

# Korean Work-Learning Dual System

## Background of Introducing the Korean Work-Learning Dual System

Upon graduating from school and entering the workforce, what these graduates need more than the knowledges gained through general education, are job competencies such as on-site knowledge, technical skills and attitudes required for their jobs. However, there is a major divide between the vocational education in Korea's current secondary education system and the actual skills or job competencies required by a company. Furthermore, the lack of proper customized education and training suitable for the field of work has resulted in a lack of skills required at workplace and the labor mismatching, which is causing the unemployment rate among college graduates to accelerate (Park, 2014).

As a result, companies find it difficult to secure workers who can be put to use immediately, and are forced to suffer additional setbacks by investing time and effort into reeducating the newly hired employees to enhance their

job performance up to company standards. In response, the labor market is actively demanding more innovation from the national education and training system so that youths can enter employment sites early on to receive education and training from companies.

Responding to this demand, the Korean government has been attempting to benchmark the apprentice training of selected foreign countries by reinforcing a form of vocational education and training that skillfully balances field and theoretical education and training.

The Korean Work-Learning Dual System, which has been enforced since 2014, is the result of taking some elements of the apprenticeship system implemented in countries such as Germany and Switzerland and introducing it in a manner suitable to Korean society<sup>1)</sup>. In this system, companies hire youths seeking employment as workers (henceforth workers taking part in study programs) and provide them with systematic on-site education and training with educational institutes such as schools to raise practical manpower required at workplaces. Those who have completed their education and training have their capabilities evaluated by the government or relevant industries' organizations, and their skills are recognized through qualifications and through other similar award systems.

In other words, companies employ students or job seekers and have them perform job duties while also providing them with education and training to

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1) Work-based learning refers to a systematic form of learning that is conducted in the workplace to secure both hard skills (job-related skills and abilities required at workplaces) and soft skills (refinement required for corporate life as in within companies, such as character and behavior) effectively (Ministry of Employment and Labor *et al.*, 2014)

develop them into the talented workers. The system is field-based, and teaching generally takes place on-site, with schools and other education and training institutes providing complementary theoretical education. Furthermore, in accordance with the National Competency Standards (NCS)-based education and training program, on-site company instructors teach the students using learning tools that are actually used on the job.

The system is expected to solve the issue of a mismatch in the labor market by providing early employment for job seekers and the reduction of reeducation expenses for newly hired employees for companies.

### **Types of the Korean Work-Learning Dual System**

The Work-Learning Dual System program can be separated classified by a managing body or the status of workers taking part in study programs. The system in accordance with a managing body can be categorized into the single company type and a joint training center type, as shown in <Table 4-1>. The single company type has companies carrying out in-house on-the-job training (OJT) and off-the-job training (Off-JT) according to the Work-Learning Dual Program that they have developed. On the other hand, the joint training center type is meant for companies that are unable to operate their own training programs due to corporate conditions. Instead, companies make agreements with organizations that have been designated as joint training centers for the Work-Learning Dual System, and conduct Off-JT through these training centers.

<Table 4-1> Types of Work-Learning Dual System by Managing Body

Category	Main characteristics	Managing body	OJT	Off-JT
Single company type	Companies directly train their own workforce	Company	Company	Company or professional education and training institute
Joint training center type	External joint training centers provide Off-JT while companies carry out OJT	Company, Joint training center	Company	Joint training center

The system in accordance with the status of workers taking part in study programs can be categorized into one for job holders who do not belong to academic schools and one for workers who still go to schools as shown in <Table 4-2>. The system for the job holders refers to the program that involves workers who immediately entered into the workforce after school graduation and were looking for a job or those who were recently hired and wish to accumulate more expertise in their job duties. On the other hand, the system for the student is operated for students who have yet to enter the workforce but wish to secure employment during their time in school and enhance their expertise and practical experience regarding their major fields, such as students enrolled in specialized vocational schools (including Meister high schools), technical colleges or four-year universities. The ones for student stage include the Industry-Academic Integral Apprentice School System, Uni-Tech (integrated education for high schools and technical colleges) System, and IPP (Industry Professional Practice)-type Work-earning Dual System.

