



Preface

Fears of global recession, combined with high youth unemployment rates have brought apprenticeship back on the policy agenda. It is recognized that countries with well-established apprenticeship systems tend to be better at managing school-to-work transitions for youth, and enjoy lower youth unemployment rates.

Apprenticeships are recognized as an effective means of enabling young people acquire relevant work experience in a real labor market environment, along with technical and professional training. Well-designed apprenticeship can play a vital role in equipping youth with the skills needed by companies as well as enabling companies to better cater for immediate and future staff needs and making the industry more responsive to skills shortages and skills mismatch (ILO, 2012; UNESCO & UNEVOC, 2015).

In this context, the Korean government has been paying great attention to the apprenticeship system as a way of vitalizing youth employment and effectively linking the skills development with skills utilization. The Korean Ministry of Employment and Labor (KMOEL) established the apprenticeship system in 2013 and has been expanding it with an aim of accommodating 120,000 apprentices by 2022.

As a public research institute on vocational education and training policies, the Korea Research Institute for Vocational Education and Training (KRIVET) is publishing this book, with support from the Korean Ministry of Employment and Labor and HRD Services of Korea (HRD Korea), aimed to provide an understanding

of Korean apprenticeship system. The first and second chapter provides an overview and current states of Korean apprenticeship system. In the third chapter, development and operation of apprenticeship program is described in more detail. The fourth and fifth chapter explores outcomes and challenges of the Korean apprenticeship system.

It is expected that this book will help international readers to get a big picture of our apprenticeship system and will provide practical implications for the improvement of their apprenticeship.

December 31, 2017
Dr. Young-Sun Ra
President, KRIVET

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List of Abbreviations

| | |
|-------------------|---|
| HRD | Human Resource Development Services |
| HRD-Net | Human Resource Development Network |
| ILO | International Labour Office |
| IPP | Industry Professional Practice |
| ISC | Industrial Skills Council |
| KRIVET | Korean Research Institute for Vocational Education and Training |
| LMS | Learning Management System |
| MOE | Ministry of Education |
| MOEL | Ministry of Employment and Labor |
| NCS | National Competency Standards |
| PM | Project Manager |
| RC | Regional Human Resource Development Council |
| UNESCO | United Nations Educational, Scientific and Cultural Organization |
| UNESCO- UNEVOC | UNESCO International Center for Technical and Vocational Education and Training |

Overview of Korean Apprenticeship

1. Background of Korean Apprenticeship
2. Types of Korean Apprenticeship
3. Governance and Finance of Korean Apprenticeship

1 Background of Korean Apprenticeship

In recent years, apprenticeship is continuously perceived as an attractive policy option for many countries, to alleviate the increasing youth unemployment rate in the current global economic crisis. Countries with a solid system of apprenticeship have facilitated a smooth transition and settlement of youth into the labor market, as well as have maintained a low youth unemployment rate. Through a work-based education and training, apprenticeship not only provides youths with the practical experiences that are required by companies, but it is also an effective system which connects the industry and education. Youths participating in apprenticeship are able to acquire the skills required by firms, and the firms would learn how to actively cope with current and future demand for manpower.

As Korea has entered a stage of economic stagnation, the unemployment of young people has become a major social problem. In particular, the youth labour market in Korea has suffered from a continuous cycle of a) mismatch between human resource and jobs, due to overeducation; and b) mismatch between industrial field and school education. Firstly, there is an oversupply of college degree holders despite the limited availability of jobs, that demand for college graduates. Since young job seekers with high education attainment hopes to start their careers at major companies, the small firms inevitably experience labor shortage. Thus, the age of entering labor market gradually increases, as they accumulate unnecessary specifications to meet these high career expectations. Secondly, the vocational education in Korea has long been operated by education and training organizations rather than being centered on industry, hence leading to a mismatch between school education and

jobs in the industries. Firms, which had recruited under-skilled new workers, are spending a huge amount of money on retraining them, as these young people are unable to acquire the required skills through school education(Lee & Jeon, 2016).

The Korean government is currently turning its focus on the ‘Apprenticeship system’ as one way of overcoming youth unemployment, as well as to effectively matching the skills development and skills utilization. Korean apprenticeship system is defined as “a new vocational education and training system which is designed based on German and Swiss apprenticeship systems and tailored to match the Korean context”. In the Korean apprenticeship system, apprentices receive practical training from in-company trainers, while receiving theoretical education through education and training institutes(such as schools) on the basis of a National Competency Standards(NCS). At the completion of the program, apprentices can receive a completion certificate from the HRD Korea. This certificate will be changed into a nationally recognized qualification, if the legal basis of the Korean apprenticeship system is established(Related ministries, 2015).

The government had initiated a pilot project in September 2013 and the actual implementation of the apprenticeship system only began in 2014. As of October 2017, 10,759 companies are participating in apprenticeship programs; and 46,003 apprentices from 8,213 companies are either undergoing training or have completed their training. Recent initiatives have expanded the apprenticeship target participants from graduates(new workers) to currently enrolled students such as apprenticeship high school, Uni-Tech and IPP apprenticeship.



2 Types of Korean Apprenticeship

Korean apprenticeship consists of two types: “apprenticeship for new workers” and “apprenticeship for students”.

Table 1-1 Overview of apprenticeship types

| Types | Sub-type | Target Group |
|--------------------------------|--|--|
| Apprenticeship for New Workers | • Company-led • Training center-led | Graduates of • High school • College • University |
| | • Qualification(1~4 year) • Qualification + Degree(2, 4 year) | |
| Apprenticeship for Students | • Apprenticeship high school(2 year) | • Specialized vocational high school students |
| | • Uni-Tech(3.5 year) | |
| | • IPP(4~10 month + 1 year) | • University students |

Source: Kang(2017). How to Change Korean Apprenticeship for Dealing with Industry 4.0, Presentation Material for the 4th KRIVET International Conference on Apprenticeship, p.8.

1) Apprenticeship for New Workers

The apprenticeship for new workers is divided into a) company-led type and b) training center-led type, depending on who manages the training programs; and is classified into a) qualification type or b) qualification + degree type, according to the approaches of recognizing results.

Table 1-2 Apprenticeship for new workers

| | | Main Operating Agent | |
|------------------------|------------------------------------|--|---|
| | | Company-led | Training center-led |
| Recognition of results | Qualification (1~4 year) | <ul style="list-style-type: none"> • Company-led • Qualification | <ul style="list-style-type: none"> • Training center led • Qualification |
| | Qualification + Degree (2, 4 year) | N/A | <ul style="list-style-type: none"> • Training center-led • Qualification + Degree |

- Target Group: Graduates of High School, College and University
- Duration: 1~4 year

Source: Kang(2017). How to Change Korean Apprenticeship for Dealing with Industry 4.0, Presentation Material for the 4th KRIVET International Conference on Apprenticeship, p.10.

If a company leads all the training processes and provides both OJT and Off-JT, it is called as a company-led type. On the other hand, if a company makes a contract with a training center and depute Off-JT to a center, it is called as training center-led type.

Table 1-3 Types of apprenticeship by the main operating agent

| Types | Feature | Management Body | Off-JT | OJT |
|--------------------------|--|-----------------|-----------------|---------|
| ① Company-led | Company provides both OJT & Off-JT | Company | Company | Company |
| ② Training center-led | Training center provides Off-JT and company offers OJT | Training center | Training center | Company |

Source: Ministry of Employment and Labor(MOEL) & Human Resource Development Service of Korea(HRD Korea) (2016). Operation Manual for Korean Apprenticeship, p.13.

The qualification type is a form of training program which is based on National Competency Standards(NCS) and provides an apprentice with a nationally recognized qualification(a certificate for the present) once they have completed the apprenticeship programs. In contrast, if apprenticeship programs are provided along with degree programs in university, an apprentice can receive not only a qualification but also a bachelor's degree



after completing the program. This program is called as a qualification + degree type training program.

Table 1-4 Types of apprenticeship based on the different approaches of recognizing completion results

| Types | Feature | Program | Related Organizations |
|---|--|---|-----------------------|
| ① Qualification type (1~4 year) | The basic type of apprenticeship linked to a qualification(certificate). | Developing programs according to NCS-based qualification | MOEL, HRD Korea |
| ② Qualification + Degree type (2, 4 year) | Linked to a qualification(certificate) and bachelors degree | Developing programs adhering to the requirements for receiving NCS-based qualification and college degree | MOEL, MOE, HRD Korea |

Source: Ministry of Employment and Labor(MOEL) & Human Resource Development Service of Korea(HRD Korea) (2016). Operation Manual for Korean Apprenticeship, p.15.

2) Apprenticeship for Students

There are three types of apprenticeship for students: a) apprenticeship high school, b) Uni-Tech, c) industry professional practice(IPP) apprenticeship.

Table 1-5 Types of apprenticeship for students

| Types | Target Group | Concept | Duration |
|---|---|---|---|
| Apprenticeship High School | [High school] 11th and 12th year of specialized vocational high school | <ul style="list-style-type: none"> • Simultaneously taking vocational education & apprenticeship • 3 days in school and 2 days in company | <ul style="list-style-type: none"> • 2 year |
| Uni-Tech | [High school + College] Integrated system of high school & college | <ul style="list-style-type: none"> • Integrating vocational education in high school and colleges | <ul style="list-style-type: none"> • 3.5 year – 2 year(HS) – 1.5 year(Col) |
| IPP (Industry Professional Practice) Apprenticeship | [University] 3rd and 4th year of university | <ul style="list-style-type: none"> • 3rd and 4th year university students join apprenticeship | <ul style="list-style-type: none"> • 3rd: 4~10 month • 4th: 1 year |

Source: Kang(2017). How to Change Korean Apprenticeship for Dealing with Industry 4.0, Presentation Material for the 4th KRIVET International Conference on Apprenticeship, p.9.

① Apprenticeship High School

This type of apprenticeship training system is operated on a high school level. The students of apprenticeship high schools are recruited in the second semester of their freshmen year, after learning about the various companies, in which they would be trained for next 2 years as part of their apprenticeship programs. During their training, as the students are categorized as apprentices under their training employment contract, they are thus entitled to social insurance as well as minimum wage. There are four types of apprenticeship high school and those are as follows.



Table 1-6 Types of apprenticeship high school

| Type | Model | Terms |
|-----------------------------|-------|---|
| ① Industry-led type | | <ul style="list-style-type: none"> ▶ Students in specialized high school take part in apprenticeship using facilities of industrial complex, SC etc. |
| ② Joint practice type | | <ul style="list-style-type: none"> ▶ Arrange dual training centers in joint practice facility of local education offices. ▶ Schools and participating companies in apprenticeship use together |
| ③ Stronghold school type | | <ul style="list-style-type: none"> ▶ Arrange dual training centers in stronghold schools with excellent operation capacity. ▶ Other schools and participating companies in projects share the facilities together |
| ④ Single school type | | <ul style="list-style-type: none"> ▶ Arrange dual training centers in facilities of specialized high schools and the schools use them for apprenticeship training. |

Source: Ministry of Employment and Labor(MOEL) & Human Resource Development Service of Korea(HRD Korea) (2017). Korean Apprenticeship Manual, p.26.

After completing their programs, apprentices have three options; a) becoming a regular employee of the training company, b) continue advanced level apprenticeship such as P-Tech apprenticeship¹⁾, c) studying at poly-tech institutes or college. As of August 2017, 60 project teams, 187 specialized high schools, 1,967 firms, 6,609 apprentices have

1) P-Tech(Pathways in Technical Education, oriented Convergent High-Technology) refers to a convergence type of high skill training program for graduates of apprenticeship high school

participated in the apprenticeship high school system. At the initial stage, apprenticeship high schools were designated focusing on engineering sector, but the system has been expanded to include IT and service sectors.

② Uni-Tech

Uni-Tech is a new concept of education system, integrating secondary and tertiary VET, which aims to nurture a field-oriented workforce, by linking high school, college and company. The apprentices of Uni-Tech can simultaneously acquire both theoretical knowledge and practical skills, through an integrated curriculum developed by schools and companies.

In the Uni-Tech system, the selection of students for high school entrance is also linked to the college entrance. In other words, the selected students for Uni-Tech will continuously study from high school until college. As of August 2017, 16 project teams (universities & high schools), 117 firms, 783 apprentices are participating in Uni-Tech system. Currently, Uni-Tech system is gradually being replaced by P-Tech system due to its difficulty of complying to the high school and college regulations.

③ IPP apprenticeship

Industry Professional Practice (IPP) apprenticeship is an integrated vocational education system which operates both “long-term field practice system (academic-industry cooperative program)” and “apprenticeship” in parallel, in order to induce the reformation of field-centered tertiary education system.

The IPP program applies to both 3rd and 4th year university students and is conducted for 4~10 months in the 3rd grade and for the whole year in the 4th grade, whereby they will receive credits during that semester. Based on data in August 2017, 13 universities, 130 firms and 276 apprentices are participating in the 1st term (starting in 2016), and 10 universities, 98 firms, 194 apprentices are participating in the 2nd term IPP program (starting



in 2017). Recently, 9 universities have been recruiting training companies and apprentices for the 3rd term IPP program.

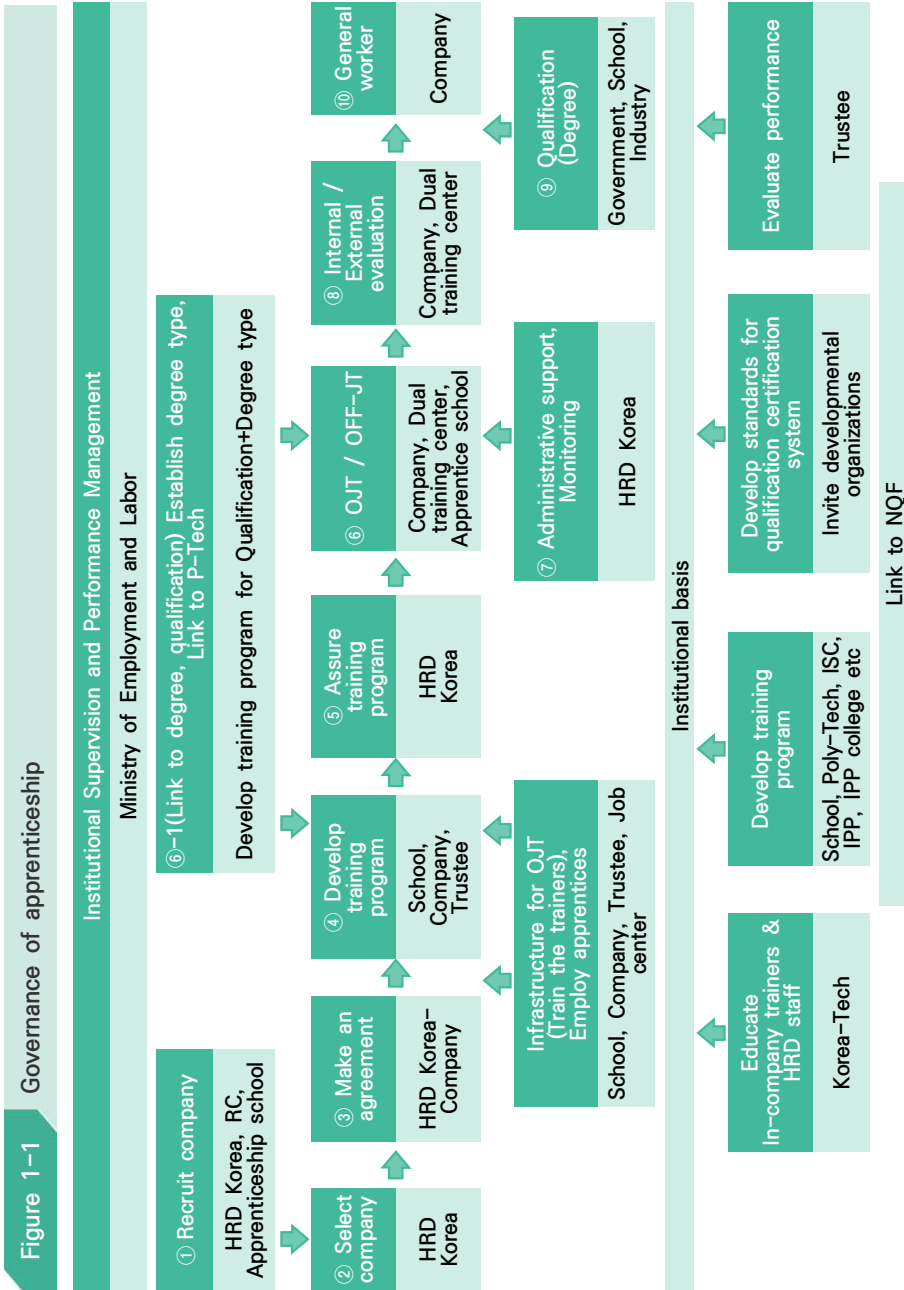
The IPP encompasses various majors including science, engineering and business, which has a high demand for field practice; but as of 2016, pilot operations were also conducted for humanity study, social science and fine art major. The IPP apprenticeship has only targeted 4-year universities, but an alternative apprenticeship model targeting 3-year colleges will be introduced as a pilot project in 2018.

