, and whether they provided alternative courses related to occupations.

In conclusion, we found that alternative schools, in contrast to general schools that prepare students for the college entrance examination, are demanded by the times to cultivate individuals of ability who can actively manage the unpredictable society of the future. For this reason, we should make a dedicated effort to expand alternative education, despite the current difficult circumstances.

Customized Education and Training for Industrial Manpower at the Higher Education Level

Tong Park, Ji-Sun Chung, Choel-Woo Park

1. Outline of the Research

This study aims to analyze the performance, limits and problems of current government-funding customized education and training for industrial manpower, and to explore the new directions of development for government funding of universities and colleges. The main subjects undertaken by this research are as follows.

First, we examined the concept of customized education and training for industrial manpower, and looked at the performance indicators for the effectiveness of government funding to universities and colleges.

Second, we analyzed the actual conditions of government-funding projects titled ‘Customized Education and Training,’ utilizing data provided by the Center for Excellence of Higher Education.

Third, we performed an empirical study on the employment effects of government-funding projects on universities and colleges.

Fourth, we sought to explore the proper ways for customized education and training in Korea by investigating exemplary cases in industrialized countries.

Fifth, we presented policy tasks to improve the current customized education and training, based on the qualitative studies and empirical studies of 12 government-funding projects.

2. Concept and Performance Analysis of Customized Education and Training for Industrial Manpower

In this study, ‘customized education and training program for industrial manpower’ refers to ‘a method of training human resources to meet the needs of industry.' In addition, it means that the university develops and operates educational programs to meet the needs of industry, and usually involves close linkage between industry and academia to enhance the possibility of student employment in the labor market.

This study classified customized education and training programs for industrial manpower into the following four categories based on the concept described above:

1) Projects aimed at supporting employment through internships, field practicum, employment linkage, and so on
2) Project for human resources development linked to regional industries
3) Projects for university specialization linked to regional industries
4) Programs for human resource development through research & development linked to industries

In analyzing the performance of the government-funded projects, this study identified five items for evaluation: relevance, efficiency, validity, utility and effectiveness.

First, the item of relevance aims to examine how well the project objectives are set up to meet social needs.

Second, the item of efficiency aims to examine how efficiently the input is invested at the input stage.

Third, the item of rationality aims to examine the validity of the selection of applicants during the project operation period, as well as the appropriateness of the programs in terms of field practicum, internship and support for job search. It examines whether the required organization and system, including a comprehensive organization to support the employment process, is established to achieve the project objectives, as well as to determine the applicability of the program to the field and the rationality of the evaluation and project management.

Fourth, the item of utility at the output stage aims to examine the extent to which the performance of the project met the needs of the participants.

Finally, the item of effectiveness aims to evaluate user satisfaction with the results of the governmental project through empirical analysis.

3. Results of Performance Analysis on Customized Education and Training for Industrial Manpower

The summary results of the analyses of the 12 customized programs are as follows;

First, among the 12 government-funded (aided) projects examined in this study, there is not a single case in which a pre-survey of needs was conducted at the beginning state in order to systematically reflect them.

Second, the investigation into whether the objectives of employment support were clearly set showed that the objectives of the most of the projects aim at employment support, which is often reflected in the performance indices. Although there was no policy of financial support or employment support, there were many cases in which the performance indices were set as employment support.

Third, from the perspective of financial support, it is hard to avoid the criticism that the financial support for the College Specialization Funding Programs and for the New Universities for Regional Innovations is provided to nearly all of the colleges in the corresponding regions, which is an n/1 type of support.

Fourth, there are two types of methods of selecting the recipients of support. In one type, the government directly organized the evaluation committee for the selection process; while in the second the government commissioned a private organization to form the evaluation committee. However, with the exception of some cases, it was revealed that the objectivity and expertise of the evaluation committee members was not verified.

Fifth, the results show that the applicability of the program to the field is in good shape overall. However, it was found that the support for field-specific specialization projects, ordering-type education, the project for the enhanced innovative competency in the region. The funding project for college specialization in the Seoul metropolitan area focused on colleges themselves rather than the industrial field, which significantly reduced their applicability.

Sixth, with respect to the validity of project operation, the direct governmental operation frequently raised the issue of transparency in management, and the commissioned management raised the issue of a lack of care.

Finally, although it is essential to conduct satisfaction surveys to obtain user feedback, there were not many cases in which such systematic surveys were conducted.

4. Results of Empirical Analysis of the Effect of Government-funded Projects on Employment

This study classified government-funded projects into customized and non-customized projects, in order to conduct empirical analyses. The dependent variable in this study was the employment rate of each academic department. [Model 1] includes participation in the customized project as a dummy variable, while [model 2] includes a specialization dummy variable.

[Model 1]

$$e_{ij} = \beta_0 + \beta_1 D_{ij} + \beta_2 x_{1ij} + \beta_3 x_{2ij} + \beta_5 Te_i + \varepsilon_{ij}$$

e_{ij}Dependent variable = employment rate in the jth department of i college

D_{ij}Independent variable = participation of jth department of i college in the customized projects; a dummy variable

x_{1ij}= financial support amount per graduate student from jth department of i college

x_{2ij}= gross industrial product in the region where jth department of i college is located (controlled for the industrial scale for each region)

Te_i= employment rate of i college

[Model 2]

$$e_{ij} = \beta_0 + \beta_1 x_{1ij} + \beta_2 x_{2ij} + \beta_3 M_{ij} + \beta_4 Te_i + \varepsilon_{ij}$$

e_{ij}Dependent variable: = employment rate in the jth department of i college

x_{1ij}Independent variable = financial support amount per graduate student from jth department of i college

x_{2ij}= gross industrial product in the region where jth department of i college is located (controlled for the industrial scale for each region)

M_{ij}= specialization dummy variable for jth department of i college

Te_i= employment rate of i college

The results of the empirical analysis based on [model 1] and [model 2] are as follows.

First, the effect of government funding on employment is very low. In the multiple regression analysis submitted to the amount of financial support per one

student (1,000,000 won) and the employment rate of the department, the coefficients of both variables was only 0.009, which suggests that the effect of government financial support on employment is positive, but very weak. In more detail, when one student is supported by 1 million KRW, the effect of the amount on the employment rate of the department is only approximately 0.01%.

Second, there is a significant difference in the employment rate between customized and non-customized projects. In other words, the simple regression results show that a customized project is 11.446% points higher than its non-customized counterpart in terms of its effect on supporting employment. The multiple regression analysis with the control variables added to include the employment rate of the college shows that customized projects achieve effects that are 2.265% points higher.

Third, as the gross industrial product of the region becomes higher, the employment rate of the department decreases. The simple regression results show that when the gross industrial product of the region increases to 10 trillion KRW, the employment rate of the department decreases by 1.061% points. The multiple regression in [model 1] shows a 0.817% decrease, while [model 2] shows a 0.537% decrease. The simple regression analysis submitted to the employment rate of the department and the dummy variable of Seoul Metropolitan Region vs. Other Regions showed that the employment rate of the department in other regions is lower than in the Seoul Metropolitan region by 4.0120% points.

Fourth, with respect to the employment rate across specialized areas, the multiple regression results based on [model 2] on the basis of the basic science fields, which reveal the lowest employment rate, showed that the fields of agriculture, forestry and fishery is the highest at 15.668% points, which is the highest employment rate. For the next field, the health care field is higher by 15.249 and the mechanical engineering field is higher by 13.707% than the basic science field.

5. Case Studies on Customized Education and Training Programs in Advanced Countries

Major universities in advanced countries are promoting customized training programs for industrial labor through close linkages with industries to promote

employment.

The University of IRVINE and Harvey Mudd College (US) cooperate with industries to enhance the employment rate of students. In addition, they operate comprehensive employment support centers and related programs to support the employment of students.

The University of KISTA IT, the Sweden Royal Institute of Technology and Stockholm University are allied to establish an IT university in KISTA to educate and train professional human resources. In addition, businesses as well as all types of research institutes are located on the university campus, to achieve unified cooperation between government-academia-industry within a single space that includes restaurants, libraries and laboratories.

In Finland, the government played an initiative role in establishing the University of Oulu and the University Junior Technology College of Oulu. The city of Oulu also established Oulu Technopolis, to promote a customized training program in which the university, research institutes, industry and government are cooperating with each other.

Next, universities in advanced countries are also administering policies to promote the transition of students to the labor market by revitalizing programs such as field practicum, internships and capstone design. Projects to promote the transition to the labor market include the CAG program of the UC IRVINE, the engineering clinic of Harvey Mudd University, the industry and academia cooperative projects focusing on field practice in IT universities, the joint field practicum project of Oulu University and Oulu University Junior Technology, and various graduation certificate projects.

Finally, universities in advanced countries help students to show the highest level of creativity during the process so that they are prepared to solve real problems in the field, by promoting close cooperation between students and industrial businesses or research institutes. It is clear that through this process, the human resources and entrepreneurs that will lead industry in the future are being developed.

6. Directions and Tasks of the Policy-making Processes for Customized Education and Training Programs

Based on the research results, it may be possible to set up 3 general

directions for the policy-making process of customized training for the industrial labor force.

First, with respect to the linkage between government and industries, the government should prepare plans at the institutional level to reflect the needs of the industries.

Second, the linkage between university and government should be institutionalized for financial support to increase the employment rate.

Third, with respect to the linkage between universities and industrial bodies, it is very important to set up clear employment objectives for the projects, and to institutionalize the various employment-linked programs.

Based on these three directions, this study derived five tasks in the policy-making processes.

First, there is the need to institutionalize the linkage system between academia and industry in a manner that reflects the needs of industries. In the Northern European countries, not only are the needs of industry reflected on a regular basis, but also the system to upgrade the needs is itself institutionalized through the linkage between academia and industry. In the US and Canada, industry and academia have developed strong links by establishing support centers within universities. Here, the government supports the linkage between industry and academia through financial supports and tax benefits.

Second, there is a need to promote customized training programs for the industrial labor force that reflect the changes in the industrial structure. The relative importance of the service industry in Korea has expanded to a significant extent as the industrial structure of Korea changes rapidly. In line with this trend, plans to train customized human resource for the high value-added service industries that will dominate the labor market should be actively sought.

Third, there is a need to strengthen the support for the institutionalization of employment support organizations within universities. As youth unemployment has never been a serious issue in Korea, the establishment of a system for employment linkage between universities and industries for graduates, or of comprehensive support windows, has perhaps been neglected. Nevertheless, it is anticipated that in the years to come, youth unemployment will become a long-term and structural social issue in Korea.

Fourth, it is necessary to reform the manner in which the higher education institutions are supported financially. Recently, Korea has imported financial

support methods, such as Formula Funding. However, these are also problematic in many ways. To improve the funding methods, it is necessary to focus on strengthening the ability and the incentive system for students and professors rather than on university headquarters. In addition, the government should independently collect reliable employment-related data such as the employment insurance data or the National Tax Service data.

Fifth, there is a need to strengthen the employment linkage program between industry and academia. To increase the employability of college students, it is important to design and implement programs that can promote the linkage between industry and academia, such as field trips, internships and capstone design in a more sophisticated way.

Measures to Improve Special Graduate Schools for Higher-Level Vocational Education

Ji-Sun Chung, Nam-Chul Lee, Ki-Sung Lee

1. Research Outline

In general, graduate education programs are classified into Graduate Schools, Professional Graduate Schools, and Special Graduate Schools. In Special Graduate Schools, the aim of education is to provide continuing education to adults and employees who are striving to develop their professional skills and are seeking to gain a Master's Degree. While the number of special graduate schools has increased tremendously, the education program of special graduate schools has been criticized for inefficiency and a lack of systematic administration.

This study is conducted with the aim of activating the work-to-school function of special graduate schools by eliciting improvement measures by investigating the situations of special graduate schools in order to identify their problems. The research methods employed include a survey of domestic and oversea literature, the collection of statistical data, attendance of council meetings, and in-depth interviews with professors, administrators, students, and graduates of special graduate schools.

2. Case Studies of Foreign Countries

The educational system in the USA is rather similar to that of Korea; and similarly, the education system in Australia is well-established in terms of lifelong learning. The demand for graduate education has been increasing recently in both of these foreign countries, which is also the situation in Korea.

The lessons that can be taken from our foreign case studies are as follows. First, the graduate schools are operated after being certified by authorities, providing quality control of education services. Second, the graduate schools have the autonomy to establish development goals, to decide on their own management, and to secure financial resources and expenditures. Third, by operating adult learning programs graduate schools provide various programs and courses to fit the situation of each individual.

3. Interview Results

The situation of special graduate schools is analyzed within the frame of CIPP. With the advent of the knowledge-based society, the rapid development of science and technology, an emphasis in society on academic success, and the national pursuit of high academic achievement, the demand for a graduate school education has been increased. The education of special graduate schools has been established with simple regulations on the one hand, and carried out without a quality control system on the other hand. In this context, the special graduate schools have been unable to realize their aims.

4. Measures to Improve Special Graduate School Education

First, the special graduate schools should be developed into adult learning graduate schools. Specifically, their aims and functions should be redefined to target higher lifelong vocational education and work-to-school. Once this is achieved, the schools can provide not only degree programs but also certification programs, with various lengths of courses and terms. Students can participate in graduate courses on a part-time or a full-time basis.

Second, the funding system and administrative support are to be enforced. The master plan for the comprehensive development of special graduate schools should be established. Government funding should be based on the standard educational expenses. The self-support system can help education to flourish with the autonomy of the graduate school.

Third, the advancement of lifelong learning programs should be pursued, focusing on the development of a field-oriented curriculum. In particular, the linkage between education and industries should be strengthened, and cooperation should be promoted in the area of the exchange of human and material resources between academia and industry.

Fourth, the infrastructure of the work-to-school system should be established in order to arrange a learning environment that is suitable for adult learners. Government funding may ease the economic difficulty of students, through scholarships and the employment insurance system. The quality and quantity of administrative services for evening school students should be improved by increasing the number of administrators.

Strategies to Enhance the Effectiveness of International Development Cooperation in Education and Training

Young-Hyun Lee, Eon Lim, Chul-Hee Kim,
Sang-Tae Kim, Myung-Joon Park

The purpose of this study was to examine the discussion and trend of international development cooperation in the area of education and training, and analyze the current status of development cooperation of donor countries, including Korea and other major countries, in order to derive policy priorities that can enhance the efficiency and effectiveness of international development cooperation in the area of education and training.

To analyze the development cooperation in the area of education and training in major aid countries (Australia, Denmark, Germany and Japan) and Korea, the study examined the institutional arrangements of international development cooperation, the current status of development cooperation in the area of education and training, and the support system for development cooperation in the area of education and training. The study utilized various methods, including a literature review, interviews with development cooperation specialists, workshops, and a survey of specialists.

The research findings are as follows:

First, an institutional basis for international development cooperation must be established. To achieve this, a firm legal foundation for the international development cooperation must be established, together with the establishment of an integrated development cooperation system. In order to enhance the effectiveness of development cooperation, it is necessary to establish a comprehensive strategy for development cooperation that encompasses country assistance strategies and sectoral strategies. For aid recipient-oriented development cooperation, administrative organizations must be decentralized, and the capability of field offices must be reinforced.

Second, the quality of international development cooperation in the area of education and training must be improved. For this, 1) a policy for development cooperation in the education and training sector must be worked out, and 2) by increasing the support for basic education, international trends, such as MDGs and EFA, must be satisfied. The project of vocational education and training

must be connected with the labor market. Skills which meet industrial demands must be developed and job placements must be provided, and 3) in order to enhance the effectiveness of aid projects in the education and training sector, its modalities of support must be shifted from the existing facility and equipment-based project method to a program approach or the SWAP, and 4) in order to enhance the efficiency of project management, a systematic project (program) management system must be established, while to strengthen quality assurance, a performance-oriented management system must be established.

Third, a support system must be established for international development cooperation of education and training. To achieve this, 1) the government must provide support for consulting companies to enhance their capabilities, through which they can develop competitive advantages, 2) it is necessary to support a variety of programs to train specialists in development cooperation, 3) it is necessary to support studies which can direct the national policy of international development cooperation, and to establish a system with which the knowledge and information related to international development cooperation can be shared, 4) it is necessary to support NGOs and to establish partnerships with NGOs, and 5) it is necessary to enhance public awareness of international development cooperation and to reinforce public relations and education for the enhancement of public support.

A Study on the Establishment of an Efficient Financial Education System to Strengthen Financial Knowledge

Nam-chul Lee, Hyun-Jung Jun
Joon-Mo Cho, Jang-Hee Kim

The aim of this research is to explore the establishment of an efficient financial education system to reinforce financial knowledge. The objective of the study is to seek alternatives that could improve financial education. Financial education is important, as it helps consumers to make appropriate decisions with respect to financial circumstances and risk. The major research method involved a review of previous research and government policy, afield survey, in-depth interviews, and a case study of the US, the UK, and EU countries.

As the financial industry is evolving into a knowledge-based industry, the future competitiveness of financial institutions in Korea will depend on having financial professionals with skills in risk management, customized product development, accommodation of customer needs, and diversification of income sources. In a survey of professionals conducted in 2009, attracting financial talent with a global perspective and insight was deemed to be the most urgent and essential element for the growth and development of financial industries.

The importance of financial education has been recognized by the government, financial institutes, and even the public. In response to this increased emphasis on the importance of financial education, Korea needs to establish a financial education system that can help Koreans to improve their financial knowledge.

Financial education programs furnished by small, private education institutions, financial institutes, and consulting companies have been reported as not being systematic or well-structured enough to train the financial talent that is required by the market.

To support the policy of MCHRD, and to enable the development of appropriate policies, it is necessary to take into account a number of things; integration into the Korean society does not mean assimilation - MCHRD need to be enabled and supported in maintaining their culture, a legal framework

which provides redress for discrimination is critical in ensuring that MCHRD are treated equally.

It is necessary to support at all levels, from central government to local government, and on broad societal attitudes as well as on the problems of individuals if multicultural family are to come feel at home in their new society.

Technological Changes and Implications for Education and Training

Mee-souk Kim, Sng-bo Kim, Su-myeung Jang

1. Introduction

The speed of technological changes is continuously accelerating. The faster the speed of technological change gets, the greater the changes in learning, and the needs for learning. In addition, the learning is required to be of a higher quality. As learning ability gains in importance, people who are more highly educated have more opportunities than less-educated people. As the speed of technological change is so great, the contents and scope of education have changed. Some nations have focused more on basic and general courses than specific courses.

We studied the relationship between education and technological changes. Specifically, we investigated the adaptation of education to the high speed of technological change. We researched how Korean education policies developed from 1990-2008, which was a period of great technological change. And we surveyed the French education and training system in accordance with the accelerating change in technology.

2. Main Findings

We explained the skill-biased technology change due to 'the endogenous skill biased technology change' hypothesis. It explains skill-biased technological change by focusing on the profit incentive of enterprises. Under this hypothesis, a greater number of higher education graduates is produced as the premium for higher education increases. With more graduates of high education in the labor market, the employers who hire them will be able to generate more profit. Then the use of skill-biased technology will become more broadly popular.

In establishments with high levels of technology, there are more opportunities for highly educated employees than lower-educated employees. This means that there is a complementarity between school years and training. But in

establishments that face a high speed of technological change, there are more opportunities for lower-educated employees than for highly educated employees. This means that there is a substitute between education and training. These results imply that during a period of rapid technological change, highly educated people adapt better to technological changes, and the orientation towards a highly educated society will be a good strategy for gaining competitive power.

In Korea, the technical high school education policy has been developed to adapt to technical progress. The fourth curriculum focused on the learning of the basic sciences and the education of knowledge and theory. The fifth curriculum put an emphasis on the acquisition of common technology and skill, and the study of basic knowledge in order to adapt to the speedy change of technology. But the 5.31 education reform in the 1995 technical high school curriculum policy is focused on the continuing education, and education policy for industry is concentrated on tertiary education, particularly on engineering colleges.

There were also some policies on the engineering colleges, not to divide into specific departments, but to set up cooperation systems between colleges and industry. The mainstream in the college policies was market-oriented. Main policies were school information openings, encouraging Abeek, and evaluation of the contribution of engineering college to industries. But the voice of industry was not a systematic part of the dialogue, so it was impossible to coordinate manpower supply and demand, or to reform the college curriculum. We cannot find any industry representative that has played a leading and positive role in college education.

Since the 1980s, France has made efforts to have 80% of students reach Baccalauréat educational achievement. France has helped its people to adapt to the changes in technology by planning manpower supply and demand, establishing and abolishing degrees and qualifications, administrating the number of students, and evaluating the training curriculums. For example, in ITU, which is the institute for nurturing technicians, the ITU council decides the education curriculum, establishes the majors, and selects the students. There is the same number of representatives for employers and labor in the council. Industry representatives are involved in the various school councils, and in the teaching activities. In France, all academic degrees and qualifications have to be

established after an analysis of the supply and demand of the industry sector.

3. Policy Implications

In Korea, young people usually go to higher education, so the rate of enrollment in universities and colleges nearly approaches 83%. But it is doubtful that the graduates of higher education have the ideal abilities for their academic degrees. Korea has to manage the quality of higher education through the intervention of industry in curriculum setting and teaching.

In Korea, there are no systems to coordinate and match the supply and demand of manpower. There are also no systematic activities to deal with the speed of technological changes. The people in industry who understand the changes in technology have not intervened in the direction and curriculums of higher education. The result has been a huge waste of resources in higher education.

Korea needs to establish institutes for the official and systematic intervention of industry representatives in higher education. Universities and colleges must hand in proposals that include an analysis of planning supply and demand when establishing majors or enlarging quotas. Furthermore, it should be mandatory for industry representatives to be involved in the analysis of planning supply and demand.

A Case Study on the Learning Transfer in Corporate e-Learning

Sook-Young Byun, Soung-Youn Kwon

Due to the continuous expansion of e-learning in corporate learning, interest in the outcomes of e-Learning is increasing, especially in effectively applying learning results to job performance.

In this context, a matter of primary concern in corporate learning is learning transfer. Recently, attempts have been made to analyze empirically whether there is a need for learners who acquire knowledge, skill, and attitude from learning apply what is learned to job performance.

However, previous studies have neglected the approach, method, and procedure of measuring learning transfer, have had difficulties in identifying various aspects and patterns of learning transfer, and were limited to analyzing the manner in which various factors affect learning transfer.

Therefore, the purpose of this study is to systematically and concretely verify the role played by learning transfer in corporate e-Learning by using a diverse and elaborate methodology that combines a quantitative approach with a qualitative approach, and analyze the manner in which various practical factors affect learning transfer.

