and electronic communications, which have a benchmark in international or each country's technical standards. In Korea, however, such qualifications mostly exist as duplicated items at individual national qualification within the NTQ system and competent authorities for certification also varies.

In order to enhance the effectiveness of the international mutual recognition of qualifications, it is necessary to establish a unified qualification structure apart from the duplicated qualification items within the range of domestic qualifications.

A Linkage Scheme between Secondary Vocational Education and the Qualification System (RR 99-16)

Jeong-Pyo Lee Sang-Jin Kim Dong-Yeol Park Hyun-Soo Kim

I. Introduction

The objective of this study is to draw a linkage scheme between secondary vocational education and the vocational certification system in order to provide the opportunity for lifelong education and to assure the quality of the human resources.

This study was carried out through four major procedures as follows:

First, we examine the necessity and feasibility of a link between secondary vocational education and the vocational certification system.

Second, we analyze the current linkage between secondary vocational education and the vocational certification system in selected advanced countries.

Third, we analyze the overall current status of linkage and the need for an apposite direction of linkage.

Finally, we propose a linkage scheme to strengthen the linkage between vocational education and the vocational certification system in secondary education.

Research methods adopted in this study were literature review, comparative analysis on contents of school curriculum and question setting criteria for vocational certification, questionnaire survey, interview survey, expert committee, conference by sectors, and seminar.

$\scriptstyle II$. Linkage scheme between secondary vocational education and the vocational certification system

Two alternative policy recommendations are proposed in this study for more flexible options. Implemental feasibility is also considered based on the conditions of the administrative system, educational system and the labor market in Korea.

Suitable short-term options are proposed for current vocational education and vocational certification system that does not entail any radical changes in the design of systems. Long-term options regarding developmental strategies for lifelong learning by the redesign of systems are proposed. Each option has its strengths and weaknesses. At this point, the short-term options may prove more feasible and efficient as national policy.

1. Short-term option: Independent operation type

Links in contents

The Ministry of Education as the competent authority for policymaking and the implementation of vocational education should insure vitality of secondary vocational education, activate a voluntary vocational certification system, and establish a job competence certification system in order to strengthen basic employment competence.

The Ministry of Labor as the competent authority for policy making and implementation of vocational training and national technical certification system should make efforts to ensure the success of these programs.

The Korean Commission for Vocational Education & Training Policy should play a role in coordinating policy making and implementation of both ministries in vocational education, vocational education, and vocational certification system for an effective division of roles.

Operational links

Both the assessment and management system of vocational certification should reform on a significant scale in order to assure quality.

The government should ensure quality assurance for the national vocational certification system.

A national vocational certification amendment plan should be established for monitoring and improving the technical certification system within the next $3\sim5$ years.

Quality assurance and reliability should be gained through the establishment of rigorous authorization criteria for voluntary vocational certification.

It is necessary to assess the competence of institutions of national certification and authorized private certification providers to ensure quality control.

Horizontal links

Mutual recognition should be available at the discretion of the principals by creating a standard linkage scheme by sectors and regions for verified certifications.

It is necessary to monitor and revise the waiver of the written test of craftsman level in the National Technical Certification System to ensure quality assurance.

Vertical links

Educational requirements for vocational certificates should be fully amended to strengthen the vertical links between higher education and vocational certification.

Incentives or additional points should be given to the holders of vocational certificates when they make progress in higher education (universities or colleges), at the discretion of the universities or colleges. Institutional support is necessary to promote in-house voluntary vocational certification.

It is necessary to assess and recognize the results of secondary vocational education with full consideration given to prior individual learning experiences including vocational certificates.

2. Long-term option: Unified operation type

Links in contents

The government should establish and utilize a National Skill Standard to strengthen linkage among vocational education and training, vocational certification system, and industry in order to foster a lifelong learning society.

The vocational education curriculum should be fully reorganized to incorporate secondary vocational education courses along with achieving the process of vocational certification.

KRIVET(Korea Research Institute for Vocational Education and Training) should provide support to industry in planning, design, and development of the National Skill Standard.

Operational links

The Ministry of Education and Ministry of Labor should jointly facilitate the development of the National Skill Standard and should play a role of supervising with close cooperation. KRIVET should conduct research and develop an integral vocational education/training and vocational certification system.

Vocational education and training organizations, including schools, should actively provide a variety of courses that lead to vocational certificates. In addition, they should receive financial support from the government in proportion to the completion rates of certificates.

The government should approve certificate-awarding agencies based on the accrediting criteria and should develop and enforce a quality assurance system.

Think-tanks for developing the National Skill Standard should establish the skill standards based on occupational or industrial job competencies.

Horizontal and vertical links

It is necessary to incorporate secondary vocational curriculum into the process of gaining vocational certificates.

It is essential to promote coherent links between learning and work by establishing conduits and bridges to facilitate more flexible movement between higher education/training and work.

Ⅲ. Policy recommendation

First, the government should prepare the regulations in order to achieve the reinforcement of linkage between secondary vocational education and the vocational certification system in the course of making reforms in the laws related to the certification.

Second, the government should significantly reform the standard, eligibility, and range of vocational certification, as well as the period of expiration and the standard of training to assure quality control.

Third, the government should develop the criteria, methods and procedures of job related assessment.

Fourth, it is essential for the government to work with business, employers and their trade unions to support the vocational certification system. In addition, it is necessary to vitalize the in-house voluntary vocational certification for supporting the lifelong career development of workers. A Study to Improve the Approval & Designation Procedures for Training Institutes and Training Programs.

Measures to Improve the Testing Method of the National Technology Qualification (RR 99-17)

Jeong-Yoon Cho Jong-Sung Park Deog-Ki Kim Hyun-Soo Kim

I. Purpose

Due to recent developments in information technology and ensuing changes in the concept of time and space, the significance of national boundaries has weakened, resulting in heightened competition among nations. In order to respond to these transformations, the Korean government is stepping up its efforts to enhance the legitimacy of the National Technology Qualification System (NTQS) by closely linking NTQS testing methods and procedures to practical knowledge and skills in the industry field. This initiative is based on the recognition that human resources development is a crucial factor in determining a nation's competitiveness.

This study, first of all, diagnoses the problems directly and indirectly affecting the testing procedure in the current NTQS. And then,