3 Governance and Finance of Korean Apprenticeship

1) Governance of Korean Apprenticeship

① Main agents and their roles

The Ministry of Employment and Labor(MOEL) is responsible for overseeing the overall system, such as setting institutional framework or approving and funding apprenticeship with social partners. While, Human Resource Development Service of Korea(HRD Korea) is in charge of the actual execution, such as planning and carrying out apprenticeship systems. Poly-tech, Korea Tech, and Korea Research Institute for Vocational Education and Training(KRIVET) are main social partners who are involved in apprenticeship system. The specific governance of apprenticeship is shown in [Figure 1-1].



Source: Ministry of Employment and Labor(MOEL) & Human Resource Development Service of Korea(HRD Korea)(2017). Korean Apprenticeship Manual, p.11.



All parties involved in the apprenticeship system have their designated roles, which are shown as follows.

Table 1-7 Roles of participants in apprenticeship

| Organization | Role | |
|--|---|--|
| MOEL & Ministry of Education | Supervision | <ul style="list-style-type: none"> • (MOEL) Supervise system and performance evaluation <div style="background-color: #e0f2f1; padding: 2px; text-align: center; margin: 5px 0;">Apprenticeship High School</div> <ul style="list-style-type: none"> • (MOEL) Support linkage between Company and School, Provide government grants for schools and companies(employment insurance fund), Manage participating companies. • (Ministry of Education) Conduct curriculum, provide administrative support of consulting and budget • (both) Select project group of school-company |
| Local education offices | All kinds of support | <ul style="list-style-type: none"> • Find companies and link to school, attract outstanding teachers, train teachers and in-company trainers, appoint research school, provide fiscal support |
| Regional employment and labor administration | Establish and implement own plans | <ul style="list-style-type: none"> • Establish and implement regional plans for occupations specialized in apprenticeship • Cooperate with related organizations(regional committee for apprenticeship) |
| | Guide and supervise participating companies | <ul style="list-style-type: none"> • Supervise apprentices' contract including income, working hours • Protect apprentices by delivering education on industrial accidents • Guide training programs • Support recruitment of apprentices |
| HRD Korea | Recruit and select companies | <ul style="list-style-type: none"> • Recruit and select the company • Appoint vocational training institutions • Arrange various channels for finding companies • Select and manage dual training centers |
| | Develop and approve training programs | <ul style="list-style-type: none"> • Develop and approve apprenticeship training programs |
| | Quality management | <ul style="list-style-type: none"> • Develop approval standard for apprenticeship • Conduct competency evaluation standard and system for |

| Organization | Role | |
|-----------------------------|--------------------------------------|---|
| | | apprentices(NCS center) <ul style="list-style-type: none"> • Monitor and give consultations regarding training operation • Evaluate performance and improvement of system |
| | All kinds of support | <ul style="list-style-type: none"> • Recruit apprentices and support their promotion • Provide administrative and finance support • Build and manage computer system • Manage various parties of apprenticeship • Oversee general supervision of apprenticeship |
| Companies in apprenticeship | Appoint personnel for apprenticeship | <ul style="list-style-type: none"> • Appoint in-company trainers for management, of OJT and Off-JT <ul style="list-style-type: none"> - Develop training programs, establish training plans, undertake performance management, counsel apprentices, make learning tools • Choose HRD staff <ul style="list-style-type: none"> - Report about verification and implementation of training programs, inquire training costs, manage HRD-Net, create contracts |
| | Develop training programs | <ul style="list-style-type: none"> • Cooperate with outside experts for developing training programs • Provide support for developing learning tools • Apply for verification of training programs |
| | Recruit & choose apprentices | <ul style="list-style-type: none"> • Recruit and choose apprentices(training-labor contract) |
| | Implement training | <ul style="list-style-type: none"> • Implement training and manage the quality of the program |
| | Evaluation | <ul style="list-style-type: none"> • Issue certification after the internal evaluation(first test) • Apply for the external evaluation(second test) |
| | Change to a general worker | <ul style="list-style-type: none"> • Manage the transition of apprentices, who have completed training program, into general workers |
| Dual training center | Recruit companies | <ul style="list-style-type: none"> • Recruitment of companies that meet the participation requirements of apprenticeship |
| | Recruit and employ apprentices | <ul style="list-style-type: none"> • Recruit & employ apprentices for companies with agreement • Support apprentices when the company is out of business by transferring him/her |



| Organization | Role | |
|--|------------------------------|---|
| | Develop training programs | <ul style="list-style-type: none"> • Support & consult for developing training programs and tools of the companies |
| | Support Off-JT | <ul style="list-style-type: none"> • Provide Off-JT |
| | Support OJT | <ul style="list-style-type: none"> • Manage & support OJT of the companies(reeducation of staff) • Support OJT of a company-led type |
| | Apprentice evaluation | <ul style="list-style-type: none"> • Provide support for evaluation of apprentice(offer places for evaluation) |
| Poly-Tech | Develop training programs | <ul style="list-style-type: none"> • Supervise and operate training programs • Form a development team for training programs |
| | Support infrastructure | <ul style="list-style-type: none"> • Develop learning tools and consulting support for all competency units reflected in the training program |
| Hub project team | Consulting | <ul style="list-style-type: none"> • Provide consult to dual training center |
| | Support dual training center | <ul style="list-style-type: none"> • Select dual training center and support the outcome of evaluation • Support regular meeting of dual training center |
| | Promotion | <ul style="list-style-type: none"> • Promote apprenticeship and research for the policy |
| Specialized industry (specialized zone) | Recruit and select companies | <ul style="list-style-type: none"> • Search & select the companies to participate in apprenticeship |
| | Develop training program | <ul style="list-style-type: none"> • Develop training programs and support the development of learning tools |
| | Consulting | <ul style="list-style-type: none"> • Provide consulting services |
| | Support evaluation | <ul style="list-style-type: none"> • Support the internal/external evaluation |
| Human resource development committee by industry | Support evaluation | <ul style="list-style-type: none"> • Participate in the evaluation and accreditation of completion • Ensure the availability of apprenticeship qualifications |
| | Develop training programs | <ul style="list-style-type: none"> • Develop training programs of apprenticeship • Support development of accreditation criteria of training programs |
| | Promotion | <ul style="list-style-type: none"> • Promote NCS and build training system of the company based on NCS |
| RC & Apprenticeship | Find companies | <ul style="list-style-type: none"> • Find the companies and obtain applications • Secure various channels for finding companies |

| Organization | Role | |
|------------------|--------------------------------|---|
| support agencies | | <ul style="list-style-type: none"> • Find companies and promotions |
| | Recruit apprentices | <ul style="list-style-type: none"> • Provide support for the recruitment of apprentices |
| KRIVET | Quality management of training | <ul style="list-style-type: none"> • Cooperate with partners(HRD Korea, ISC) for developing accreditation criteria for training programs • Cooperate with partners(HRD Korea, ISC) for building system for apprentice competency evaluation |
| | Research | <ul style="list-style-type: none"> • Support performance evaluation(external) • Conduct research and analysis |
| Korea-Tech | Develop in-company trainers | <ul style="list-style-type: none"> • Train and educate in-company trainers and HRD staff • Manage outcome evaluation of dual training centers |

Uni-Tech

Operation criteria

| | | |
|-------------------------------|---|--|
| Category | Operating vocational training program of Uni-Tech | |
| Method | Apprenticeship training | |
| Types of vocational training | OFF-JT + OJT | |
| Period | Junior in high school~1st semester Sophomore in college | |
| Status | Apprentice | |
| Social insurance | criterion 1 | criterion 2 |
| | 1st semester junior year in high school | 1st semester senior year in high school ※ A company is designated to students during their junior year, (for inevitable case, it is allowed to change company and student); in March of their senior year, students sign contract with the designated company, acquire social insurance and start training. ※ It is mandatory to provide protection plan for apprentices(accident insurance) during Off-JT |
| Matching with company and OJT | 2nd semester junior year in high school | 1st semester senior year in high school ※ (precondition) Junior high school students take Off-JT and more than 30% of the training are practiced in dual training center. ※ (precondition) OJT in dual training center should be programmed for senior students, and time of OJT should not be over 30%(OJT is included in working hours) |



-
- Application of employment and occupational health insurance is necessary, health insurance and national pension can be optional.
 - Composition and operation of committee
 - Project team consists of operation committee* for systematic management of projects
 - * Committee members consist of personnel from college, high school and company
 - Committee establishes business plan, detailed instructions, monitoring for process and performance, and performs self-evaluation
 - Recruitment and management of students
 - Maintain the principle of automatically linking to selection and assignment at high school entrance
 - (Extend recruitment) another 10% of the recruitment quota(30persons) can be selected considering the rate of dropout
 - ※ After the participation in apprenticeship program, additional selection is possible only in the case of the 1st semester senior year
 - The operation committee is responsible for consulting, managing and monitoring services for apprentices, for the prevention of dropouts.
 - Management of project cost
 - The project team submits a business plan to apply for funding, and if the budget and business plan are modified during the enforcement process, this should be reported to HRD Korea.
 - A separate funding account must be created and managed, and separate dedicated organization or department shall be established or designated for business management.
 - The project team shall submit the results of the financial aid usage including the results of the audit conducted by the accounting corporation to HRD Korea within two months after the end of the project
 - HRD Korea should settle the use of subsidies within 6 months after the end of the subsidy period.
 - The project team can use it as a subsidy only if there is a valid reason of expenditure in the business year
 - ※ Notify the project team separately for the detailed application
 - Operating expenses
 - Use support budget for Employment Insurance Fund and National Human Resource Development Consortium(Ministry of employment and labor)
-

- Support is provided up to 2 billion won for each project team(operating expenses up to 1 billion, cost for tools and facilities maximum 1 billion)
- ※ Securing and promoting budget with general accounting for stable operation of business(Ministry of education)

〈Contents of financial support〉

| | |
|-------------------------|--|
| College and high school | • Support for facilities and operation [general operating expenses (education, extra pay)+personnel expenses] |
| Company | • Support costs for program development, OJT, support for apprentice training, allowance for in-company trainer, HRD staff |

〈Operating expenses and facilities equipment support limit〉

| Category | Items | Ratio | Annual Support Limit | Remarks |
|----------------------------|----------------------------|-------|----------------------|--|
| Operating expenses | personnel expenses | 80% | 1 billion | The corresponding investment amount is 25% or more of the government grant except labor expenses |
| | general operating expenses | 100% | | |
| Support for infrastructure | facilities and equipments | 80% | 1 billion | |

※ Government grant varies according to the number of workers

Source: Ministry of Employment and Labor(MOEL) & Human Resource Development Service of Korea(HRD Korea) (2017). Korean Apprenticeship Manual, pp.12-14.

② Legal basis

As of December 2017, the legal basis for apprenticeship system is Article 27 of the 「Employment Insurance Act」 and Article 20 of the 「Occupational Skills Development Act」.



Table 1-8 Legal basis of apprenticeship

| Article 27 「Employment Insurance Act」 | Article 20 「Occupational Skills Development Act」 |
|--|---|
| <p>Article 27(Support for occupational skills of employer) The Minister of Employment and labor is responsible for providing the financial support for the expenses necessary to conduct training, for developing and improving the vocational competency, as determined by the Presidential Decree.</p> | <p>Article 20(Support for occupational skills of employer and employer group) ① The Minister of Employment and Labor may support or finance the expenses required for the business, to a business operator, business enterprise group, employee group, or association(hereinafter referred to as "business group") engaged in vocational capability development projects falling under any of the following subparagraph. 1. Training for the development of vocational competency of workers</p> |

Source: Ministry of Employment and Labor(MOEL) & Human Resource Development Service of Korea(HRD Korea) (2017). Korean Apprenticeship Manual, p.6.

However, it is necessary to establish a special legislative bill that defines separate regulations with regards to the status, protection, contracts, training and qualifications of apprentices, considering their dual positions as workers and learners. 「A legislative bill on support for apprenticeship in industrial sites」 was presented at the 19th national assembly, however it was expired. The same bill was subsequently proposed at the 20th national assembly, but it had failed to be enacted. On 19th September in 2017, 12 members of the assembly including assemblywoman Han Jeong Ae presented 「A legislative bill on support for apprenticeship in industrial sites」 and it is under requisition at the environment and labor committee November, 1st in 2017 and is currently pending. This legislative bill includes articles for apprenticeship such as promotion system, engagement and implement of vocational training, learning-labor contracts and continuous employment of apprentices. Details about the legislative bill can be found in the appendix.

Since the legal basis of apprenticeship has not been established by law, apprenticeship is currently being implemented based on 「Regulations for apprenticeship management &

evaluation」(amended on 1st June, 2017, subparagraph 2017-29, Ministry of Employment & Labor) and 「Operation Rules for apprenticeship」 assigned by the Ministry of Employment & Labor.

Table 1-9 A legislative bill on support for apprenticeship in industrial sites(draft)

| Category | Articles |
|--|---|
| Chapter 1. General Provisions | Article 1. Objectives Article 2. Terms Article 3. Basic Principle |
| Chapter 2. Promotion System of Apprenticeship | Article 4. Obligation Article 5. Establishment of Promotion Plan for apprenticeship Article 6. Relations with Other Law Article 7. Deliberation for Important Affairs of apprenticeship Article 8. Regional Cooperation for apprenticeship Article 9. Construction of Connection System between Training company and Apprentices Article 10. Research about Vocational Training Occupation & Standards |
| Chapter 3. Implementation of apprenticeship & Vocational Training | Article 11. Apprenticeship Occupation & Standards for Vocational Training Article 12. Pilot Project Article 13. Designation for Training Company Article 14. Cancellation of Designation as a Training Company Article 15. Development & verification of Apprenticeship training program Article 16. Appointment of Apprenticeship Dual Training center Article 17. Place for Off-JT Article 18. Appointment Cancellation of Dual Training center Article 19. Appointment & Management for Trainer Article 20. Developing Trainer Article 21. Making a Contract with Apprentice Article 22. Termination of Training Employment Contract Article 23. Restriction on Cancellation of Training Employment Contract |
| Chapter 4. Obligations of | Article 24. Continuous Employment of Apprentice Article 25. Guidelines for Training Company's Employer |



| Category | Articles |
|---------------------------------------|--|
| Training Company & Apprentice | Article 26. Guidelines for Apprentice Article 27. Apprenticeship Training Hours & Break Article 28. Prohibition of Discriminatory Treatment |
| Chapter 5. Evaluation & Qualification | Article 29. Certificate Article 30. Evaluation for Apprentice Article 31. Apprenticeship Qualification & Issue of Qualification Article 32. Prohibition on renting the Apprenticeship Qualification Article 33. Cancellation of the Apprenticeship Qualification |
| Chapter 6. Supplementary Provisions | Article 34. Support Article 35. Preservation of Documents Article 36. Instruct & Examine Article 37. Fee Article 38. Hearing Article 39. Entrust with Authority |
| Chapter 7. Penalty | Article 40. Penalty Article 41. Joint Penal Provisions Article 42. Fine |
| ADDENDUM | Article 1. Date of Enforcement Article 2. Measures concerning Enforcement for apprenticeship & Apprenticeship Qualifications |

Source: 「A Legislative Bill on Support for Apprenticeship in Industrial Sites」(Proposed by Assembly Woman Han Jeong-Ae)

2) Finance of Korean Apprenticeship

① Operation Budget for Apprenticeship

The annual operation budget for apprenticeship is allocated as part of the project budget of employment insurance fund. for vocational competency development. The employment insurance fund is established by employment insurance that employers and employees pay²⁾. According to the Committee of Environment & Labor(October 2017), the funds are used to carry out projects related to the following: 1) employment policy, 2) vocational

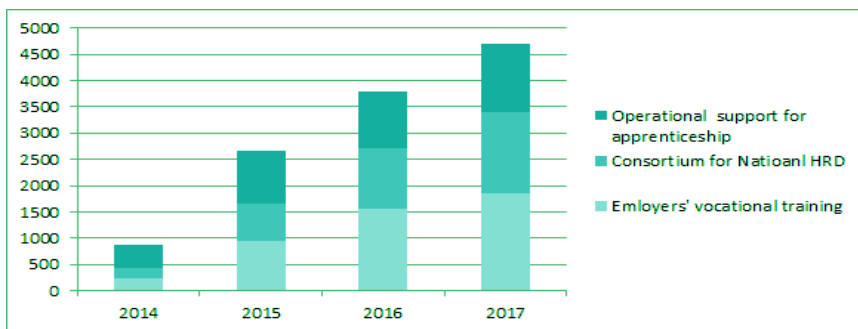
2) Employees and employers pay 0.65% of their wage as employment insurance premium, employers pay 0.25~0.85% depending on the number of full-time employees.

competency development, 3) equal opportunities in employment, 4) support for administration of employment & labor. The projects of employment insurance fund related to apprenticeship are 1) operational support for apprenticeship, 2) consortium for human resource development, 3) financial aid for employers' vocational training.

The budget allocated for the operational support for apprenticeship is used for building infrastructure of OJT, promoting OJT led model, operation and evaluation system of apprenticeship, while the budget of consortium for human resource development is reserved for the purposes of management of dual training center, and the financial support for apprentices is obtained from the financial aid for employers' vocational training budget.