In addition, this study aims to identify the differences in learning transfer based on the various characteristics of companies, individuals, contents, and conditions, by analyzing the relationship between the general variables concerned in the field of the workplace and learning transfer.

For this purpose, a review of the literature was first conducted to derive the conceptual definition, explore the related variables, and analyze the results of previous studies. Second, the tools to measure learning transfer were collected, the characteristics of the tools were analyzed, and the implications for this study were extracted. Third, study design, factors related to learning transfer, and methods of measuring learning transfer were set, and the measuring tools were selected and developed. Fourth, the subjects who enrolled in e-Learning courses at Korean companies participated in the surveys that were provided at the beginning, middle, and the end of the e-Learning. Finally, the collected data

were analyzed statistically.

The results of the study of the relationship between affecting factors and learning transfer in companies A and B were as follows.

First, the learning transfer models of two companies were analyzed using descriptive statistics, correlation analysis, verification of measurement model and structural model. As a result, both models showed reasonable fits. But a path that was not significant was extracted in the B model, and the modified model was used for verification. Therefore, an empirical model that explained the relationship between affecting factors and learning transfer in corporate e-Learning was derived.

Second, there was no huge difference found between the two models of learning transfer, but the factors were slightly different. In the case of company A, the affecting factors were learners' intrinsic characteristics, the contents and design of courses, supervisor and peer support, and the organizational environment. The contents and design of courses had the greatest relative influence, followed by supervisor and peer support, learners' intrinsic characteristics, and organizational environment. In the case of company B, on the other hand, the affecting factors were learners' intrinsic characteristics, contents and design, and organizational environment, excluding supervisor and peer support. Contents and design had the greatest relative influence, followed by learners' intrinsic characteristics, and the organizational environment. It can be interpreted that each course was their own e-Learning program, so the difference was due to the characteristics of companies, workers, jobs, and the training program.

Third, the common result of these two cases was that contents and design had relatively greater effects on learning transfer than the other factors. This result implies that it is important to design e-Learning contents that are relevant to the job, have a similar working environment, and provide feedback for learning transfer. Therefore, strategies for contents construction and design are needed in the planning and design of corporate e-Learning.

Next, the results of the relationship between the general factors and learning transfer in companies A and B were as follows.

First, learners' satisfaction with learning significantly predicted learning transfer, while learners' achievement did not. From this, it can be interpreted

that achievement tests in corporate learning were conducted insincerely to a certain degree, so there is a limit in terms of our true ability to comprehend and analyze the real effectiveness of learning.

Second, learning strategies significantly predicted learning transfer, while learning time did not. From this, it can be interpreted that the time learners spent on learning itself certainly was not meaningful learning time, and that the qualitative aspects of the learning process are important, not the quantitative aspects.

Third, learner satisfaction with the job significantly predicted learning transfer. From this, it can be interpreted that the more learners were satisfied with their job, the more they intended to produce favorable outcomes, so they endeavored to apply what they learned to their job, and this could come down to positive learning transfer.

Fourth, the result of the relationship between general factors and learning transfer in these two cases was almost similar. In particular, learning strategies and learner satisfaction with learning had relatively greater effects on learning transfer than learner satisfaction with their job, and it was the same In both cases. This implies that effective and substantial learning is needed for a high degree of learning transfer. To achieve this, both designing an effective learning program and securing learner effort to learn and develop their learning strategies are necessary.

Job Creation Strategy through Building Firms' Employment Capacity

Young-Saing Kim, Chan-Bin Lim, Seung-Chan Park

The purpose of this exploratory research is to comprehensively review firm employment capacity, and identify the main factors of employment capacity. From this research, several policy suggestions have been developed.

Many previous studies in this area, focused on macro socio-economic analysis of employment based on labor economist disciplines, have concluded that the firm's ability is supposed to be the main topic of employment or job creation strategy research. However, most job strategy research has overlooked a firm's employment capacity.

In light of this, this research was designed to analyze a firm's capacity to create jobs. The main methodology of the research is rooted in ground-theory development, because it was hard to find research focusing on firm's employment capacity.

A firm's employment capacity is composed of three components. Firstly, job creation which creates new jobs secondly, job stability which continues employment thirdly, job quality which relates to a decent job, such as, fair compensation, welfare, and humane workplace conditions.

21 cases of best firm practices were developed by the researchers in order to identify common factors related to the three employment components. The results of the case analysis are that first, employment capability is the result of an interaction between firm factors and government policies secondly, while there are some similar patterns identified among the cases, each case has unique features when we look at under the microscope. Thirdly, while a firm's competitive strategy does not seem to directly affect the firm's employment, it defines the nature of employment. Lastly, cooperative culture and entrepreneurial management are the factors most critical to the employment capacity.

The model for a firm's employment capacity, constructed from the factors identified by the cases reviews, was tested with 2007 HCCP DB. Thirteen factors, including firm culture, skill training, control structure, were proved by the test.

Three policy suggestions were produced. First, packaged employment policy

must reflect the industry ecosystem and supply chain management second, policy must be customized to SMEs thirdly, job strategy must be based on a green growth policy.

Analysis of the Current Condition of an Organization's Competency Modeling and its Application

In-Joong Ju, Deog-Ki Kim, Young-Saing Kim

It is necessary to research the current conditions of the implementation of competency evaluation, the introduction and development procedure of the competency model, and the organization and utilization of competency items for each position level, based on the competency model. This study, therefore, aims to examine the manner in which Korean corporations develop competency models that are applied to the competency diagnosis of employees, organize competency items for each position level, utilize those items in each area of HR, and determine the required competencies perceived by organization members.

This study identified the meaning of the competency model, its development, and utilization suggested by previous studies. It also referred to preceding applications of the competency model nationally developed by corporations in and outside the country. Based on the data collected, the actual condition of the development and utilization of competency model by Korean corporations was analyzed.

To conduct the study, an investigation of preceding studies, an analysis of related material from outside the country, a survey, and expert-consultant conference were administered.

The concept of competency began to be discussed by analyzing the internal and external factors of high performers and average performers. This study identified competency as a combination of knowledge, skill, and self-concept required for successful organization practice.

The development of a competency model is now being lively discussed in various ways. In particular, the development of universal competency is viewed as the property that increases the knowledge, skill, and experience of individual who wishes to transfer to another position, and that increases his or her marketability.

In-firm and task-oriented competency is changing in parallel with changes in the market, which shortens the span of competency development. Competencies that were once considered important have become obsolete, and must be

replaced by a competency that fits the future business.

Depending on the goals, the competency model is developed using methods such as behavioral event interview, expert panel method, job task function analysis, competency menu, survey, or competency dictionary. The competency model is a standard model developed by analyzing competency to accomplish a corporation-wide vision and values, and is utilized for human resource development and management in the organization. It is also used as a tool for selection, training, development, appraisal, and promotion plans.

The competency model is expanding from medium to large companies in Korea. One of the general applications is to establish a competency nurturing system. Based on this application, the number of corporations using the competency model in selection and appraisal is increasing. Looking more closely, selection and personnel procedures are carried out by giving competency interviews and conducting competency inquiries. The results of competency evaluations are used as data for the selection and promotion of the core competencies. It is noted that the results are widely used for low-level positions, but are used relatively less at the higher levels.

The result shows no significant difference with corporation scale and type of business in the development and utilization of the competency model. This is due to the limited opportunity to develop a competency model appropriate for company characteristics at the earlier stages of development, and to a failure to improve the HRD · HRM system due to capital and labor issues and the CEO's management plan.

The study result indicates that the development and evaluation of competency model appropriate for corporations has failed to closely interconnect with the HRD · HRM system. The study results are as follows.

First, it was found that corporations have introduced and used competency models since 2000, with the aim of connecting organization strategy with HR for large companies (46.9%) and to foster worker competency for medium-sized companies (34.2%).

Second, it is presented that in terms of the development of a competency model, organizations 'developed on their own' (29.6%), or 'developed partly with the help of a consultant' (28.0%). 44.8% of companies did not investigate the development of such a model.

Third, the difficulties when introducing and utilizing the model are 'development of a model appropriate for the company, ' and 'application of a

competency evaluation method appropriate for the organizational atmosphere.' In addition, the difficulties when evaluating were identified as 'objective evaluation,' and 'ensuring the objectivity of behavioral indicators.'

Fourth, in terms of the significant competency perceived by each position, new employees focus on developing 'personal characteristics,' incumbents on 'personal characteristics' and 'work · outcome,' supervisors · managers on 'strategy · change' and 'work · outcome,' and executives on 'strategy · change.'

Fifth, evaluation results tend to be applied to promotion (94.4%), training (91.1%), arrangement · conversion (87.9%), and career development (84.7). 96% of the respondent corporations reflected the results of competency evaluation in personnel assessments.

Sixth, competencies considered important by each position when evaluation is carried out are different. Executives stress 'strategy · change,' supervisors · managers on ‘strategy · change, work · outcome, human relations · organization management,' and incumbents on 'work · outcome, personal characteristics.'

Organizations, centered on advanced, large-scale companies, tend to develop competency models and introduce them into human resource development and management by analyzing organizational members' competencies and outcomes based on their vision and strategy.

This tendency is expanding from medium-sized to large companies. Unfortunately, models that are appropriate for Korean organizations have not yet been introduced. They only use partly refined foreign models, which means that cultural differences are a fundamental problem. Nevertheless, the general application of the competency model is the establishment of competency nurturing system. Based on the application, there is an increase in the number of companies that administer selection and evaluation. It is possible to predict that the establishment of a competency nurturing system and a selection · evaluation procedure will spread across organizations

A Study on the School Career Education Support Systems in relation to the Introduction of Admission Officers

Young-Dae Lee, Jung-Hee Kim

The purpose of this study is the establishment of a support system for career education due to college admission through admissions officers.

In Korea, the admission through college admissions officers started in 2009, and as a result many changes have occurred in school education.

It is therefore necessary to establish a support system to handle such changes, especially in career education. This is because in the college entrance examination process under the college admissions officer system, career education is most important.

For this research, various methods were adopted, including a review of the related literature, review, advisory meetings of related professionals, school visits, attending related meetings, attended, delphi survey of 20 professionals, and a survey of teachers (181 schools 865 people) was conducted.

1. Summary

The major findings can be summarized as follows;

In recent years, the launch of the college admissions officer system has resulted in many changes in school.

First, students gained interest in establishing a self-identity by preparing essays and academic plan, and participating in activities that would enhancing their portfolio, such as club activities and volunteer activities.

Second, teachers made a great deal of effort to improve the reliability of student records, and learn more about their student's lives (supporting) data (individual portfolio) management.

Third, parents became more interested in school education, because schools placed a greater emphasis on finding student's aptitudes, and systematically managing students.

Fourth, school made new efforts such as new curriculum management (for example, essay / discussion education, English language courses), and after school activities,

Organization of special activities in school, new counseling system, various efforts in fieldwork, enforcement in the delivery of related information, and strengthening volunteer activities.

Therefore, a system must be derived to ensure a good response by schools to the introduction of the Admissions Officer (AO) system.

This report identified 162 tasks in 7 major fields (student records, student portfolios, students and parent awareness, career-related psychological testing and counseling, career program management, information provision to admission officers, and education support system for teachers).

865 teachers of 181 schools evaluated these challenges as relatively important.

Among the 162 tasks, △enhancement of reliability of student records △ assurance of internal stability of student records △ diversification of elements and contents of student record △ concrete road map to achieve goals △ parents and children's joint participation in psychological tests and counseling △ provision of occupational information △ psychological testing and analysis △ continuous observation and accumulated record △ explanation of specific goal-setting cases △ provision of career exploration opportunities △ strengthening of information disclosure △ provision of school counseling with professor and admissions officers △ detailed analysis of the admission officer system △ reinforcement of content in student record △ measures to respond to decrease in SAT subjects △ recognition of new entrance system by teachers △ activation of support group for schools were highly appreciated.

2. Suggestions

The role of the admissions officer in university/college entrance may be further expanded in 2011. In particular, this system may be expand to community colleges, foreign language high schools and science high schools.

However, there is a lack of fully objective data on students in terms of aptitude and potential, and there is also a lack of good support systems.

As such, a new career support system must be developed, which should include △exploration of the aptitudes and interests of students △accumulated record of personal characteristics, career goals, and job activities △systematic support of student's life design △systematic operation of career portfolio based on professional experience, diverse work and educational activities based on the design.

For the successful establishment of the admissions officer system, some other measures were suggested, as follows:

First, at schools, career education for the design of students futures will be important. Above all, students must identify their characteristics, and make their own career goals and course design.

Second, the most important task in the admission officer system is to find the records of students in their applied major field, especially in extracurricular areas. For this reason, a student's achievements in extracurricular areas, such as club activities, must be emphasized beginning in elementary school.

Third, most of a student's record in extracurricular areas (club activities, volunteer activities, reading, etc.) must be related to career goals and career design. It is meaningless if club activities and volunteer activities do not connect to career goals and career design.

Fourth, there must be dramatic changes in teacher recognition and attitudes toward the admissions officer system. The most important element in an entrance system is the student's record, which is entirely recorded by teachers.

So if a teacher does not recognize the importance of such a record, the student may be damaged.

Fifth, there must more concrete support for teachers and students in university/college entrance by using the AO system. The national and provincial system must be made for enhanced training for the professional growth of teachers. In addition, there must be concrete linking system for mutual cooperation between students and teachers in preparing in entrance under the AO system.

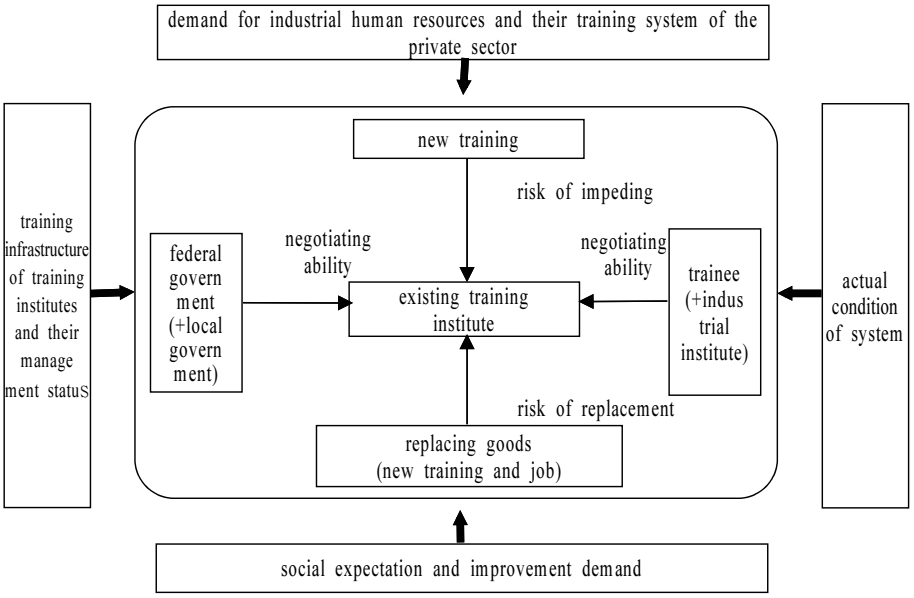
Analysis of Vocational Education & Training in the Private Sector, and Measures to Improve its Competitiveness - User-based Vocational Education & Training System -

Su-Won Kim, Chun-Soo Park, Eui-Gyu Lee,
Hye-Jung Jang, Chul-Ho Choi

We require continuous vocational education and training to adjust ourselves due to the rapid development of technology and expansion of knowledge in today's society. Also, private institutes, which are the majority of the vocational education and training market, should support the government policy of 7% growth and creating 3,000,000 jobs through educating and training manpower. Moreover, private vocational education and training institutes are supposed to respond to the changes of the economy, society, population, work places, vocational training systems, etc. and are required to progress as a knowledge-based society, expand the necessity of life-long vocational improvement, and magnify and vary the sources of vocational education and training.

This study was performed to determine the reality of the vocational education and training market on the private sector, to analyze reasons to impede market principles, and to derive ways to strengthen its competitiveness.

To achieve these purposes, Michael Porter’s analysis model to set up a competitive strategy was used to improve the competitiveness of the vocational education and training market in the private sector.



Firstly, based on Porter's competitive strategy, demands for industrial human resources as the inner and outer environment of the vocational education and training market on the private sector, the human resources training system of the private sector (comparison of supply and demand of industrial manpower, the technical standard of supply and demand and prospect of industrial improvement), the training infrastructure of training institutes and their management status (training staff, assets and tools of infrastructure, training conditions of income, disbursement and effects and changes on management), actual conditions of the system (competitiveness, exchanges and cooperation, order and diversification, shrinking and leaving, controls and its means), social expectations and improvement demand (functional improvement and obstacles, possibility of continuous business, business prospects, goals and their values, competitive elements, etc.) were reviewed.

Secondly, seven competitive strategies (expenses, distinction, niche, growth, network, innovation and entry barrier strategies) are proposed to strengthen the competitiveness of the vocational education and training market in the private sector based on training institutes (official and private sectors), new training institutes (colleges, institutes and foreign training institutes, etc.), federal and local governments (training strategy and support system), trainees and companies, and the relationship between new training sessions and jobs.

Also, to study the above efficiently, in-depth interviews were performed to

identify the training infrastructures and the reality of their management and their legal and institutional controls, and surveys were conducted to determine social expectations and the improvements of the vocational education and training market on the private sector. Based on these, a final competitive strategy and its implications for the vocational education and training market in the private sector have been confirmed.

A Study of the Effectiveness of the Social Security System in Skills Development

Cheol-Hee Kim, Young-Hoon Oh
Min-Su Byun, Sung-Ho Kang

This study concept defined the connection between a social security system and skills development, and we based our analysis on the current social security and social welfare system in Korea. Specifically, the purpose of this study is to suggest the relevance and influence of employment insurance, industrial accident compensation insurance, pension, national basis life guarantee systems and skills development.

○ Theoretical background and situation analysis

We appeared so that vocational training participation was continuously increasing according to vocational training participation present situation analysis results of a 4th social insurance. A vocational training participation opportunity offer is enlarged, and role of vocational training is enlarged greatly at social safety net dimensions regarding a weakness group that vocational training participation.

We found that people 60 and over, women, high school graduates and students and unemployed persons had expanded of social insurance benefits and vocational training participation opportunities.

○ Industrial accident compensation insurance and skills development

At occupation rehabilitation program, individuals that participate in vocational training have a higher employment possibility. Enlarged the application object of industrial accident compensation insurance, skills development service enhancement to disperses a risk, to promote welfare may contribute affirmatively.

○ Pension and skill development

According to an analysis by occupation type and retirement decision-making factor, occupation type and pension receipt, wage workers incentives and pension receipt possibility is larger rather than non-wage workers. Until pension

system discussions are vitalized on the side of old age income security, we need to pursue a skills development side comprehensive system.

○ A national basis life guarantee system and skills development

Self-support vocational training was proven to be more effective in terms of giving trainees the possibility of employment. A national basis life guarantee system was effective against skills development.

A social security system evolves, and the range and scope already are being continuously enlarged to promote employment, job creation, and skills development. And we need to find approaches such as simple social safety net construction, public assistance regarding a weakness level, etc.

While the existing individual social insurance systems need to take root, they also need to build links with various social security, social protection, and social policy to ensure more systematic and efficient operation. The analysis of the four social insurances show that those who are insured and participate in vocational training are mostly people in employment. A high proportion of those without social insurance and experience in vocational training are those belonging to disadvantaged groups, including women and those in irregular employment.

A Study on Human Resources Development in Low Carbon Green Growth - Focusing on Green Car

Gyu-hee Hwang, Sang-Don Lee, Soo-Young Lee,
Joong-Man Lee, Jae-Min Park, Sun-Woo Kim

1. Overview

This study had sought action plans to improve the university curriculum for developing Green car related professional technicians (undergraduate level) with a focus on the automobile industry. At its 1st stage, the study identified elemental technologies for Green car development, and calculated the ability level required of Green car personnel by 10 years in the future. It also analyzed the matching level of current university curriculum to this requirement. At this phase, not only the response of domestic universities but the trend of U.S. and Japan, where technological development for Green car is active, was compared, and the necessary items for supplementation in domestic university curriculums were identified. At the 2nd stage of the study, it presented the necessity of developing a linked track among departments, and the manner in which such a linked track could be proposed.

2. Analysis of University curriculum status

The result from identifying the key technologies for Green car and evaluating the composition of the appropriate curriculum shows that the composition of the curriculum itself is not far behind of those of the U.S. and Japan, but is mainly composed of basic courses. Therefore, it is necessary to more actively open converged courses, and to enhance linked programs among departments. Furthermore, the response to technologies with high mid-to-long term likelihood of being actualized appears to be insufficient compared to that of technologies with a high short-term realistic possibility of being actualized. Accordingly, a more active response to forward-looking technology is requested.

3. University Curriculum Improvement Plan: Composing Curriculum By Technology Area

The curriculum proposal by product category(categorizing into Hybrid Electric Vehicle, Fuel Cell Electric Vehicle, Intelligent Vehicle) has its limitations. If specialized manpower cultivation by dividing power-train, body-chassis system, and electric-electronic system according to the classification of technology is possible, this manpower could raise the level of countermeasures in response to technological progress. Meanwhile, because Green car technology is essentially a convergence technology, the knowledge of a single department is not enough for each technology areas of power-train, body-chassis system, and electric-electronics system. But in response to this issue, it is better to raise the basic skills even in the limited major area while developing communication ability with other majors, rather than opening separate a convergence major or convergence technology track. On the basis of the discussion above, the courses for technology track composition by major are presented in the main text, chapter 6 section 3.

4. Policy proposal

The first policy proposal is to develop a double major system, with which each department of mechanical engineering, chemical engineering, material engineering and electrical-electronics engineering can absorb the basic items of other major courses on the basis of its own major. But this kind of double major system should be introduced with teaching staff, who can pass down the items of convergence technology, and develop appropriate materials. This is to enhance the use of professional research resources in the technology development site, and guide existing teaching staff to participate in on-site technology development and new technological trend.

In addition, building an information system as the basic system for cultivating Green car professional manpower is an important item. Adjusting the manpower supply system should be done based on an understanding of the demand of Green car related skilled manpower in the companies, and forecasting whether there is over-supply or under-supply with skilled manpower supply. During this process, over/under supply from a quantitative aspect should be differentiated

from skilled manpower discord in a qualitative aspect. Based on the deployment of this information system, improving and creating the items of laws and systems, including the related education system, qualification recognition, and intellectual property rights, should be considered together.