The Industry-Academic Integral Apprentice School is a career education system, in which students of their 2<sup>nd</sup> and 3<sup>rd</sup> year of high school are employed by a company and take theoretical (Off-JT) and practical (OJT) education in parallel by going back and forth between school and a company. The apprentice education model, which developed in Germany and Switzerland, was introduced and established in Korea after being modified to fit the country's situation, with the goal of changing high school career education into one based on industry demand. An apprentice school project group was selected and operated in accordance with the 'Trial Introduction of Industry-Academic Integral Apprentice School' plan of the 'Measures on Youth Employment' announced on April 2014. As of June 2016, operations had been expanded to 25 project groups (60 schools). Workers taking part in study programs that are participating in the project begin training after being hired, which provides them with a stable workplace, and their high school level academic abilities are acknowledged upon the completion of the training, which gives this system the advantage of resolving future insecurities.

The technical college-centered Uni-Tech System is established for the purpose of developing intermediate and advanced technical manpower through a comprehensive program of high school (2 years) and technical college (1.5 years) education that links Work-Learning dual companies with specialized vocational high schools. The project is jointly carried out by the Ministry of Employment and Labor and the Ministry of Education, which allows participating workers taking part in study programs to complete a comprehensive high school-technical college education (shortened by at least 6 months) and raise their expertise. Furthermore, because it is linked to

employment, the system allows them to enter a company early on without having to worry about their future jobs. Preparations for the project began when the Ministry of Strategy and Finance announced its promotion in the ‘Economic Policy Directions for Second Half of 2014’, and a total of 16 business groups were selected in July 2015. As of June 2016, 98 companies employed 480 workers taking part in study programs among the 16 project groups being operated.

Unlike the Industry-Academic Integral Apprentice School System and the Uni-Tech System, where training begins at the high school level, the IPP-type Work-Learning Dual System is available for university students (in their 3<sup>rd</sup> and 4<sup>th</sup> years) who are soon to graduate. The system carries out both IPP and the Work-Learning Dual System at the same time, with companies operating a term system for 4 to 10 months and conducting training in tune with the Work-Learning dual program. As the system began with a trial project taking place at 14 universities in September of 2015, it has not been in operation for

<Table 4-2> Types of Work-Learning Dual System by Participating Student  
(June 2016)

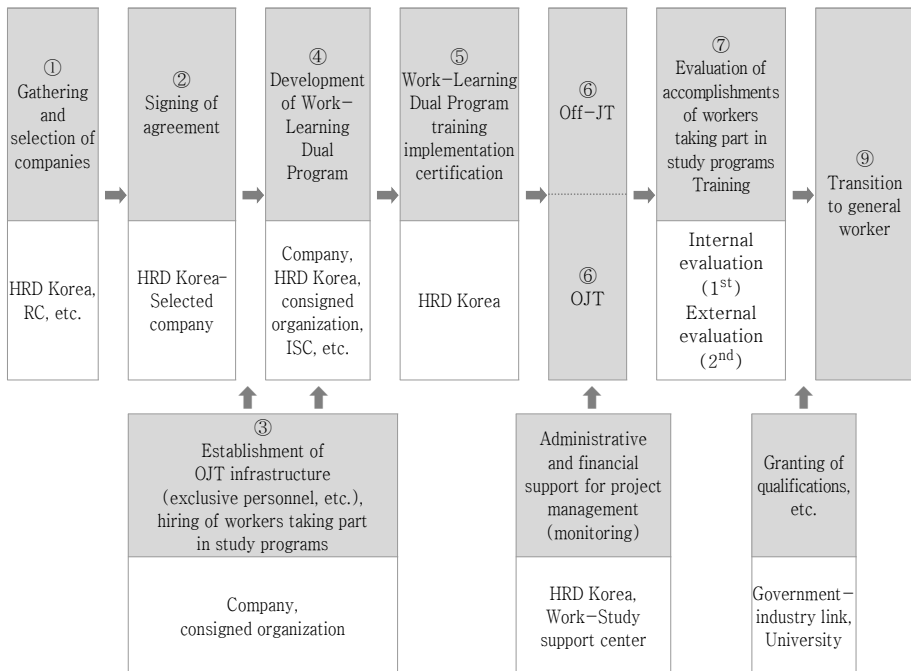
Type	Target student	Operating institutes	Participation	
			No. of companies	No. of workers taking part in study programs
Industry-academic integral apprentice School	2 <sup>nd</sup> and 3 <sup>rd</sup> year students in specialized vocational high school	25 business groups (60 schools)	814	2,680
Uni-Tech	Comprehensive education of high school and technical college	16 business groups	98	480
IPP-type Work-Learning Dual System	3 <sup>rd</sup> and 4 <sup>th</sup> year students at four-year course colleges	24 universities	207	471