The apprenticeship program had started with a four hundred million won worth of pilot project in 2013; this budget had risen dramatically in recent years due to the increase of number of apprentices and participating companies, thus amounting to 869 hundred million won in 2014, 2,672 hundred million in 2015, 3,798 hundred million in 2016, and 4,691 hundred million in 2017.

Figure 1-2 Change in the amount of budget for apprenticeship



Source: Kang, Sae-Wook(2016). Performance Evaluation of Apprenticeship, National Assembly Budget Office, p.20, HRD Korea(2017). Operation Budget for Apprenticeship in 2014-17.



Table 1-10 Amount of budget for operation of apprenticeship

(Unit: hundred million won)

| | 2013 | 2014 | 2015 | 2016 | 2017 |
|------------------------|----------------------------------|--|--|--|--|
| Budget | 4 | 869 | 2,672 | 3,798 | 4,691 |
| Full details of budget | Support for SMEs (3) | Operational support for apprenticeship 434 | Operational support for apprenticeship 1,016 | Operational support for apprenticeship 1,089 | Operational support for apprenticeship 1,295 |
| | Promotion for skilled worker (1) | Consortium for National HRD 200 | Consortium for National HRD 700 | Consortium for National HRD 1,152 | Consortium for National HRD 1,549 |
| | | Employers' vocational training 235 | Employers' vocational training 956 | Employers' vocational training 1,557 | Employers' vocational training 1,847 |

Source: Kang, Sae-Wook(2016). Performance Evaluation of Apprenticeship, National Assembly Budget Office, p.20, HRD Korea(2017). Operation Budget for Apprenticeship in 2014-17.

② Financial support for training company

The financial support for participating companies are provided differently according to a) whether it is company-led type or training center-led type; or b) whether the number of employees are below or over 1,000.

■ Financial support for developing programs and learning material

If the company has a single program, it can receive up to 5,800,000 KRW. Meanwhile, the government financially supports the company with 7,500,000 KRW for two programs, and 8,900,000 KRW for three programs. The government also supports companies with less than 1,000 employees by providing at least 1,600,000 to 4,200,000 KRW for learning materials and consulting.

■ Financial support for training

Based on employer's vocational ability development training grant standard, a fixed

adjustment factor is applied to the financial support of OJT for apprenticeship, regardless of the size and time of the training. When the company or training center continues the apprenticeship program for more than a year, there would be a 10% reduction for the next annual budget.

For companies with less than 1,000 employees, funding for both the company-led type and training center-led type apprenticeship has a fix calculation based on ‘unit price by occupation × adjustment factor(3) × the number of trainees × training hours’. Calculation method for companies with more than 1,000 employees applies: ‘unit price by occupation × adjustment factor(2) × the number of trainees × training hours’.

The financial support standard for Off-JT is calculated by actual expenses, but it is provided differently according to the agent of the off-the job training(dual training center or company). For company-led type training, the same financial support standard applies as the OJT, although the annual reduction rates do not apply. On the other hand, for training center-led type training, if the cost of training is less than three times the standard expenses, support will be provided without any re-adjustment. However, companies can get a maximum of 5 times the training cost, when they spend more than 3 times of the standard expenses.

■ Support for Apprentice’s training

The financial support for apprentice’s training is provided to employer, for a maximum of 400,000 KRW every month, based on the wage standard. When the apprentice’s wage is more than the statutory minimum wage(6,470 won per hour, 1,352,230 won per month³⁾ as of 2017), the payment should be 400,000 KRW for first(and second) year apprentice, 300,000 KRW for third year apprentice, and 400,000 KRW for fourth year apprentice.

3) Minimum wage per month: 1,352,230 won(6,470 won x 209 hours)

※ 209 hours={ (40 hours per week + 8 hours of paid leave) / 7 x 365 days } / 12 months



- Allowance for in-company trainers and HRD administration staff

The amount of allowance for in-company trainer is calculated by considering the time of training implementation. Trainers those who started as of August 2016 is provided the allowance with annual maximum amount considering monthly proportion of the total training hours(OJT+Off-JT). Whereas for those who had started training before August 2016 the allowance is decided based on the date of the training. The budget for trainers ranges from 4,000,000 to 16,000,000 KRW.

The allowance for HRD administration staff is calculated within 3,000,000 KRW by considering monthly proportion of the total training hours(OJT+Off-JT) per month for those who are starting the training program from August 2016. On the other hand, for those who had started training before August 2016, a budget, within the limit of 3,000,000 KRW, could be provided based on the date of the training.

- Cost for Board and Lodging

The government provides apprentices with a monthly payment of maximum 330,000 KRW, to support for the cost of meals and lodging, when they participate in Off-JT for an average of 5 hours a day.

Table 1-11 Government support for company-led type

| Category | | Under 1,000 employees | Over 1,000 employees | Feature |
|--|----------------------------------|--|---|--|
| Developing programs | | • Single(5,800K), Three(8,900K) | Two(7,500K), | • Period: 2 months • Annual training hours: 300~1,000 hours(Consulting for a year) |
| Consulting for developing learning materials | | • 1,600K ~4,200K | • No support | • Support for training materials (Consulting for a year) |
| Cost for OJT | Selected before April 2015 | • Unit cost × Adjustment factor(3) × The number of trainees × Hours | • Unit cost × Adjustment factor(3) × The number of trainees × Hours | * (Annual reduction of payment) 100% first year, 90% second year, 80% third year, 70% fourth year |
| | Selected after April 2015 | | • Unit cost × Adjustment factor(2) × The number of trainees × Hours | * (Annual reduction of payment) 100% first year, 90% second year, 80% third year, 70% fourth year |
| Cost for Off-JT | In-company | • Support maximum 5 times for (Unit cost × Adjustment factor × The number of trainees × Hours) | | * Financial support for company * Adjustment factor for outsourcing type |
| | Outsourcing | | | |
| Support for apprentice | | • Financial support of 400K monthly | • No support | • Support during training period |
| Allowance for in-company trainer | | • Annual payment 4,000K~16,000K | | • Proportional to monthly training hours • Additional 100K for qualification allowance |
| Allowance for HRD staff | | • Annual payment 3,000K | | • Proportional to monthly training hours |
| Cost for training in-company trainer and HRD staff | | • Within 1,000K | | • Outsourcing |
| Cost for board & lodging | | • For the case of over 5 hour of Off-JT where meals and accommodation fee are provided by company, the payment should be 3,300 won for meal, 14,000 won for accommodation per day, excluding training costs. | | • Maximum 330,000 KRW * Except for in-company Off-JT |

Source: Ministry of Employment and Labor(MOEL) & Human Resource Development Service of Korea(HRD Korea) (2016). Operation Manual for Korean Apprenticeship, p.294, HRD Korea(2017). The 4th Announcement for Recruiting Participating Companies for Apprenticeship.



Table 1-12 Government support for training center-led type

| Category | Under 1,000 employees | Over 1,000 employees | Feature |
|--|---|---|---|
| Developing programs | • Single(5,800K), Two(7,500K), Three(8,900K) | | • Period: 2 months • Annual training hours : 300~1,000 hours (Consulting for a year) |
| Consulting for developing training materials | • 1,600K~4,200K | • No support | • Support for training materials (Consulting for a year) |
| Cost for OJT | • Unit cost × Adjustment factor(3) × The number of trainees × Hours | • Unit cost × Adjustment factor(2) × The number of trainees × Hours | * (Annual reduction of payment) 100% first year, 90% second year, 80% third year, 70% fourth year * Reduce extra 10% OJT |
| Cost for Off-JT | • Support maximum 5 times for (Unit cost × Adjustment factor × The number of trainees × Hours) * Limited support for qualification-degree type (Within 3,000K) ** No support for high school apprentice | | * Providing financial support for training center with extra 10% OJT cost * Adjustment factor for outsourcing type |
| Support for apprentice | • Providing support of 400 K monthly | • No support | • Support during training period |
| Allowance for in-company trainer | • Annual payment 4,000K~16,000K | | • Proportional to monthly training hours • Additional 100K for qualification allowance |
| Allowance for HRD staff | • Annual payment 3,000K | | • Proportional to monthly training hours |
| Cost for training in-company trainer and HRD staff | • Within 1,000K | | • Outsourcing |
| Cost for board & lodging | • For the case of over 5 hour Off-JT where meals and accommodation fee are provided by company, the payment should be 3,300 won for meal, 14,000 won for accommodation per day, excluding training costs. * No support for apprentices in high schools | | • Maximum 330,000 KRW |

Source: Ministry of Employment and Labor(MOEL) & Human Resource Development Service of Korea(HRD Korea) (2016). Operation Manual for Korean Apprenticeship, p.296, HRD Korea(2017). The 4th Announcement for Recruiting Participating Companies for Apprenticeship.

Current Status of Korean Apprenticeship

1. Current Status of Training Companies
2. Current Status of Apprentices

1 Current Status of Training Companies

1) Numbers of Training Companies

- As of October 2017, 11,520 companies have been selected among companies which had applied to participate in apprenticeship. A total of 10,759 companies have participated in the apprenticeship, after excluding those companies which had gave up their participation.
- According to the data from HRD Korea, a total of 9,137 companies have been certified for the training programs, which they have developed. Among these companies, 5,557 are in the middle of conducting the programs, while 4,245 companies have completed the training program. Until now, 8,213 companies completed or are currently implementing the programs.

Table 2-1 Numbers of training companies

| Process | Selection | Participation | Certification | Implement training | Terminate training | Implementing & Terminating training |
|-----------|-----------|---------------|---------------|--------------------|--------------------|-------------------------------------|
| Companies | 11,520 | 10,759 | 9,137 | 5,557 | 4,245 | 8,213 |

Source: Human Resource Development Service of Korea(HRD Korea)(2017.10). Current Status of Apprenticeship in Korea.

2) Current Status by Main Operating Agency

- Apprenticeship is divided into company-led type and training center-led type on the

basis of the main operating agency

- 2,010(18.7%) companies run the apprenticeship program as the company-led type, while 8,749(81.3%) companies participate in the training center-led type of apprenticeship programs.

Table 2-2 Numbers of companies by main operating agency

| Category | Status | |
|--------------------------|---------|------------|
| | Numbers | Proportion |
| Total | 10,759 | 100% |
| Company-led type | 2,010 | 18.7% |
| Training center-led type | 8,749 | 81.3% |

Source: Human Resource Development Service of Korea(HRD Korea)(2017.10). Current Status of Apprenticeship in Korea.

3) Current Status by Certification Methods

- The apprenticeship program is classified into two types which is the qualification type and qualification + degree type, according to the methods of certifying the programs. The system also has a module type, which offers training for a specific competency unit. However, this type is gradually decreasing.
- 9,636(89.6%) companies participate in the qualification type programs, while only 648(6%) companies are involved in qualification + degree type programs. Moreover, there are still 263(2.4%) companies participating in module type programs.



Table 2-3 Numbers of companies by certification methods

| Category | Status | |
|--|---------|------------|
| | Numbers | Proportion |
| Total | 10,759 | 100.0% |
| Qualification | 9,636 | 89.6% |
| Qualification + Degree | 648 | 6.0% |
| Both(Qualification & Qualification + Degree) | 212 | 2.0% |
| Module | 263 | 2.4% |

Source: Human Resource Development Service of Korea(HRD Korea)(2017.10). Current Status of Apprenticeship in Korea.

4) Current Status by Company Size

- There are 10,357 companies(96.3%) with less than 300 regular employees participating in apprenticeship, and among this, small-sized companies with less than 50 full-time workers account for 67.8%. On the other hand, the number of large enterprises with more than 1,000 regular workers is very small(74, 0.7%).

Table 2-4 Numbers of companies by firm size

| Category | | | Status | |
|---|---------------------------------|------------|---------|------------|
| | | | Numbers | Proportion |
| Total | | | 10,759 | 100% |
| Company size (numbers of employees) | Large-medium sized companies | over 1,000 | 74 | 0.7% |
| | | over 300 | 328 | 3% |
| | Small sized companies | under 300 | 3,067 | 28.5% |
| | | under 50 | 7,290 | 67.8% |

Source: Human Resource Development Service of Korea(HRD Korea)(2017.10). Current Status of Apprenticeship in Korea.

5) Current Status by Occupational Fields

- A high proportion of the companies is engaged in the machinery(robot) field, which accounts for 3,528(32.8%) of the total companies. The following shows the proportion of companies in other occupational fields: electronics(1,477, 13.7%), communications (1,406, 13%), chemicals(394, 3.7%), cultural contents(340, 3.2%) and construction (236, 2.2%).

Table 2-5 Numbers of companies by occupational fields

| Category | Numbers | Proportion |
|-------------------|---------|------------|
| Total | 10,759 | 100% |
| Machinery(Robot) | 3,528 | 32.8% |
| Electronics | 1,477 | 13.7% |
| IT | 1,406 | 13.0% |
| Chemicals | 394 | 3.7% |
| Cultural contents | 340 | 3.2% |
| Construction | 236 | 2.2% |
| Others | 3,378 | 31.4% |

Source: Human Resource Development Service of Korea(HRD Korea)(2017.10). Current Status of Apprenticeship in Korea.

2 Current Status of Apprentices

1) Status of Apprentices

- As of October 2017, 26,673 apprentices are currently undergoing training and 19,330 of them have completed their training, while 8,532 apprentices have dropped out of their training program.



Table 2-6 Numbers of apprentices

| Process | Implementation of training | Completion of training | Drop-out | Implementation & Completion |
|-----------------------|----------------------------|------------------------|----------|-----------------------------|
| Number of apprentices | 26,673 | 19,330 | 8,532 | 54,535 |

Source: Human Resource Development Service of Korea(HRD Korea)(2017.10). Current Status of Apprenticeship in Korea.

2) Current Status by Demographic Standards

- According to the data from HRD Korea, 25,133(46%) of the apprentices are in their twenties and only 1,549(2.8%) of the apprentices are over 50 years old.
- In terms of the demographic distribution, 42,057(77.1%) of the apprenticeship participants are male and only 12,478(22.8%) female apprentices are engaged in such programs, which indicates that male are more involved than females in apprenticeship.

Table 2-7 Numbers of apprentices by demographic standards

| Category | Total | 10s | 20s | 30s | 40s | over 50s |
|------------|--------|--------|--------|-------|-------|----------|
| Total | 54,535 | 15,411 | 25,133 | 9,107 | 3,335 | 1,549 |
| Proportion | 100.0% | 28.3% | 46% | 16.7% | 6.1% | 2.8% |
| Male | 42,057 | 13,173 | 18,323 | 7,770 | 2,011 | 780 |
| Female | 12,478 | 2,238 | 6,810 | 1,337 | 1,324 | 769 |

Source: Human Resource Development Service of Korea(HRD Korea)(2017.10). Current Status of Apprenticeship in Korea.

3) Current Status by Educational Attainment

- A high proportion of the apprenticeship participants are either specialized vocational high school graduates or meister high school graduates which accounts for 18,835 (31.5%) apprentices. Further more, 14,982(27.5%) individuals with university degree and 9,714(17.8%) with college degree have participated in the apprenticeship programs.

Table 2-8 Numbers of apprentices by educational attainment

| Category | Number | Proportion |
|--|--------|------------|
| Total | 54,535 | 100% |
| Under middle school | 146 | 0.3% |
| Specialized vocational high school/ Meister high school | 18,835 | 31.5% |
| General high school | 8,664 | 15.9% |
| College | 9,714 | 17.8% |
| University(Undergraduate) | 14,982 | 27.5% |
| Graduate school | 740 | 1.4% |
| Others | 1,454 | 2.7% |

Source: Human Resource Development Service of Korea(HRD Korea)(2017.10). Current Status of Apprenticeship in Korea.

4) Current Status of Wage Level

- According to data from HRD Korea, 20,550(37.7%) apprentices are paid monthly wages of less than 1,500,000 KRW(1,380 USD).
- Meanwhile, 3,166(37.8%) apprentices are paid monthly wages between the range of 1,500,000~2,000,000 KRW(1,380 ~1,839 USD⁴⁾) and about 16,548(30.3%) apprentices are paid wages of more than 2,000,000 KRW a month. The average salary of apprentice is 1,870,000 KRW(1,720 USD).

4) Currency: 1 USD = 1,087.10 KRW(By date of 30th, November in 2017)



Table 2-9 Numbers of companies by apprentice wage level

| Wage level | Numbers of apprentices | |
|-------------------------|------------------------|-------|
| Total | 54,535 | 100% |
| Under 1,500,000 KRW | 20,550 | 37.7% |
| 1,500,000~2,000,000 KRW | 17,437 | 32% |
| Over 2,000,000 KRW | 16,548 | 30.3% |
| Average monthly wage | 1,870,000 KRW | |

Source: Human Resource Development Service of Korea(HRD Korea)(2017.10). Current Status of Apprenticeship in Korea.

5) Current Status of Apprentices' Employment

- The numbers of apprentices who are employed for an unlimited duration are 41,583 (93%), and apprentices with fixed-term contract account for only 3,143(7%).