5. Fruits & Limitations

The most fruitful result from the study was seeking the models to find the way to cultivate manpower with a view of future skilled manpower demand in response to the advent of new technology: 1) analyzed forecasted technology development trace and demanded technology by setting a target point in time (10 years in the future); 2) evaluated the level of countermeasures at the current stage in response to the demand; 3) presented the goal of cultivating manpower (structuring the necessary curriculum); 4) proposed a plan for cultivating manpower (present technology tracks).

Similarly, the analysis system used in this study can be applied not only to cultivating Green car professional technicians but to other green technology areas as well. In a sense, it is more likely that plans for cultivating manpower in response to the transformation to a green economy should diagnose and respond to analyses of the trend and demand of technology in the corresponding industry, and the status and problems of cultivating manpower in detail in order to be shaped and effective. Furthermore, this analysis system can be applied similarly to seek methods of manpower cultivation in response to the prospect of future technology in 10 to 15 years.

Meanwhile, the limitation of this study is that it did not reach a strict content analysis about the detailed content of manpower cultivation. This was because the current analysis was for course structure, not for the content of the courses. In order to make a proposal for course structure, it is necessary to strictly evaluate not only the subjects of existing courses but also the countermeasures of the existing course content for future skilled manpower demand, but that goes beyond the scope of this study, and requires a separate study. This study only carried out the evaluation for necessary courses at the level of linking with the analysis on technological changes.

Another limitation of this study is that it did not proceed with the discussion about the possibility of curriculum development for cultivating Green car manpower from the perspective of global collaboration. While global

collaboration is required, even in competition among the companies, global collaboration is expected to be handled mainly through government-funded institutes or universities, but this study did not consider this. Also the discussion on how global collaboration is being performed and how it can be carried out, if collaboration is necessary, is requested at the level of government-funded institutes or universities.

The Method to Improve the Basic Learning Ability of Vocational High School Students

Dong-Yeol Park, Chul-Young Jung, Jin-Koo Kim

1. The Research Outline

As the industrial structure and the labor market have highly developed, vocational high schools have difficulties in identifying their educational purpose. In particular, as social phenomena such as a negative social attitude toward job-specialized education and decreasing number of students have impeded schools from selecting well-qualified applicants, there is serious doubt about the basic learning capability of vocational high school students. Under these conditions, it is vital to develop a comprehensive method and practice to improve the basic learning ability of vocational high school students, which is accumulatively developed from the elementary school level, as well as to establish the notion of the basic learning ability of vocational high school students, and review the previous studies on the proper level of the basic academic ability of vocational high school students, as differentiated from students of general high schools.

2. The Actual Conditions of the Basic Learning Ability of Vocational High School Students and General High School Students

The actual condition of the basic learning capability of vocational high school students, which was analyzed through a review of the literature and a survey, can be summarized as follows.

First, the degree of academic performance by vocational high school students is noticeably lower than that of general high school students. Although the students' performance at some specialized vocational high schools has improved, the average level of academic achievement of vocational high school students is very low. In the national-scale assessment on the degree of academic performance, most vocational high school students belong to the category of 'below basic level.'

Second, vocational high schools are not equipped with a diagnosis system to guide students who lag behind in their academic achievement. As we can know through the academic achievement model of vocational high school students, while the cause of the students' academic failure ranges from academic factors such as ineffective learning practices to non-academic factors such as family matters, emotional breakdown and behavior disturbances, vocational high schools do not have the programme to check these problems. In particular, the level of the basic learning ability of vocational high school students cannot be accurately evaluated because there is no assessment method suitable for the character of vocational high schools, or differentiated from general high schools. In other words, the current national-scale assessment method of evaluating academic capability is less functional and not suitable for the students who have not had any opportunity for supplementary education, and who enter vocational high schools due to their academic record.

Third, the current educational system lacks a differentiated management programme to care continuously for vocational high school students who lag behind in their basic academic ability. Most of all, because the management practice to deal with the academic progress and record of the students left behind is not systematically arranged, the vicious circle of relief for failed students keeps repeating. In relation to this issue, one of the most crucial problems is the shortage of teachers exclusively responsible for the management on the academic progress and record of the students left behind. To solve this problem, the Ministry of Education, Science and Technology has supported high schools in hiring assistant teachers via the project of 'School Focusing Academic Ability Improvement'. However, because this is simply a short-term project, the first year students who complete a supplementary course cannot continue to take another supplementary course in the second and third year. Furthermore, the fact that such supplementary courses are opened as after-school tutoring classes has resulted in the lasting marginalization of the students left behind from regular classes. That is to say, the educational programmes differentiated according to the level of individual students' academic abilities have not been operated in an effective way within the regular curriculum. Although most vocational high schools run the flexible placement system, under which students can attend an English or mathematic class according to their own academic ability, the students who lag behind tend to quit studying or rely on private education for fear of being stigmatized as a 'stupid student.'

Fourth, there are questions raised about the school's lack of responsibility for guiding students with low achievement, and the confusion caused by overlapping policies. Even though the authorities of most vocational high schools perceive the problem of student under

achievement, school principals and teachers of Korean language and literature, English and mathematics have a weak sense of responsibility. As regular teachers are overburdened with teaching in regular classes and administration work, lecturers, university student assistants and internship teachers are responsible for the task of giving tutorials to the students that lag behind. However, these temporary workers cannot be helpful enough to improve students' basic abilities, because the capability of university student assistants and internship teachers to support tutorial classes is insufficient.

Finally, as a result of the comparison between general high school students and vocational high school students, while the independent variables to explain the degree of academic achievement by general high school students demonstrate consistency, the variables in terms of vocational high school students are much less consistent, with the exception of a few cases. Moreover, despite the huge gap in academic achievement between general high school students and vocational high school students, any variable that is configured to explain the level of schools among the independent variables is not meaningful. This means that the real factors affecting the academic achievement of vocational high school students are significantly different from the situation of general high school students.

3. Methods to Improve the Basic Learning Ability of Vocational High School Students

To improve the basic learning ability of vocational high school students, it is essential to diagnose students with low achievement in an accurate way, to provide the students with intensive and continuous supplementary educational programmes, and to apply training methods which are not only connected with academic performance but are also related to the students' perspectives on their lives. The main tasks to implement these methods can be suggested as follows;

<Task Ⅰ>

Firstly, a standard on basic academic ability reflecting the purpose and features of vocational high schools should be established. Secondly, an assessment method on basic academic ability based on the standard should be derived. Thirdly, a system to identify the types and causes of low achievement based on the assessment should be designed and applied.

<Task Ⅱ>

Students who lag behind have to be categorized as the low achievers in course works and low achievers in basic learning ability in order to establish a differentiated and sustainable management system. In addition, a variety of supplementary courses such as regular classes (flexible class attendance to fit into individual academic ability), after-school tutorials and the usage of local community resources should be supplied.

<Task Ⅲ>

To strengthen schools' capacity to improve the basic learning ability of students with low achievement, an incentive programme in accordance with outcomes related to the improvement of students' learning ability can be considered in order to encourage principals and teachers. For example, schools that show good performance in decreasing the number of students that lag behind in academic achievement could be given a citation. Cases of schools that produce an outstanding result should be analyzed and promoted via case study presentations, school management consulting and visiting class programmes.

Improvement Measures for Continuing Professional Development (CPD) of Certified Professionals, Focusing on Medical Doctors, Professional Engineers, Lawyers, and Accountants

Jeong-Yoon Cho, Dong-Im Lee, Eul-Kyoo Bae, Don-Min Choi

This research surveys and analyzes the current conditions of Continuing Professional Development (hereafter, CPD) of some of Korea's most highly represented professions, medical doctors, professional engineers, lawyers, and accountants, in order to execute substantiating and activating plans. This research then looks at the CPD of certified professionals domestically and abroad by examining preceding studies in countries like Korea, the United States, and Great Britain. Materials on CPD of doctors, professional engineers, lawyers, and accountants from advanced countries like the United States, Germany, and Japan were specifically analyzed and collected. The composition of the contents and the problems of CPD faced by domestic and international certified professionals were studied by providing detailed information through 'Current Situation Analysis Framework for CPD of Certified Professionals.' A conference was organized in order to elicit many opinions on the current situation, problems, and prospects of CPD. To learn about the current situations of advanced countries, we sent the 'Current Situation Analysis Framework' to the representatives in charge of each country's qualification association, and telephone conferences were held in order to examine the procedures and detailed information on CPD when it was necessary. A final conference was held to gather all the information researched.

This research presented details based on the 'Current Situation Analysis Framework for CPD of Certified Professionals,' which has investigated its current conditions. First, Korea's highly recognized professions started CPD much later than their counterparts in advanced countries, as CPD for doctors and accountants in Korea started during 1980s, while COD professional engineers and lawyers in Korea started during the 1990s. Second, the amount of time needed to be certified varies among the certified professionals, ranging from 8 hours to 40 hours, indicating that efforts to take a logical and systematic

approach to finding an appropriate length of education has been insufficient. Third, the manner in which the contents of penal clauses are selected for CPD is insufficient due to a lack of consistency and relevance. Fourth, while there are professions that have curriculum, some do not, and so, it is required to execute a needs analysis to develop such curriculum, but this has not systematically taken place. Fifth, an internal mechanism is being executed in order to control the quality of education contents. Sixth, there are different methods used to deliver education and training, such as formal education, informal education that includes seminars, presentations and participation of academic conferences, and non-formal education methods like internet, video, DVD, mail and fax, all of which are being accepted as part of CPD. Seventh, along with the institutions that implement CPD for four professions, there are other institutions that have been executing education training. Eighth, in order to develop CPD, plans are being made such as increasing the number of advertisements and mobilizing e-learning plans to encourage participation.

The contents of the 'Current Situation Analysis Framework for CPD of Certified Professionals' were analyzed by examining Germany, the United States and Japan. In the case of Germany, first, CPD for medical doctors was stipulated earlier than for accountants (CPA), whereas the amount of time for CPA was stipulated in 2008 for accountants, and in 2004 for medical doctors. This implies that there were no CPD regulations for CPAs until quite recently. Second, the matter of legal obligation has taken effect for some time for CDP in all forms, and this continues to be emphasized, but CPD for accountants and lawyers is neither as systematic nor as structured as CPD for medical doctors. Third, by looking at the quality of CPD, CPD for doctors has a specific guideline that provides information being mandated so that there is a systematic and orderly education method, but such a management system does not exist in CPD for accountants. Fourth, another important dimension in looking at the quality of CPD is in its administration, and in this regard the CPD office exists for doctors through the CPD Committee under the Federal Commission of Medical Doctors. Fifth, there are differences in each profession in terms of the penalties given to the certified professionals who do not comply with CPD. Sixth, looking at expense support for CPD, accountants and lawyers pay expenses for CPD individually, but medical doctors, specifically employed doctors, receive expense support from their employer.

In the United States, first, there are guidelines and regulations on CPD in each of the professions. Second, an accountant needs to complete 40 hours of CPD every year, while medical doctors need to complete 50 credits. Third, for those who violate the profession's duty, accountants are penalized by having to suspend their duties, lose their license, and pay a fine. If a lawyer does not receive CPD, they will receive a special penalty. Professional engineers manage through autonomous guidelines rather than duty obligations. Fourth, there is a statement procedure for accountants in order to get their credits accepted. In particular, we need to pay attention to the fact that there are standards for executing CPD. Although we cannot say that all four professions that are researched here execute a standard in CPD, the CPD for American accountants has standards that need to be directed in order to develop CPD.

For Japan, first, the length to complete CPD duty for doctors and lawyers is shorter than other certified professions such as accountants and professional engineers. Second, without any legal duties, all four professions have operated a form of CPD, and there is a situation in which there is no legal evidence for medical doctors compared to the other three professional qualifications. Third, there is a difference in terms of the penalty received for those who neglect the duty of CPD. For medical doctors and professional engineers, the penalty is insignificant for those who did not earn CPD. On the other hand, accountants and lawyers have legal clauses that provide a penalty to those who have not earned CPD. Fourth, there is a system for e-learning in all four areas. Fifth, there are basic contents for the qualifications in CPD, while there are professional contents for advanced knowledge and professional techniques. Sixth, a variety of academic methods are being accepted as CPD activities. In order to get accepted in CPD activities, different activities are offered, such as attending lectures that cover foundational classes, seminars, participation of learned society, lectures and training.

Next, we look at the current situations and problems of Korea's CPD, and discuss on the plans to make improvements. First, there is a necessity to improve on the notion of CPD, as well as to improve its infrastructure. Not only is there a need to reinforce the related clauses on the professional requirements law of CPD, but it needs to be systematized. While there are different terminologies used among the professionals, all professions need to

follow the same terminology, "CPD." Second, it is necessary to have a cooperative system between professional associations and universities that will arrange the curriculum of CPD and standardize the credit recognition framework. By connecting with the academic results from the inside and outside learning in colleges and universities, there needs to be CPD management and operation structures that connect with the university degree. Third, there needs to be quality management for CPD's implementation organization. Henceforth, by looking at how CPD will become revitalized, it is easy to predict that different organizations will continue participating in CPD, and thus it is necessary to develop standards that fit domestically in order to fit well into our society. Fourth, for those who receive CPD, there must be periodical analyses and a development of curriculum that relies on the results of these analyses. It is also necessary to establish various kinds of delivery structures and forms of execution. Fifth, it is necessary to prepare a support system of expenses for attending CPD. There could be a possibility that the government could directly support CPD recipients, and it is also possible to provide incentives like reducing tax for companies that support employers by paying CPD expenses. Sixth, stronger preparation is needed to rationalize CPD promotion by also including recertification for qualification. Considering how CPD has been reinforced globally, it is necessary to validate the methods to activate CPD by benchmarking international standards. This can be done by connecting to a system that recertifies CPD for professional qualifications.

A Study on the Vocational Competency Development Plan as a Change in the Working Age-Limit System

Eui-Kyoo Lee, Tae-Yeong Kim, Gi-Seung Kim

1. The background and necessity of the research

The maintenance and intensification of corporate competitiveness in the aging society depends on the application of an aged labor force. Moreover, the existing age-limit system needs to be reconsidered from the dimension of social security as the annuity age extension of the national annuity is expected.

With the aging of the population being recognized as a pressing issue, the Korean Government established the "Low Childbirth and Aged Society Basic Plan" in May of 2006, and the "Aged Employment Promotion Basic Plan" in July of 2006. In addition, they examined the introduction of the stepwise age limit obligation system connected with the age extended plan of the national annuity in 2010. Accordingly, the Ministry of Labor has actively propelled the retirement age extension system through means such as paying 'incentive for extension of retirement age' to corporations that extends the working age limit by more than one year since 2008.

Major advanced European countries are planning to extend the normal retirement age from 65 to 67 (Sweden) or 68 (United Kingdom) through pension reform. The extension of retirement age with manufacturers and large enterprises at the center is a trend that has continuously increased, as it accords with the position of the enterprises that are trying to secure sufficient labor power due to the phenomenon of shunning production jobs and the demands of workers for employment stability.

Moreover, the corporations can have difficulty maintaining the stable operation of organization, because elderly workers, compared to the younger group and middle-aged group, have sharply degraded physical and mental functions. In this realistic situation, the method for the employment maintenance of an aged person is to introduce the wage peak system, in which the wage level of an aged person is adjusted according to productivity.

Therefore, the government must seek a Vocational ability development solution that enables elderly workers to improve their

capability and reach a quality level that enables them to maintain their careers as skilled workers in professional fields. In this context, it is necessary to carefully analyze and examine the aged labor market policy of advanced countries, to plan for economic strength by achieving a harmony of the Vocational ability development with the extension of the retirement age.

2. Research results

If time of the retirement of elderly workers is extended with the introduction of the extension of the retirement age and the wage peak system, the concern about the life planning of the second through the Vocational ability development will be enhanced.

This has to be appropriately utilized, in that it induces the minimum income guarantee and social activity participation of the aged. However, it is difficult to activate the Vocational ability development participation of an aged without the formation of a cooperative relationship between enterprise and government.

Accordingly, efforts are required in order to activate the Vocational ability development participation of the aged. First, the employment link customized training has to be expanded. Second, the former support services intensification and transport system has to be reorganized.

Third, the aged training center establishment and designation of related institutes has to expanded. Fourth, the infrastructure for the aged Vocational ability development has to be improved. Fifth, the type of occupation fit for the aged has to be developed.

A Study on Developing a Training Program for CEOs of Small- and Medium-Sized Enterprises to Promote Understanding of the Importance of Human Resources Development

Tae-Joune Park, Yeo In Yoon, Cheol-Il Lim, Dae-Yeon Cho

In the knowledge-based society of the 21st century, the CEOs of small- and medium-sized enterprises must perceive the importance of human resources development in order to maintain and enhance the competitiveness of his or her company. For this reason, we need good human resources development (HRD) training programs for the CEOs of small- and medium-sized enterprises.

In this study, we have applied a rapid prototype of instructional systems design, which is recognized as a very useful and efficient method of developing training program for small and medium enterprises.

The final training program is as follows:

week	contents		hour
1	orientation	· opening ceremony · introduction	5H
2	understanding HRD	· environmental change of small and medium enterprises	5H
3		· change of HRD paradigm · HRD in the age of globalization	5H
4		· HRD and the CEOs of small and medium enterprises - theory and practice of HRD	5H
5	HRD system	· HRD system Ⅰ - overview	5H
6		· HRD system Ⅱ - determining of HRD objectives and strategies	5H
7		· HRD system Ⅲ - HRD organization and management	5H
8		(company visit) * a case of company with successful HRD	5H
9	organizational culture and HRD strategies	· understanding organizational culture - understanding between organizational members - evaluation method of organizational culture - a case of a company with a successful organizational culture	5H
10		· organizational development - diagnosis of organizational efficiency - application of HRD strategies	5H
11		* a case of company with successful organizational development	5H
12	performance and change management	· ROI and practice Ⅰ - evaluation of training - analysis of management output	5H
13		· ROI and practice Ⅱ - costs measurement of HRD program	5H
14		· appropriate portion of training and on-the-job training	5H
15	wrap-up	· presentation of teams performance · completion ceremony	5H

A Study on Human Resources Development to Create a Strong Nation in the Area Knowledge Services

Kyeong-Jong Kang, Nam-Chul Lee,
Sang-Don Lee, Yeo-In Yoon

1. Research Summary

The purpose of this study was to develop general directions and necessary tasks of human resource development that would transform Korea into a powerful nation in the area of knowledge services. Related concepts and current status, training & development and qualification systems, and human resource development policies and infrastructures were analyzed in industries such as medical services (global healthcare), education (global education services), finance (sustainable finance, which is also called 'green' finance), tourism, and culture.

2. Concepts, Scope, and Characteristics of Knowledge Service Industry

The knowledge service industry is a core industry in the service economy with high added value, a service industry with a high investment utilization rate in R&D, IT, and high-quality human resources, and a high added value service industry based on professional expertise. Considering the 'New Growth Momentum Policy' of the Korean government, the knowledge service industry in this study included global healthcare, global education services, green finance, contents & software, and MICE & tourism.

Human resources in the knowledge service industry must possess merged professional knowledge and create high added values. The competencies required by human resources in the knowledge service industry can be categorized into common competencies and area-specific professional competencies. Common competencies are the competencies required by all human resources in the

knowledge service industry, and consist of planning & marketing competency, sales & service competency, and R&D competency.

3. Supply and Demand Prospects of Human Resources in the Knowledge Service Industry

From2009-2018, the supply of human resources in the knowledge service industry is expected to exceed 611,000 people, which means that there will be an oversupply of 61,000 people per year. Over-demand is expected only in the culture industry.

Even though the human resource demands in the other four industries such as healthcare, education, finance, and tourism are expected to increase, oversupply might provoke some problems. The government should reduce the assigned entrant number of the formal education programs related to the four industries, publicize the expected decrease of employment opportunities in the four industries, and lead students who intend to pursue careers in the four industries to other career tracks, while providing career transition programs for human resources already in these fields.

For the culture industry, which expects over-demand, the government should publicize the expected increase of employment opportunities in the culture industry to teachers, career counselors, parents, students etc., leading students to culture-related majors and increasing the supply of human resources in the culture industry through formal education institutes, and provide training programs for incumbents the outside culture industry and for the unemployed.

4. Human Resource Development Strategies for the Medical (Global Healthcare) Industry

The medical (global healthcare) industry produces and provides services related to medical treatment and the promotion of health in hospitals and public health centers. To develop human resources in the medical(global healthcare) industry, the following suggestions were presented: 1) Domestic medical institutions should be globalized for foreign patients. A national accreditation system for medical institutions corresponding international standards should be introduced, and the government should support domestic medical institutions in

acquiring international accreditation; 2) Authorities establishing medical institutions should be expanded to insurance companies/agents, and educational programs should be delivered to medical human resources from developing countries and 3) Exclusive task forces for foreign patients, such as medical interpreters, international medical coordinators, etc. should be cultivated, and a network providing medical information of competing countries should be established.

5. Human Resource Development Strategies for the Education (Global Education Service) Industry

The education (global education service) industry produces high added value education services by merging educational infrastructures, such as the u-learning infrastructure. To develop human resources in the education (global education service) industry, the expansion of student exchange programs for the diversification of foreign students, the reinforcement of promotion, and the improvement of the settlement and study conditions for foreign students are required. Attracting foreign higher education institutes and a constructing quality management system in education industry are necessary in an age of intensifying global competitiveness. R&D human resources infrastructures and facilities and financial infrastructures are necessary to construct a competitive educational infrastructure.

6. Human Resource Development Strategies for the Finance (Green Finance) Industry

Finance(green finance) means financial support for the "Low Carbon Green Growth" policy of the Korean government as well as new finance simultaneously pursuing environmental improvement and the development of the finance industry. To develop human resources for the finance(green finance) industry, the following strategies were presented: 1) Detailed human resource development and utilization polices should be developed for financial support to the greenhouse gas reduction, new recycling energy, and environment-related industries; 2) The green finance accreditation system, the investment information system, and the performance evaluation system should be developed and

improved as institutional, technological, and human infrastructures that activate green finance; and 3) Green investors and professional human resources should be cultivated, in addition to educational institutes for practitioners who can support high-level operations and back office human resources.

7. Human Resource Development Strategies for the Tourism Industry

The tourism industry provides tourists with services such as transport, lodging, food, sports, entertainment, and rest. MICE industry is an acronym for Meeting, Incentives, Convention, and Exhibition industry. To develop human resources for the tourism industry, the following strategies were presented: 1) Practice-centered professional human resources should be cultivated by utilizing academic-industrial collaboration; 2) Current qualification systems should be changed to improve job performance and to contribute to career development; 3) Business circles and academic circles should participate in developing tourism professionals; 4) The legal basis for the continuous education of local government officials and residents should be legislated; and 5) An institutional ground for mid- and long-term tourism human resource management strategies should be developed.