long, but has expanded exponentially since, and as of June 2016 24 schools were in operation with 471 workers taking part in study programs from 207 companies.

## Operation Process of the Korean Work-Learning Dual System

The general operation process of the Work-Learning Dual System is divided up into the stages shown below in <Figure 4-1>. These stages include the gathering and selection of companies, signing of agreements, establishment of OJT infrastructure, development of programs, certification of training program implementation, implementation of education and training (OJT and Off-JT), evaluation of the training accomplishments of workers taking part in study

<Figure 4-1> Work-Learning Dual System Operation Process



programs, granting of qualifications, and transition of workers with the same working conditions as general workers in the company.



## Selecting the Participating Companies

Companies seeking to participate in the Work-Learning Dual System must have at least 50 full-time employees when entering the application stage; though those wishing to participate in joint training center type only require at least 20 full-time workers. However, in order to carry out tasks independently, the system focuses on jobs that require training for long-term skill development. The training period of workers taking part in study programs must range from 6 months to 4 years, with 300 to 1,000 hours of training every year. The most important factors are that the companies must have technical prowess in the relevant fields and that the CEOs must show clear intent to develop manpower.

Furthermore, the wages given to the workers taking part in study programs must be equal to or higher than the minimum wage, and the companies must designate on-site instructors and HRD liaisons. Even if these requirements are met, companies that are known to be in arrears or have been the site of numerous industrial accidents in accordance with the Labor Standards Act cannot be chosen as participating companies for the Work-Learning Dual System. If the companies are found to violate these regulations in the middle of carrying out training, they will have the selection cancelled and ordered to put a halt to training in accordance with the rules.

## Development and Certification of the Training Program

As a rule, the Work-Learning dual program is lead and developed by the company in charge of it, and support is provided so that companies who lack the conditions to do so may develop the programs with help from related professional institutes or outside experts. For the single company type, the

ISC (Industry Skills Council) or Korea Polytechnics will take the lead, with work experts participating to help companies develop the programs. For the joint training center type, the ISC will take priority in participation, but if the ISC is not able to do so, the joint training center can help companies develop their respective programs. After managing organizations, such as the ISC and joint training centers, and work experts jointly carry out the development of a company's Work-Learning dual program, Korea Polytechnics conducts a final review of the completed program.

From a broader perspective, the program is designed through reference to the standards of items within NCS-based qualifications and must take into account the characteristics of the participating company. It must also be designed to reflect the common performance among members of same business field or job, as well as the company's firm specific skill set. In the case of sectors where NCS-based qualifications have yet to be developed, the program must be designed by taking into consideration its connection with future qualifications and using NCS related to the sector as a basic principle.

Depending on the standards for the NCS-based qualification, the minimum training time is 600 hours for Level 2 to Level 3 and 800 hours for Level 4 to Level 5. The yearly training time must be between 300 to 1,000 hours, with OJT making up at least 50% of the time and Off-JT taking at least 20% and up to 50% of the time taken. OJT must not exceed 5 hours a day and 15 hours a week. Furthermore, the NCS-based qualification process must utilize 70% of the essential competency unit set by the corresponding qualifications, and this must take up at least 50% of the training time. The training time for the essential competency unit must be within  $\pm 50\%$  of the standard time proposed in the NCS-based qualification. Furthermore, the

company must develop learning tools alongside the program. These learning tools are study guides of sorts that concretely arrange the contents the workers taking part in study programs will be learning, and qualification for the Work-Learning dual program certification will only be given once both the program and learning tools have been developed. Once the program has been fully-developed, its certification status will be determined by the certification committee installed at HRD Korea's 24 regional headquarters or offices, and as a rule all programs should be developed within 2 months from the date the corresponding company was selected.