Table 2-10 Numbers of apprentices based on employment status

| Category | Contract with unlimited duration | | Fixed-term contract | |
|---------------------|----------------------------------|------------------------|----------------------|------------------------|
| | Numbers of companies | Numbers of apprentices | Numbers of companies | Numbers of apprentices |
| Total | 6,743 | 41, 583 | 648 | 3,143 |
| Company-led | 1,652 | 15,821 | 210 | 1,766 |
| Training center-led | 5,091 | 25,762 | 438 | 1,377 |

Source: Human Resource Development Service of Korea(HRD Korea)(2017.10). Current Status of Apprenticeship in Korea.

6) Current Status by Training Period

- In the apprenticeship system, there are various types of training periods such as 12, 18, 24, 36, 48 months(6-month program no longer exist). Among the 54,535 apprentices, a high proportion of apprentices participate in a 12-month training(71.2%).

Table 2-11 Numbers of apprentices by training period

| Category | | Status | |
|--|-----------|---------|------------|
| | | Numbers | Proportion |
| Total | | 54,535 | 100% |
| Training period (work based learning duration) | 6 months | 2,350 | 4.3% |
| | 12 months | 38,840 | 71.2% |
| | 18 months | 2,149 | 3.94% |
| | 24 months | 9,281 | 17% |
| | 36 months | 816 | 1.5% |
| | 48 months | 1,099 | 2% |

Source: Human Resource Development Service of Korea(HRD Korea)(2017.10). Current Status of Apprenticeship in Korea.

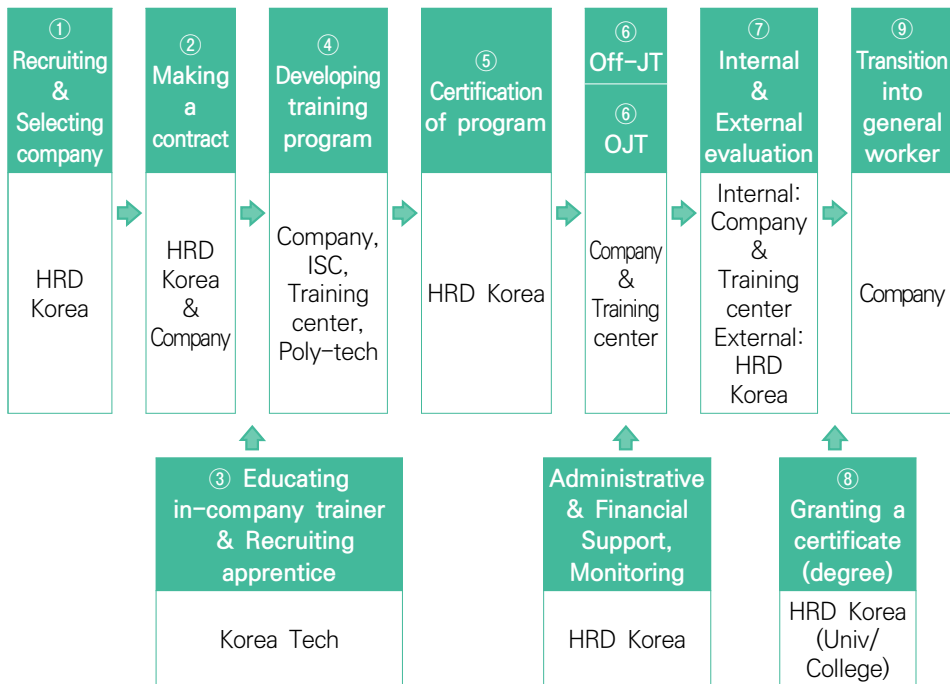
Development and Operation of Apprenticeship Program

1. General Procedure
2. Selecting Company and Training Center
3. Development and Verification of Apprenticeship Program
 4. In-company Trainer & HRD Staff
 5. Selection and Treatment of Apprentices
 6. Operation of OJT & Off-JT
 7. Internal & External Evaluation
 8. Monitoring & Consulting

1 General Procedure

The general process of apprenticeship program is as follows.

Figure 3-1 General procedure of apprenticeship program



Source: Ministry of Employment and Labor(MOEL) & Human Resource Development Service of Korea(HRD Korea) (2016). Operation Manual for Korean Apprenticeship, p.10.

The process begins by recruiting and selecting companies based on the examination of the documents that companies have submitted during application, as well as through field evaluation.

Secondly, in the stage of ‘finalizing an agreement’ the selected companies make a contract of apprenticeship training, with the regional branch of HRD Korea.

In the third stage, in-company trainers and HRD administration staffs, who have been assigned by the selected companies, are trained for 1~4 days by Korea Tech. At the same time, apprentices are recruited and training contracts are made with them.

In the fourth stage, to ensure that the companies are able to operate OJT & Off-JT systematically and that training is designed based on NCS, companies develop apprenticeship program and learning materials. Moreover, consulting services for the development of program and learning materials are provided to selected companies by training centers and Poly-techs.

In the fifth stage, 24 regional centers for work-learning dual system under HRD Korea, approve and certify the apprenticeship programs developed by the company, which had met the standard accreditation criteria.

In the sixth stage, the companies and training centers that have been certified for their programs, perform the actual training. While the training program is ongoing, administrative & financial support as well as monitoring are provided by HRD Korea.

In the seventh stage, the companies evaluate apprentices’ performance during the training; while HRD Korea assesses the achievement of apprentices in an external evaluation after completing the training programs.

In the eighth stage, the apprentices receive their certification of apprenticeship based on the external evaluation. This certification will be converted to an apprenticeship qualification when ‘a legislative bill on support for apprenticeship in industrial sites’ is enacted.



In the ninth stage, the apprentices who have completed the training program and have passed the external evaluation, are able to make a contract with the company as a general worker, provided that he/she is able to continue working.

2 Selecting Company and Training Center

1) Selecting Company

① Requirement of Company

A company which intends to participate in apprenticeship system should 1) create an unemployment insurance, 2) have over 50 employees at the time of their application(over 20 employees, in the case of companies applying for training center-led type). Furthermore, the participating companies should have adequate human and material resources and management skills to conduct apprenticeship training, and they must have in-company trainers specialized in the occupational fields, in which the training is to be conducted in.

Table 3-1 Requirements for participation in apprenticeship

| Number | Requirements |
|--------|--|
| 1 | Application of Employment insurance pursuant to Article 8 「Employment Insurance Act」 and Article 5 「Employment Insurance and Industrial Accident Compensation Insurance Act」 |
| 2 | The number of regular employees as of the date of application should be 50 or more(over 20 employees for companies applying for training center-led type) |
| 3 | The company should have human resources, material resources and management skills to conduct apprenticeship in specific occupational field related to the training. |
| 4 | The company should have in-company trainers and schemes of occupational fields to conduct apprenticeship. |

Source: Ministry of Employment and Labor(MOEL) & Human Resource Development Service of Korea(HRD Korea) (2017). Korean Apprenticeship Manual, p.18.

Exceptionally, companies with five or more full-time employees(apprenticeship high school, Uni-Tech, companies with more than 10 employees) that have met these specific requirements such as: 1) companies being recognized for excellence in technology, development potential, and human resources externally, 2) companies recommended by the work-learning support center(regional council for HRD), 3) companies recommended by the specialized industrial field(specialized region) for apprenticeship, can participate in apprenticeship.

Table 3-2 Exceptional condition for participation in apprenticeship

| Number | Requirements |
|--------|--|
| 1 | Companies recognized for their technology, possibility of development, excellent HRD such as World class 300, Masters' company, Best HRD company, Small hidden company, Innovative company |
| 2 | Companies recommended by work-learning support center(regional councils for HRD) |
| 3 | Companies recommended by the specialized industrial field(specialized region) for apprenticeship |

Source: Ministry of Employment and Labor(MOEL) & Human Resource Development Service of Korea(HRD Korea) (2017). Korean Apprenticeship Manual, p.18.

However, even if the above requirements are met, companies that fall under following limitations cannot participate in apprenticeship.



Table 3-3 Restriction on participation in apprenticeship

| Number | Requirements |
|--------|---|
| 1 | A company operated by a person whose name is publicly announced as employers with delayed payment pursuant to Article 43(paragraph 2) of 「Labor Standard Law」 |
| 2 | Companies included in the list of public announcements for incidents such as the number of industrial accidents, especially companies which are still within 1 year from the announcement date pursuant to Article 9(2) of 「Industrial Safety and Health Act」 |
| 3 | Companies in disposal pursuant to Article 24 of 「Occupational Skills Development Act」 and the Article 8(2) of enforcement regulations. |
| 4 | A company that has not passed one year period from the date on which the designation as apprenticeship training company has been canceled. |
| 5 | A company that has not passed one year period from the date on which a fraudulent application, that had been submitted by employer and training center to be recognized as an apprenticeship training company, has been discovered |

Source: Ministry of Employment and Labor(MOEL) & Human Resource Development Service of Korea(HRD Korea) (2017). Korean Apprenticeship Manual, p.18.

② Selection Criteria for Participating Company

The selection criteria for participating company are composed of 9 subsections, which cover 4 categories including a) suitability of objectives for training skilled workforce (suitability of training programs), b) willingness to train manpower(will for understanding & participating in apprenticeship, having experience conducting similar training, setting wage level of new employees), c) business conditions(credit rating, numbers of employees, rate of long-term employees), d) preparation for training(having candidates for potential trainer, facility and equipment for training).

Table 3-4

Selection criteria for participating company
(enforced as of 4th quarter in 2017)

| Major Categories | Sub-categories | Subsection |
|--|---|--|
| Suitability of objectives for training skilled workforce(10) | Suitability of training programs(10) | training program(10) |
| Willingness to train manpower(45) | Will for understanding & participating in vocational competency development(35) | Will for understanding & participating in apprenticeship(30) Experience in conducting similar training(5) |
| | Treatment for apprentice(10) | Setting wage level of new employees(10) |
| | Business conditions(25) | Business scale, fiscal health(15) |
| Working conditions(10) | | Rate of long-term employees(10) |
| Preparation for training(20) | Infrastructure for human resource(10) | Having candidates for potential trainer(10) |
| | Infrastructure for material resource(10) | Facility and equipment for training (10) |
| Companies not applicable for selection | <ul style="list-style-type: none"> • Potential companies intending to conduct training period of less than 12 months or more than 48 months. • Potential companies wanting to conduct training period of less than 20% or more than 50% Off-JT hours • Potential companies in which apprentices make up more than 25% of their total employees • Companies with a history of overdue wage according to paragraph 2, Article 43 in 「Labor Standards Law」 | |

Source: HRD Korea(2017). Revised Plan for Indicators of Selecting Training Company.

③ Procedure of Selecting Company

The selection of the participating company is divided into 1) quarterly regular(scheduled) selection method and 2) frequent(non-scheduled) selection method. The invitation to apply as training companies was held occasionally until 2016, however, from 2017, this is scheduled regularly. For the apprenticeship for students(apprenticeship high school, Uni-Tech, IPP etc), occasional selection is done.



Table 3-5 Regular recruitment and frequent selection of participating company

| | Regular(scheduled) recruitment | Frequent(non-scheduled) selection |
|-------------------------|---|---|
| Period | <ul style="list-style-type: none"> • HRD Korea announces recruitment every first quarter(January, April, July, October) online. | <ul style="list-style-type: none"> • Can occur at any time all year round |
| Target | <ul style="list-style-type: none"> • NCS-based qualification type at worker stage | <ul style="list-style-type: none"> • All group that is not covered by the regular recruitment (student stage, College degree type) |
| Content of announcement | <ul style="list-style-type: none"> • Selection condition for companies • Recruitment period, application methods, required documents • Government grants, period of grants etc | <ul style="list-style-type: none"> • N/A |
| Implementation matters | <ul style="list-style-type: none"> • Proceeding according to announcement | <ul style="list-style-type: none"> • Regional HRD branches establish and implement own plans. |
| Process | <ul style="list-style-type: none"> • Application → Prior consultation services of an agency → Document examination and field evaluation → Final decision | <ul style="list-style-type: none"> • Application → Examination of papers and field evaluation → Final decision |

Source: Ministry of Employment and Labor(MOEL) & Human Resource Development Service of Korea(HRD Korea) (2017). Korean Apprenticeship Manual, p.19.

The procedure for selecting company is as follows; 1) announce recruitment of apprenticeship companies, 2) submitting company's application for apprenticeship, 3) prior consultation services, 4) submit documents, 5) document examination, 6) field evaluation, 7) select the company and finalize the agreement. The whole process for regular recruitment is conducted within three months. The difference in this process, in comparison to those in the year 2016, is that prior consultation service stage has been added after applications receiving stage.

In the early days of each quarter, such as early January, April, July and October, potential

companies are notified about the selection of apprenticeship companies through TV, newspapers, online banners and internet homepage. The companies should submit applications and checklists of self-evaluation to HRD Korea branch offices.

Consequently after the application submission period, branch offices of HRD Korea will hold a council meeting with the training center and companies under their jurisdiction and match them with the appropriate consulting agencies. The consulting agency examines job suitability for apprenticeship, level of training and training period, and help the company to develop a training plan by suggesting complementary strategies which account for other deficient factors.

Considering the advices of the consulting agency, the company submits ① participation application, ② checklist for self-evaluation, ③ agreement for dual training center & company(except for company-led type), ④ business plan, and ⑤ other related documents (credit rating report etc).

Table 3-6 Matching consulting agency

| Category | Company type | Consulting agency |
|--|--------------------------|--|
| An applicant company had already appointed a consulting agency | N/A | Appointed agency |
| A company submits application without appointing consulting agency | Company-led type | Professional support center or consulting agency in apprenticeship |
| | Training center-led type | Regional training center |

Source: Ministry of Employment and Labor(MOEL) & Human Resource Development Service of Korea(HRD Korea) (2017). Korean Apprenticeship Manual, p.20.

Once the company submits required documents, the regional center for work-learning dual system in HRD Korea will examine the documents and perform a field evaluation. In the document examination phase, if the company has not met the requirement for the item



‘suitability of the company’s condition’ during selection, they would be disqualified. During the field evaluation phase, site visit is done in companies that has passed the document review phase, in order to confirm the contents of their document. In particular, the site visit observation focus on the CEO’s understanding about apprenticeship and will to develop human resources, as well as checking the condition of the training infrastructure.

The field evaluation delegation, which consists of a member from HRD Korea, a HRD expert, an expert of relevant field, will fill out a checklist and score card and decide the final lists of companies appropriate for apprenticeship(companies getting a score of 70 or above).

Twenty four regional centers for work-learning dual system of HRD Korea notifies the lists to HRD Korea head office, company and dual training center. The relevant regional center inform selected company about the finalizations of agreement of the apprenticeship system, while providing guidance for companies that had failed to be selected, to improve their weak points.

2) Selecting Dual Training center

① Function and Role of Dual Training center

The function of a Dual training center is to implement Off-JT as an outsourcing organization and to support a partner company to adequately perform both Off-JT and OJT. It plays several roles in apprenticeship system, including recruiting partner companies and apprentices, supporting and consulting training programs development, developing learning materials, performing apprentice evaluation(internal and external evaluation), supporting OJT and Off-JT, and general assistance for partner companies.

Table 3-7 Roles of dual training center in process

| Process | Role |
|--|---|
| Search for potential partner company & Support apprentices recruitment | <ul style="list-style-type: none"> • Submit application of potential partner company and input it on HRD-Net <ul style="list-style-type: none"> - Look for company through visit, workshop, meeting • Support apprentices recruitment and selection |
| Support and consulting for partner company about program development | <ul style="list-style-type: none"> • Support partner company for developing programs and learning materials based on NCS |
| Apply program certification | <ul style="list-style-type: none"> • Apply for accreditation of partner companies to regional center of HRD Korea • Input certified training programs on HRD-Net |
| Declare implementation of training | <ul style="list-style-type: none"> • Input on HRD-Net(it has to be done within 10 days after implementation) |
| Perform Off-JT | <ul style="list-style-type: none"> • Recruit apprentice • Assist and consult partner company's training, support OJT and Off-JT • Support OJT of company-led type's training |
| Manage partner companies' training | <ul style="list-style-type: none"> • Manage and providing consulting services for partner companies • Educating in-company trainers and HRD staffs in partner companies |
| Evaluate apprentice's performance | <ul style="list-style-type: none"> • Implement and support internal assessment • Support external assessment(provide venue for evaluation) <ul style="list-style-type: none"> ※ Provide venue for external evaluation |

Source: Ministry of Employment and Labor(MOEL) & Human Resource Development Service of Korea(HRD Korea) (2017). Korean Apprenticeship Manual, p.24.



② Selection Criteria of Dual Training center

In order to be qualified as a dual training center, an organization should have over 30 potential partner companies in a joint training agreement, and over 100 apprentices. The organization with recommendations from companies, industrial councils, colleges, public organizations, main administrative organizations, is entitled to apply for dual training center. Currently, most of dual training centers of apprenticeship are colleges, poly-tech, and industrial skills councils(ISCs).

The selection standards for dual training center are as follows; a) have the will to carry out business, b) possess capability for business, c) meet the qualification requirements for applying, d) have capability of organization, e) be suitable for training, f) be equipped with infrastructure for training. The dual training center is chosen based on standards mentioned above, through document examination, interview and field evaluation.