8. Human Resource Development Strategies for the Culture Industry

The culture industry is a service industry to plan, develop, produce, distribute, and consume cultural products, while the software industry is a rather confined concept related to software. To develop human resources for the contents industry, the following strategies were presented: 1) Quality control, not quantitative expansion, is necessary for human resources; 2) By creating secure working conditions, the demand and supply mismatch could be solved; and 3) The human resources should be led to continuously develop their own competencies. Excellent human resources in software industry could be recruited from China, India, and Russia, as well as from the developed countries such as United States. An educational system that provides new technologies such as software development methodology, architecture, etc., should be established for new and experienced human resources.

9. Directions and Necessary Tasks of Human Resource Development to Create a Strong Nation in the area of Knowledge Services

The final goal of this study is to build Korea into a strong nation in the area of knowledge services. The main direction pursued to achieve this purpose is to create and to secure competitive human resources. Human resources in knowledge services should merge the necessary forms of knowledge and create high added value. They should have professional knowledge, and communicate in complex situations. Common competencies in planning & marketing, business & services, and R&D, as well as area-specific professional competencies are necessary for these human resources. A holistic system for cultivating, utilizing, and managing the human resources should be constructed. This system consists of training & development, qualification, policy, and infrastructure in five industries.

Four areas of policies were identified for developing common competencies: 1) Establishment of the foundation for cultivating world-class, high-level professional human resources; 2) Expansion of the support for knowledge services R&D; 3) Improvement of the infrastructures for supporting knowledge services human resources; and 4) Improvement of the mind set of knowledge service policy persons in charge. Ten specific tasks were suggested for developing common competencies, and twenty tasks, which are industry area specific, were proposed.

Current Status of Korea's Regional Human Resources Development Policy and Future Tasks

Il-Gyu Kang, Nam-Chul Lee, Yong-Hyun Kim

1. Background and Objectives of the Study

At this, the dawn of the 21st century, Korean society can be said to have entered a transitional period characterized by notions such as globalization, informatization, and localization. In this regard, localization has served as a launching point for a new round of democratization and the facilitation of globalization and informatization. In addition, localization has been carried out by local autonomous entities in accordance with the concept of regional development as the foundation for national development. Along with these changes that have taken place at the macroscopic level, society has also been faced with a new growth and development paradigm characterized by the notion of low-carbon green growth. In this new environment, the development of human resources has come to play an even more enhanced role in the invigoration of regional industries and economic growth. As such, the time has come for both central and local governments to pay increased attention to the development of human resources and the support thereof. Here, various elements which greatly influence regional development can be suggested. That being said, the securing of human resources and the improvement of the quality of human resources remain key elements that cannot be ignored. To this end, the activation of a regional human resources development (HRD) policy requires the following: an analysis of the current state of such policy, the establishment of a regional green growth human resources development (HRD) system that is based on the notions of specialization and necessity, and the effective management of this system as a tool for regional development.

Based on the above-mentioned background and the need for human resources development, this study analyzes the external and internal elements associated with the current state of regional human resources development policy. It also introduces some of the measures needed to effectively implement policies and projects related to regional human resources development, and suggests the future tasks which the central and local governments, as well as the other main

actors in charge of regional human resources development (HRD), will have to address.

2. Problems in Terms of the Current State of Regional HRD

The first problem can be identified as the extensive overlap between related fields. More to the point, HRD programs, such as those related to vocational training, lifelong learning, and women's HRD have been intertwined and implemented at the regional level in accordance with the laws and regulations drawn up by various government departments and the financial resources of the same. The legal basis for these HRD programs has included the Human Resources Development Act, the Lifelong Education Act, the Vocational Education and Training Promotion Act, and the Basic Employment Policy Act. Although a few years have already passed since regional HRD was first implemented, the debate over the significance, concept, categories, and even the main actors involved in such regional HRD has continued unabated. It is amidst such debates that the identity of regional HRD has been forged. Regional HRD has encompassed a variety of fields such as vocational education, lifelong education, job training, industry-academic cooperation, HRD, and manpower supply. The issue of who should be the main actors involved in the implementation of regional HRD has also proven to be a contentious one. As far as the fields associated with regional HRD are concerned, there has been a clear overlap between education and the distribution and use of HR. The development of regional HR has also resulted in the raising of questions regarding the nature of such programs.

The second problem is that of the lack of functionality, at the regional level, of the implementation system for regional HRD. The weakness of the legal basis and functions of regional level HRD Councils has resulted in the absence of a basis for cooperation, and even of the power to implement policy measures. While HRD Centers have been in charge of the majority of the tasks, including the planning and exercise of HRD projects, city halls and provincial governments have failed to aggressively involve themselves in such endeavors. The fact that the majority of those who are in charge of regional HR-related organizations also carry out other functions has greatly increased the likelihood of the relevant tasks being carried out in a disjointed manner because of personnel shifts, and has also impeded the effectiveness of regional HR, which

requires a steady approach.

The third problem revolves around the absence of any clear perception of regional HRD and of the necessary specialization. Here, the fact that many cities and provinces have failed to perceive regional HRD as their domain has resulted in a failure to establish the necessary departments and to appoint the personnel in charge of such tasks. Government officials' lack of specialization, a denouement which has been occasioned by a general lack of interest or understanding of regional HRD, has also impeded the activation of regional HRD.

The fourth problem that can be identified is that of a lack of general coordination amongst the heads of local autonomies. Although interest in, and demand for, HRD have gradually increased, the absence of the necessary legal mechanisms has resulted in the heads of local autonomies being unable to play the coordination role assigned to them. There has also been insufficient support for and investment in the activation of HRD policy. What's more, the HRD projects, which began in earnest in October 2004, have suffered from the general absence of a legal and institutional basis as pertains to the scope of their activities, methods, and related activities. Furthermore, the ambiguous nature of the scope of the legal and institutional bases has resulted in lowering overall effectiveness.

3. Assessment

The know-how and experience accumulated as part of the regional HRD projects implemented over the last five years has led to the formation of a consensus amongst regional organizations with regards to the importance of regional HRD, and to a growing understanding of HRD amongst local populations. These projects have also contributed to the establishment of basic HRD implementation plans, the establishment of integrated DB that are based on regional demand, the introduction of regional visions for HRD, the design of regional-based HRD links with industrial clusters and regional innovation systems, and the forging of RHRD cooperation systems with associated organizations such as universities, research institutes, and local governments. They have also created opportunities, through the development of pilot projects and policy tasks, to perceive regional HRD as an important undertaking. In turn, the development of pilot projects related to HR issues at the regional level has

contributed to the development of human resources in the various regions, the inducement of local residents' participation in HRD policy, and the activation of regional economies and improvements in overall quality of life.

As future HRD projects cannot be expected to produce short-term results, the debate over the overall effectiveness of HRD projects as a whole will continue to rage. This can be regarded as a potential pitfall, of which the planners of regional HRD projects must inevitably be aware.

4. Changes in the Regional HRD Policy Environment and Future Tasks

The active implementation of policies related to green growth the world over has resulted in various green growth-related changes being wrought upon fields such as industry and culture in Korea. Under these circumstances, the labor market has also responded flexibly and begun to change. These changes in the labor market are evident at the industry, technology, development and use of human resources, and infrastructure levels.

The core issue of green job creation involves more than simple job creation; rather, it is concerned with the creation of environmentally-friendly jobs. According to the International Labour Organization (ILO) and the United Nations Environment Programme (UNEP), green jobs encompass positions in agriculture, manufacturing, construction, installation, and maintenance, as well as scientific and technical, administrative, and service-related activities, which contribute substantially to preserving or restoring environmental quality.

Next, there is also a need to establish HRD policy that can be linked to the development of mega-regions. As part of its regional integration scheme, the Korean government has implemented a 5+2 mega-region development policy. The rapid expansion and development of transportation and communications has resulted in a swift widening of the life sphere of Koreans and existing administrative districts. As a result, many changes are expected to occur in terms of the development and use of human resources. To this end, it is expected that the linking of regional HRD policy with this 5+2 mega-region development scheme will help to heighten the overall effectiveness of regional HRD policy.

5. Main Tasks Related to Regional HRD Policy

First, the related elements should be not only maintained but improved. In terms of the development of regional HRD policy and projects, it is essential that the strong points be emphasized and the weak points supplemented, and that opportunities be seized and potential pitfalls eliminated. To this end, coordination and cooperation amongst the various government departments concerned is essential.

Second, the roles of regional HRD should be strengthened at the regional level. In order to attain the goals for Regional HRD Support Centers, R&D competencies must be strengthened, with HR policy-related research institutes at the center of such efforts, and a system in which Regional HRD Support Centers can play the role of a hub for regional HRD must be established.

Third, there is a need for increased cooperation between the central and local governments. In terms of the direction of regional HRD policy, the central and local governments must begin by cooperating with one another in the transformation of Regional HRD Support Centers into network brokers capable of forming regional HRD networks. The Regional HRD Support Centers should provide the kind of policy-making support needed to develop a common consensus amongst local residents. Then, based on a common consensus amongst the managers of Regional HRD Support Centers, RHRD research meetings should be conducted on a regular basis so as to identify cooperative projects which can be undertaken with other organizations, develop a common perception about regional HRD and ways to share information about the same, and establish a virtuous cycle that can provide feedback to the national HRD system.

Lastly, there is a need, based on the notion of top-down HRD policy, to ensure that policy cooperation takes place between the central and local governments.

6. Conclusion and Future Suggestions

This study analyzed the current state of regional HRD policy, and also introduced a policy direction and tasks which reflect the changes that have taken place in the relevant environment. The inauguration of a new government has resulted in the advent of a new environment for regional HRD policy. The new environment has created many changes and raised many new challenges. To this end, this study suggests that the following steps be taken to ensure sustainable

development and the improvement of regional HRD.

First, a new model of human resources as relates to regional HRD must be introduced.

Second, the education & training programs needed to decrease the gap in the skills required to bring about green growth must be implemented.

Third, the development of the human resources required for green growth is predicated on enhanced industry-academic cooperation at the regional level.

Fourth, human resources should be expanded through the increase and activation of global cooperation.

Fifth, regional HRD policy should be linked with the 5+2 mega-region development policy.

Sixth, as far as the development of regional HRD policy and projects are concerned, it is essential that the strong points be emphasized and the weak points supplemented, and that opportunities be seized and potential pitfalls eliminated. In addition, a cooperation system involving organizations should be established based on an objective analysis of the current state of HRD at the regional level. Moreover, this cooperation system should be institutionalized.

Seventh, rather than establishing a unilateral governance system, the Ministry of Education, Science and Technology should focus on suggesting guidelines for regional HRD. Moreover, independent HR models in which local autonomies, industries, and universities have a role in the forging should be established. These models should take into consideration such aspects of regional society as the industrial structure, HR structure, and the local economic environment.

Eighth, the roles of regional HRD must be strengthened at the regional level. In order to attain the goals of Regional HRD Support Centers, R&D competencies must be strengthened, with HR policy-related research institutes at the center of such efforts.

Ninth, increased cooperation between the central and local governments is essential. In terms of the implementation of regional HRD policy, it is essential that Regional HRD Support Centers be transformed into network brokers capable of forming regional HRD networks.

Lastly, the ongoing changes in the policy environment for regional HRD require a new paradigm. As such, it is necessary for the government, as well as the private sector, to proactively respond and prepare for these changes.

Vocational Education Reform 2020

Tae-Hwa Jung, Jong-Ho Jeon, Kwang-Pyo Hong
Kil-Soon Lee, Byung-Wook Lee

1. Purpose of Study

Korea's vocational education system has contributed to the outstanding development of the economy by meeting the needs of manpower from industries. However it does not currently respond actively to the various needs of the knowledge-based society, the changing labor market, the changing population structure, and the advent of life-long learning society.

This study aims to analyze the current situation of the vocational education system, and explore reformative initiatives and tasks that the government and vocational education institutes need to pursue in order to cope with the changes and needs of society.

Reformative initiatives and tasks recommended for the government in this study are to be fulfilled in 2020.

2. Methods and Procedure

This study adopts several research methods. A review of the related literature is carried out, focusing on the problems of the vocational education system.

A series of conferences were held with government authorities, vocational educators, and authorities from industries with a view to developing reformative initiatives and tasks for the reform of the vocational education system.

Finally, a seminar was held to present the outcomes of this study, and to discuss the feasibility of the proposed initiatives and tasks.

3. Major Findings

The major findings of this study are as follows.

Firstly, the major problems of the vocational education system include the rigidity of the school system (single ladder system), students' preference for general education and university entrance, the low level of students' academic

achievements, the supplier-driven nature of the education provided, the insufficient quality of vocational educators, the weak relationship between schools and industry, and the insufficient support of the government.

Secondly, changes in our society strongly suggest the need for the reform of the vocational education system. Due to the continuing decline in the natural population in recent years, the school-aged population has also been experiencing a downward curve. This situation has been assumed to have a significant relationship to decreased investments, a decline in diversified curriculum and facilities, lagging innovation in administration, and the reduction-in-force of educators. Accordingly, vocational education institutes need to reduce the size of their student admission quotas. The change of the national economy from the manufacturing industry to the service industry implies that courses in vocational education institutes need to be changed accordingly. Manpower projections for the graduates of vocational education institutes imply that the labor market will require workers with more than a high school education. This shows the need for a reduction in the size of student enrollment in vocational high schools, as well as the need to review the appropriateness of the school years system (2 ~ 3 years) in vocational colleges.

Thirdly, while pursing the reform policies for vocational education system, the government has neglected several strategies, including suggestions for future visions and goals, sufficient review of the feasibility of policies, emphasis on the vertical and horizontal linkages in vocational education system, flexibility and autonomy of management authorities including schools and provincial boards of education, and sufficient administrative and financial supports. This experience implies that the government needs to prepare systematic strategies for the management of reform policies in order to gain more fruitful outcomes in the future.

4. Policy Recommendations

A set of reformative initiatives and tasks are suggested to cope with the need to reform the vocational education system.

Firstly, the concept of vocational education needs to be changed to cope with the changes in Korean society. For this purpose, the government needs to amend article No. 2, which stipulate the definition of vocational education and training,

in 'the Vocational Education and Training Promotion Law,' to include the concept of life-long education, and to emphasize the linkage between vocational education and vocational training.

Secondly, the vocational education system needs to be reformed. The government's reformative initiatives need to include reform of the whole school system, types of high schools including types of major track in vocational high schools, and redefinition of the identities of vocational colleges and vocational high schools.

Thirdly, the government's reformative initiatives need to be focused on stakeholder-oriented approaches. To this end, the government needs to implement various policies to meet the needs not only of students but also of industries. In particular, the government should strengthen the relationship between schools and industries.

Fourthly, the globalization of the vocational education system is required to maintain international competitiveness. The government should offer administrative and financial support to vocational education institutes to help them attract overseas students to Korea, and send graduates to get jobs in foreign countries.

Fifthly, the restructuring of vocational education institutes needs to be achieved. The government needs to forecast the proper size of student enrollment according to the continuing decline in the natural population and the demands from the labor market. Following these efforts, the government also needs to promulgate 'the Special Law for School Closing' to help those schools facing serious difficulties to close their school system.

Method of Strengthening the Competencies of Vocational Education Institute Teachers - Focusing on Vocational High Schools -

Ki-Hong Kim, Myung-Hee Jang, Jong-Woo Kim

1. Overview of the study

This study is designed to present comprehensive improvement and enhancement methods from the perspectives of nurturing education, enhancing the educational system, and improving policy, by investigating the competence of vocational education teachers in vocational high schools, and identifying the competence levels of each teacher based on an examination.

2. Understanding the importance of strengthening the competence of vocational education teachers

The qualities and capabilities that are required of teachers in the knowledge-based information society include professional competence, pedagogical expertise, understanding of technology, capabilities in organization, cooperation, flexibility, and mobility. Professional competence and quality are indicated by a teacher's behavioral characteristics, and encompass the knowledge, technology, and attitude that are required for someone to effectively play the role of a teacher. A teacher's competence and quality should be maintained and developed continuously. That is, the professional quality and competence acquired before a job assignment and during the nurturing stage can be changed, as the job competence required of teachers and the tasks required to be performed change in association with changes in the social environment, in technology, and in the labor market. Therefore, teachers are required to engage in continuous efforts to develop their skills after taking a position.

Summarizing the concept of the competence that is required of vocational training teachers, teachers are required to have competence in terms of specialized knowledge and technology (teaching and learning methods, education content of specialty class, general knowledge of pedagogy); job performance

competence at the practical competence level (class activities, school operations, student guidance, class management, and educational course development and operation); capabilities in the area of academic-industrial cooperation and association with the local community; capabilities in study and research activity participation to improve their own specialization at the self-development level; capabilities from an appropriate professional teaching viewpoint; and talent and human nurturing at the value system level.

3. Status of vocational education teachers and analysis of the teacher education system

Strengthening the competence of vocational education teachers in vocational high schools is vital to securing the educational competitiveness and identity of those schools. About 300 vocational high schools have already become specialized high schools, and 50 schools will soon be designated as Meister Schools. It is inevitable that the teacher nurturing and training procedures, which determine the quality of teachers, should be improved. The issue of strengthening the competence of vocational training teachers in technical high schools should be handled appropriately, both during the nurturing phase before employment, as well as in the training phase after appointment.

Therefore, the professionalism of vocational education teachers in vocational high schools should be re-defined, and the responsibilities of such teachers must be expanded through this re-definition. In addition, policy for teacher selection and for the improvement of the appointment examination should be discussed from the standpoint of strengthening the professionalism of vocational education teachers in vocational high schools and increasing their levels of responsibility.

4. Analysis of the educational system for vocational education teachers in other countries

When we summarize the recommended points that for discussing training for vocational education teachers in Korea using U.S. cases in relation to the enhancement of the competence of vocational training teachers, we need to standardize the type of competence items required from vocational education

teachers, and consider initiatives such as restructuring the teacher qualification system and increasing field experience requirements.

In this area, Japan has considered a range of questions, such as, “What is the role that schools should play in the community?” “What is the appropriate position of the organization’s operational system for performing the required roles efficiently and effectively?” and “What is the intrinsic job of the teacher?” These issues affect the base of school education, and a more comprehensive review is needed. In this method, Japan discussed policy related to job performance criteria for teachers, eventually leading to concrete plans.

When suggested points are elicited from the study of job performance capabilities and roles, and the teacher training system of German teachers is examined with regard to this study, the teacher’s role and job performance capabilities should not be limited to the role of transferring simple basic functions and related knowledge according to a pre-defined timetable, because structural changes can take place in society. In addition, Germany presents standardized competencies in eleven areas that are required from the teacher at the teacher nurturing stage, which covers the topic of job performance. These eleven standardized competencies should be acquired at the theoretical education stage and at the practical training stage. In addition, the teacher qualification and appointment system should ensure that a teacher’s theoretical knowledge and practical capabilities can be verified. In Korea, teachers are required to pass an appointment examination after completing teacher training, but the system is lacking in terms of verifying practical capabilities in association with actual school teaching.

5. Research and analysis of the actual conditions and awareness of the competence levels of vocational education teachers and improvement of the teacher training system

It was found that most vocational education teachers feel the need to increase their competence, such as securing professionalism regarding their specialized knowledge and technical abilities, nurturing practical capabilities for job performance, and increasing their adaptability levels with regard to changes in the vocational training environment (professional development). Among these,

teachers feel the need to develop their “practical capabilities in job performance” the most, because they have to provide changing training schemes to their students. They also feel the need to enhance their competence in the area of self-development efforts, because they perceive that they might lose educational competitiveness if they fail to study their current job continuously.

In addition, experts in industry fields were asked about the competence of current vocational education teachers. They answered that the overall competence in relation to job performance of the teachers associated with their industry was below “medium” level. They pointed out several reasons for this, such as lack of practical professional development opportunities for teachers, and indifferent attitude held by some teachers toward professional development. In other words, they indicated that vocational education teachers lacked “self-development efforts to respond to changes in vocational training.” Therefore, teachers need to receive training in order to improve their professionalism, risking losing their educational competitiveness if they fail to continuously receive job training related to their field. Industry field training should be provided to as many teachers as possible.

6. Methods for improving and strengthening vocational education teachers

Based on this study, the government needs to develop differentiated job performance criteria (draft) for vocational education teachers in each field in technical high schools in order to strengthen the competence of vocational education teachers. If the job performance criteria of vocational education teachers in each field at technical high schools are the macroscopic criteria, the “competence development standardization guide for reserve teachers” refers to the competence criteria that must be learned by reserve teachers during nurturing education. It is desirable to standardize the “competence development standardization guide for reserve teachers” for each job performance area when the job performance criteria for vocational education teachers in each field at technical high schools are developed.

In addition, the middle and high school teacher nurturing system needs to be supplemented or reviewed so as to improve educational specializations related to specialties and industrial applicability among vocational education teachers in

technical high schools. Firstly, the role of teacher's colleges (departments), which are an objective-type system, needs to be supplemented by specializing colleges with a focus on an industrial area. This should be maintained at the national level and high-demand qualifications for each field in vocational high schools in order to differentiate and specialize the nurturing of professional course teachers in technical high schools. Secondly, switching from "completing the teacher's course at teacher's school" to "undergraduate school for nurturing professional course teachers at vocational high schools" should be reviewed from a long-term perspective, by specializing courses provided by the existing undergraduate schools of education.

In addition, the teacher nurturing qualification and appointment examination should be changed to resolve the problems related to the appointment of professional course teachers at technical high schools. Firstly, the middle school teacher qualification is currently given to college graduates without any examination for official approval. It would be desirable to require teacher's college graduates to complete a field practical training course in undergraduate school, or to undergo practical training for one year after the first examination after graduation, before taking the second examination. When the graduate passes the second examination, a teacher's qualification can be given, ensuring the authority and quality of the teacher's qualification. Secondly, the introduction of an apprentice teacher system needs to be reviewed, with the aim of enhancing practical field capabilities in education and in industry. Thirdly, teaching capabilities need to be standardized and assessed at third examination according to the qualification criteria of the subject. In addition, the educational direction should be set in such a way that the student's career after graduation can be balanced between employment and the continuation of studies, increasing the educational competitiveness of technical high schools. To achieve this, more practical training needs to be provided in addition to theoretical education related to the major. The quality of field education depends on the competence of the vocational training teacher, which in turn depends on how sincerely trainees undergo industrial field practice related to their major during their teacher training. Therefore, teachers of specialized courses should be appointed from candidates with experience in the field. For this purpose, experience in the field should be included and presented in the qualification criteria, and an appointment examination procedure should be prepared to verify the quality and competence of the field-experienced applicant. In addition, the method for

requiring the applicant to complete the course at the education undergraduate school or special study program for a certain period of time should be considered, in order to enhance the quality of teachers.