On the Job Training (OJT) and Off-the Job Training (Off-JT)

Companies that have completed the Work-Learning dual program certification process must carry out OJT and Off-JT within 10 days of receiving certification. OJT refers to training that workers taking part in study programs take on-site where their job duties are actually to take place and is systematically implemented under the guidance of on-site company instructors according to a training plan that was set in advance of the programs implementation. Off-JT refers to training carried out by companies in separate facilities away from the working environment or training conducted by training instructors in universities, joint training centers, and the like. Companies participating in the Work-Learning Dual System conduct training according to the contents of a program that has completed certification, and must periodically write training logs to include records of the training that has been executed.

Furthermore, companies and joint training centers that are operating or making preparations to operate Work-Learning dual programs are monitored according to a stage system (beginning stage → progression stage →

conclusion stage) during the entirety of their participation in the Work-Learning dual program. The training preparation and progress situation will be investigated and analyzed in advanced through the Learning Management System (LMS), issues and difficulties will be comprehended and rectified through on-site visits and tests, and the qualitative management of the training will be promoted through consultation.

#### Evaluation of Training Accomplishments and Transition to General Workers

In order to measure the achievements of workers taking part in study programs through their participation in the Work-Learning Dual System and grant them qualifications (academic abilities), the workers taking part in study programs will be evaluated only after training has been implemented. Work-Learning dual programs that have received certification are evaluated based on NCS competency units or subjects composed of these competency units, and evaluation is largely divided up into internal evaluation and external evaluation.

Internal evaluation is first carried out once companies participating in the Work-Learning Dual System have reached at least 80% of the progress rate in a competency unit (subject), and is carried out periodically until the end of the training in the corresponding competency unit (subject). The evaluation range consists of the entire competency unit and company specialized training reflected in the program. It refers to performance standards and question prototypes according to all competency units reflected in the program, and the companies or training institutes are free to decide factors such as methods and time of evaluation before carrying out the evaluations. The evaluation is carried out at the site of the OJT or the joint training center, and Work-Learning dual

certification in the name of the company or joint evaluation institute (ISC, joint training center) will be granted to workers taking part in study programs who have an attendance rate of at least 80% and have passed the evaluation for all competency units in the certification program.

The external evaluation is always conducted on workers taking part in study programs who have passed the internal evaluation, and is carried out immediately before or after the completion of the training process under the supervision of HRD Korea in accordance with the yearly implementation plan. Workers taking part in study programs seeking to take an external evaluation must have an attendance rate of at least 80% of the Work-Learning dual program's entire training time, and must satisfy at least 80% progress rate of the entire training time. The external evaluation range consists of all essential competency units suggested in the NCS-based qualification items, and is composed of the 1<sup>st</sup> evaluation (pen and paper, descriptive problems) worth 40 points and the 2<sup>nd</sup> evaluation (job performance and interview) worth 60 points. Those with a combined score of at least 60 points for the 1<sup>st</sup> and 2<sup>nd</sup> evaluation is considered a passing grade for the external evaluation, and will be given qualification with government or industry approval that lists the essential competency unit of the NCS-based qualification linked to the program as well as the training time.

Workers who have concluded the Work-Learning dual program and passed the internal and external evaluations to verify their training accomplishments can transition into general workers and continue working in their respective companies. At this time, companies are forbidden to treat these workers worse than existing general workers in accordance with the contents of the agreement signed during the company selection process.

## Implementation State of the Korean Work-Learning Dual System

The major implementation state (as of late June 2016) of the Work-Learning dual system, which began in earnest in 2014, can be seen in <Table 4-3>. The goal set for late 2016 was the participation of 8000 companies, and 93.6% of the target number of companies has been selected, showing that the system is spreading successfully. Furthermore, 4,255 companies have developed and received certification for their training programs, and over 20,000 workers taking part in study programs are working and studying in parallel.