Table 3-8 Selection criteria for dual training center

| Category | Assessment Items | Score | Assessment Method |
|---|---|--------------------|---|
| 1. Will to carry out business | ① CEO's knowledge for business ② CEO's dedication to business(fiscal health, middle, long-term plan etc.) ③ Suitability of objectives ④ Propriety of expected effect of business | Pass/ Fail | Document + Interview |
| 2. Capability of business | ① Ability to perform dual training center's function and role ② Capability of management, support for partner company ③ Possibility of developing training programs and tools | Pass/ Fail | Document + Interview |
| 3. Qualification requirement for applying | ① Satisfy all of the qualification requirement for applying | Pass/ Fail | Document + Interview |
| 4. Capability of organization | ① CEO's will for business | 35% of total score | Document + Interview + Field evaluation |
| | ② CEO's knowledge about apprenticeship | | |
| | ③ Fiscal health | | |
| | ④ Experience for training | | |
| | ⑤ Cooperation with local small business sector | | |
| | ⑥ Development possibility | | |
| 5. Suitability of training | ① Expertise of related field | 40% of total score | Document + Interview + Field evaluation |
| | ② Suitability of business scale | | |
| | ③ Geographical access to partner company and industrial cluster | | |
| | ④ Quality management for OJT | | |
| | ⑤ Quality management for Off-JT | | |
| | ⑥ Management for apprentice's internal & external assessment | | |
| 6. Training infrastructure | ① Suitability of training facility | 25% of total score | Document + Interview + Field evaluation |
| | ② Suitability of training tools | | |
| | ③ Systematic composition of organization | | |
| | ④ Availability of professional trainers | | |
| | ⑤ Planning and management for training, capability of counseling | | |

Source: Ministry of Employment and Labor(MOEL) & Human Resource Development Service of Korea(HRD Korea) (2016). Operation Manual for Korean Apprenticeship, p.77.



The criteria for selecting apprenticeship high school project team is different from the general dual training center and it consists of 1) field suitability 2) suitability of curriculum development and operation, 3) suitability of participating companies, 4) appropriateness of operation of apprenticeship training center, 5) availability of an alternative investment plan.

Table 3-9 Selection criteria for apprenticeship high school

| Contents | Score |
|--|--------------------------|
| Field suitability | 20/170 |
| Suitability of curriculum development & operation | 70/170 |
| Suitability of participating companies | 60/170 |
| Appropriateness of operation of apprenticeship training center | 20/170 |
| Availability of an alternative investment plan | Eligibility requirements |

Source: Ministry of Employment and Labor(MOEL) & Human Resource Development Service of Korea(HRD Korea) (2017). Korean Apprenticeship Manual, p.26.

3) Selection and Operation Process of Dual Training center

The selection process for dual training center begins with the recruitment of organizations. The process follows these stages: 1) recruitment, 2) evaluation of business plan, 3) selection of dual training center, 4) establishing and finalizing an agreement, 5) implementation of business, 6) assessment, 7) account settlement.

Table 3-10 Selection process of dual training center

| Process | Dual Training center | HRD Korea |
|-----------------------------------|---|--|
| Recruitment | <ul style="list-style-type: none"> Choose partner company to form an agreement with Submit application & business plan | <ul style="list-style-type: none"> Notify by web site |
| Evaluate business plan | <ul style="list-style-type: none"> Examine document, interview, field inspection(business plan, financial statement) | <ul style="list-style-type: none"> Conduct committee for evaluation Evaluate capability and training infrastructure of organization (Methods: document, interview, field evaluation) |
| Select dual training center | <ul style="list-style-type: none"> Join the committee by request Finalize business plan Prepare related documents (investment statement, insurance) | <ul style="list-style-type: none"> Conduct committee Select organization Finally decide business plan & budget |
| Form an agreement | <ul style="list-style-type: none"> Form an agreement with CEO of organization | <ul style="list-style-type: none"> Form an agreement with president of HRD Korea |
| Implementing & Operating business | <ul style="list-style-type: none"> Be equipped with training infrastructure(facility, equipment) Develop training program, tools including consulting, support Perform training program (HRD-Net) Receive financial support Manage training of partner company | <ul style="list-style-type: none"> Monitor dual training centers Provide financial support (HRD Korea regional branches) Do Inspection with local employment labor office |
| Assessment | <ul style="list-style-type: none"> Submit assessment | <ul style="list-style-type: none"> Collect data Execute financial support |
| Account settlement | <ul style="list-style-type: none"> Submit document about expenses Prepare for account settlement | <ul style="list-style-type: none"> Select an accounting firm Settle account |

Source: Ministry of Employment and Labor(MOEL) & Human Resource Development Service of Korea(HRD Korea) (2016). Operation Manual for Korean Apprenticeship, p.68.



3 Development and Verification of Apprenticeship Program

1) Development of Apprenticeship Program

① Main Agency of Program Development

By principle, companies should develop apprenticeship program on their own. However, if a company does not have the capacity to develop the program independently, they can seek help from experts of the government. There are different approaches for program development, depending on the apprenticeship types. For the company-led type, ISC is in charge of taking the role of project manager(PM); while poly-tech will take the PM role if ISC is unable to participate. The development of training program is managed by ISC, poly-tech and a company expert.

On the other hand, for the training center-led type, the priority of taking the role of PM falls onto the ISC; but when ICS is not available, the dual training center will take charge. The ISC, dual training center and a company expert will develop training program. When the dual training center is not capable to do so, poly-tech will take the responsibility of developing the program.

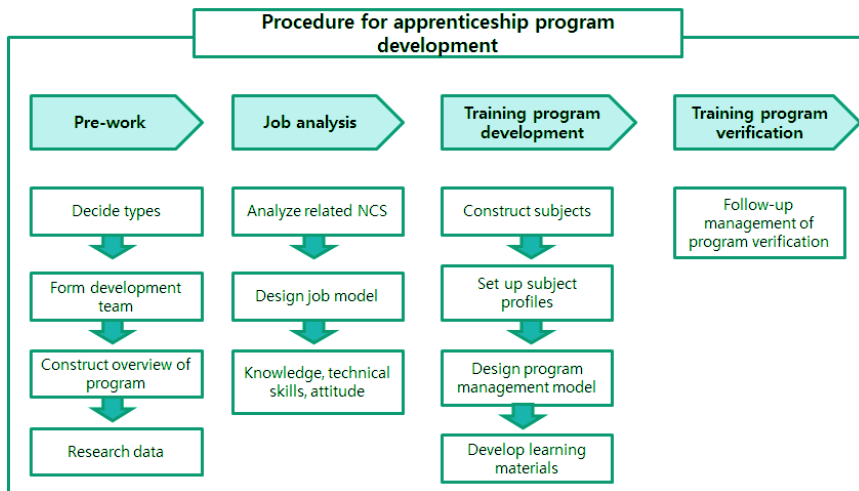
A team of program development consists of PM, vice-PM and 2 experts(either 2 field experts from company; or one from company and the other from external organization). For the qualification + degree type, program development team should also include professors in related field.

② Procedure of Program Development

The process for developing apprenticeship program has four phases; pre-work, job analysis, training program development and verification. Pre-work includes forming development committee and constructing program overview; while job analysis involves

designing a job model based on NCS and deriving the knowledge, technical skills, attitude required for the job. Development of training program phase includes constructing subjects, subject profiles, and program management model. Lastly, training program is verified and managed by HRD Korea. The training program should be developed within two months.

Figure 3-2 Procedure of apprenticeship program development



Source: Ministry of Employment and Labor(MOEL) & Human Resource Development Service of Korea(HRD Korea) (2017). Korean Apprenticeship Manual, p.54.

③ Standards for Program Development

The contents of apprenticeship program development should be designed to include both general skills of related fields and firm specific skills. According to the operation manual for apprenticeship, development of apprenticeship program should not only reflect the opinions of company; but it should also be designed based on NCS-based qualification. This is defined as ‘customized program development for company based on NCS’ in the manual.

Training programs should be developed based on NCS qualifications or as a module type,



while complying with the verification standards. The training period should be 1 to 4 years, and the training time per year should be 300 to 1,000 hours. OJT consists of more than 50% of the total training time and Off-JT is 20% to 50% of the total training time. OJT will only be recognized if it is conducted in 5 hours or less per day, or 15 hours or less per week.

Training program developers should select the appropriate methods for evaluating each NCS competency unit and develop one or more questions for each evaluation method. Moreover, he/she should create an internal evaluation plan, in consultation with the relevant stakeholder and the plan should be reflected in the training program development report. The NCS-based qualification program should fully(100%) reflect the NCS-based required competency units in each items. The time allocated for training required competency units should be at least 50% of the minimum required training time, that has been set in each qualification level.

Table 3-11 Developing training program of NCS-based qualification

| Total training time | Minimum time using NCS | | Company specific job |
|-----------------------------------|--|-----------------|---|
| Level(L2/L3) : 600~4,000 hours | over 600 hours | | The remaining time could be dedicated to training other job-specific competences, other than the required and optional competence (training time for non-NCS units) |
| | Training time for required competence | over 300 hours | |
| | Training time for optional competence | under 300 hours | |
| Level(L4/L5) : 800~4,000 hours | over 800 hours | | |
| | Training time for required competence* | over 400 hours | |
| | Training time for optional competence | under 400 hours | |

Source: Ministry of Employment and Labor(MOEL) & Human Resource Development Service of Korea(HRD Korea) (2017). Korean Apprenticeship Manual, p.57.

On the other hand, the module type training program should apply and use NCS in more than 60% of the total training time.

Table 3-12 Development of module type training program

| Total training time | Minimum time using NCS | Company specific job |
|---------------------|---|--|
| 600~1,000 hours | <ul style="list-style-type: none"> • More than 60% of the total training time should apply NCS • Among the required competency units included in three NCS-based qualification items in the same level • For L2~3 300 hours, for L4~5 400 hours or more time should be allocated | <p>The remaining time dedicated for other training which does not apply NCS (non-NCS training hours)</p> |

Source: Ministry of Employment and Labor(MOEL) & Human Resource Development Service of Korea(HRD Korea) (2017). Korean Apprenticeship Manual, p.58.

The detailed instruction for development of module type training program is shown in <Table 3-13>.

Table 3-13 Standards for apprenticeship program development

- ① The training program developer analyzes company's process and job and record the results of the analysis in the training program development report(submit the training program development report which includes results of job analysis).
- ② Apprenticeship training program should reflect the company's opinions and need to be developed based on NCS-based qualification or as a module type, while adhering to the standard for its verification.
- ③ Training period: 1~4 years
- ④ Minimum training hours of NCS qualification: L2~L3(600 hours), L4~L5(800 hours)
- ⑤ Minimum training hours for the Module type: Over 600 hours(under 1,000 hours)
- ⑥ Standard for training hours per year: 300~1,000 hours
- ⑦ OJT: over 50%, Off-JT: over 20% & under 50%
 - OJT hours should be longer and/or more than Off-JT hours(5 hours or less per day, 15



hours or less per week for OJT).

- ⑧ A company can develop maximum three jobs for training based on opinions from the industry.
 - A company that wants to develop more training programs, after the completion of the development and implementation of one training program, they can send an official document of request and application to branch of HRD Korea.
 - Branches of HRD Korea which had received the requests will review the applications and decide whether the company can develop additional training program(s). If it is decided that more training is possible, the responsibility of developing the training program is commissioned to the first program development organization which had done so.
 - The development organization which has been commissioned, can appoint PM for development (The development cost is based on the unit price of the development, and depending on additional development, only the difference in unit prices will be additionally charged).
- ⑨ Additional program(s) could be developed based on the core job functions of company but organized in an integrated manner(representative core job functions can include subjects such as labor standard, industrial safety, ethical management etc.)
- ⑩ Reflect basic occupational skills
 - These can be organized within 10% of the total time allocated for NCS training(optional)
 - The basic skills can be included as an optional competency unit, the program title should be “basic occupational skills”, and competency units can be decided within 10 domains(Fully utilizing the sub-contents for specific domains).
- ⑪ Develop customized training program for the company based on NCS
 - (NCS-based Qualification program) The required competency units determined by the relevant NCS-based qualification, should be fully(100%) utilized. The training hours for required competency units should include over 50% of minimum required training hours set in each level of NCS qualification.
 - All of the required competencies should be included in external evaluation.
 - Training hours for the required competency can be organized within $\pm 50\%$ of the standard training hours that is set for NCS qualification.
 - The required competency should be fully organized(100%) within the 80% coverage of the training schedule, considering the external evaluation.
 - The optional competency should include optional competencies in NCS qualifications items, and could be selected and utilized without restrictions, from all of the developed subdivisions in the NCS.
 - Training hours of the optional competency: (minimum training hour) - (training hour for

the required competency)

- Training hours of company-specific job/tasks: Training hours for the company-specific job/tasks can be organized in the remaining time after the minimum training hour, set for each NCS qualification level, has been completed(non-NCS training hours)
- (Module type program) 60% of the training hours should utilize NCS and for the required competence included in three NCS-based qualification items in the same level, 300 hours for L2~L3, 400 hours for L4~L5
 - Fields that has not been developed in NCS qualification can be organized in the module type.
 - Company-specific job/tasks: the remaining training hours can be used to train other jobs/tasks that do not use NCS(Non-NCS training hours)
 - For qualification+degree type, only NCS-based qualification program can be accepted (module type program is inapplicable in this case)
- ⑫ The training program developer should include all internal evaluation questions for all competency units, in the development of training program report
 - Evaluation questions that can be included in the report: questions developed by HRD Korea, publically disclosed document of external evaluation, examples of questions asked in a learning module, the questions developed by dual training center & development team without infringing copyrights.
 - ※ Develop more than one question(required) for each method of evaluating competencies.
- ⑬ The training program developer creates a plan for the internal evaluation and includes this plan in the training program development report.
- ⑭ Assessment methods of apprentices: The training program developer decides on the evaluation methods after consulting with the company.(Required)
- ⑮ Development period for training program: within 2 months
- ⑯ The e-Learning training methods is inapplicable in apprenticeship
- ⑰ Guidelines for apprenticeship, Uni-Tech, IPP, high-skilled meister and P-Tech follow these standards, but details can be adjusted according to the nature of types.

Source: Human Resource Development Service of Korea(HRD Korea)(2017.6). Improving Apprenticeship Program Development and Verification System, pp.12-13.

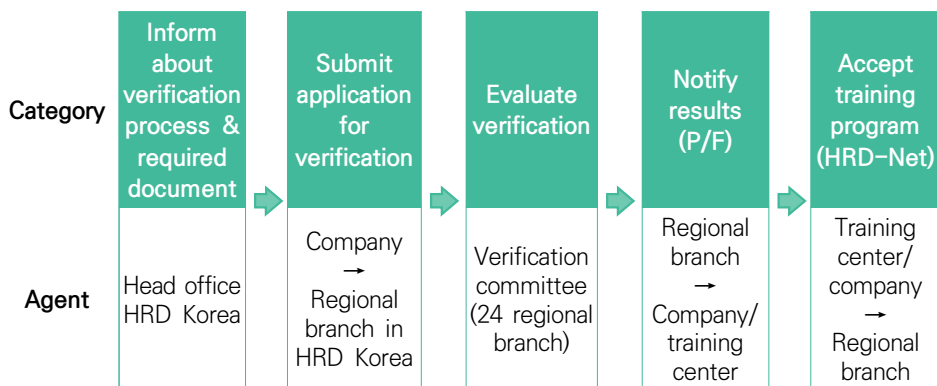


2) Verification of Apprenticeship Program

① Procedure of Program Verification

Once a company develops apprenticeship program, it should be verified as to whether it satisfies the requirements, and meets the national standard for apprenticeship training. The company which intends to have their program verified, can apply at the regional branch in HRD Korea according to the following process.

Figure 3-3 Procedure of apprenticeship program verification



Source: Ministry of Employment and Labor(MOEL) & Human Resource Development Service of Korea(HRD Korea) (2017). Korean Apprenticeship Manual, p.63.

② Standards for Program Verification

The main factors that will be verified include a) quality of program, b) standardization of program according to type of job and level, c) training condition of company, d) applicability of NCS. In terms of NCS applicability, a stricter policies and standards have been applied since June 2017. For example, for the qualification type, the proportion of utilizing required competency units has been changed from 70% to 100%. Similarly for the module type, the proportion of utilizing NCS's competency units within the total training hour is changed

from 40% to 60%. The verification standards for apprenticeship program consists of 6 categories and 21 subsections.

Table 3-14 Standards for apprenticeship program verification

| Category | Subsection |
|---|--|
| 1. Basic requirement | 1-1. Appropriateness of workforce |
| | 1-2. Adequacy of training period(hour) |
| | 1-3. Inclusion of Off-JT & OJT |
| | 1-4. Ability to implement training in 10 days after verification |
| | 1-5. Completion of in-company trainer's education |
| 2. Frame & contents of program based on NCS | 2-1. Adequacy of name, definition, level |
| | 2-2. Propriety of training period, program |
| | 2-3. Appropriateness of program's goal, content |
| | 2-4. Adequacy of learning materials |
| | 2-5. Use of program data base |
| | 2-6. Appropriateness of the basic plan of internal evaluation (new subsection) |
| 3. Plan for Off-JT | 3-1. Propriety of condition of Off-JT organization |
| | 3-2. Adequacy of plan for Off-JT |
| | 3-3. Adequacy of management plan for Off-JT |
| 4. Plan for OJT | 4-1. Adequacy of plan for OJT |
| | 4-2. Propriety of management plan for trainer |
| | 4-3. Adequacy of evaluation plan for OJT |
| 5. Apprentice management | 5-1. Propriety of training & labour condition |
| | 5-2. Adequacy of management for drop-out |
| 6. Employment & Career | 6-1. Link to employment |
| | 6-2. Treatment for apprentice(career management) |

Source: Ministry of Employment and Labor(MOEL) & Human Resource Development Service of Korea(HRD Korea) (2017). Korean Apprenticeship Manual, pp.66-70.