It is also desirable to establish a "central training institute dedicated to vocational training" that reflects the characteristics of middle-level vocational training, or to outsource the organization for each industry center to run a "specialized dedicated training institute for each region." This will enable increase in field training for new technologies according to changes in the labor market, ensuring that training is properly connected to qualification training or job training. In addition, for the field experience study for professional course teachers at technical high schools, the study program needs to be amended from a shorter (within 1 week) to a mid-term (1-3 months), or a longer term (6 months-1 year). Also, teachers should be obliged to receive field training on a periodic basis (every 2 or 3 years) as long as they remain active teachers. As training for vocational training teachers in technical high schools is mainly offered by training institutes of municipal or provincial education bureaus or community training institutes annexed to colleges. A standardized assessment system for these institutes need to be developed, in order to verify the appropriateness of these institutes as specialized training institutes. Because most teachers have low interest in voluntary participation in professional development, the arrangement of systems at the nurturing and study stages are necessary. However, instilling a consciousness of participation is currently more important, as this will help increase the competence of professional course teachers at technical high schools. Encouraging voluntary participation to promote voluntary competence improvement requires the obligatory completion of field education or training for a certain period of time every year at the government, city/provincial education bureau, and school levels. It should also be considered that training course completion should be reflected in a teacher's competence assessment.

As described above, policies should be established and improvement methods needs to be sought from the following essential considerations so as to provide a solution to the various problems that have been identified in the current system, by analyzing the nurturing and training system for professional course teachers, and by strengthening their competence as professional course teachers in vocational high schools.

Firstly, an understanding of the necessity for change should be diffused

among all teachers from the perspective of securing specialization in their major knowledge and technology areas, increasing their practical capabilities regarding job performance, and improving their adaptability to a changed vocational education environment, strengthening their competence as professional course teachers at technical high schools. Secondly, the improvement of the nurturing of professional course teachers in technical high schools should be a tool for possessing basic job performance capabilities, such as majority education specialty, theory and practical competence associated with the industry field, and desirable occupation value, required to enter into the teaching profession. Thirdly, the improvement of a selection and appointment system for professional course teachers at vocational high schools should be considered a means of securing outstanding reserve teachers and attracting candidates with experience in the field. Finally, the improvement of the in-service education (training) system for vocational education teachers at vocational high schools should become a means of keeping apace with the changes in education and industry, from the perspective of teacher quality management.

In the results of a survey targeting vocational education teachers at vocational high schools and industry experts conducted for this study, it was found that professional course teachers at vocational high schools were aware that they needed to secure their specialization and strengthen their practical competence in the area of job performance, and they perceived that their competence was currently lacking. However, vocational education teachers at technical high schools have a negative perception about obligatory field education and training for competence improvement. In addition, most teachers continue to have an insufficient perception about the voluntary participation of teachers. The arrangement of a system at the nurturing and study stages are necessary, but instilling a consciousness of participation is currently more important in increasing the competence of vocational training teachers at vocational high schools. Encouraging voluntary participation to promote voluntary competence improvement requires the obligatory completion of field education or training for a certain period of time every year at government, city/provincial education bureau, and school levels. It should also be considered that training course completion is reflected in a teacher's competence assessment.

Vocational education teachers at vocational high schools must have overall job performance competence, including theoretical and practical capabilities, and adaptability in the field. When vocational education teachers at vocational high

schools teach students with education leadership based on educational enthusiasm and competence, vocational training at the middle level can be promoted. As explained, as the importance of vocational education is being emphasized now more than ever, and as the specialization and field experience of teachers become requisite qualities and competencies in coping with such changes, the teacher policy related to vocational education should actively accommodate any external change factor and present a new, more forward-looking vision.

From this perspective, this study proposes the following as a policy to seek improvement, and to strengthen the competence of vocational education teachers at vocational high schools, in order to efficiently cope with the challenges of the knowledge-based society and rapid technical innovation. Firstly, the competencies required for vocational education teachers at technical high schools should be standardized. Currently, the competence criteria for teacher job performance are not standardized, and only some research reports propose candidate criteria. Secondly, the improvement of the nurturing system to strengthen competence of vocational education teachers at vocational high schools should be changed to a system that can maintain the original aim of nurturing teachers who possess the qualities and capabilities to become excellent teachers. For this purpose, a qualitative change is required from teacher nurturing institutes related to vocational training to general colleges offering teacher's courses. Thirdly, stronger field experience requirements should be imposed in order to increase the competence of vocational education teachers at vocational high schools. Fourth, policy should be presented to positively motivate professional course teachers at vocational high schools, so that they can carry out their roles and responsibilities as teachers. In particular, attention should be paid to the introduction of new policies, because government policy can deteriorate educational quality and teaching conditions if it loses consistency. Fifth, consistent policy implementation is required from the level of the central government and the municipal/provincial education bureaus to strengthen the competence of vocational education teachers at vocational high schools. The government's policy for the enhancement of teacher competence should be relevant at the municipal/provincial education bureau and at the school level, and should be operated with consistency. In addition, the educational quality should be improved by establishing a continuous monitoring system with regard to the competence of professional course teachers at

vocational high schools.

Finally, it should be asserted that this study was carried out with many limitations and constraints, including the research period, despite covering many subjects related to professional course teachers at technical high schools. The conclusion of this report presents many approaches, but lacks in concrete details. Therefore, subsequent research on each method needs to be carried out.

Improving the Skills Development Account System

Young-Sun Ra, Ji-Hee Choi, Jin-Young Kim

1. Overview

This study attempted to investigate the policy strategy for improving the Skills Development Account (SDA) system, implemented from the second half of 2008 as a pilot project. We focused on training market trends, monitoring & evaluation issues, lifelong learning career paths, and funding.

Firstly, we analyzed HRD-net DB for identifying new providers, the main target group. Secondly, we conducted an on-site network survey (Regional Labor Office, SDA training providers, non-SDA training providers at the same local area) to help us develop an understanding of the SDA delivery mechanism. Thirdly, we conducted a questionnaire survey among 600 training providers to measure training supply in advance.

2. Main Results

Through the SDA pilot project we found the intended effects at the early stage: the number of training courses was increased, the length of the training courses shortened, and the participants were more satisfied with training services than before. Additionally, many training providers newly entered the training provider market and tried to meet the training needs of job seekers & the job market. Other countries' experiences in training vouchers implied that the job seekers' rights to choose training programs were limited due to insufficient and imperfect information. Also, specific training courses such as cooking and foreign languages were favored among job seekers irrespective of employability. In this regard, it was strongly recommended to provide training counseling on the basis of better information.

The SDA system was not ready to be linked to a lifelong learning career path system because the current HRD-net focused on managing training providers and had not provided customized services for trainees. In the case of SDA funding, it was difficult to estimate the financial requirement at the early stage

of the SDA pilot project. It was desirable to follow the case of the past average year.

3. Policy Suggestions

Firstly, Labor Market Information (LMI) infrastructure should be re-designed to assist in the rational & relevant choices of job-seekers (for example, which training courses were required in the labor market, which training courses result in higher paying jobs).

Secondly, intervention is required between training supply and training demand at the local level. The best strategy at this time may be to relax the ETPL application at the local level. (In the case of some regions, EPPL may be applied as a minimal burden).

Thirdly, a performance management system should be established. Core performance measures are the entered employment rate; employment retention rate after six months; and earnings changes as representative indexes of training performance.

Finally, policy measures are needed to prevent the SDA misuse by job seekers. We recommend that there are limits placed on training opportunities every year.

A Study on the Accreditation System for Training Institutions and Programs

Young-hoon Oh, Mee-souk Kim, Su-won Kim

This study aims to suggest the introduction of accreditation for training institutions and programs to comprehensively evaluate and certify the competence of the institutions and their training courses for dealing with the changing promotions of training institution projects. First, we analyzed that the relationship between the current evaluation system for training institutions, related accreditation systems, and vocational competence development account systems through research into Korea and other countries and through a literature review. We reviewed the accreditation cases for educational training institutions of Australia and the USA and Korea, and then drew from the suggestions of this study through a Delphi survey.

Currently, most training institutions spend large sums of money, manpower, and material resources on the yearly evaluation. However, organizations are more focused on acquiring good grades than actually improving their training quality. Particularly, existing evaluation systems are estimated to lack effectiveness in providing management for the institutions receiving the lowest grades. Also, the operation of the training account system for a few trainees who have accounts causes the continuation of inferior training institutions, because it cannot force the less competent training institutions to withdraw services. To remove these factors and inefficiencies of the training institution evaluation process, the introduction of an evaluation system that can estimate the training organizations' operating competence and training quality should be considered.

These problems suggest that an accreditation system should be introduced to understand not only exact information on the training programs of the educational organizations but also the competence of the organizations at the same time.

According to the results, the goal of the accreditation of training institutions is to guarantee program quality. To achieve this, the accreditation system should expand the options of training programs by ensuring and continually improving training quality, and offering complete and accurate information on the training

contents to trainees. Moreover, the government (Ministry of Labor) should become the main body for accreditation to secure the authority of the accreditation. It is considered that the government agency mentioned is appropriate to act as an accrediting organization.

The objects of accreditation are certified in both job training institutions and their programs, and the most suitable standards are applied to the accreditation considering the goal of accreditation of guaranteeing program quality. The evaluation form is based on an absolute scale, and it simply announces to the public whether an institution was accredited or not. The training organizations' freedom will be guaranteed during the period of accreditation over three years. First and foremost, the outcomes of accreditation will be used as evidence when the government supports training organizations and as a reference point for trainees' program options.

Finally, for the introduction to the accreditation system for training institutions, the legal basis of these practices and the evaluation standards for accreditation will be needed to develop through the following research. As the legal basis, the Workers Vocational Skills Development Act, its enforcement, and its enforcement regulations should be improved, and related guidelines should be also prepared. Moreover, the evaluation criteria for the accreditation system, divided into the evaluation of training organizations' competence and its programs, should be developed for each of the particulars and a valid index for each evaluation item produced.

A Basic Study on Creative Career Paths

Sang-Geun Han, Ji-Yeon Lee,
Na-Ra Kim, Seo-Yeon Park

1. Overview

This study aims to explore those persons who have creative career paths that cross various barriers, such as existing career domains, educational backgrounds, gender, or physical handicap, and so on. The study consists of four main parts:

First, we examined creatively built life-long careers that succeed despite some of the barriers mentioned.

Second, we analyzed the environment, conditions, and concrete processes that tend to mold creative career paths.

Third, we analyzed factors that facilitate persons in crossing existing career domains, educational backgrounds, gender, or physical handicaps, and so on.

Fourth, we prepared back data of creative career paths to help inform others of their choices.

2. Research Method

The main method for this study was in-depth interviews. The interviewees were 13 persons selected in consideration of their educational backgrounds, age, occupations, and gender.

The contents of the in-depth interviews are the dreams and careers of interviewees' school days, life vision, career preparation, self-managed development, and career transitions. In-depth interviews were conducted two times per interviewee. In the first interview, we questioned the subject on matters about dreams and career goals during their school days, success and hardship, and life vision. In the second interview, we questioned subjects on matters relating to career preparation, self-managed development, and career transitions.

3. Meaning and Types of Creative Career Paths

This paper defines creative career paths as the life passages of persons who get positive results and win social recognition. Creative career paths mean the passages of persons who found and exploited emerging jobs nobody had developed. Creative career paths also refer to the passages of persons who win public recognition.

Creative career paths can be understood by being divided into three types. The first is pioneer oriented career paths. This type describes the passages of workers who found and exploited emerging jobs nobody had previously developed. They have made their own occupations. They are initial pioneers of their occupations.

The second type describes the challenge oriented career paths, formed by workers who cross various barriers, such as existing career domains, educational backgrounds, gender, or physical handicaps, and so on. In Korean society, it is very difficult to surpass barriers such as educational backgrounds, gender, or physical handicap.

The third type describes value oriented career paths. This is the passage of workers who sacrifice their comfortable and easy lives to protect and enhance social values such as human rights, peace, democracy, and citizenship. This type means the passage of civil rights activists who exploit brand new social movements. An example is someone who uses the peace movement as a new kind of civil movement.

Current Status Vulnerable Adolescents' Vocational Competencies and Improvement Directions

Sook-Young Byun, Soo-Kyoung Lee, Jong-Bum Lee

1. Overview

The purpose of this study was to propose some effective ways to generate progress in vulnerable adolescents' vocational competence. To meet this aim, the present state of that group of adolescents' vocational ability, and their traits in vocational aspects, were examined. Specifically, the concept of 'vulnerable adolescents' was first defined, and then their unique traits and decisive factors involved in their job seeking processes were sought. Other crucial parts like the state of adolescents' basic vocational abilities and their awareness about their abilities were also examined. Methods such as expert panel, FGI (Focus Group Interview), and In-depth Interview were applied.

Due to domestic social polarization and aggravation in the economy, adolescent unemployment stands out as the most serious issue in South Korea. Unemployment is most prominent among the less well educated and those ill prepared for full social participation, and it causes those people to face various difficulties when fulfilling their social role. The lack of thorough preparation in various abilities (including vocational competence) that are vital in a knowledge-based society through schooling is a partial cause of the unemployment. Therefore, in this study, adolescents (from twelve to twenty-four years old) who found employment difficult to come by were identified as the subjects in this study. More specifically, we focused on adolescents at risk, those with low levels of education, the long-term unemployed, NEET (Not in Education, Employment or Training), and North Korean defectors.

2. Analysis of supportive programs and systems dealing with vulnerable adolescents' employment

The discussions about the present supportive programs and systems dealing with vulnerable adolescents' employment, operated in various departments, are

as follows. First, it was found to be problematic that recipients were receiving overlapping benefits from different programs and that the program contents were similar. Also, there were too many things to do in a limited period of time. Even longer-term programs, such as six-month programs, were found to be inappropriate for some of the adolescents in need. Second, the program organized at Ministry of Education, Science and Technology was found to be too near sighted, merely focusing on vulnerable groups who were presently attending school. Third, the governmental undertaking to support the vulnerable classes was insufficient in the sense of reinforcing their competence. It was found that contact with other related institutions to actually carry out the project was scarce.

3. Analysis of the status and needs of vulnerable adolescents' vocational competence

After the examination on the state of adolescents' vocational competence, we concluded that there were deficits in basic lifestyle and foundational learning skills, which are crucial to getting employed, among the vulnerable adolescents. Some adolescents were suffering from monetary problems, consistent ignorance, and neglect from their parents, which caused damage in trusting others, social skills, and problem-solving skills. There were also some adolescents who were not familiar with using word-processing or searching websites to access information, though they were familiar with the computer itself. In addition, because this generation is more exposed to mass media and the Internet, it was found that their language skills were seriously harmed.

For these reasons, it is absolutely critical for adolescents at risk to get psychological help and professional care in order to deal with their violent and impulsive ways of solving problems. Adolescents with low levels of education and the longer term unemployed need help to compensate for their low basic learning skills, so that they can access safer and more secure jobs, as well as to be treated well in society. As for the NEET (Not in Education, Employment or Training) who were secluded for a long period of time, skills such as relating to others and being one of a social member seem to be urgently in need. Family therapy should be involved for this group to make better progress. Finally, North Korean defectors should be provided with proper career values in

order to increase their possibility of successfully adjusting to life in South Korea.

4. Suggestions to improve vulnerable adolescents' vocational competence

Ultimately, the specific suggestions to improve vulnerable adolescents' vocational competence are as follows. First, services that are supposed to affect adolescents' basic lifestyles and learning skills are needed. For example, retired teachers' participation can be a great support, (also called 'mentoring', teaching their majors). Second, a program for adolescents should be organized and applied in a stepwise approach. In other words, focusing just on improving vocational skills is not enough. Prior tasks like diagnosis, counseling, and therapy for each adolescent according to their status is necessary. After that, foundational training and teaching in basic vocational skills should follow. The results of the previous steps should be used to plan each adolescent's career path and to decide which field the adolescent should get training experience. Hence, the ideal stages of the effective program should be 'Diagnosis, Counseling, and Treatment'⇒'Training and teaching'⇒'Career planning and actual training'. Third, more volunteers, personnel, and professionals are urgently needed. In order to procure qualified professionals, the national level traineeships for adolescent counselors and volunteers should be arranged. Fourth, systematic connections among governmental departments and institutions in this field are more than necessary. Through such coordination, it may be possible to draw out a more effective and systematic plan that covers the vulnerable adolescent groups. Finally, it is equally critical to develop and actually introduce some effective programs that can affect and improve adolescents' vocational competence. This also means helping prevent adolescents in danger degenerating into long-termed unemployed and NEET (Not in Education, Employment or Training).

A Study on the Socio-Economic Effects of Lifelong Learning

Mee-Souk Kim, Sng-Bo Kim, Su-Myeung Jang

In this paper, we will analyze the social and economic outcomes of lifelong learning in the national-social aspect. In particular, this paper aims to develop an understanding that lifelong learning influences nations and individuals from the socio-economic perspective.

For this, we will analyze the relationship between economic outcomes and the entire social cohesion and stability in the nation to help grasp the economic and social outcomes of lifelong learning in Korea.

This research project will provide an analysis of how lifelong learning affects, as a democratic citizen, individuals' citizenship through the accumulation of an individual's social capital, in terms of social cohesion and stability.

The results are as follows:

Korea now sits among the most advanced nations in the world, ranking 8th among 111 countries in average educational training, 6th in university attendance, and 9th in secondary education levels of the adult population. While the average educational training in Korea has slowed compared with the early period of the country's economic development, it is found that the participation in adult lifelong educational training has increased faster than the income level over time. The result from a regression shows that as GDP per capita increases, the level of education and the participation in lifelong learning of the adult population increases.

We empirically tested the relationship between lifelong learning and social cohesion. This paper reports the OLS of the life satisfaction and the participation in social activity groups, the weighed OLS considering each country's sample, and the results of the regression from the To bit Model, including the weight and two-side limitation (limit). The fact lifelong learning is a measure generating social cohesion shows the importance of lifelong learning to social safety and development over the long-term. As the rate of participation in social activity groups is high, individuals tend to contribute to social cohesion, and this means that education as lifelong learning is closely related to

social activities. Also, a sense of belonging to nations is significant with relatively high educational levels and effectiveness in social trust, with, in contrast, no effect on formal lifelong education levels.

This paper investigates the relationship between lifelong learning and citizenship by conducting a cross-sectional and a longitudinal analysis. The longitudinal analysis uses Social Survey Data from 1996 to 2008, and the results show that there have consistently been inequalities in sex, age, education, and economic activity involving participation in lifelong learning. In the relationship between the rate of participation in lifelong learning and citizenship, social stability and the awareness of the environment tend to increase when participation in lifelong learning increases. In the cross-sectional analysis, we tested the three effects of lifelong learning influencing citizenship using a 25-64 year-old adult sample from the first social survey data in 2008. As a result, we found that participation in lifelong learning is not related to an awareness of social safety and legality, but it does have a positive effect on environmental awareness to a significant level. The period of lifelong participation only influences environmental awareness to the extent that whether to participate in lifelong learning does. Among the types of lifelong learning, it is shown that job training effects legality, and enrollment in private educational institutes, courses through the TV, radio, and the Internet have a positive influence on environmental awareness.

Countermeasures for Career Development of Drop-out Youths

Dong-Son Choi, Sang-Joon Lee

The goal of this study was to suggest various alternatives for drop-out youths based upon the analysis of current status. Specifically, the objectives of this study were (a) to identify the drop-out processes and the drop-out youths' needs through the typological approach, (b) to analyze the current status of support systems for drop-out youths, and (c) to suggest several educational and social policy measures for career development of drop-out youths. For these objectives, this study used the following methodologies: literature review, statistical analysis of the Korea Youth Panel Survey for the identification of drop-out youths' characteristics, in-depth interviews with drop-out youths, and discussions with some professionals and practitioners.

1. Current Status of Drop-out Youths

Drop-out youth was defined as youth who drop out of school, spontaneously or non-spontaneously, for personal, family, economic, or social reasons, excluding reasons of death or school transfer. Speaking strictly, there is no statistical data that outlines the exact size of drop-out youths. However, according to the Yearbook of Korea Educational Statistics, the size of 'Expelled, Drop-outs, and Absentee' students has increased over several years (cf. 87,738 (1997)→38,202 (2002)→53,044 (2007)).

Generally, drop-out behavior is known as having multi-dimensional characteristics. Decisions on dropping-out from school were affected by several factors, including intra-psychological elements. The analysis of the Korea Youth Panel Survey (KYPS) data indicated several characteristics about the relationship between drop-out behavior and related factors, although there were only 83 drop-out youths in the KYPS data. The results indicated that the more they could not find career alternatives, the more youths failed to feel the interest of their parents, the more they considered themselves negatively, and the more they were likely to treat interpersonal matters violently, the higher the probability of drop-out. The experience of career education in schools was negatively related to the drop-out status. This means that career education in school may largely prevent the problem of drop-out behavior.

2. Career Development Needs of Drop-out Youths

In-depth interviews suggested several significant results about drop-out behavior and the career development needs of drop-out youths. The major findings were as follows:

First, drop-out youths, especially non-adaptive drop-out youths, commonly expressed that they decided to drop-out from school because their school life was not fun, troublesome, and insignificant.

Second, their negative feelings about school life were related to several noticeable phenomena, including the decline of interest in school life, running away from home, and long-term absence from class. This means that drop-out behavior is deeply related to a vicious cycle that negative school behavior has formed.

Third, the level of academic achievement was low mainly because of an inappropriate school life. More important is that low academic achievement negatively affects their career development, with regard to educational advancement or transition to the labor market.

Fourth, drop-out youths had various experiences of working in labor markets. However, there was little evidence that their working experience positively affected their career development. In other words, their working experiences had only economic meaning, but no career meaning.

Fifth, drop-out youths made judgments that school was the most appropriate alternative for learning skills that they were interested in. However, they felt a lack of confidence in adapting to the school system, mainly because of an exclusive culture in schools. This feeling could be applied to other types of schools. For example, drop-out youths thought that they had to learn skills for a successful transition to the labor market. However, vocational education institutes, including vocational schools, could not become alternatives for drop-out youths, because they thought that the environment of every school would be exclusive.

Sixth, although they refused to return to school, they felt that some type of certification or diploma was needed for their lives. These thoughts led drop-out youths to an interest in school qualification examinations. However, they had faced problems in these examinations because of their low academic achievements.