<Table 4-3> Implementation State of Work-Learning Dual System (June 2016)

No. of target companies	No. of selected companies	No. of companies implementing training	No. of workers taking part in study programs	No. of on-site company instructors
8,000	7,485	4,255	20,910	5,035

Focusing in on the status of participating companies according to their size as shown in <Table 4-4>, 7,175 (95.9%) of the 7,485 companies are SMEs with fewer than 300 employees. Meanwhile, there are 61 (0.8%) large companies (including public institutions) with at least 1,000 employees. The fact that participation from SMEs, seeking to resolve the manpower shortage and lack of a system to develop the competency of their workers, is expanding can be seen as a positive effect. However, active participation from large companies can lead to increased awareness from the public and heavily

increase the number of youth employees. Therefore, there is a need to develop the Work-Learning Dual System into a coexistence model that large companies, high potential enterprises, and SMEs can all actively participate in.

<Table 4-4> Participating Companies of Work-Learning Dual System by Company Size (June 2016)

Categories	Under 300 employees	300 ~ 999 employees	Over 999 employees	Total
No. of companies	7,175	249	61	7,485
% Ratio	95.9	3.3	0.8	100

<Table 4-5> shows the companies participating in the Work-Learning Dual System according to their sectors. Companies who conduct business in the machinery sector took the lead with 2,913 (38.9%) total, followed by the information and communication sector (15.0%) and the electronics sector (13.4%). As shown in <Table 4-6>, when categorized into the 24 work fields of the NCS, participating companies were distributed in the order of machinery, information and communication, electronics, materials, and chemicals. This shows that while manufacturing industries are actively participating in the Work-Learning Dual System, the service industry such as finance, culture, and welfare have a far lower participation rate in comparison. Therefore, there is a need to come up with methods of increasing participation from the service industry, such as the development of joint training centers of service-related Work-Learning Dual System, in the future.

<Table 4-5> Participating Companies of Work-Learning Dual System by  
Sector of Participating Company (June 2016)

Category	Total	Machinery	Information and communication	Electronics	Chemistry	Culture and design	Construction	Others
No. of companies	7,485	2,913	1,121	1,001	326	262	204	1,658
% Ratio	100.0	38.9	15.0	13.4	4.4	3.5	2.7	22.2

<Table 4-6> Participating Companies of Work-Learning Dual System by  
NCS-based Classifications of Occupations (June 2016)

Category	1. Business management	2. Management, accounting and office work	3. Finance and insurance	4. Education, natural science and social science	5. Law, police, firefighting, correction, and national defense	6. Health and medical care	7. Social welfare	8. Culture, arts, design and broadcasting
No. of companies	1	307	84	9	13	83	41	262
% Ratio	0.01	4.10	1.12	0.12	0.17	1.11	0.55	3.50

Category	9. Driving and transportation	10. Business and sales	11. Guard and cleaning	12. Leisure, accommodation, travel, entertainment and sports	13. Food services	14. Construction	15. Machinery	16. Materials
Companies	12	50	6	157	65	204	2,913	419
% Ratio	0.16	0.67	0.08	2.10	0.87	2.73	38.92	5.60

Category	17. Chemistry	18. Textiles and garments	19. Electric and electronic industry	20. Information technology	21. Food processing	22. Printing, wood, furniture and crafts	23. Environment, energy and safety	24. Agriculture, forestry and fishery
Companies	326	117	1,001	1,121	143	89	51	11
% Ratio	4.36	1.56	13.37	14.98	1.91	1.19	0.68	0.15



As seen in <Table 4-7>, there are 20,910 workers taking part in study programs participating in the Work-Learning Dual System as of late June 2016, with 7,140 (34.1%) of them being enrolled students or graduates of specialized vocational high schools (including Meister high schools). The high ratio of students from specialized vocational high schools indicates that the purpose of the Work-Learning Dual System – promoting the early job entry and improving work capabilities of youths – is being provided properly. After that period there are those who have graduated from 4-year universities or have passed even higher levels of education at 6,274 (30.0%), and once the Work-Learning Dual Systems for students such as Uni-Tech and IPP expand their operation, the participation rate of students enrolled in specialized vocation schools, technical colleges, and 4-year universities is expected to increase even further.