4 In-company Trainer & HRD Staff

1) Roles & Requirements of In-company Trainer & HRD Staff

In-company trainer is in charge of managing apprenticeship program as well as providing guidance and supervision to apprentice. The qualification requirements of in-company trainer are as follows.

Table 3-15 Qualification requirements of in-company trainer

- ① A person who holds associate degree or bachelor's degree in accordance with 「Higher Education Act」
- ② A person who has research experience in research institute in accordance with 「Act of Establishment, Management and Promotion of National Institute」·「Act of establishment management promote the national institute of science field」
- ③ A vocational development trainer
- ④ A person who achieves qualification of related field in accordance with 「Act of National Technical Qualification」
- ⑤ A person who has more than 3 year experience in related field

Source: Ministry of Employment and Labor(MOEL) & Human Resource Development Service of Korea(HRD Korea) (2017). Korean Apprenticeship Manual, p.46.

HRD staff is responsible for administrative support such as a) program management and administration, b) budget and financial support, c) management of online system. Firstly, HRD staff manages apprentices, application for program verification and informs about implementation of training; as well as reporting about the number of apprentices that had completed a training program. Secondly, HRD staff is in charge of financial management including application for government support, HRD staff's allowance, reimbursement of all cost, budget of training, related document for financial support. Finally, HRD staff manages the online system by using HRD-Net.

2) Training for In-company Trainer and HRD staff

HRD Korea establishes and finalizes contract agreements with Korea tech institute of training education, for the training of in-company trainer and HRD staff.

In-company trainers are required to take a course within a month after company selection; while HRD staff must complete the course before the training program is developed.

The cost of participating in the training of in-company trainers is financially supported, depending on the number of apprentices in the company; but the training cost of one HRD staff in each company will be supported, regardless of the number of apprentices.

Table 3-16 Financial support for training in-company trainer and HRD staff

| Target | The number of apprentices in each company | Support for initial training cost | Support for training cost with adjustment |
|--------------------|---|-----------------------------------|---|
| In-company trainer | Under 5 | 2 persons | 2 persons |
| | 6~10 | 3 persons | 3 persons |
| | Over 11 | 5 persons | 5 persons |
| HRD staff | - | 1 person | 1 person |

Source: Ministry of Employment and Labor(MOEL) & Human Resource Development Service of Korea(HRD Korea) (2017). Korean Apprenticeship Manual, p.47.

Training in-company trainers is divided into two courses; mandatory course and job intensive course. The mandatory course is comprised of a total of 46 hours, which includes two weeks for e-Learning(15 hours), and four days and three nights for the collective education(31 hours). The intensive course is conducted for a total of 41 hours, which consists of four weeks for e-Learning(25 hours) and two nights and one day for the collective education(16 hours). Meanwhile, training for HRD staff is conducted for a total of 12 hours, which includes one week for e-Learning(7 hours) and one day for the collective education(7 hours).



The training is conducted once or twice every month, in major cities including Seoul, Busan, Dae-gu and Gwang-ju. When there are more demands than usual, more training is provided.

Table 3-17 Training hours for in-company trainer & HRD staff

| Target | Course type | | e-Learning | | Collective | | Total |
|--------------------|-------------|--------------------|------------|------|--------------------|------|-------|
| | | | Period | Time | Period | Time | |
| In-company trainer | Mandatory | Mandatory (I + II) | 2 weeks | 15H | 4 days 3 nights | 31H | 46H |
| | | Mandatory I | 2 weeks | 15H | 3 days 2 nights | 23H | 38H |
| | | Mandatory II | - | - | a day | 8H | 8H |
| | Optional | Intensive | | 10H | a day | 8H | 18H |
| HRD staff | Mandatory | | 1 week | 5H | a day | 7H | 12H |

Source: Ministry of Employment and Labor(MOEL) & Human Resource Development Service of Korea(HRD Korea) (2017). Korean Apprenticeship Manual, p.48.

The training conducted, is centered on the necessary practical training which could increase their competencies as an in-company trainer and HRD staff. The training contents for in-company trainers are comprised of understanding apprenticeship & NCS, developing apprenticeship training program, development & use of learning tools, establishing plan for internal evaluation.

Table 3-18 Training for in-company trainers(Mandatory course, 46 hours)

| Type | Time | Subjects | Contents |
|---------------------|------|-------------------------------|--|
| e-Learning (Online) | 15H | Concept & Strategy of HRD(3H) | <ul style="list-style-type: none"> • Concept & importance of HRD • Component of HRD • Method & process of HRD |

| Type | Time | Subjects | Contents |
|---|------------------|---|--|
| | | Understanding Apprenticeship (5H) | <ul style="list-style-type: none"> • Overview of apprenticeship • Operation types & process of apprenticeship • Roles of personnel for apprenticeship • Concept of apprenticeship training program • Management of apprentices |
| | | Understanding NCS & qualification based on NCS(2H) | <ul style="list-style-type: none"> • Concept & application plan for NCS • Understanding qualification based on NCS |
| | | Understanding the development of apprenticeship training program (5H) | <ul style="list-style-type: none"> • Developing apprenticeship training program(1) • Developing apprenticeship training program(2) • Practical development of apprenticeship training program • Developing learning tools • Developing teaching skills & evaluation |
| Collective training (1st day, required) | 10:00~14:00 (3H) | Concept & process of apprenticeship | <ul style="list-style-type: none"> • Importance & concepts of apprenticeship • Operation process of apprenticeship • Recruiting & selecting apprentices • Fiscal support & note for employers |
| | 14:00~15:00 (1H) | Development of apprenticeship training program | <ul style="list-style-type: none"> • Understanding NCS & qualification based on NCS • Development process of apprenticeship training program • Accreditation standard for training program of apprenticeship • Development report about training program of apprenticeship |
| | 15:00~18:00 (3H) | Practice for Development of apprenticeship training program I | <ul style="list-style-type: none"> • Selecting subjects of NCS qualification • Overview about training program of apprenticeship • Selecting competency units for training program |
| Collective training (2nd day, required) | 09:00~11:00 (2H) | Practice for Development of apprenticeship training program II | <ul style="list-style-type: none"> • Creating subjects & profile of the program • Creating the operation plan for training program |



| Type | Time | Subjects | Contents |
|--|---------------------|--|--|
| | 11:00~12:00 (1H) | Sharing the training program development report | <ul style="list-style-type: none"> • Sharing practice materials • How to use NCS web-site • How to use PDMS |
| | 13:00~16:00 (3H) | Developing & using learning tools | <ul style="list-style-type: none"> • Concept & types of learning tools • Methods for developing learning tools for OJT • Methods for materializing learning tools for OJT • Practice for developing learning tools for OJT |
| | 16:00~17:00 (1H) | Understanding HRD-Net & LMS | <ul style="list-style-type: none"> • Understanding HRD-Net • How to use LMS |
| | 17:00~18:00 (1H) | Other important matters for operating apprenticeship | <ul style="list-style-type: none"> • Excellent cases of apprenticeship • Fraud cases of apprenticeship • Protecting rights of apprentices |
| Collective training (3rd day, required) | 09:00~15:00 (5H) | Teaching method for OJT | <ul style="list-style-type: none"> • Teaching method for OJT by levels • OJT Practice |
| | 15:00~17:00 (2H) | Coaching apprentices | <ul style="list-style-type: none"> • Understanding about coaching • GROW model • Core tools for GROW model |
| | 17:00~18:00 (1H) | Educational evaluation | <ul style="list-style-type: none"> • Writing evaluation |
| Whole training (4th day, required) | 9:00~12:00 (3H) | Establishing plan for competency evaluation I | <ul style="list-style-type: none"> • Overview of competency evaluation NCS • Overview of plan for competency evaluation • Content analysis of training program |
| | 13:00~18:00 (5H) | Establishing plan for competency evaluation II | <ul style="list-style-type: none"> • Selecting range of competency evaluation • Selecting method for competency evaluation • Choosing evidence for competency evaluation • Evaluation plan for apprenticeship |

Source: Korea Tech, Institute of Competency Development(2017). Developing Trainers for Apprenticeship(<https://hrdi.koreatech.ac.kr/app/app6.asp>, Access on 29th December, 2017).

The intensive course for in-company trainers consists of six modules which are development of training program and learning tools for apprenticeship, teaching methods for OJT and Off-JT, vocational training evaluation and apprentice management. Moreover, each modules is comprised of a 10-hour online education and an 8-hour collective education(six-hour module education + one-hour case presentation + one-hour industry trends).

Currently, the intensive course for in-company trainers had been conducted through a pilot operation in August 2017, and from september, the training programs on evaluation methods and apprentice management have been implemented as a priority.

Table 3-19 Training for in-company trainers(Intensive course)

| Competency | Number | Course | Subjects | Contents | Time | |
|------------|--------|---|---|--|------------|------------|
| | | | | | e-Learning | Collective |
| Formation | 1 | Develop training programs | Learning needs analysis | Understanding learning needs analysis | 10 | 6 |
| | | | Program development and practice | Program design and development practice for apprenticeship | | |
| Formation | 2 | Development & application of learning tools | OJT task analysis | Understanding OJT task analysis | 10 | 6 |
| | | | Development and practice for learning tools | Understanding and development practice for learning tools | | |
| Operation | 3 | Teaching methods for OJT | Selection of teaching method & media | Understanding teaching method & teaching media and OJT | 10 | 6 |
| | | | | How to choose the right teaching method & media | | |



| Competency | Number | Course | Subjects | Contents | Time | |
|------------|--------|------------------------------------|--------------------------------------|--|------------|------------|
| | | | | | e-Learning | Collective |
| | 4 | Teaching methods for Off-JT | Skills for teaching & feedback | Skills practice for teaching & feedback, sharing of case study | 10 | 6 |
| | | | Selection of teaching method & media | Understanding of teaching method & media and Off-JT How to choose the right teaching method & media | | |
| | | | Practice for group lessons | Skill practice for performing group lessons, sharing of case study | | |
| Evaluation | 5 | Evaluation methods for training | Understanding NCS-based evaluation | Understanding NCS-based evaluation | 10 | 6 |
| | | | NCS-based evaluation method | NCS-based evaluation method and practice | | |
| | | | Development of evaluation tools | Understanding of evaluation tools and practice for developing evaluation tools | | |
| Management | 6 | Strategy for apprentice management | Understanding apprentices | Strategy for management of apprentice | 10 | 6 |
| | | | Mentoring | Preparation and practice for mentoring | | |
| | | | Counselling | Practice for apprentice counselling | | |

Source: Ministry of Employment and Labor(2016). Improvement of Operation Training for In-Company Trainers, p.5.

The contents of education for HRD staff are comprised of understanding apprenticeship, fiscal support and administration of apprenticeship, and personnel management according to strategic HRD.

Table 3-20 Training for HRD Staff(Mandatory course, 12 hours)

| Type | Time | Subjects | Contents |
|--------------------------------|---------------------|--|---|
| e-Learning (online) | 5H | Understanding apprenticeship (5H) | <ul style="list-style-type: none"> • Overview of apprenticeship • Operation type & process of apprenticeship • Roles of personnel in apprenticeship • Concept of apprenticeship training program • Management of apprentices |
| Collective training (7H) | 10:00~11:00 (1H) | Overview of apprenticeship | <ul style="list-style-type: none"> • Apprenticeship partners • Concept & importance of apprenticeship |
| | 11:00~14:00 (2H) | Operation process of apprenticeship | <ul style="list-style-type: none"> • Operation process of apprenticeship • Infrastructure and recruitment • Development & verification of training program • Implement of Off-JT & OJT • Competency evaluation for apprentices |
| | 14:00~15:00 (1H) | Government grant & administration of apprenticeship | <ul style="list-style-type: none"> • Government grant & application for apprenticeship • Operation of HRD-Net and LMS |
| | 15:00~18:00 (3H) | Personnel management according to strategic HRD | <ul style="list-style-type: none"> • Recruiting & selecting apprentices according to strategic HRD • Personnel management of apprentices |
| | 15:00~18:00 (3H) | Personnel management for apprentices according to strategic HRD | <ul style="list-style-type: none"> • Recruiting & selecting apprentices according to strategic HRD • Personnel management of apprentices |

Source: Korea Tech, Institute of Competency Development(2017). Developing Trainers for Apprenticeship(<https://hrdi.koreatech.ac.kr/app/app6.asp>, Access on 29th December, 2017).



5 Selection and Treatment of Apprentices

1) Recruitment and Selection of Apprentice

The recruitment of apprentices, follows the recruitment process that is practiced by each company. The range of potential apprentice includes vocational high school students or graduates, college students or graduates, job seekers, and employees working in a company for not more than one year. The company selects an apprentice based on document examination, interview, and makes a training employment contract with him/her. When the company faces difficulty in finding apprentices, it can be supported by the regional employment office of MOEL.

2) Status of Apprentice

An apprentice holds the status of both trainee and worker. As a worker, the apprentice is protected by Labor law by signing a contract which contains salary, industrial safety and fringe benefit.

When the employer forms a contract with the apprentice, he/she should set a clear division between the period of OJT and Off-JT. The government is in the process of developing a related law, which is the Act of Support for Work Based Learning in Industrial Field, in order to legally protect the dual status of trainee and worker.

3) Training Employment Contract

The training company and apprentices of apprenticeship system establishes an agreement in the form of a training employment contract. The training employment contract is put into effect starting from the first day of training, when students are henceforth identified as

apprentices; and the contract ends when the training is completed. The parties involved in the contract are CEO of company and apprentice him/herself. However, if the apprentice is a minor, a legal representative will sign the contract on his/her behalf. After the agreement is signed, both parties will keep their copies.

The contract has two types, a) a contract with unspecified duration, b) a fixed-term contract. If the working condition falls short of the required standard, the contract would be invalidated in accordance with the Labour standards law of Article 15. Moreover, if the apprentice suffers a disadvantage, the company would receive warning from the regional employment office of HRD Korea.

The training employment contract consists of following articles; Article 1 contract period of training, Article 2 training operation and venue, Article 3 duty of company, Article 4 duty of apprentice, Article 5 wage payment and welfare benefits, Article 6 training-working hours and break time, Article 7 disciplinary action, Article 8 cancellation of contract, Article 9 certification, Article 10 transition from apprentice to general worker, Article 11 special protection for minor, Article 12 application.

Table 3-21 Standard training employment contract(sample)

The agreement of “Vocational training and working”(“Subsidized employment contract”) made between [name of employer](“Training company”) and [name of employee](“Apprentice”) undergoing training and working at company under the Apprenticeship System.

<Apprentice with Contract of Indefinite Duration>

Article 1 [Contract Period of Training]

① The contract is put into effect from the day of ____, 20____, to the day of ____.



20 ____.

- ② Despite of the first clause, if the apprentice completes his/her training and receives proper qualification, by passing evaluation of HRD Korea, the contract should be considered expired.
- ③ If the apprentice fails to be qualified, the contract would be extended to the next evaluation within a year and he/she has two chances to retake the evaluation.
- ④ Trial training period is ____ months.(When trial training period is applied, it should completed within 3 months.) If the training stops for 1/3 of total expected period, the trial period should be extended.

<Apprentice with Fixed-Term Contract>

Article 1 [Contract Period of Training]

- ① The contract is put into effect from the day of ____, 20 ____, to the day of ____, 20 ____.
- ② Despite the first clause, if the apprentice completes his/her training and receives proper qualification by passing evaluation of HRD Korea, the contract should be considered expired.
- ③ If the apprentice fails to be qualified, the contract would be extended to the next evaluation within a year and he/she has two chances to retake the evaluation
- ④ Trial training period is ____ months.(When trial training period is applied, it should be completed within 3 months.) If the training stops for 1/3 of the total expected period, trial period should be extended.

Article 2 [Training Operation & Venue]

- ① The company should provide apprentice with a structured training, where the apprentice are able to perform their job(called “OJT”), and receive theoretical education related to job in separate place(called “Off-JT”).
- ② Venue for Off-JT is _____ under the first clause of Article 2.

Article 3 [Duty of Company]

- ① The company should develop apprenticeship program in order to allow the apprentice to acquire necessary job ability during the training period, and offer training based on the program.
- ② The company should choose trainer in charge of training, and inform apprentice about trainer.
- ③ The company should indicate apprentice working regulation if it is necessary.
- ④ The company should supply complimentary textbook, working clothes, practice material, individual equipment and other necessary materials.
- ⑤ The company should guarantee time for training and evaluation, if the apprentice participate other activity relevant training.
- ⑥ The company should assign appropriate task and assignments, after considering the physical ability of the apprentice.
- ⑦ The company should provide safety & sanitation education, protective equipment, measurement to prevent dangers & harm caused by raw material, gas, dust.
- ⑧ The company should ensure that the apprentice have social insurance based on contract.
- ⑨ The company should notify about the finalizations of the contract to jurisdiction center in charge of work based learning support.
- ⑩ The company should do registration for evaluation on behalf of apprentice, if the apprentice delegates authority to them.