Seventh, the most common characteristic about their future careers was

'vagueness'. When asked 'After dropping out of school, what plans do you have?', drop-out youths had difficulty in giving concrete answers about their future. This 'vagueness' could be related to low achievement in school. In other words, they had little information about themselves because they had few successful experiences and lacked experience in career education programs.
Eighth, drop-out youths were passive in terms of career exploration or career preparation. In addition, the career information they had was restricted, or in many cases incorrect.

3. Countermeasures for the Career Development of Drop-out Youths

Comprehensive support is needed for the career development of drop-out youths, including academic, vocational, career, basic life, economic, and inter-personal support. For these reasons, several types of institutes need to actively participate in support for drop-out youths. Especially, regular schools have important roles in the support systems. First of all, the improvement of academic achievement is an important issue for drop-out youths. Accordingly, this study suggests several measures for the career development of drop-out youths, as follows:

A. Prevention of drop-out behavior
- Activation of a WEE center and WEE class
- Management of various programs to meets youths' needs in schools
- Activation of outreach programs based on cooperation from community

B. Support for career development and a stable life
- Strengthening 1:1 mentoring services for drop-out youths
- Strengthening the career counseling function in drop-out support institutes (cf. youth counseling center)
- Strengthening career development competencies of drop-out youths through career exploration or career development programs
- Strengthening support systems for providing stable opportunities in part-time jobs
- Expanding social jobs for academic and vocational development

- Strengthening educational-vocational-career information networks for drop-out youths
- Strengthening return-to-school programs

Korean Education & Employment Panel (2009)

Chang-Kyun Che, Han-Gu Ryu,
Ju-Hong Min, Ji-Young Ryu,, Dong-Jun Shin

1. Outline of the 2009 Survey

○ This study aims to generate panel data that are sustainable and representative in the long-term to closely analyze the relationship between education and the labor market, while generating education-related information for the younger generation.

○ Characteristics of the 6th Survey in 2009
- Sophistication of an integrated survey questionnaire developed in 2007 and modified in 2008. Development of a related questionnaire in response to graduate school enrollment
- In order to minimize the rate of elimination in the panel dataset, ensuring contact information, establishing intimacy with survey subjects, utilizing peer panels, and enforcing incentive schemes have been pursued.
- Since high school academic achievement data is important for the analysis of education accomplishment, Korean SAT data has been acquired and provided.

○ On Feb. 24th 2009, the4th KEEP Conference and Abstract contest was successfully held.
- Panel users' opinions from the conference are reflected. Final trimmings including longitudinal cleaning and publication of the 1st - 4th panel data for the purpose of securing KSAT data.

○ Major changes of infrastructure in the 2009 survey
- While KRIVET had operated the KISS, the system is changed due to due diligence service needs.
- Thus, the development and maintenance of the entire survey system became responsive to due diligence needs and the survey was successfully conducted in the given time frame.
- Progress includes laptop and web survey compatibility.

○ In 2009, the 6th Korean Education & Employment Panel (KEEP) Survey was conducted

○ English translation of data
- In 2008, part of the translation of data has been processed. In 2009, materials including the 1st - 4th survey questionnaire, code books/layout, user manuals, and the 5th survey questionnaire were translated.
- Official distribution of materials in English will be offered through the homepage (http://keep.krivet.re.kr) in the first half of 2010 after a final trim.

○ Plans to designate experts to perform a charging of a sample correction study, which considers male youths enforced to join the armed forces, and to utilize that in the 2010 survey and for additional sampling.

○ The 1st (2004) - 5th (2008) wave data for the conference has been provided in November through a research plan competition, and on Feb. 19th 2010, 『the Fifth KEEP Conference』 and graduates' abstract competition is being prepared.

2. Weights of the 4th wave data

○ In a longitudinal survey, not only cross-sectional weights but also longitudinal weights are required. Weights after the 2nd wave year, particularly, should include longitudinal weights in addition to cross-sectional weights.

○ In general, weights are calculated through the three steps of probability correction of inequality extraction, silence correction, and correction of post-stratified.

○ The 1st step's extraction probability is computed in sampling procedures and the corrected weights of extraction probability are derived by using a reciprocal number. Each extraction probability of the sample school, sample class, and sample students is different.

○ In the 2nd step, the gap between the number of actual successful survey samples and that of the target emerged because of silence. The response rate, therefore, is computed as the ratio of the number of actual surveys to the target number and the silence correction is attained by the reciprocal of the response rate.

○ The third step corrects the figure so that the sum of the extraction probability and the weights considering the response rate are equal to the number of the population. Post-stratification is conducted by region, sex, type of school, and transition information.

○ The final weights are counted as multiplications of the values derived in each step.

3. The results of the 5th wave survey and distribution of data

○ In the 5th (2008) survey result, 4,823 people out of a 6,032-person effective population was surveyed and the survey success rate was 80.0%.

○ Systematic data cleaning has been performed to increase the credibility and accuracy of raw data surveyed in the 5th wave (2008).

○ After a significant process of the survey was made, a detailed cleaning standard for each question in the survey was established and computerized. Possible errors and the adequacy of survey respondents and corresponding questionnaire were rechecked and corrected.

○ Once the process of cleaning data is done, the research team made materials for the conference and provided data for conference participants.

○ Encodable answers among those of the subjective questions were systemized and coded.

○ The Korean Education & Employment Panel 1st - 5th wave survey results are provided to research institutions and academic experts so as to hold the fifth KEEP Conference with those outcomes.

○ With the completion of the KEEP 5th wave survey data, the release of the 1st - 5th data at the end of June was planned.

4. Development of the 6th wave Survey Questionnaire

○ The 6th wave survey (2009) was proceeded as a type of 'KEEP questionnaire (2008)', with the type of respondents including university students, employees, the unemployed, and repeaters.

○ Types of respondents are classified into the following categories at the point of time of the survey: 1) college students, those employed or operating a business, others carrying out studies and economic activities and, finally, those who are not in school activities or economic activities.

○ The KEEP questionnaire (2008) consists of the characteristics of school life, plans for continuing studies, job-hunting activities, the current status of employment, intention to seek work, work experience, home life, education and training, career plan, economic consciousness, and general views.

○ The 6th wave questionnaire was changed in terms of the following: 1) the addition of graduate-related questions according to the status change of transition, the addition of questions that asks of the intention to enroll in graduate schools in the 'plan to continue studies' section. Moreover, in the category of 'home-life', questions on home-stay, self-boarding, and dormitory life were added. The income and expenditure of a household become more structured. The project theme of the 6th wave survey includes questions measuring 'economic recognition'.

5. The 6th wave Survey

○ Those who have experience of participating in the 1st - 5th KEEP surveys are primarily selected for interviewers for the 6th wave survey. If the selected interviewer does not have experience of panel data, at least two years of survey experience is required.

○ Interviewer training is conducted two weeks in advance of the planned schedule in Seoul, Pusan, Daegu, Daejeon, and Kwangju. The contents of the training consist of the object and outline of this survey, contents of the questionnaire, how to use laptops, how to respond to emerging problems, and how to contact respondents.

○ Strengthen the network between interviewers and researchers of survey services.
- Data monitoring and testing procedures make interviewers education in real-time. Also, the services educate interviewers to report to researchers when problems arise.

○ The guidance and official documentation of cooperation and pamphlets are mailed to respondents before the survey is taken and additional survey guidance e-mails are sent.

○ After completing the survey, thank-you e-mails and text messages are planned to be sent, with complaints and opinions from respondents gathered and reflected in the next survey.

○ Weekly and monthly meetings will be practiced during the survey period to generate cooperation between the panel research team and survey services. Contents will encompass past meeting conclusions and performance levels, the current week work plan, discussions on problems, progress, and results of past remedies, and other things that are deemed to be significant enough to report.

○ A quick data process will be conducted by interviewers and survey services. When a problem occurs, a solution will be decided on in discussions with the KRIVET research team.

6. The Background and Contents of the Survey System Modifications

○ Until 2008, the panel survey was practiced by a survey company with

KRIVET Information Survey System (KISS), causing deficiencies in survey procedures. Therefore, the survey system is delegated in 2009.

○ Advantages acquired by the delegation of the survey system are as follows. First, system maintenance costs are included in the whole survey costs, so that while the sum of costs increases, the maintenance costs KRIVET has expensed can be reduced. Second, research manpower that has been involved in simple tests of survey results can be deployed to work of results analysis of the panel data, resulting in more efficiently utilizing survey results and, thus, raising the effectiveness of the panel survey. Third, the responsibility of the survey services increases because the services perform all the procedures of the survey.

○ A characteristic of the 6th wave survey is that with inserting longitudinal logic, respondents can confirm past answers, reducing longitudinal logic errors when the current year's data is input. Furthermore, data input is made impossible when there is an error in checking the logic between a prior question and a later question, so that respondents should answer earlier questions and later questions. Remote controls for each laptop are available for the survey services to react to errors so real-time solutions became possible.

○ Surveys of those who are impossible for surveyors to interview, for example, strong rejecters, students abroad, employees abroad, and military service officers is now made available through the internet.

7. Future Plans

○ The 5th wave 2008 survey materials will be in the process of final examination and published for the conference.

○ Survey statistics will be schematized based on the 4th wave 2007 survey and a Basic Analysis Report(2008) will be released.

○ Data cleaning of the 6th (2009) survey, completed in Dec. 2009, will proceed.

○ Based on the ‘Agreement on Collecting Stats’ from panel students, the collection of college stats and combination of data will be performed.

○ Development of the questionnaire and its constitutions for the 7th wave survey will be done by Mar. 2010. Succeeding the 6th wave survey, the 7th wave survey will trace only panel subjects and will be processed with a unified questionnaire.

○ Checking the due diligence service’s maintenance of the survey system
- Up to Mar. 2010, with completing the additional web-survey environment and thus improving the efficiency of survey services, plans for laptop-based interviews in parallel with web surveys will be fixed and set to commence.

○ In order to respond to the lack of a cohort caused by the enforced enrolment in the armed forces, it was considered whether to include other male students who got involved in the labor market in a similar time period with senior female high school students. Additionally, it is possible to survey a female student cohort who are three years below the senior male middle school student cohort in 2004, which is comparable.

○ With the insertion of basic vocational capabilities related questions, the value of the entire data would increase. Setting adequate incentive schemes (diagnosis and guidance of basic vocational capabilities) so that all the KEEP panels take part in the survey is thought to be substantial.

○ While there are many experts in principal institutions, it is difficult to involve those in panel questionnaire development. Therefore, it is needed to establish a panel survey committee in order for the validity of the panel contents constitution, data maintenance, and examination of the panel's progress.

Linkage and Performance between Education and the Labor Market (Ⅰ)

Jae-Sik Jun, Sung-Joon Paik, Ahan-Kook Kim
Me-Rhan Kim, Ju-Hong Min, Dong-Gyun Shin
Jae-Min Park, Jong-Seok Byun

This study was conducted to seek the implication of a linkage between education and labor policies by researching the effective linkage between education and the labor market and analyzing the performance of the linkage in the labor market. In order to carry out this research, we analyzed i) what were the admission criteria of the universities when admitting students under the constantly changing education policies and principles, ii) the actual achievements after attaining university education by evaluating the quality and quantity aspects of the university education, and iii) the achievements of the educational investment, the university education, by analyzing the long-term lifespan of the worker, not the short-term outcome of entering the labor market after graduation. The summary of each chapter is as follows.

In Chapter 2, we analyzed the changes in demand for higher education as well as the changes in university policies. For the last couple of decades, higher education has expanded visibly in quality. Up to 1992, the demand for higher education constantly increased; however, supply started to exceed demand from 1993. While the quantity of higher education receivers increased up to the point of saturation, there were significant changes in the quality of these higher education receivers. First, we divided the university graduates into three cohorts by their graduation year, to years of 1982, 1992,and 2002, and looked into the characteristics in the quality of each cohort. There were more students with less academic achievements in high schools in the latter cohorts, and there were more students who continued their studies at graduate schools in the former cohort with higher academic achievements. Second, the experience of receiving private tutoring was affected by the government's policy of the time. In the cohort of the graduation year of 1992, the ratio of receiving private tutoring was only 10%, which was affected by the private tutoring banning policy of the time. However, among graduates for the class of 2002, the ratio of receiving

private tutoring increased to 50%, reflecting the fact that the private tutoring policy was eased when they were at high school. Third, we looked into the occupational classification of the students' fathers when they were at high school. This analysis showed that the ratio of fathers with occupations in lower classes whose children went to university increased in the latter cohorts. On the other hand, the ratio of destitute parents sending their children to university decreased in the latter cohorts.

In Chapter 3, we analyzed the changes of the university admission system and the admission criteria. The university admission system of Korea has changed 13 times since liberation. It could be divided into the four periods as follows; i) individual entrance exam period (1945-1968), ii) preliminary exam period (1969-1981), iii) achievement test period (1982-1993), iv) national academic aptitude test (1994-present). These changes are directly affected by the social demand for university education and the political and social environments. These changes were all short-term revisions made to solve hot issues in education and society of the times.

In Chapter 4, we analyzed the earning rate of educational investment. For this, we tried to compare individuals by using individual panel data, KLIPS, in order to control the efficiency of individual capacity. In other words, with the respondents who have experienced changes in education investment level, we analyzed the difference in salary before and after the educational investment. By doing so, we managed to avoid the efficiency in the difference of capacity that takes place when comparing individuals, to provide a robust presumption on the earning rate of investment. In addition, the measurement errors inherent in the education variable could be reduced by using the panel information on educational changes of an individual. The analysis shows that the earning rate of investment assumed by the transverse section information overestimates the actual earning rate. This is contrary to the traditional notion that education has an 'income equalizing function'. The fact that limited earning rates increased gradually is a warning that middle and upper-class families are investing more in the education of their children and it will end up worsening the income inequality problems in society. Further, we migrated the existing hypothesis that the earning rate of educational investment is irrelevant to the investment level, and compared the non linearity of the earning rate of investment. Unlike the

traditional belief, the limited earning rate was gradually increasing, and this increase was concentrated in the phase of upgrading education levels to university level.

In Chapter 5, we assumed the effect of the educational investment on the earning rate regarding the quality of university education. We demonstrated how much the educational investment in university education in terms of quality impacts on the earning rate of an individual, considering the changes of the educational system and problems of schools. The variables of educational investment in quality were internal factors, such as double majors and the academic achievements of students. It was shown that the earning rate of educational investment increased as the level of educational investment increased. The effect of GPA on the earning rate of the investment did not have a large impact among the 1982 cohort or the 1992 cohort. However, it had a positive effect, albeit insignificantly, on the 2002 cohort. It was shown that the earning rate of investment for an individual using variables such as the ratio of professors to students was higher as the educational investment in quality was higher.

In Chapter 6, we analyzed the long-term achievement of educational investment in the labor market. The result was that regarding the graduate year of cohorts, choosing scientific and engineering majors are economically beneficial in the short-term compared to those who chose humanities and social science majors. However, as work experience increased, the benefits disappeared and the disappearing point was the 18th year (1982 cohort)-21st year (1992 cohort) for all respondents. The workers would be in their late 40's by this stage. Second, when comparing the 1982 cohort to the 1992 cohort, the economic benefits of choosing science and engineering majors increased, considering all factors. Third, in order to see whether outstanding students actually avoided choosing science and engineering majors, not the average level of students, we analyzed the top 25% highest-paying salary respondents. In terms of quality, it was similar to all three cohorts, but there was a small difference in terms of quantity. The economic incentive of choosing science and engineering majors was bigger for the 1992 cohort than the 1982 cohort, the same as all the cohorts. For the 1982 cohort, the humanities and social science majors started surpassing the science and engineering majors after 16 years.

However, the economic incentive of science and engineering majors was bigger up to retirement for the 1992 cohort.

In Chapter 7, we analyzed the long-term labor market focusing on major-occupation consistency. We considered the accumulated major-occupation consistency and analyzed the graduation year and the difference in majors. The results show that first, when people worked for a job that was consistent with their major, the salary was high. As the major-occupation consistency got higher, the salary premium increased gradually. Second, when the level of accumulated major-occupation consistency was used as an explaining variable, instead of the major-occupation consistency at the current job, an entrance salary incentive existed. Third, regardless of the graduation year, an entrance major-occupation consistency effect existed. As the level of accumulated skill was higher, the salary got higher, showing that accumulated major-occupation consistency works for all cohorts. Fourth, the salary premium according to the major-occupation consistency was confirmed in every field except for humanities majors. Replacing it with the level of accumulated skills, people who work for jobs related to their majors got paid higher salaries.

We would like to make proposals based on the above research results as follows.

First, from the point in 1993 when the excessive demand for higher education disappeared, the overall academic level of university students decreased and the excessive demand was spread further because of it. Since then, private tutoring was undertaken for the purpose of entering a good university. Thus, the expenditure on private tutoring expanded significantly due to the fact that high school education was open for the majority of the public. As pointed out, private tutoring is still continuing to this day and the polarization of private tutoring between social classes is believed to be contributing to the stratification of the social classes. Thus, it is essential that countermeasures for this problem are found.

Second, we measured the earning rate of the educational investment, finding it to be contrary to the traditional notion that education has an 'income equalizing function'. More importantly, the discovery that the limited earning rate increases gradually means that middle and upper-class families are, in fact,

investing more in the education of their children, worsening social inequality. In order to mediate the reverse function of education, more opportunities for education for lower classes should be provided. Increasing the educational opportunities of the lower classes will contribute to income equalization by contributing to the equalization of educational opportunities. Also, if educational investment and re-investment are determined by the income level of the family, not by the level of one's capacity, widening educational opportunities for the lower classes will not extract from the efficiency of income equalization. There is no evidence that there is a proportional relationship between the economic position and 'innate' capacity. As a second proposal, the government should provide systematic tools to ensure that the investment subjects (especially in the phase of university entrance) are selected according to one's capacity, not according to the family income level. In other words, the standard should not be whether students enjoyed private tutoring investment, but whether they have innate capacity. Through this, greater investment efficiency, as well as equal educational opportunities, can be achieved.

Third, the proper combination of the professional knowledge attained through university education and the job should be confirmed as an important factor determining the overall productivity and income throughout one's career. When looking into this problem from a policy-making point of view, the university should also increase the quality of major classes and support major study area links with jobs. It would be especially important to provide a social training system that can keep the major-occupation consistency, through either changing tasks within a company or changing companies. This is urgent and essential for all workers at small or medium-sized companies lacking in company job training systems. Further, regarding the double major system that is becoming popular, it should not be operated toward a direction that diminishes the effective accumulation of professional knowledge, but should be designed to increase one's capacity by combining the information and knowledge from two areas when graduating from university. It is difficult to conclude only from this research, but, generally, the information on popular industries and the first year salaries in each industry are not used efficiently, and can even be used negatively. Thus, long-term information on occupations and salaries should be provided to high school graduates and university graduates.

Although we have attained the above results, there are some problems that this study has not been able to overcome. First, this study left the educational environment as an external factor, and only analyzed the achievement of the labor market. We should have analyzed the various internal and external factors of education affecting the labor market, but these factors are not fully reflected in this research. Second, even though the educational investment in university and the efforts put in by schools and individuals in the process of educational investment and educational processes are very important factors, this study was proceeded under the assumption that these factors are the 'same', and were not reflected truly. Third, the scope of analysis in the educational phase of this study was limited to after university graduation; therefore, educational achievements that could be achieved in the prior stages remain unexamined. However, we hope these problems could be reflected and resolved in future research.

Integrated Career Education Model (Ⅱ)

Ji-yeon Lee,
Young-dae Lee, Yun-kyung Jung, Dong-son Choi, Na-ra Kim,
Suk-min Jang, Young-keun Jung, Mi-suk Nam, Gun-nam Lee

This research was performed as the second year of research work in a continuous three-year series (2008-2010) with the cooperation of the National Research Council for Economics, Humanities and Social Sciences. It begins with the purpose of revitalizing career education in response to rapid social changes and to strengthen the cooperation between researchers and school practitioners. To achieve these purposes, the educational goal and motivation in each general subject area was integrated with 'career competency elements' in the first year of this research project (2008). Based on the results of the first year of research, the curriculum for the integrated career education focused on subjects such as 'Korean Literature', 'Mathematics', 'Sociology', 'Technology & Home Economics', and 'Ethics' from elementary to high school level, was developed in this, the second year (2009). Six types of printed and 26 e-learning materials of integrated career education were developed. In addition, both a report of 'international advanced cases for integrated career education', and 'comprehensive summary research work of 2009' were published this year.

This research was placed upon an intermediate phase of a full three-year research project, yet the second year of this research plays an essential role in sustaining persistency from the results of the first-year research, continuing to the completion of the final year.

Chapter 1 mainly contains the introduction to this research; research necessity, research purpose, terminology, research contents, research methods, and research strategy.

Chapter 2 summarizes the theoretical background and contents represented at three workshops held for the purpose of establishing fundamental concepts and methods for developing integrated career education materials. Before developing materials, there was the strong need for understanding and reaching agreement of the goal and process among both researchers and development staff. Specifically, this chapter deals with those four issues: 1) first of all, this chapter arranged the basic concepts - definition, philosophy, and models for an

integrated curriculum in career education; 2) "What contents does integrated career education teach?" explains 'career development competencies', which contains the initial formulation, categorization, and specification process of establishing career development competencies. Through these full processes, finally, eleven competencies, categorized into five super-concepts, were confirmed; 3) "How should integrated career education be served for students?" summarizes teaching-learning methods for integrated career education; 4) "How can integrated career education be implemented and evaluated?" discusses issues of the implementation and evaluation of those curricula in real school settings.

Chapter 3 summarizes the procedure for developing materials for integrated career education as three phases; 1) initial phase, 2) processing phase, and 3) completion phase. 1) In the initial phase, three workshops were held in order to sustain a continuation of the first-year research, and set up fundamental strategies for developing materials. These workshops have been beneficial for all participants, both researchers and developers, in comprehending the theoretical background and knowledge. 2) In the processing phase, the fourth workshop was proceeded with, in which materials of each subject were monitored and discussed for better completion. 3) In the completion phase, more concentrated work and school subject focused meetings were performed. Through those all phases, six types of lesson materials, including guidelines and syllabus for teachers and self-directed paper-pencil materials for students, and 26 e-learning sub-materials for lessons (short movie/animation type) were developed.

Chapter 4 focuses on the supportive systems for integrated curriculum in career education in the cases of advanced countries such as the U.S.A, France, Finland, and Denmark. The general implication from those cases was to support integrative perspectives between career education and general subjects in educational circumstances. To investigate the best practices of integrated career education from advanced countries at the national, state, and school levels, researchers made overseas trips to conduct focused interviews with professionals and to collect data. This chapter was designed to suggest effective ways to disseminate integrated career education through supportive systems.