<Table 4-7> Studying Workers of Work-Learning Dual System by Academic Status of Studying Workers (June 2016)

Category	Total	Specialized vocational high schools or Meister high schools	Regular high schools	Technical colleges	University graduates or higher	Middle school graduates or lower	Others
No. of students	20,910	7,140	3,065	3,909	6,274	151	371
% Ratio	100.0	34.1	14.7	18.7	30.0	0.7	1.8

When workers taking part in study programs are categorized according to their age, as shown in <Table 4-8>, those in their 20s make up the majority at 9,291 (44.4%), followed by workers in their teenage years at 6,634 (31.7%). Together, the two age groups exceed 15,000 in total, proving that the

Work-Learning Dual System is contributing greatly to resolving the unemployment dilemmas of youth job seekers. One noteworthy point is that workers taking part in study programs in their 30s or higher make up more than 20% of all workers taking part in study programs. This shows that people in their middle and elderly ages can also more easily adapt to new jobs through the Work-Learning Dual System, which, in turn, is seen as an indicator that the system will contribute greatly in making the Korean labor market more flexible in the future.

<Table 4-8> Studying Workers of Work-Learning Dual System by Age of Studying Workers (June 2016)

Category	Total	Age			
		Teens	20s	30s	40s and higher
No. of workers	20,910	6,634	9,291	3,537	1,448
% Ratio	100.0	31.7	44.4	16.9	6.9

### **Expected Outcomes and Evaluations on the Effectiveness of the Korean Work-Learning Dual System**

The expected beneficial results for companies, workers taking part in study programs, and the nation by the introduction of the Work-Learning Dual System are as follows.

For companies, the first expected benefit is that they will be able to acquire talented youths in advance and mold them to become core talents for the company through long-term service. They can secure talented and promising youths who have received education and training through technical programs

approved by the government, and may have even acquired youths who have qualifications through this training. Furthermore, the long-term education and training, as well as 1-on-1 tutoring from capable senior employees, will help them adapt to the transition to a new company more efficiently, which in turn will increase their loyalty to the company and reduce turnover rates. Second, the system can resolve the issue of mismatches in education and training. As industrial technology develops rapidly, it is difficult to train the perfect manpower for a company in an education and training institute. However, as the Work-Learning Dual System uses an education and training program that is decided upon and taught by the company, it becomes possible to train manpower ideally. Third, the system allows companies to reduce the expenses of reeducation or probation. Even if people with brilliant qualifications are hired, the truth is that the companies must still reeducate these new employees before sending them into the field. However, by receiving funding for the necessary education and training expenses from the government through the Work-Learning Dual System, companies can train talented individuals through their own training and education programs without having to worry about the financial burden. Fourth, companies can secure benefits in advance, such as being prioritized in being designated as a Military Service Exception Firm and receiving preference during the bidding process of the Public Procurement Service. Companies participating in the Work-Learning Dual System can receive equal military service benefits for their workers as cooperating businesses and participants of the Small and Medium Business Administration's specialized vocational high school manpower training project. Furthermore, workers taking part in study programs can serve as technical specialists for their relevant fields through the custom specialist system.

In the case of workers taking part in study programs, the first benefit they can receive is to quickly become employed at technical companies approved by the government without having to build up a list of unnecessary qualifications. Presently, most people have to spend a long time preparing after graduation to become employed acquiring qualifications beyond their education. However, the Work-Learning Dual System does not have an employment preparation period. Work-Learning dual companies are companies that have already been recognized by the government for their technology, business capabilities, the employer's determination to develop manpower, and so on, and it is from these companies that workers taking part in study programs can acquire stable jobs. Third, they can work in the field that they have received education and training for. The education and training process of the Work-Learning Dual System is tailored to the job duties that the workers taking part in study programs will be undertaking, and is composed of both OJT and Off-JT, allowing them to make the most of their specialized fields. Being employed early on by employers who clear intentions to train manpower and provided systematic education and training will allow them to grow into skilled lifelong employees. Fourth, they can achieve economic independence quickly. As they receive education and training while they are employed as official workers, they can receive fixed wages during the education and training period, and when the expenses of entering advanced schools or building up qualifications are taken into consideration, this translates into even larger economic profits. Fifth, once employed by companies, workers taking part in study programs will be given all benefits acknowledged by labor laws such as the Labor Standards Act and the 4 major social insurances. Furthermore, after completing education and training while

receiving at least minimum wage from the company every month, the workers taking part in study programs can acquire certificates or national qualifications acknowledged by the government and industry depending on their evaluations.