Article 4 [Duty of Apprentice]

- ① Apprentice should perform tasks according to the subsidized employment contract.
- ② Apprentice should attend both OJT and Off-JT.
- ③ Apprentice should observe company's working regulation and rules of employment.
- ④ Apprentice should follow user of the company or trainer's instruction based on the contract.
- ⑤ Apprentice should use tools, equipment and other gear cautiously.
- ⑥ Apprentice should not reveal confidential information about company.



- ⑦ If the apprentice is unable to continue training due to illness or other occasion, he/she should notify the company about the fact.

Article 5 [Wage Payment & Welfare Benefits]

- ① The company should pay apprentice wage on the date written below every month.
1. Period of payment: 20 ____ . ____ . ____ . ~ 20 ____ . ____ . ____ .
 2. Date of payment: the ____ day of every month
 3. Amount of payment: _____ KRW
- ② The company should pay extra wage for overtime training and work.
- ③ The company should provide convenient facilities such as diner, break room, medical office, residence, commuter bus, and should not treat apprentices differently from employees.

Article 6 [Training-working Hours & Break Time]

- ① Training-working hours should be less than 8 hours a day and 40 hours a week.
- ② Training-working hours of apprentice under age should be under 7 hours a day, 40 hours a week. However, if agreed by both apprentice and the company, it is allowed to extend training-working hour by additional one hour a day, 6 hours a week.
- ③ The company should allow 30 minute-break for apprentice with four hour-shift and one hour-break to apprentice with eight hour-shift.
- ④ Holidays and day-off should follow company's rule of employment and Labour law.
- ⑤ The company should not make apprentice work at night or on weekends. Only if sudden demands increase, the company with shift work system is allowed to demand an apprentice to work at night(under aged apprentice ought to have permission from MOEL).
- ⑥ Despite the first clause, if agreed by both apprentice and the company, it is allowed to extend training-working hour by an additional 12 hours a week under the moderate condition of Off-JT. However, if Off-JT is carried out in the company, the hour should be under 12 hours a week.

Article 7 [Disciplinary Action]

- ① The company should take disciplinary action against apprentice when he/she breaks rules of employment, contract, working regulation and should give him/her opportunity to explain.
- ② Reason, type and process of disciplinary action is applied according to the rules of employment of the company.

Article 8 [Cancellation of Contract] The company should not cancel a contract with apprentice without any valid reason.

Article 9 [Certification]

- ① The company should issue certification for apprentice when the apprentice completes his/her training as planned.
- ② The certification includes name of training program, training period, contents of training.
- ③ The company should issue certification that contains training period, contents of training etc to apprentice if his/her contract is cancelled during training.

Article 10 [Transition from Apprentice to General Worker]

- ① The company should change the status of an apprentice to general worker when he/she passes the final evaluation of HRD Korea.
- ② If the apprentice continues working in spite of completion of training, it could be considered as contract with an unspecified duration.

Article 11 [Special Protection for Minor] Under age apprentices should not work in harmful & dangerous fields in accordance with Article 40 section 4 of Labour Standards Act.



Article 12 [Application]

- ① The sections not included in a contract follows Labour Standards Act, Workforce Development and Training Act, Vocational Training Law.
- ② Rule of employment of the company, which are not specified here, also applies to apprentice.

20_____. _____. _____.

(Training Company) Name of Company
 Name of CEO

(Apprentice) Address of apprentice
 Name of apprentice

(Apprentice under age) Legal representative

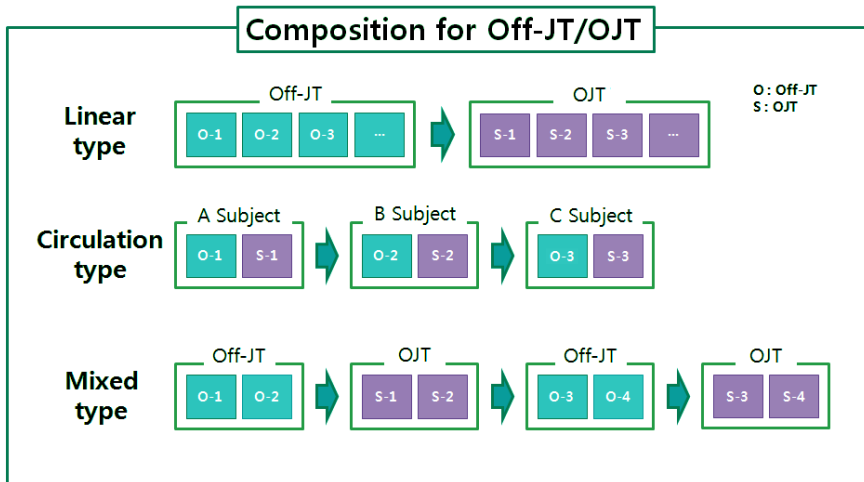
Source: Ministry of Employment and Labor(MOEL) & Human Resource Development Service of Korea(HRD Korea) (2016). Operation Manual for Korean Apprenticeship, pp.188-192.

6 Operation of OJT & Off-JT

1) Program Operation

An apprenticeship program consists of two types of training; OJT, which is performed within the company workplace where the apprentice are currently in; and Off-JT, which is operated in a different venue, where apprentices obtain theoretical and practical education in classes.

Figure 3-4 Composition for Off-JT/OJT



Source: Ministry of Employment and Labor(MOEL) & Human Resource Development Service of Korea(HRD Korea) (2017). Korean Apprenticeship Manual, p.87.

The apprenticeship program conducts OJT and Off-JT in the proportion of 5:5~8:2. The apprenticeship program consists of three types of operation which are the linear type, circulation type and mixed type.

For the linear type, an Off-JT that includes the theoretical learning of all the subjects will firstly be conducted; while field practice are later conducted as OJT.

In the circulation type, apprentices will sequentially participate in programs; whereby for each subject, the apprentice initially undergo Off-JT, and then followed by OJT.

In the mixed-type, training program will alternate between several Off-JT subjects and OJT subjects on a regular(weekly or monthly) basis. The Mixed-type is the most recommended method among three types, and it is generally the type that is offered.



2) On the Job Training(OJT)

OJT is defined as the training which is provided to an apprentice in the working field and delivered through a well-prepared training plan, by an in-company trainer.

The duration of OJT should be included and specified in the training plan, whereby OJT should be conducted during day time, as well as, in less than 5 hours per day and 15 hours per week. In the case of short term training, training time could be extended, provided that it is below 15 hours per week.

An apprentice uses Learning Management System(LMS) on HRD-Net for his/her attendance management. The in-company trainer uses the LMS to create a daily study log for the competency unit, and the apprentice's attendance is only acknowledged when he/she completes the training report within the study log. The apprentice will be evaluated by an in-company trainer every time he/she completes a competency unit(subject). The in-company trainer considers the training results as well as the level of understanding of the apprentice, and evaluates his/her work. Evaluation is performed based on course work and when the evaluation results show some inadequacy, this is supplemented through additional training.

3) Off the Job Training(Off-JT)

The Off-JT is a concept of training which is operated in different venues where theoretical education and practice are provided in a class. For the training center-led type, Off-JT is conducted in the joint training center. For the company-led type, Off-JT is operated either by a) the company itself, which conducts training in a different facility owned by the company⁵⁾; or b) a consigned organization which is assigned the responsibility of conducting Off-JT as a training center.

5) If there are difficulties for running Off-JT program, the company could hire professional instructor from outside.

In the case of training center-led type, the operation of training programs has several features. All apprentices, within the same occupational field, but from different partner companies are gathered in the training center; and participate in Off-JT delivering the essential competency unit in the same field. Although this type of apprenticeship is able to ease the burden of individual companies in terms of providing Off-JT; however, some problems may arise, such as overlapping of program contents of OJT and Off-JT and mismatch of levels.

If Off-JT is developed by the in-company trainer, indeed this will increase his/her burden of developing a theoretical education. However, if an in-company trainer manages both OJT and Off-JT, the contents can be consistent and well-designed. Some companies prefer the option of providing Off-JT through an in-company management, because by doing so, it is easier for them to match the Off-JT program with the characteristics or specialization of the company.

Companies which intend to provide Off-JT would need a proper instructor, who possess and is able to deliver an extensive theoretical knowledge about the related field. The company should build infrastructure such as facilities, tools, materials and environment for training. More than that, the company should report about implementation of training, by showing necessary documents such as Off-JT timetable and contract with apprentice.



Table 3-22 Advance preparation for Off-JT

| Category | Contents |
|-----------------------|--|
| Instructor | Instructor acquire knowledge about related field and selects trainer able to deliver them. |
| Training tools | Training tools developed using knowledge from training program or related competence - Company's own textbook or developed manual, books of professional area |
| Facility | Classroom or conference room |
| Report about training | Necessary documents such as four-week-schedule designed according to training tools, contracts |

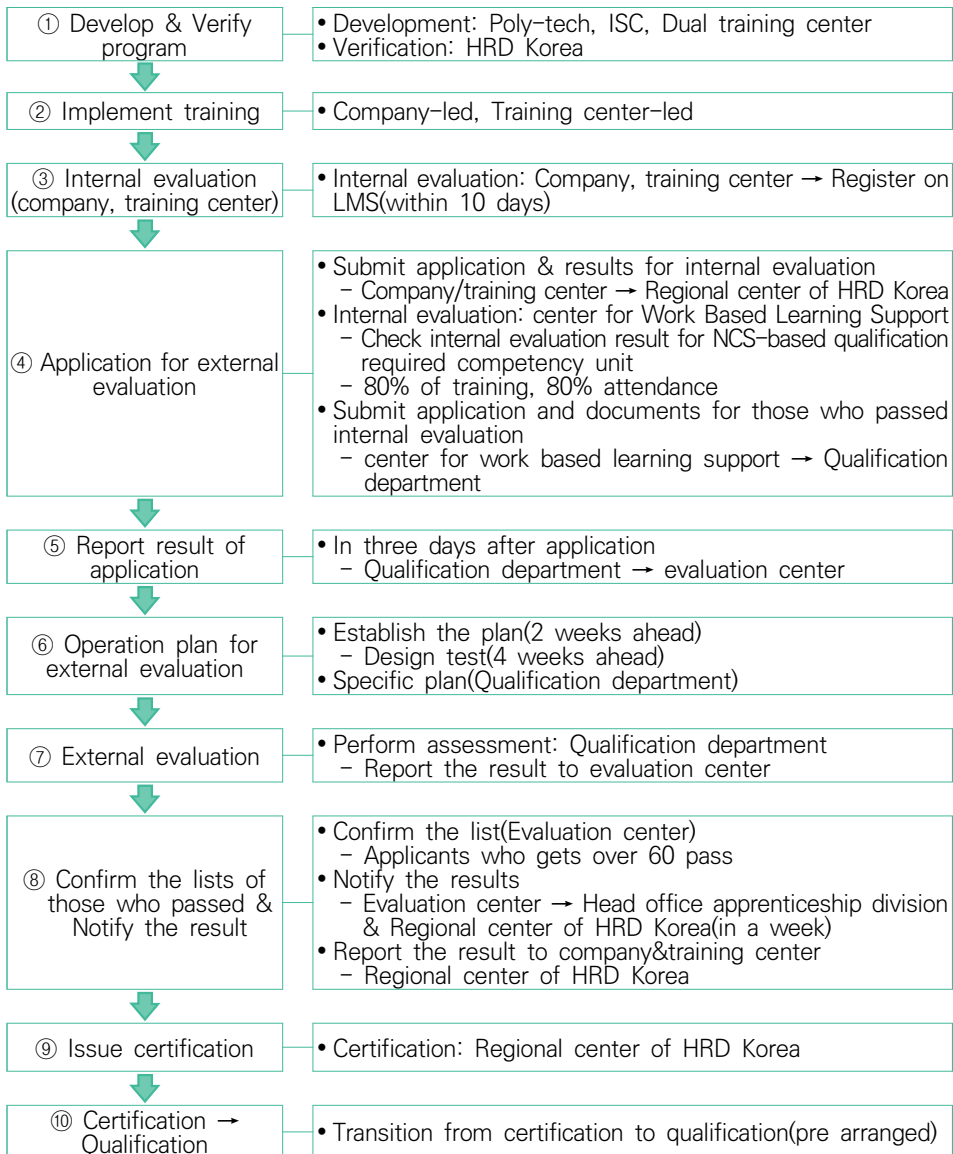
Source: Ministry of Employment and Labor(MOEL). Human Resource Development Service of Korea(HRD Korea) (2016). Operation Manual for Korean Apprenticeship, p.199.

Off-JT consists of a) theory education, b) experiment & practice education, c) evaluation. Firstly, the apprentice learns about job and theories which are applicable in the field and performs assessment about a case study. The apprentice conducts experiment and practice, in an environment similar to that of the company, and performs assessment of confrontation strategy against emergency and report about the experiment process.

7 Internal & External Evaluation

An apprentice evaluation consists of a) an internal evaluation, which is proceeded by either the company or dual training center during the apprenticeship program, b) an external evaluation, which is performed by a team of external experts and in-company trainer designated by HRD Korea. The procedure of apprentice evaluation is as follows.

Table 3-23 Procedure of apprentice evaluation

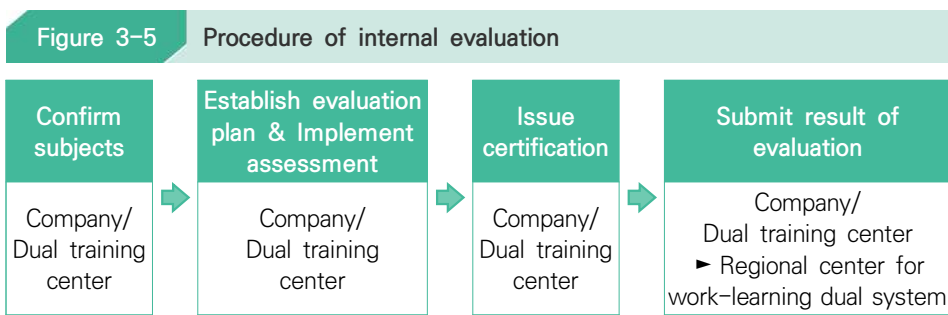


Source: Ministry of Employment and Labor(MOEL) & Human Resource Development Service of Korea(HRD Korea) (2017). Korean Apprenticeship Manual, pp.98-99.



1) Internal Evaluation

An internal evaluation is a process of evaluation performed by the company or training center. The internal evaluation proceeds in the following order; a) confirm subjects(target), b) establish evaluation plan & perform assesment c) decide on list of apprentice who had passed the internal evaluation & issue certification, d) submit the result of evaluation.



Source: Ministry of Employment and Labor(MOEL) & Human Resource Development Service of Korea(HRD Korea) (2017). Korean Apprenticeship Manual, p.99.

The internal evaluation is performed when each unit of competency(subject) is completed. The range of internal evaluation includes all kinds of competency units such as required and optional competence, company-specialized training of apprenticeship program. Basically, in order to maximize the efficiency of evaluation, the internal evaluation is performed not only on each competency unit, but also it is also performed on each subject(more than 2 units).

Evaluation period begins at the time when about 80% of each unit of competency(subject) is completed, until the actual completion time of the training. If training period is over a year, the test should be given every six month.

In terms of methods and duration of internal evaluation of apprenticeship, only the minimum standards are required; hence allowing the company to make evaluation, a

creative process, by using various methods, as much as possible. The venue for evaluation is either the same place as OJT or dual training center. In order to raise the credibility of the internal evaluation, staff from ISC is required to conduct the evaluation at least once for the company-led type; while an Off-JT instructor from the training center visits and operates test at least once for the training center-led type.

HRD staff should enter results of evaluation into the LMS of HRD-Net in 10 days after test. The company/training center should keep related documents such as test sheets, result and score for about three years. Applicants who had passed the whole competency units are considered as successful candidates for external evaluation.⁶⁾ If an apprentice fails, he/she will be allowed at least one more chance to re-sit for the related competency unit.

The company/ training center confirms the final lists of applicants who had passed the internal evaluation for whole competency unit. And then the company issues the program completion certification under the names of ISC, dual training center and the company for the apprentices who pass and submits the results to HRD Korea.

2) External Evaluation

An external evaluation is a form of result-based evaluation operated by outside experts and trainers, who have been designated by HRD Korea or industrial council, after the completion of an apprenticeship program. The process for the external evaluation is as follows; a) application for evaluation & examination of the documents, b) establish plan for external evaluation, c) conduct & deliver examination sheets, d) hold examination, e) send results of evaluation, f) announce final lists of apprentice who had passed.

6) The applicants should have records of completion for 80% attendance.



Figure 3-6 Procedure of external evaluation



Source: Ministry of Employment and Labor(MOEL) & Human Resource Development Service of Korea(HRD Korea) (2017). Korean Apprenticeship Manual, p.103.