Chapter 5 contains the activating strategy of integrated career education for both short-term and long-term benefit. 1) As a short-term strategy, this chapter suggests introductory strategies for implementing integrated career education in pilot schools, which is the main goal of the third year of this research project.

Implementing pilot schools has both passive and active significance. In a passive sense, it is expected to help discern the validity of materials in an active sense, in helps us examine availability in school fields. 2) This chapter also analyses the current status of the national curriculum and diagnoses the status of career education in Korea as a general area, served across all the general school curriculum, and as independent area and served through specific subjects and extra curricular activities. Based upon some consideration, two ways of 'general curriculum above distinct subjects' were suggested, which integrate knowledge and activities of subjects and career education. 3) As a long-term strategy, activating career education should ultimately be in the context of integrated curriculum in career education. Persistent barriers against activating career education from the past were mentioned, and strategies to activate career education at the national, local, and school levels were suggested.

Finally, Chapter 6 offers a conclusion to this research project and suggested several implications and recommendations for the third year component (2010).

Research on Global Korean Networking

Tong Park, Il-Gue Kang, Young-Dae Lee
Ji-Sun Chung, Gyu-hee Hwang

1. Outline of the Research

This research was designed to analyze the current situation faced by overseas Koreans, often referred to as Global Koreans, and to draw lessons from their experience. It also pursued a range of specific measures of the establishment and utilization of an integrating network in accordance with the analysis on the networking conditions of Global Koreans residing in China, the U.S.A., and Japan. To achieve this goal, we focused on analyzing the following.

First, theoretical reviews were conducted to define the concepts of Global Korean human resources, Diaspora, and transnationalism. Second, this study analyzed the situation and problems of the Global Korean network, and the governmental policies of overseas Koreans. Third, the policies and networking situations of overseas Chinese, Indians, and Israelis are analyzed, and lessons are drawn from these foreign cases. Fourth, current networking situations are explored to establish the infrastructure of a global Korean network. Fifth, policy measures are suggested to build a global Korean human resources database, to guide college students to study abroad utilizing the network, and to establish the information systems.

2. The results of the analysis of the Global Korean network situation

The Korean government has established supporting and utilizing Global Korean networking as a major goal, with various policies being examined to achieve this goal. In particular, to make the best of the competency of the some seven million overseas Koreans, the global Korean networking functions are considered as vital. The government invests in strengthening the horizontal linkages and reinforcing the efficiency and integration of the network.

Currently, eleven off-line overseas Korean networks have been constructed, in addition to sixteen on-line networks. The characteristics of the networks are as

follows:

First, overseas Korean societies need on-line and off-line networks to be globally integrated, even where each society runs their own on-line or off-line networks.

Second, Global Korean networks are government leading, which means the networks are built not by the needs of overseas Koreans but by the economic needs of the government.

Third, the linkages between off-line networking and on-line networking systems are not strong enough to share the important results of off-line events of the World Korean Commerce Convention or the World Korean Economist Conference. Moreover, financial professionals, law officers, medical professionals, farmers, and fishermen have not yet formed global networks.

3. Policy tasks for integrating the Networks of Global Koreans

The following policies are suggested to advance the Global Korean society:

First, an integrated network of Global Koreans should be established and activated as soon as possible. To pursue this goal, the World Korean Commerce Convention and the World Korean Economist Conference should be unified. In addition, the various networking tasks among governmental ministries should be regulated and integrated.

Second, infrastructure for Global Korean human resources development policies should be established. Discovering Korean talent throughout the world is essential. A database of talent must be established.

Third, college students should be encouraged to go abroad using the Global Koreans networks. Support for the global industry-academia networking system between the World Korean Commerce Convention and colleges is essential. A standing consultative system among government, colleges, and the World Korean Commerce Convention must be established.

Last, the information system of the Global Korean networks should be constructed. The main functions of the apparatus are to collect and provide information on studying abroad, overseas employment, and successful career development for Global Koreans. Moreover, materials on Global Korean successful models are to be shared with youth in writings, lectures, and stories.

Research on Exploring Overseas Jobs for Youth

Eunsang Cho, Il-Kyu Kang, Eui-Kyu Lee

This research project seeks to explore overseas jobs for young people by providing labor market information and job information as the need for constructing the infra system of job information and career path information of overseas job markets is requested, so that the youth can develop their vision and capacity overseas.

The current status of the overseas job market can be analyzed in terms of a PPM model in which push effects and pull effects interact. The push factors include the unemployment rate, self-development, and employment in Korea. The pull factors are better opportunities for wages, education, and employment, better living conditions, and more opportunities to do business in other countries. The overseas employment assistance programs carried out by the government, local authorities, and universities are below target level due to the world economic recession, with the interaction between push factors and pull factors also sub-par.

The following suggestions for the government, corporations, colleges, and students are presented to activate the overseas employment of youth. The government needs to design along-term road-map for overseas employment, prepare students for overseas careers at the high school level, develop public websites for overseas internships and working holiday students, construct a system linking and evaluating overseas internships, service programs and overseas employment, assist the skilled labor in finding overseas jobs, and, finally, develop an overseas employment assistance program for colleges for evaluation by the Ministry of Education. Universities are requested to change the perception of overseas jobs among college students, provide the basic materials and information on overseas employment, develop student communication skills, and build an overseas employment assistance center. Corporations need to utilize overseas interns and the retired manpower with overseas experience. The overseas job world report needs to be developed and distributed, and, finally, the perception of overseas employment needs to be heightened through overseas conferences to potential overseas job applicants.

A Study of the Korean SAT Score

Chang-Kyun Chae, Yung-Sup Choi, Han-Koo Ryu
Jai-Ho Chung , Ji-Young Ryu, Chang-Hui Kang

The purpose of this study is to empirically analyze key issues using Korean SAT score data. Analysis and policy implications of the selected issues are summarized as follows.

1. An analysis of the peer effect in the classroom with Korean SAT score data

This study empirically analyzes how the characteristics of classroom peers affect the individual student's academic performance with Korean SAT score data in 1995. The empirical results of this study are as follows:

First, the characteristics of the peer group influence an individual student's academic performance significantly. The higher average level or heterogeneity (standard deviation of score), the higher score is resulted.

Second, this negative impact of low-grade peers overwhelms any positive impact of high-grade peers on average. Thus, we need to calculate the net effect of peer effect in discussions of education reform. Social consensus is required as to how much one should weigh both effects.

2. An analysis of labor market performance according to the Korean SAT score distribution of each school

This study reviews whether the characteristics of a school among Korean high schools affect labor market performance with recognizable peer effect. Subjects in the analyzed sample are of university and college graduates whose Korean SAT scores appear in the dataset, except for repeaters, in 2001. This study analyzes the influence of individual score, of average score of a school the subject is involved in, and of score distribution in the school on one’s labor market performance.

Providing excellent students with concentrated efforts in education collectively might be better and more effective at improving labor market performance. On

the other hand, it might also be necessary to maintain a High School Equalization Policy given that consistency and variety of experience in the labor market have positive effects on labor market performance.

3. An analysis on Korean SAT score improvement at Special Purpose high schools

This study analyzes differences in test results between general graduates and special purpose high school graduates. This paper analyzed Korea Education and Employment Panel (fourth wave, 2007) KRIVET (Korea Research Institute for Vocational Education & Training) data utilizing a 2SLS (two-stage least squares) estimate model with instrumental variables in order to resolve the endogenous bias problem. The results are as below.

First, it does not show that Korean SAT grades of special purpose high school students are better than those of general high school students. Second, for special purpose high schools and foreign language high schools in Seoul or other metropolitan cities, educational performance is superior to that in high schools in small and medium-sized cities.

In general, these results show that Special Purpose high school education seems to have limited benefits. Therefore, reforming Special Purpose high schools is an important issue in terms of education policy.

4. Analysis of the effect of the EBS Korean SAT lecture program

In July 2007, the Ministry of Education and Science/Technology announced mitigation measures of private education expenditure. The object aimed to reduce the burden of private education expenditure through the transition of educational demand into EBS Korean SAT lectures. An additional objective was to decrease educational differences between social classes and between local areas by expanding educational opportunities. The Ministry of Education and Science/Technology also suggested that Korean SAT performance would reflect more of EBS lecture contents. This paper analyzed whether private expenditure effectively diminishes with participation in EBS Korean SAT lecture programs, which is tested utilizing KEEP (Korean Education and Employ Panel) data from the first wave (2004) to the fourth wave (2007) data.

The results are as follows. First, it affirmed that participating in EBS Korean SAT lecture leads to positive consequences in terms of reducing private education expenditure. Second, the performance improvement effect was limited to Korean language study. With those results, we can expect decreasing private education expenditure with a strengthening Korean SAT performance effect of the EBS lecture program.

5. Scale of repeater group, Private education expenditure, Performance

Most people have not considered repeater group problems seriously enough, even in the policy and research sectors. This section, therefore, dealt with the characteristics, size, score distribution, and private education expenditure of repeater groups. Results of those analyses indicate that even though the number of repeaters has recently decreased, the ratio of the group still exceeds 20% of Korean SAT takers. Monthly expenditure on private education made by repeater groups in 2009 is 659,000 won among general high school graduates and 371,000 won among vocational high school graduates. Third, the performance distribution shows the ratio of general high school graduates is higher at the top level than among vocational high school graduates. Finally, there are more students to have achieved higher test performances compared to the former Korean SAT score among repeater groups than those having shown lower performances.

Innovation of the Lifelong Skills Development System (Ⅱ): Empirical Analysis of Some Issues in the Vocational Training Financing System

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Yong-Jin Nho (Seoul National Polytechnic University)
Kyung-Jun Yoo (Korea Development Institute)

1. Overview

The purpose of this study is to conduct an empirical study on the key issues relating to the vocational training funding system in Korea. The employment insurance vocational ability development scheme, introduced to replace the compulsory vocational training system that supported economic development in 1970s, is the key financial system to maintain the present vocational training system. The source of revenue of this system is the employers' insurance fees in the employment insurance vocational ability development account. The primary purpose of this system is to provide vocational training expenses for employed workers and unemployed people with previous work experience. Hence, the employment insurance vocational ability development scheme is managed as a form of social insurance, having some institutional characteristics of a typical training levy-grant system.

In this study, we have alluded to and empirically reviewed some key issues of the employment insurance vocational ability development scheme. We focused on the general institutional conformity and suitability of vocational training funding system, rather than on the details to be improved. The empirical validation is based on econometric analysis with various data sources comprising the data from employment insurance, HRD-net, and the results of an employer survey conducted by KRIVET.

2. Key results of the study

In regards to the suitability of the levy on employers to remedy market failure, it is revealed that employer-led training lowered the quit rate statistically significantly, according to the analysis results. This result can be understood as

indicating that there is no market failure caused by the externality of the employer-led training in the Korean labor market as a whole. However, although there is no market failure overall, we can identify some cases of market failure as the scale or categories of businesses differed. The possibility or presence of market failure arose in small businesses or certain business categories. Therefore, it is found that the present training levy system is necessary.

Referring to the actual subject of the training levy, it was proven that there exists a transfer of employers' social insurance costs onto worker's wages. That is, if the employment condition changes from the status without social insurance to the status with, the rate of the wage increase is 8% lower. Considering the fact that employers' burdens for social insurance are about 10% of total compensation costs, this result means the amount of the transfer is about 80% of the employers' share.

The analysis of the effect of self-directed training, focused on the individual training subsidy, showed that the individual training subsidy training should not be regarded as negative for employers. First of all, the individual training subsidy contributes to expanding training opportunities to employees who were overlooked for employer-led training. Also, the turnover possibility of workers who benefited from the individual training subsidy is higher by 10% than for those of participants of employer-led training. That means the employees participating in vocational training tend to stay in their present work places. Therefore, there is no reason for employers to regard the individual training subsidy negatively.

The roles and effects of formal training and informal training were reviewed to estimate the effects of government intervention in employer-led training under the training levy-grant system. From the analysis, the outcome showed both informal workplace learning and formal training were utilized for skill development required by the employers, and each side complemented the other. In this case, it can be said that it is reasonable to support formal training because it promotes informal workplace learning. Nevertheless, the specific job characteristics are the most influential factors in informal workplace learning and formal training. Therefore, the production or management system needs to be changed to one that is more skill-oriented.

Finally, the evaluation results of government support for employer-led training showed that such intervention did not prove to be effective. First of all, the employers who received government support tended to invest more money into

training for their own employees. However, the effects fell as more developed analysis methods were applied. Again, the results from the employers' survey showed that, in some cases, even unnecessary training was organized just to receive the government training subsidy.

3. Policy Implications

The main findings from this research project have important policy implications for the vocational training funding system. First of all, the levy on training to revise labor market failure has some validity in Korea's labor market. However, the poaching externality of training appeared to be confined only to small businesses. Of course, the social validity of the training levy should not be determined by the poaching externality only. However, as long as the poaching externality appeared to lack prevalence, it should be stressed that careful consideration of the validity of the overall training funding system is required.

Next, the results relating to the subject of the training levy is suggestive for future system management. The fact that the actual subject of the training levy is the employee implies that the focus of employment insurance vocational training should not be confined to employer-led training. Instead, there exists a strong demand to extend the direct support to worker-led training. Meanwhile, these results raised the fundamental question over the validity of the social insurance principle applied to the employment insurance vocational training system. In other words, there is a dissociation of nominal-actual subjects of the training levy. It is necessary to remove the social insurance principle from the current training levy-grant system.

The outcomes relating to the individual training subsidy are worthy of note, with the revision of the support process. That is, under the rapidly changing technological and social conditions, the necessity for the funding of individual-led training has increased. Despite this, there has been some opposition to the expansion of funding to individual-led training, since such training would increase the quit rate of training participants. However, together with the results from the wage transfer effects of social insurance costs, such objections have been found to be groundless. The current system requires adjustment to increase the financial support to individual-led training activities.

In regards to the support provided to employer-led training itself, workplace

learning is important, as well as formal training. The most important thing is to determine how to support such informal training activities, considering the nature of informal training itself. It should also be stressed that training policy alone would not achieve much success with regard to the promotion of workplace learning. That is, for the activation of training, the reorganization of business management is required to ensure it becomes more skill-oriented before the extension of training supply. In conclusion, the training policy should be promoted with skill-oriented reform or skill-oriented strategies to increase the competitiveness of employers.

A Study on the Training Guidance Improvements of the Vocational Competency Development Accounts

Young-Su Choi, Young-Hoon Oh, Young-Sun Ra,
Cheol-Hee Kim, Bong-Whan Kim

1. Research Background

○ Vocational Ability Development Accounts; VADA is introduced to Unemployed Training in 2008, and expanded to the whole country in March, 2009.
- This system is similar to the Individual Training Accounts scheme in the U.S.A. and the Training Voucher system in Germany.
- The objective of VADA is to promote the efficiency and effectiveness of governmental training management by strengthening the right of training choices of individuals to bring competition to the training market.

○ It is important to offer appropriate career guidance to training participants and to ensure the quality of training courses for the settlement of VADA (CEDEFOP, 2009; IZA, 2008).
- In CEDEFOP (2004), it is emphasized that career guidance is an important measure for lifelong learning and social inclusion.
- Also, it is pointed out that the importance of career guidance is increased as the employment policy changes (OECD, 2004).
- Therefore, an examination of strengthened career guidance and the active promotion of policy for the expansion of the range of VADA application is required.

2. Present Status of Career Guidance

○ According to the survey results of training counselors who are in direct charge of career guidance, it was found that the career guidance of VADA is not accomplished systematically.

○ The extent of counseling for VADA is 11.2 a day on average on the whole.

- From among these, 40.25 percent of visitors are judged to be inappropriate for VADA.
- 54.87% of visitors decided their training providers or training field before the Employment Service visit.

○ If the visitors' interested field of training was inappropriate, 96.7 percent of training counselors suggest a change of the training field.
- The acceptance proportion of the training field change suggested was 42.58%.

○ More than the 70% of training counselors experience problems with visitors in terms of the process of VADA issuing.

○ The problems of the VADA career guidance process are summarized as follows:
- Many of the persons interested in VADA cannot be offered objective information of the individual characteristics or the labor market. Instead, they learn about the VADA through training provider promotion.
- Therefore, training participants recognize the process of career guidance and training account issuance as just one stage in training registration, instead of as a careful choice process based on the premise of appropriate expense share.
- The lowering of financing efficiency is of concern, because the training account is not issued to the class needing job training and governmental support, and the target group cannot be led to the appropriate training course.

3. Major issues relating to the improvement of career guidance

○ Issues related to the improvement of career guidance
- The relationship between career guidance and employment support: The purpose of unemployed training is to improve competencies for finding jobs. Therefore, the training service and the employment service should be related in the long term.
- The principal of 'Co-financing' to the operation of VADA: the VADA

system is based on the expense share of training participants. Therefore, a scheme that can realize the principal is devised.

- Expansion of job and training information for the process of career guidance: insufficient career guidance is caused by training counselors lacking sufficient job and training information, rather than as a result of problems in training seeker interest in VADA.
- Strengthening the professionalism and authority of the training counselors: the training counselors need sufficient information of individual characteristics, the labor market, and training. They will then be able to use the information effectively in the process of account issuing or training field decisions.

○ In this research project, the three issues of career guidance process, information, and staff are discussed in depth.

- Process: the reconsideration of the importance of career guidance in the whole employment service field and the institutional improvements needed for more authoritative counseling is discussed.
- Information: the system and content improvements of job and training information for satisfactory counseling is discussed.
- Staff: for training counselors, the competencies needed for effective training counseling are discussed for the future professionalism of counselors.

The Method for Collecting and Constructing Overseas Career Information for Youth

Eun-Sang Cho, Young-Dae Lee

This research project attempts to present the method for collecting and constructing overseas career information for young people as the infra system of overseas job information, wherein overseas career path information is not available. The current career information for youth mainly focuses on domestic information.

Overseas experts were interviewed to provide information on the importance of overseas employment, essential information for overseas employment, such as types of occupations and countries, the methods by which overseas job information is transferred to the youth, and success factors and strategies for obtaining overseas jobs.

The following suggestions are presented to collect and construct the overseas career information of youth. The government needs to design a long-term road-map for collecting and constructing overseas career information, introduce overseas career information to students through foreign language-teaching teachers, operate public websites for overseas job information, construct a system linking and evaluating overseas internship, service programs and overseas employment, and, finally, develop and distribute an overseas job world report.

The policy suggestions are presented as follows. Universities are requested to change the perception of overseas jobs among college students, provide the basic materials and information on overseas employment, develop student communication skills, build an overseas employment assistance center, and, finally, establish overseas branches for overseas networks.

Schools at elementary and secondary levels need to provide overseas career and job information to students, link the curriculum and overseas employment, construct a network of overseas career paths and employment for youth, and, finally, utilize a cyber room for overseas experts-students.

A Study on the Effect of Vocational Training on the Job Separation Rate

Me-Rhan Kim, An-Kook Kim, Jae-ho Chung

1. Objective and Importance of Research

As worker's mobility is increasing, vocational training is becoming one of the most useful methods for improving the quality of employment. In order to improve worker's job stability and employability, vocational training and training policy should be focused on the employed rather than the job-seeking unemployed.

This research investigates the traditional notions of worker participation in vocational training, and analyzes the effects of vocational training on job separation and company profits.

2. Data and Methodology

This study uses data on individual job & training history. This data is derived from accumulated administrative data gleaned from the operation of the Unemployment Insurance System and combined with the HRD-Net. The effects of training on job separation are examined through a 10% sample of workers insured by Unemployed Insurance. Participation of training is identified from HRD-Net and limited to Job Capability Development Training (JCDT) by the business owners in the Job Capability Development Programs (JCDP). This study uses HCCP (hccp.krivet.re.kr) data for the estimation of job separation rates and profits at firm level.

3. Results and Implications

The rate of participation in training (JCDT) to wage-earning workers was 12.9% (2,085,000 persons) in 2008, which is double the 6.4% levels in 2002. This rate of the Unemployment Insurance insured drastically increased to 22.2% by 2008 from 12.7% in 2002.

The average number of training sessions was 2.1 per trainee. The number is

higher among males, in the 30s age group, and among those with a higher education. Average training hours per year was 71.6 hours. Compared to traditional on-site training, distance training through the internet, mail, and other information technology methods has increased as essential training methods. The share of distance training was 55.8% in 2008.

Workers participating in vocational training tend to have lower job separation rates, staying longer at firms than workers without experience in vocational training. Moreover, in the case of leaving the firm, trained workers are re-employed faster than non-trained workers. These results are found after controlling for differences in gender, age, occupation, industry, workplace size, and including ‘tenure before training' as an explanatory variable. The results suggest that the JCDT undertaken by employers contributes to improvements in job stability by extending job tenure and helping workers find jobs faster after a job separation.

Data on ‘training cost per person’ and ‘number of training sessions per person’ show that training lowers the job separation rate. Hence, if firms invest in training, the separation rate, at the very least, will not increase. Training also encourages workers to commit to a job, improves vocational skills, consequently contributing to the increase of productivity and profits.

A Case Study on Elite Vocational Training Institutes

Cheon-soo Park, Su-won Kim
Hea-jung Chang, Won-hee Lee

By analyzing the general management of elite vocational training institutes that have yielded great results, this study seeks to not only bring about the further advancement of vocational competency development training programs, but also to identify the characteristics and conditions commonly found in such elite training institutes. In particular, this study focuses on analyzing the attributes and elements associated with elite vocational training institutes that offer specialized training courses, are characterized by high trainee satisfaction, and feature a sufficient number of trainees.

The study began with the formation of an advisory council responsible for selecting the elite training institutes examined herein. As a result of this exercise, 20 training institutes were selected. Thereafter, twelve of the 20 institutes identified by the specialists were selected as targets of a more in-depth study involving direct visits and interviews. This was followed by the dispatch of a research team and consultants, who served as associated researchers, to the selected training institutes in order to conduct in-depth interviews. Lastly, the characteristics and strengths of the training institutes were analyzed, and a presentation on the topic of elite training institutes designed to shed light on their potential characteristics was held.