On the national level, it is expected that the system will raise youth employment rates, lower the employment age, and have other similar benefits, ultimately laying the groundwork for realizing a competency-based society. In particular, the soft landing from school to a stable job market will improve youth employment rates, and an employment-first studying-second system where youths choose to become employed early to overcome their lacking capabilities instead of entering university right after graduation will become generalized. Ultimately, it is expected that competency-based education and training, evaluation, certification, employment, and human resources management systems will be strengthened through a “Work-Learning Dual Qualification” based on work competency, paving the way for the establishment of a competency-based society (Chun *et al.*, 2014).

After the introduction of the Work-Learning Dual System, a Korean apprentice training system, a large number of positive experiences from companies and joint training centers participating in the system are popping up. First, Hyunjin Materials E&F Center, which is participating as a dual-joint training center, is periodically visiting and monitoring companies to grasp any difficulties they may be facing, and suggesting and taking actions to resolve and improve the issues through cooperation. As a result, companies that are cooperating with the training center have seen their turnover rates drop from 37.2% to 16.4%, and the rate of defectives has gone down from 0.54% to 0.08%. Furthermore, the average training time per worker has drastically risen

from 40 hours to 512 hours.

The CEO of DS Heavy Industries, a participant in the system, stated that “The things they teach you in university aren’t very useful in the actual workplace, so we originally made investments for the purpose being that workers could adapt to the site and develop job skills within 2 to 3 years after joining the company. However, we incurred a great deal of loss when new workers changed jobs during adaptation process. The introduction of the Work-Learning Dual System has provided us with a more systematic and customized vocational competency development training program that optimized the early adaptation and job skills acquisition of workers taking part in study programs, which has reduced the turnover rate of new employees by more than 20% and drastically reduced investment recovery and manpower loss on a corporate level as well.” A worker taking part in study programs in the company also spoke highly of the system, noting that “Being able to receive general-purpose training at the joint training center and specialized training at the company at the same time to gain theoretical and practical knowledge together really helped me develop my capabilities. I’m proud that I can be of use to this company through the Work-Learning Dual System.”

A worker taking part in study programs at a press die manufacturer (Dong Gu Enterprise) stated that “I never learned how to actually use machinery in school, so I had no understanding of how to proceed, but after learning practical matters along with theoretical ones I am now able to understand the core principles more easily. This lets me grow systematically, and I think I can focus on acquiring skills that would take other people 10 years to learn in just 4 years. I have a lot of pride in myself as a workers taking part in study

programs.” Such statements show that the Work-Learning Dual System is contributing to the enhanced competitiveness of companies and workers taking part in study programs as well as the customized development of talented workers for the field.

Inadequacies of the Work-Learning Dual System are also being pointed out alongside with its benefits. On October 2016, the National Assembly Budget Office presented issues with the system through ‘Report on the Performance Evaluation of Work-Learning Dual System’, including concerns of business insolvency following the relaxation of requirements for participation to achieve quantitative targets as well as excessive budgets resulting from high training expenses and a high 31.6% drop-out rate when compared to similar projects.

However, it should be noted that opportunities to take part in the Work-Learning Dual System from, which was implemented in June 2015, have been expanded as a result of reflecting upon the general opinions within the field that the threshold for participation was so high that participation from SMEs was limited despite their clear will to train skilled manpower. Furthermore, the higher training expenses per person are the result of the long-term training process (average 17 months) in which participants work and study in parallel. When the training duration is taken into consideration, there is not much of a difference between this system and other projects. 76.9% of workers within a study program of Korea’s Work-Learning Dual System continue to stay employed at their corresponding companies 6 months after training has concluded, which is by no means a low figure when compared to cases in other countries. In Germany, 53% of workers stayed with their corresponding companies 1 year after the completion of their

apprentice training, while in Switzerland 35% of workers remained.

