

Innovative Training Model for Regional Labor Markets

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Introduction

Climate-friendly investments are better job creators [1]. The South Korean government implemented the “Specialized Training for Industrial Structural Changes Response (referred to as Specialized Training ‘as appropriate’)” program in 2022 to address the nationwide crisis posed by shifts in industries due to digitalization and carbon neutrality. This transition is not only transforming previously advantageous sectors into risks but also increasing the need for support among employed and unemployed individuals in regional industrial labor markets. In response, the government allocated a total budget of 766 billion won in 2023 to provide reskilling and upskilling opportunities for 20,000 trainees through on-site training and support such as training fees and incentives [2]. Regional Skills Councils played a key role in terms of selecting training occupations, skills training, and evaluating the providers in the local markets. In this manuscript, a specific case study is elaborated to introduce innovative training model for regional labor markets.

Role & Responsibility of Regional Skills Councils

To support individuals transitioning and retraining in regional labor markets due to industrial changes, it is crucial to assess industry shifts, job transformations, changes of tasks within workplaces, and individual training demands. This requires Regional Skills Councils (RSCs) to accumulate information related to industries and enterprises within their regions. Ultimately, each RSC should select specific industrial sectors within their region and actively engage in long-term partnerships to understand unique circumstances in these industries. They should also monitor the introduction of new technologies, issues related to worker transitions, and opportunities for workforce development. Establishing such a system is essential for addressing the specific human resource development needs of industries [3].

Regional Skills Councils cultivate manpower needed for local SMEs by conducting a survey of labour market needs and providing training for recruitment. Co-ordination body such as Regional Skills Councils consist of representatives from various government levels and are one of the main mechanisms to support co-operation across levels of government. The effectiveness of these bodies can be raised by introducing a legal mandate that strengthens their vertical co-ordination roles in facilitating knowledge transfer, identifying priorities, informing budget allocations, and fostering consensus and ownership for national TVET reforms, such as the TVET Basic Plan [4].

Method

Case study research is implemented to examine important aspects of the innovative training model. The purpose of this study was to utilize the methodology for exploring and elucidating the significance of a new training model, rather than for verifying or expanding theory through analysis [5]. The study aimed to empirically investigate phenomena occurring during the pilot phase of the training model. It seeks to illuminate how decisions were made, executed, and the outcomes generated within the context of the study case. Focusing on individual cases, the study analyzed the significance of collaborative efforts between the Ministry of Employment and Labor (MOEL), Regional Skills Councils (RSCs), and private training institutions amidst changing industrial structures. Through this case, the study aimed to examine the importance of a skill governance system between the government and private sector.

Case Study: Specialized Training for Responding to Industrial Structural Changes

In addition to the existing central training supply system centered on the Korea Skills Quality Authority (KSQA), on-site assessments through Regional Skills Councils (RSC) are allowed. Under the “Specialized Training for Responding to Industrial Structural Changes” project, RSCs are recruited and selected to perform training program assessments and other related tasks.

RSC selects target industry occupations in crisis and growth industry occupations that appear to require support for vocational training due to changes in industrial structure and other factors. Target industry occupations in crisis indicate where support for vocational training is needed for employment retention, career changes. Newly emerging industries that need to be nurtured in the region due to factors such as the fourth industrial revolution and carbon neutrality, and occupations that require manpower through vocational training support for employees in the supported industries are defined.

RSC identifies target industries in crisis and emerging industries that require vocational training support due to changes in industrial structure, and conducts training program evaluations for training institutions and courses that aim to operate vocational training that reflects the identified training demands of employed workers and unemployed individuals in those industries.

Table 1: Korean Cumulative Sales of Environmentally Friendly Vehicles (In Thousands, Percentage)

Year	Eco-Vehicles	%
2022	159000	6%
2025	283000	11%
2030	785000	30%

Source: MOEL, (2023a)

According to a self-survey conducted by nationwide Blue Hands (auto repair centers, 1,270 locations) in November 2022, the demand for hiring environmentally friendly vehicle maintenance personnel is at least 1,000 annually.

Taking into consideration the annual recruitment demand (approximately 1,000 people) from Blue Hands and Hyundai's domestic market share for electric vehicles (43%), the training goal is set at 2,000 people.

Table 2: Domestic Cumulative Sales of Electric Vehicles (as of September 2022, in Ten Thousand Units)

Automobile Makers	Cumulative sales
Hyundai	15000
Kia	9500
Tesla	4600

Source: MOEL, (2023a)

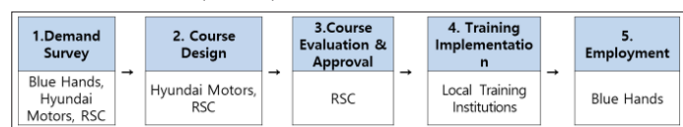


Figure 1: Training Model for Eco-friendly Vehicle Maintenance Personnel

Source: MOEL (2023a)

The Ministry of Employment and Labor oversees the entire training process, while Hyundai Motor and Blue Hands provide technical and educational expertise(know-how), and RSC and training institutions approve and implement training courses.

Table 3: Role & Responsibilities of Different Bodies

Bodies	R & R
Ministry of Employment and Labor	Oversees the Training System, Provides Support for Training Costs.
Hyundai Motor	Provides Technical Support, Designs Training Programs, Educates Trainers.
RSC	Identify Training Institutions, Evaluate and Approve Training Programs.
Local Training Institutions	Conduct Specialized Training Courses for Maintenance Personnel.
Blue Hands	Identify Training Demands, Recruit Trainees.