The characteristics and strengths exhibited by elite vocational training institutes can be summarized as follows. First, elite training institutes possess a clear vision of human resource development (HRD) and labor market performance. Second, these training institutes provide their own specialized courses. They have also sought to specialize themselves in such regards as in the management of trainees'careers. The latter has included a focus on such aspects as preventing trainees from quitting before the end of their courses, the provision of counseling, the development of education & training methods, and the formation of employment support systems. These elite vocational training institutes have sought to further substantiate and diversify their training programs by paving the way for the introduction of vocational development accounts, as well as the establishment of sales-related strategies, such as

business diversification. Third, the lecturers and teachers employed by such elite vocational training institutes carry out various job tasks other than giving lectures. These include researching teaching methods and class materials, academic and career counseling, and the follow-up management of trainees. Such vocational training institutes have set up various training programs designed to strengthen teachers and lecturers' competencies, conducted regular assessments of teachers and lecturers, and introduced various incentives. Fourth, these vocational training institutes have used the following process when developing training courses: surveys of training related requirements, development of detailed education contents based on an analysis of the relevant job market, planning of educational management methods and strategies, and the implementation of vocational training programs. Fifth, the vocational training institutes have used various methods, including online and offline ad campaigns, to recruit trainees. They have also provided counseling services designed to help trainees adjust to the prevailing circumstances, manage their careers, make career-related decisions, and see their courses through to the end.

The following can be identified as the main suggestions raised by this study as pertains to vocational competency development policy: first, information related to vocational training institutes should be compiled and made available to the public. Second, elite vocational training institutes should be provided with more financial incentives and autonomy in terms of the arrangement of their training courses. Third, the integration of the currently excessive number of small-sized training institutes must be achieved. Fourth, the specialized support services required by vocational training institutes should be developed and commercialized.

In turn, the following can be identified as the main suggestions introduced in this study as pertains to the management of vocational training institutes: first, steps must be taken to ensure that vocational training institutes have the number of trainees they require to achieve specialization. Second, as the management of vocational training institutes involves the achievement of economies of scale, there is a need to ensure that the necessary preparations and investments be in place before opening a new vocational training institute. Third, trainees' tendency to react negatively to some of the low-quality services provided by vocational training institutes highlights the need to properly manage such services.

Although new analysis methods were employed here, it must be kept in mind

that the results of this study were based on a limited number of vocational training institutes and a superficial examination of the subject matter. To this end, there is a need in future studies to increase the number of research subjects, strengthen on-site research capabilities, and employ an interdisciplinary approach that includes an external research team whose members come from various backgrounds.

Vocational Education and Training in Nordic Countries

Eon Lim, Young-Hyum Lee, Ji-hee Choi, Jun-Pil Ok

1. Purpose of The Study

This study aims to examine upper secondary vocational education and training(VET) systems in Northern European countries(Denmark, Finland, Norway and Sweden). The followings are the research questions of this study. First, what are the core values that Northern European education systems are based on, and what policies have these countries framed for emboding the core values? Second, how have apprenticeship-based VET models been constructed, and what are institutional measures for supporting the model? Third, what policy implications do their systems offer for Korean upper secondary VET?

2. Overview of Northern European Countries

To understand the context of Northern European VET, the social, cultural and economic features of these countries were considered in this study. The main features are as follows.

First, Northern European countries are small but strong. Despite the small population and economic sizes, these countries have achieved high economic growth and comprehensive welfare systems. Second, Social democratic tradition has prevailed in these countries. Accepting basic principles of free market economy, these countries have pursued the ideal of Socialism that takes equality as a priority value and have tried to realize it in the democratic and legal mode. Third, these countries have constructed welfare systems. Fourth, these countries have developed social corporatism. The important social groups, labor, capital and the state, have systematically taken an active part in main policies making process.

To take an objective view on features of the education system in Northern European countries, this study compared these countries with other OECD

countries. In these countries, 77.6-81.1 percent of adult population completed upper secondary education, which is above OECD average. In addition, the ratios of expenditure on education compared to GDP are above OECD average, and the ratios of public expenditure on education are top of the league. The result of OECD Programme for the International Students Assessment(PISA) shows that only Finland is top of the league. However the result of International Adult Literacy Survey(IALS) shows that all of Northern European countries have the highest level of it. Furthermore relatively high are the proportion of a youth participating in VET in these countries: Denmark, 47.8; Finland, 65.4%; Norway, 60% and Sweden, 54.2%.

3. Main Features of VET in Northern Europe

The main features of VET in Northern Europe are the followings:

First, in these countries, the state entirely finances VET courses. Under social democratic tradition, focusing on equality, these countries have aimed to realize equal access to education and training. Second, local authorities own upper secondary VET institutions, being autonomous in terms of governing them to a great extent. However, the Government has considerable influences on VET. The Government sets out the overall framework for national level curriculum and quality assurance, and the local authorities are in charge of implementing education and training. It is essential that local VET providers be autonomous in terms of adapting VET to local needs and demands.

Third, in these countries, social partners plays a central role at all the levels of VET, consequently their VET corresponds closely with labor market skills demands. In addition, there are a variety of committees, from the national advisory councils on VET to the local training committees, and the roles of social partners are regulated by a number of acts. Trade-specific and programme committees, consisting of representatives from both sides of industry, have a dominant position in formation of curricular, performing a central role in the development of new VET courses and renewal of established VET courses, in order to match technological changes in the labor market. The committees are responsible for deciding purpose, period, content and requirement for the VET courses, and issuing certificate of qualification. In these countries, the mutual trust and close cooperation among the Tripartite actors(labor, capital and the state) have involved in making VET more adaptable to the continuous labor

market changes, and maintain quality of VET courses.

Forth, at the upper secondary level, all of these countries have emphasized the importance of practical training within VET courses. However, places and periods for practical training vary in these countries. For example, Denmark and Norway take the apprenticeship training at enterprise as basic practice programme, while in Finland and Sweden, school-based practice is considered as the main programme. In Denmark, a majority of students participating in VET courses, choose apprenticeship training. in Norway, about 23 percent of vocational students and in Finland, 16.7 percent of them participate in apprenticeship programme. In Sweden, school-based practice has prevailed. In recent years, however, the Swedish government has tried to introduce apprenticeship training programme.

Fifth, these countries have formulated quality assurance system. High drop-out rate in the upper secondary VET has generated a lot of controversy, yet imposing strict requirements for graduate qualification, according to the standard, is one of the factors which caused high drop-out rate. The Northern European countries have similar quality assurance systems. Such a quality assurance system of VET is applied to individual level as well as institution and national-level.

Sixth, flexible vocational education system enables students to have a wide variety of choices in these countries. For example, in Denmark, each student establishes a “personal educational plan", based on his personal assessment of prior learning, and according to the plan, education programme is provided to each student. That is, in Denmark, the flexible and modulized VET system is constructed which enable each student to adjust the pace and content of learning based on his competency and level of his prior learning. The Norwegian Education Act also states the individual's right of receiving education according to their competencies and aptitudes. The emphasis on the individually-focused education is compatible with the view that the students who may struggle and lack motivation should be paid more attentions.

Seventh, in addition, within VET system in Northern European countries, individual education institution has closely linked to each other so that it enables all students to transfer between learning pathways under a certain condition. Denmark, Finland and Norway have similar flexible systems.

Eighth, the Northern European countries have strict quality assurance system and flexible education system so that they enable students who fail in meeting

the standard quality requirement to have second-chances, as well as alternative pathways. These alternative programmes are provided with no charge within the public education system.

Ninth, relatively high are the proportion of a youth participating in upper secondary VET in these countries- Denmark: 47.8, Finland: 65.4%, Norway: 60% and Sweden: 54.2%. This is the result of not only the socio-cultural tradition of respect for a journeyman but also the strong policy implement. In these countries, every person has opportunities for continuing education within the lifelong education framework. Besides, the industrial sector, the demander of VET, has made the effort to create a skills-focused custom in recruitment, wage level, promotion and so on. That is why, on the whole, in these countries, the VET participation rates have been increased or kept status quo, while in other OECD countries, the rates have been decreased.

Tenth, in the Northern European countries, an active and comprehensive career education has been implemented in the integrated way, across all subjects. Besides, the work experience programmes are provided to a majority of students.

Finally, these countries have reformed their education system in line with “the European Qualifications Framework", and have implemented the European Credit Transfer System for VET (ECTS) and international degree system. These trends have entailed emphasis on basic competency, English and the second foreign language. In addition, these countries have participated in the Leonardo da Vinci programme which enables VET organizations to work with European partners and exchange best practices.

4. Policy Implications

Korea and Northern European countries have developed distinctly different systems, therefore it may be more difficult to extract some policy implications from Northern Europe case which can be applied directly to Korean VET system. However, in relation to improving coherence between the VET programmes and labor market skills demands, the Northern European case brings some policy implications, as follows.

First, there is a need to expand the responsibility of the government for VET. That is, it is needed for the government to increase gradually financial support for VET and make the VET tracks more attractive, as well as to introduce a

rigid quality assurance system.

Second, there is a need for constructing partnership between the government and the industry. To stimulate the industrial sector to participate in VET, the government, the industry, local authorities and enterprises should come up with measures at all the levels.

Third, there is a need to improve the linkage between the VET programmes and labor market skills demands. To promote workplace training with VET system, the role of stakeholder- the government, the industry and education institutions- should be stated by acts and controled strictly. In addition, the government should offer incentive (e.g. financial incentive) for enterprises and trainees participating in workplace training.

Fourth, it is needed to expand the autonomy of local authorities and active support of the government. In other words, the government should empower local authorities to administrate VET, at the same time, it should set out overall framework and offer financial support programmes.

Fifth, there is a need for strengthening quality assurance system. It is necessary to set out National Skills Standard, led by the industrial sector and reflect the Standards in VET programmes and qualification system. The graduate qualification also should be tighten up.

Sixth, it is necessary to provide a variety of experience-focused alternative education programmes for the student who lack basic competency.

Seventh, flexible education system should be constructed, in order to offer students many pathways.

The flexible system enables student to have many chances to participate in a variety programmes and substantial options.

Eighth, it is necessary for the industrial sector, the demander of VET, to make the effort to create a skills-focused employment custom.

Vocational Programs for General High School Students

Eon Lim, Tae-Jun Park
Su-won Kim, Jae-Kyung Lee

The purpose of this study was to examine the characteristics of the vocational programs for general high school students(VPGH) and evaluate outcomes of those programs. The followings were research questions of this study. First, how many students had enrolled in these programs in 2009 and has the number of applicants increased in recent years? Secondly, what are the official objectives of VPGH and what are the goals of VPGH perceived by students and teachers? Thirdly, what are the employment rates of graduates of theses programs, the percentages of graduates who pursued higher education, and the rate of students who passed qualification tests?

The number of students who completed VPGH has increased conspicuously between 2008 and 2009, from 3,784 to 5,643. 40.3% of them were educated in special schools for VPGH(Industrial information schools), 30.8% were trained in public vocational training institutes supported by the Ministry of Labour, and 25.7% were trained in private vocational institutions.

The official objectives of VPGH is to provide vocational training for students who do not have a plan to go to the universities. Yet, 17.3% of students had chosen VPGH expecting that they might have a higher chance to get admission from technical colleges and 31.4% students had chosen VPGH not for getting jobs but because they didn't have any other choices due to low academic achievement. Only 4% of students had chosen these programs for getting jobs. The gap between the official objective of VPGH and goals perceived by students could cause confusion and conflict in evaluating the validity of the content and the outcome of these programs.

The employment rate was the highest in public vocational training institutes(54.1%), and the lowest in the Technical Information schools(10.5%). The success rate in getting qualifications was the highest in the public vocational training institutions(82.1%) followed by Industrial Information schools(72.7%), and private training institutes(51.2%). On the other hand, the

entrance rate for higher education was the highest in Industrial Information schools, the lowest in the public vocational training institutes.

To clarify the objectives of VPGH and divide roles among different groups of institutes were suggested,

One Enterprise-to-One School Project to Invigorate Industry-Academia Collaboration

Sun-Yee Hong, Tae-Hwa Jung

Network of industry-academia cooperation is a prerequisite in promoting national development through technological innovation and development of competent workforce suitable for industries. The government has made multilateral efforts to promote cooperation between industry and academia, and such efforts have led to improvements in the institutional bases needed to promote industry-academia cooperation to some extent, with significant quantitative achievements.

However, such steady increases in quantitative outcomes of industry-academia collaboration are not put to practical use in industries. The main problem behind the lack of cooperation among enterprises and vocational high schools is insufficient participation of those interested parties due to lack of awareness and will, and shortage of intermediary organizations to link the interested parties and carry out arbitration activities. Amid shortage of intermediary bodies to link and coordinate enterprises and vocational high schools, the project on one enterprise-to-one school agreement is highly desirable and meaningful in stimulating industry-academia cooperation.

The main purpose of the one enterprise-to-one school agreement project is to support enterprises and schools to sign an one-to-one agreement as a way of promoting practical and progressive industry-academia collaboration. This project has laid the stepping stone to practical and substantial industry-academia collaboration, and we expect productive cooperation to take place among more enterprises and vocational high schools.

A Comparative Study on Veterans Support Policy

Sun-Lee Hong, Dong-Yeol Park, Jung-Pyo Lee, Sun-Hak Kim

Along with recent recession both in domestic and international stage, it has become more hostile environment for veterans to find their jobs. Now it needs more systemic approach from different angles to deal with this social problem. In order to secure outstanding military work force, it is essential to guarantee their stable future after retirement. Therefore, a support from national level to those veterans is critical.

The objective of this study lies in analyzing developed countries' policy for veterans that helps relieve the unemployment problem and drawing applicable points from those policies to Korea. As a way to achieve this goal, firstly we have examined Korean veterans' current employment status and current support system. Thereafter, we analyzed other nations' support policy for veterans to discover applicable points to Korea. As methods to carry out this study, it involved the analysis of related data, interview in both domestic and international stage, and discussion with professionals. The recently proposed policy implementation primarily focuses on practical job training courses.

As a result of this study, the following points has been suggested as policies to support veterans: "Implementation of practical job training that is directly related to employment", "Construction of support system for veterans and alignment of organization" "Creation of job to encourage employment process" "Settlement of job transfer support system in accordance with the characteristics of those in the military service." To discuss details for each point made, firstly expanding the development of education to guarantee professionalism for finding job and job training, making acquisition of certificate mandatory, and finally strengthening counseling were suggested as a way to "Implementation of practical job training that is directly related to employment."

As a way of supporting "Construction of support system for veterans and alignment of organization," establishing on-line support system, realigning the structure of related organizations, and alarming the recognition of military experience and certificate of education were mentioned. Lastly, encouraging the employment by defense industry, securing work force for veterans and

promoting public relations of veterans were suggested as a way to “Creation of job to encourage employment process.”

In conclusion, a more substantive policy that allows veterans to gain professional skills in finding jobs and inter-organizational effort to support veterans should be established in order to promote finding jobs for veterans. The preparation of transferring jobs by veterans should be processed with enough of time both strategically and continuously. Moreover, it requires a special support strategy of transferring jobs for veterans even before they retire their jobs at military. However, even if support from government and military provides enough of help, it is individuals that will determine successful employment after retiring from military after all. As can be found in the case of developed countries, more time to prepare for re-employment after retiring from military should be spared for each individual with a help from related policies that guarantees enough of time to prepare for transfer of job.

Development of KRIVET Occupation Prospect Index(2009)

Yun-Kyoung Jung, Sang-Geun Han,
Hea-Jung Chang, Na-Ra Kim

1. Introduction

The unemployment ratio among the rising generation and the anxiety of the insecurity of their occupations among the elderly are being aggravated along with the increase of the ratio of casual workers(non-regular workers), to be faced with the worldwide economic crisis. The nation needs the information for more secure occupations, promising occupations in the future's work world that are unpredictable, as the employment quality is growing worse. For this reason, to develop a path for the nation, we are willing to provide an output of Occupation Prospect Index that will strengthen the relationship between the education world and the work world, which is an important data for the subject of the economy to encounter the changes of the work world more actively and effectively.

The following is our research method. First, the comparative analysis of the actual statistical data of the 2007-2008 KRIVET Occupation Prospect Index result. The second is to analyze the national and international studies and statistical data that are related with the evaluation field and item details of the Occupation Prospect Index. Third, the specialist survey for additive computation of the evaluation field and item details of the index along with the Occupation Prospect Index survey after 2007, of the occupations that belong to the major industries of manufacture, construction, science and engineering. Then, the fourth is to calculate each indexes based on synthesis prospect index and field prospect index to find out promising occupations or promising occupations for the aged/woman. Then, finally based on the research of all the above, we will present a long term strategic plan and policy implication of the Occupation Prospect Index henceforth.

Based on the basic research of 2006, we consists of category of Occupation Prospect Index. For Occupation Prospect Index's computation of the weight, we

research into Delphi-survey of 58 specialist and Occupation Prospect Index consists of seven evaluation items as follows : ①compensation - earnings and benefits ②employment conditions - job creation, job growth, and job competition ③employment stability - full-time employment and job retention ④ career growth prospects - self-development, promotion, and possibility of job change ⑤working conditions - working hours, physical environment, stress ⑥ professionalism - expert knowledge, autonomy, authority, social reputation, community service, and spirit of calling ⑦employment equality - gender equality, elder-friendliness. Finally, 140 among 152 jobs(excepting 12 jobs) of the manufacturing and construction industries fields's low group carried out the survey.

2. Main Findings

1) Occupation Prospect Index of the present

By use of a survey's result for current occupation prospect, IT related occupations showed the highest prospects in 9 occupations middle group of KECO. Followed by chemistry related occupations, electricity and electronics related occupations Looking into the Occupation Prospect Index of seven evaluation items by grade, IT related occupations showed the highest prospects in compensation, employment stability, career growth prospects and professionalism. Followed by electricity and electronics related occupations showed the second highest prospects.

2) Occupation Prospect Index of over the next 10 years

According to the occupation prospects of over the next 10 years time, the IT related occupations showed the highest prospects, followed by machine related occupations, chemistry related occupations, food processing related occupations, electricity and electronics related occupations in 9 occupations middle group of KECO.

3) Change of occupation prospect between the present and over the next 10 years

The analysis of the correlation between the present Occupation Prospect Index and over the next 10 years Occupation Prospect Index, had a high relationship. It means that the structure of occupations for the present will remain for 10 years later from now. We've analyzed general change of Occupation Prospect Index (index of over the next 10 years - index of the present) that we forecast, food processing related occupations will generally improve in occupations high group.

Prospective occupations both the present and the future included IT related occupations (computer system designer/analyst, system software developer, database manager, computer security specialist, IT consultant etc), followed by machine related occupations(mechanical engineer, mechanical engineer, automatic assembly-line and industrial robot operator, aircraft and ship assembly inspector etc, excepting welder).

Occupations with gloomy outlook both the present and the future included construction related occupations (steel worker, concrete worker, stonemason, cement masons, bricklayer plasterer, painter, construction and mining related worker etc), footwear manufacturing related operator, textile and clothing related occupations, production related worker, packing man, sash man.

3. Policy and Prospect

The study on the occupation prospect should be maintained to provide and achievement on the computation and research on the Occupation Prospect Index. In this context, the following is the direction of policy and prospect along with the proposal for improvements which we present.

There should be bolder policy measures for on the training and management system of craft workers in the construction industry, and for the occupations in science and engineering industry, the public awareness and new education should be strengthened as regard the policy. Also, to generate statistics on the occupation prospect, overall ministries and offices should help to form a cooperative system partnership with us.

The prospect is to establish a plan for a long term research on the occupation prospect, and to build a system to promote the utilization of the Occupation Prospect Index. Details of the plan of the occupation prospect research is to maintain the research on a 2 year period, organizing a squad who will take full charge of the Occupation Prospect Index, and to establish a cooperative system

that will stabilize the existing statistical data. Also, along with the occupation prospect index, diverse research themes associated with this index will be carried out. To build system to improve the efficiency of the Occupation Prospect index, it is needed to build an occupation prospect information system for the public and an index automation estimation system.

A Fundamental Study to Explore Human Resources Development of the Children of International Marriage Households and Foreign Workers

Nam-chul Lee, Mi-Young Lee
Ji-Sun Chung, Il-Gyu Kang

The aim of this research is to explore the children' human resources of international marriage households and foreign workers. The purpose of this study is to investigate the problems of multiculture children in human resources development (here after called "MCHRD"). The major study methods were the previous research and government policy review, the field survey, in-depth interview, and symposium on multiculture children in human resources development. The field survey was conducted among teacher of 904, student of 2,308, parent of 2,308 and 160 of multiculture supporting institute. According to field survey, the teacher, student, parent, and multiculture supporting institute respondent answered 22.5 percent, 27.8 percent, 20.2 percent, and 24.4 percent, respectively.

At present, approximately 1.1 million people with migrant background live in Korea. MCHRD in Korea face many problems such as; discrimination in various fields, including education, social exclusion and social isolation, lack of language proficiency, racism, and higher level of unemployment.

Major policy designed to deal with the problems around MCHRD have been generated at a variety of level-central government, local government, supporting institute for migration family. In the following society we will describe key organizations and programmes that are relevant to multiculture family. Key roles of government responsible for improving of multiculture family related laws, for delivering policy including the Ministry of Education, Science & Technology, the Ministry of Justice, the Ministry of Labor, the Minister for Health, Welfare and Family Affairs, the Ministry of Gender Equality, the Minister of Public Administration and Security, the Ministry of Foreign Affairs and Trade etc.

The Ministry of Law's role is to advocate and to promote respect for human right in Korea, encourage harmonious relations between individuals and among

the diverse groups in Korea·Also Ministry of Law provides information to the public about discrimination and to help resolve complaints about discrimination. The legislative framework is very important for MCHRD, as it establishes their right to maintain their cultural practices and identity. In Ministry of Labor should lead, evaluate, monitor and advise on equal employment by everyone of their civil, political, economic, social and cultural rights, regardless of race, colour, ethnicity or national origin. Policy makers must recognize the important of regional organizations in improving overall multiculture family competencies - personal, social, cultural, economy, and political.

In multiculture family, one of the most significant barriers to educational achievement, employment and social integration is lack of Korean language proficiency. Korean language classes are widely available and are provided by a number of institutes. In multiculture supporting ogranisation, it teaches migrants to work out which course will best meet their needs. Courses are provided by a number of elementary schools, middle schools, high school, university, and lifelong learning institute.

This program is free, but not all are. The acquisition of Korean language competency is critically important for multiculture families, as the inability to speak the language of the host society leads to poor educational and employment outcomes, and to social marginalisation and isolation. Korean language courses need to be improved, readily available and affordable. Also private education institute provides for improving Korean language.

In order to support the policy of MCHRD, and to enable to development of appropriate policies, it is necessary to take into account a number of things. Integration into the Korean society does not mean assimilation-MCHRD need to be enabled and supported in maintaining their culture, a legal framework.

It is necessary to support at all levels, from central government to local government, and on broad societal attitudes as well as on the problems of individuals if muticulture family are to come feel at home in their new society.

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