As the National Assembly Budget Office has pointed out, there is a need to prioritize an organic network between regional industries, industry circles, and workers over short-term accomplishments if the Work-Learning Dual System is to take root as a core foundation for the establishment of a competency-based society. Additionally, the government must actively provide positive PR, education, consultations, and even more in order to improve awareness of the system's purpose and aim among companies and workers in various study programs. The system must also establish itself as one that works with companies so that various support measures, such as better treatment and promotion of welfare, for trained workers can be prepared by companies themselves.

## **Agendas for Further Development of the Korean Work-Learning Dual System**

The Work-Learning Dual System is being carried out as a core national agenda to solve the issue of youth unemployment in Korea and realize a competency-based society. Despite being in the early stages of introduction, the system has accomplished intended goals that were set at its onset such as its large quantitative spread. To ensure that the Work-Learning Dual System takes root as a stable vocational education and training system in the future, there is a need to pay more attention to its quantitative aspects including NCS-based reinforcement of quality. The followings are proposed regarding directions that Korea's Work-Learning Dual System should take in this respect.



First, the Work-Learning Dual System should be promoted as a tool to handle the persistent mismatching issue within the Korean labor market and to bring about an increase in youth employment to ensure the stable proliferation of the future job market. By developing early job entry conditions for youths through this system, companies will be freed from the issue of manpower shortage. The systematic training will enhance the capabilities of hired workers taking part in study programs and let them develop into talented workers. This beneficial cycle will strengthen the competitiveness of individuals and businesses alike, leading to national economic development. As described, the Work-Learning Dual System is not simply a link between job seekers and companies but will successfully develop and take root as a system that can play a pivotal role in the development of Korea's national human resources.

In addition to the system's proliferation, improvements to its qualitative factors should also be encouraged. Close quality control of learning programs and learning tools is required to ensure that NCS-based Work-Learning dual programs are operated successfully. Furthermore, this must be in line with the reinforcement of task support capabilities of relevant institutes such as on-site company instructors, joint training centers, and the ISC. More than anything, the legal status of workers taking part in study programs must be enforced and secured as well as their right to learn must be protected through support from the Work-Learning Dual System and related legal basis.

Furthermore, there is a need to increase the number of voluntary participation of companies and workers taking part in study programs by propagating the performance of the Work-Learning Dual System and uncovering and disseminating outstanding cases according to individual

companies and/or type of system operation. The most important factor in ensuring that the system becomes established as a long-term vocational education and training system as opposed to a short-term project is the voluntary participation of companies and preparatory workers taking part in study programs. Such voluntary participation must take place under the premise that companies can see improved productivity by securing and developing necessary manpower early on and through the process of studying, workers can obtain employment early on and enhance their job performance. In order to bring about this change, it should be emphasized to companies that participation in the Work-Learning Dual System may bring about benefits such as improved productivity which will outweigh the expenses incurred. Cases of outstanding workers who have completed their studies and who have also completed Work-Learning dual programs should be continuously promoted to preparatory workers taking part in study programs to attract the voluntary participation of companies and workers taking part in study programs.

Regarding the operation of a Work-Learning Dual System, the operation paradigm should be shifted from process management to performance-based support. The operational budget of the current system is mostly funded through the government, with fairly intensive management and supervision as part of the system. In the long run, the administrative monitoring needs to be reduced, actual education and training performance, such as actual achievements in comparison to educational and training goals, the extent of improvements in the work performance of workers taking part in study programs, and status of acquisition of qualifications, should be used as grounds to secure support.

Finally, capability to work of studying workers produced through a work-based learning system and through the Work-Learning Dual System – a national-level education and training system – should be systematically developed, managed, and evaluated. Furthermore, the system must become a pivotal system for the development of national human resources while also flexibly linking to the National Qualification Framework (NQF). The strengthening of worker capabilities and acquisition of qualifications through work-based learning must become one of the major pillars of Korea’s NQF operation, and the Work-Learning Dual System is expected to be considered a core mechanism for realizing a competency-based society.