Close Analysis of Regional Demand for Maintenance and Allocate Training Resources (Blue Hands and RSC) as follows:

- In Designing Training Programs, utilization of Hyundai's technical expertise, Blue Hands' field experience, and the teaching methods of local training institutions. Hyundai Motors, Blue Hands, and local training institutions collaborated.
- RSC, training institutions, Blue Hands, employment centers supported for multi-faceted

Employment Opportunities for Graduates of the Training Programs

Demand Survey

On-site demand for prospective employees are identified by Blue Hands. Additional demand estimation considering future eco-friendly vehicle production plans were conducted by Hyundai Motor. Ministry of Employment and Labor determine training quantity based on identified demand.

Training Course Design

Utilizing governance structures such as Regional Skills Councils (RSCs) and Industrial Skills Councils (ISCs), vocational skills development programs include initiatives tailored for regional and industrial workforce development, such as regionally-tailored human resource development, industry-led youth customized training, and regionally-driven academies. These vocational skills development programs aim to identify and address training demands within regions or industries by leveraging the advantages of governance structures. Their objective is to provide training courses that meet the training needs identified and alleviate them accordingly.

Share NCS-based training course design plan (Ministry of Employment and Labor, RSC) + Identify **necessary job skills on site** (Blue Hands) + Provide specialized knowledge and effective educational methods for hydrogen and electric vehicles (Hyundai Motor) + Examine the **feasibility of applying training on-site** (training institution) → **Establish standardized course according to the level of trainees***

- Obtaining a High School Diploma → 1-2week course
- Obtaining a Middle School Diploma → 1 month course
- No diploma → 6month course, etc.
- **Training Course Approval and implementation**
- **Distribute Training Quantity** by regions (Ministry of Employment and Labor) → Apply for training course (training institution) → Ongoing evaluation (RSC) → Approval (Employment Center) → Recruitment promotion of trainees (Ministry of Employment and Labor, Hyundai Motor, Blue Hands, RSC) and implementation* (training institution)
- **Joint Management** by the RSC, Employment Center, and Ministry of Employment and Labor to minimize dropouts and non-completion
- Regularly hold **"Blue Hands Recruitment Day"** for **Job Seekers and Employees** who have completed training to support linkage between training and employment
- RSC, Ministry of Employment and Labor, Blue Hands

Table 4: Comparison of Training Programs in Collaboration with RSC and ISC

Classification	Customized Training for Regional and Industrial Needs	Youth-customized Training led by the Industry	Specialized Training for Responding to Industrial Structural Changes, etc.
Training Purpose	Support for regional human resources development based on the demand for personnel from local businesses	Provision of training and job support that the industry requires for young people	Employment retention and activation of job transfers in response to industrial structural changes
Operation	RSCs, joint training centers (regional)	Industry-specific cooperatives and organizations, joint training centers	RSCs, Local vocational training institutions
Target	Employees and job seekers	Youth (aged 19 to 34), with a focus on employed and job-seeking individuals	Individuals who have obtained the National Employment Training Service Card (for employees and those expecting job transfers)
Demand Survey Method and Field	Specific training fields based on regional demand surveys (basic and in-depth)	Demand surveys conducted by industry-specific cooperatives and organizations based on the fields/industries that they require	Demand surveys conducted (periodic) on fields that are affected by industrial structural changes or regional demand
Curriculum Design	Joint training centers	Industry-specific cooperatives and organizations	TVET institutions
Curriculum Review and Approval Type	Regional branches of HRD Korea Employers	HRD Korea Headquarter Employers	RSCs and employment centers Individuals (National Employment Training Service Card holders)

Source: Moon & Park, 2023 Modified Version

It is to supply timely training courses that are tailored to the regional situation in response to the trend of industrial structural changes, such as digital and low-carbon, and to support citizens' active participation in the necessary training. The aim is to activate job skills development, entrepreneurship and career change. The difference of specialized training for responding to industrial structural changes compared to existing training

Conclusion

According to recent discussions, industries facing shifts in their structure (e.g., electric and hydrogen vehicles, big data) need to develop educational programs aimed at enhancing the job skills of newly recruited personnel. Collaboration models between governmental bodies and private entities, exemplified by initiatives like the environmentally friendly Blue Hands electric vehicle repair training developed with the Ministry of Employment and Labor, are essential. These models should be diversified to foster partnerships with industries and enterprises within regional labor markets.

The Regional Skills Councils should establish a flexible system capable of promptly responding to diverse demands related to employment and training. Ultimately, they aim to establish a regional vocational skills development cycle that supports individual career transitions, enhances the competitiveness of training institutions involved in specialized industry training, improves industry and company satisfaction with their workforce, and elevates overall training quality.

In the long term, the goal is to construct sustainable regional industrial workforce development systems that facilitate smooth career transitions and job changes for individuals within regional and industrial labor markets.

The significance of the training model analyzed in this manuscript lies in its collaboration with the private sector at the regional level in response to industrial structural changes. It can be considered an agile training model due to its planning of pilot programs by the national government and establishment of collaborative frameworks to enable such models.

These training models should emerge organically at the regional level. Particularly in relation to carbon neutrality and digitalization, innovative models for workforce development should actively and preemptively address these issues. Continuous case study research is necessary to analyze and compare such cases [6-8].

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