In order to apply for the external evaluation, the apprentice should have records of 80% attendance, 80% completion for training, and a record of passing internal evaluation for every competency unit.

The company that conducts program of NCS-based qualification is required to take the external evaluation. The scope of the external evaluation includes all required competency units of NCS-based qualification. The company which intends to apply for the evaluation should send all relevant documents to the regional center of HRD Korea during application period.

The external evaluation consists of paper examination including true or false, multiple-choice, short-answer questions, descriptive test and practice assessment such as evaluation in the field, assessor's inquiry, portfolio. The evaluation consists of 40% of paper examination and 60% of practice assessment. The evaluation is performed just before training should be finished or scheduled according to the annual plan. The duration for evaluation is flexible according to guidelines that is established.

The external evaluation is conducted based on the NCS-based qualification test standards, which is developed by industrial councils and focused on practical capability, rather than textbook knowledge.

Resources and documents related to external evaluation, are open to public on

apprenticeship web site(www.bizhrd.net). Hence, the company and apprentice can refer and prepare for the evaluation.

If the candidate achieves a score of over 60 after adding both the scores for paper exams and practice assessment, he/she is considered successful and will acquire a certification for passing the external evaluation. The certification indicates required units of NCS-based qualification and training hours, and is issued under the president of HRD Korea and name of ISC. The apprentices who have completed apprentice program and had passed the external examination is entitled to the certificate; and this certification will be converted to a apprenticeship qualification(if a law on apprenticeship will be enacted).

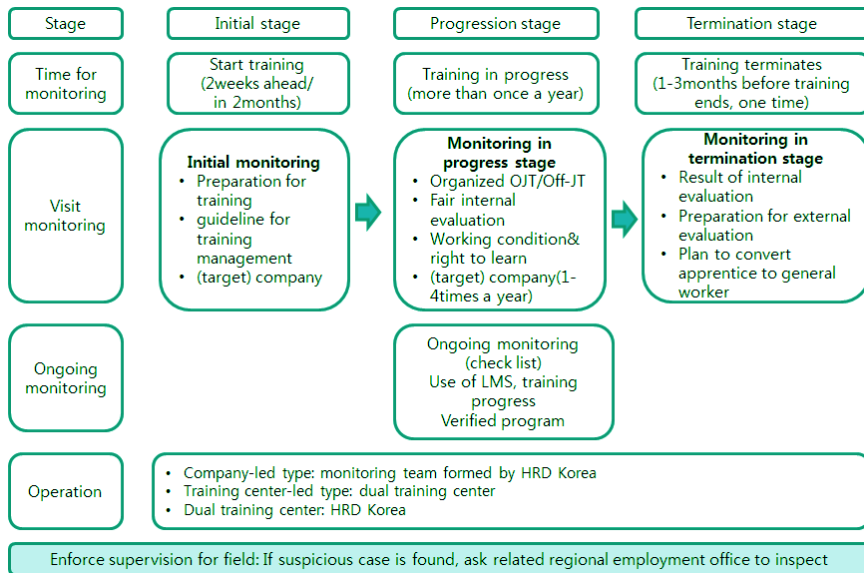
8 Monitoring & Consulting

1) Monitoring Phases

Regional branches of HRD Korea conduct monitoring to manage the quality of apprenticeship. Monitoring is conducted step by step, starting from the selection of participating company and proceeds until the completion of the training. The scope of monitoring covers overall work such as preparation and process for training, management, evaluation, apprentice recruitment, treatment and working condition for apprentice, teaching method, and the use of HRD-Net.



Figure 3-7 Monitoring phases

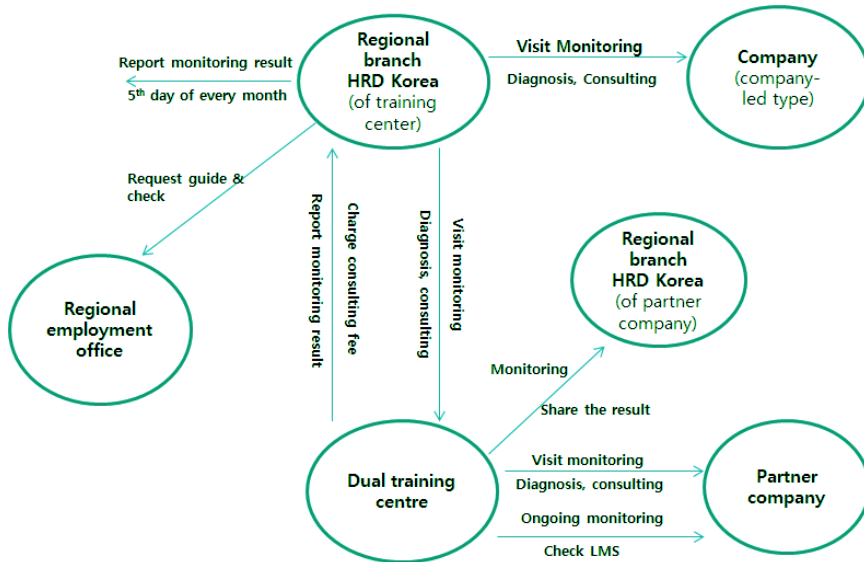


Source: Ministry of Employment and Labor(MOEL) & Human Resource Development Service of Korea(HRD Korea) (2017). Korean Apprenticeship Manual, p.111.

2) Monitoring Authority

Monitoring authority for the company is different depending on the operation types, which is a company-led type and a training center-led type. In the case of the company-led type, a team for monitoring is formed, consisting of branch office staff of HRD Korea and external experts from poly-tech, ISC, company and regional employment office. The training center-led type coordinates its own monitoring team; and report operation status of the partner company in which they formed a dual joint training agreement with, to the regional branch in HRD Korea.

Figure 3-8 Monitoring authority by operation type



Source: Ministry of Employment and Labor(MOEL) & Human Resource Development Service of Korea(HRD Korea) (2017). Korean Apprenticeship Manual, p.111.

Monitoring team comprise of staff from regional branch in HRD Korea or dual training center staff and two external experts. The number of companies, in which an external expert is in charge of, is limited to less than 20 companies to ensure the quality of the monitoring. Visitations for the purpose of monitoring is conducted three times during whole training duration.

3) Monitoring Type

There are two types of Monitoring: one is ‘ongoing monitoring’ which involves investigating and analysing training preparation & operation in advance through LMS of HRD-Net; and the other is ‘visit monitoring’ which seeks to thoroughly examine problems,



difficulties, poor & illegal training, by directly visiting the field. The quality of training is managed with both ongoing monitoring and visit monitoring.

① Ongoing Monitoring

‘Ongoing monitoring’ oversees and supervises training through the LMS(Learning Management System) documents of HRD-Net, which includes training journal, attendance records and report for training progress.

The designated personnel, which is placed in the regional branch in HRD Korea(or the dual training center), manages ongoing monitoring by ensuring that weekly training documents are input into LMS, by the company or the training center. The company-led type is supervised by the regional branch in HRD Korea, a dual training center manages the partner company which they had formed an agreement with, and reports the results to the regional branch in HRD Korea.

If the regional branch personnel discovers that some of the related documents are submitted partially or is completely missing, they could refuse financial support for training. However, the regional branch will provide budget for training after the company compensates for their fault and missing document, and input them on web site. For the case of the dual training center, the regional branch will check the monitoring result of the learning activities, which is submitted every month; and after verifying that there is no reason for disqualification, they would provide support for training fee.

② Visit Monitoring

‘Visit monitoring’ is carried out according to the phases of training. In the initial stage of training, the monitoring team visits the company two weeks ahead of training or within two month after the training had started, and introduces the process and administration(use of LMS) for training.

During the training, visit monitoring team consults with the company about apprentice management, instruction, evaluation. In particular, the team focuses on the following a) Is OJT operated properly under the in-company trainer's supervision?, b) Is the internal evaluation objective and conducted fairly?, c) Is the working condition or rights to learn of apprentice guaranteed? The monitoring team visits the company on the day of internal evaluation or at suitable time, and the company ought to make a schedule for visit monitoring while the internal evaluation is underway.

At completion phase of training, the team carries out monitoring by checking the status of training and internal & external evaluation; and visits the company between one month to three months before training ends. The team checks the internal evaluation and provide guidance to the company to prepare for apprentice's transition to general worker, before the external evaluation.

Table 3-24 Types & main contents of monitoring

| Category | | Time of Enforcement | Work Scope |
|--------------------|---------------|---|--|
| Ongoing Monitoring | | <ul style="list-style-type: none"> • More than once a month ※ Inspect weekly report of training progress and provide guidance for company with poor management to help them compensate their inadequacy | <ul style="list-style-type: none"> • Check training progress on LMS • Confirm if training is operated according to the verified program ※ Training center-led type performs monitoring on its own and report the result to the regional branch. |
| Visit monitoring | Initial stage | <ul style="list-style-type: none"> • Two weeks ahead of training or in two months after training begins ※ If the company receive training support consultation before training starts, visit monitoring could be omitted. | <ul style="list-style-type: none"> • Preparation for training(recruiting apprentice, educating trainer) • Introduce use of LMS ※ Training center-led type performs monitoring itself and report the result to branch office. |



| Category | | Time of Enforcement | Work Scope |
|----------|-------------------|---|--|
| | Progression stage | <ul style="list-style-type: none"> • Basic principle for monitoring is LMS monitoring, but if necessary visit monitoring could be conducted ※ Number of visits can be flexible considering training period, training field, number of apprentice. | <ul style="list-style-type: none"> • Check OJT performed under trainer's supervision • Examine if internal evaluation is fair and objective • Check if working condition & right to learn for apprentice is guaranteed ※ Training center-led type performs monitoring itself and report the result to the regional branch. |
| | Completion stage | <ul style="list-style-type: none"> • 1-3months before training ends ※ The company conducting their first training has to receive monitoring ※ Implement monitoring before the external evaluation | <ul style="list-style-type: none"> • Monitoring about internal & external evaluation, plan for transition to general worker ※ Training center-led type performs monitoring on its own and report the result to branch office. |

※ The company with apprentice training experience receives monitoring through LMS, and visit monitoring only if it is required.

Source: Ministry of Employment and Labor(MOEL) & Human Resource Development Service of Korea(HRD Korea) (2016). Operation Manual for Korean Apprenticeship, p.253.

If the regional branch of HRD Korea has discovered poor training or fraud case, they should inform the regional employment office about those cases and take the necessary action with regards to the issues.

Table 3-25 Reason for support restriction

| Reason for Support Restriction | Actions | |
|--|---|---|
| A. Doubtful case of being selected as participating company or dual training center through false information | Cancel selection according to agreement | |
| B. Suspicious case of being accepted for training process through false or illegal activity | Ask related employment labour office to inspect | |
| C. Suspicious case of receiving training fee with false or illegal activity | Ask related employment labour office to inspect | |
| D. Failure to operate training based on verified program or poor management of training(training report attendance records, counselling journal) | Minor case | Major case |
| | Corrective recommendation | Ask related employment labour office to inspect |
| E. Case whereby actual treatment & working condition is different from that is written in the submitted documents | Minor case | Major case (violation of labour standard law) |
| | Corrective recommendation | Ask related employment labour office to inspect |
| F. Changing trainer or HRD staff without informing HRD Korea | Corrective recommendation | |
| G. Disqualification of in-company trainer or training instructor | Corrective recommendation | |
| H. Failure to operate internal evaluation before the end of training; or failure to conduct internal evaluation fairly | Corrective recommendation ※ Notify employment labour office if the company modifies result of evaluation | |
| I. Failure to follow corrective recommendations | Ask related employment labour office to inspect | |

Source: Ministry of Employment and Labor(MOEL) & Human Resource Development Service of Korea(HRD Korea) (2016). Operation Manual for Korean Apprenticeship, p.257.

Outcomes of Korean Apprenticeship

1. Economic Outcomes of Apprenticeship
2. Social Outcomes of Apprenticeship

The representative research on the outcomes of apprenticeship in Korea, is the “Economic & Social Outcome Analysis of Korean Apprenticeship(2016)” by Jeon et al.(2016). The study had disseminated surveys for the collection of data. The target groups for the surveys include 1) employers(CEO), 2) in-company trainers, 3) HRD staff, 4) apprentices and 5) personnel from dual training center. Data collection was carried out from 1st to 30th, September in 2016; while respondents participated in the survey through an online programme.

This study examines the economic outcome and social outcome of apprenticeship, by selecting questionnaire items that are applicable to different research participants. The economic and social outcomes was examined on national, company and apprentice level, and detailed indicators and questionnaires had been developed for each level.

Table 4-1 Data collection

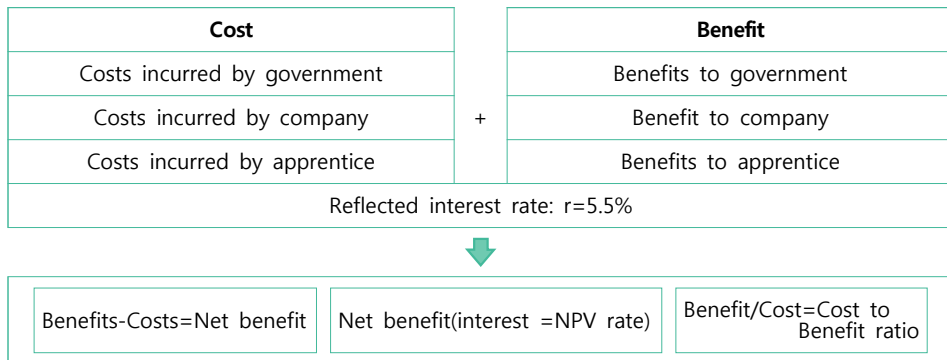
| | Target Group | Collected Survey |
|------------------|----------------------|------------------|
| Training company | CEO | 1,266 |
| | In-company trainers | 1,545 |
| | HRD Staff | 1,783 |
| | Apprentices | 2,690 |
| | Dual training center | 44 |

Source: Jeon et al.(2016). Economic & Social Outcome Analysis of Korean Apprenticeship(2016), p.9.

1 Economic Outcomes of Apprenticeship

In order to analyze economic outcome of apprenticeship, Jeon et al.(2015) conducts cost benefit analysis. The research performed in 2015 showed only the economic outcomes of apprenticeship on company as net benefit(benefit - cost), and it was difficult to examine the long-term outcomes of various stakeholder. Hence, the research in 2016 had compensated this limitations by examining all kinds of costs incurred and benefits gained by the government, companies and apprentices during five years; 2016-2020⁷⁾; and also analyzed NPV(Net Present Value) and B/C(Benefit/Cost) ratio which took into account future benefits(revenues) and costs as the present value, in order to analyze long-term outcomes.

Figure 4-1 Economic outcomes of apprenticeship(cost-benefit analysis) model



Source: Jeon et al.(2016). Economic & Social Outcome Analysis of Korean Apprenticeship(2016), p.14.

7) The reason for setting the cost-benefit period to five years is because the tenure of the new workers of participating SMEs is about five years.

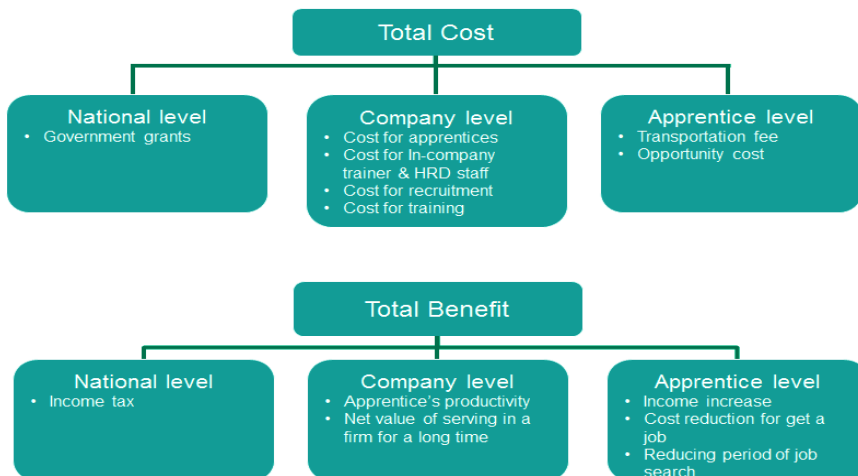


1) Items of Cost and Benefit

Items on costs cover all three levels such as the government level(operation fund, government grant), company level [apprentices' income(except for government grant), welfare fee for apprentices, cost of apprentice's leave, cost of trainer's leave, cost of HRD staff's leave, other personnel's cost, promotion fee, interview cost, cost for developing training program, tools & facilities, and other training fee], and the apprentice level (transport fee, opportunity cost).

Items on benefit also covers all the three levels, the government level(apprentice's income tax), the company level(apprentice's productivity, cost reduction for promotion & interview, cost reduction of reeducating new workers), the apprentice level(apprentice's income including government grants, reduction of cost for accumulating specs, saving time for looking for jobs).

Figure 4-2 Items of cost-benefit analysis for apprenticeship



Source: Jeon et al.(2016). Economic & Social Outcome Analysis of Korean Apprenticeship(2016), p.16.

The largest proportion of total costs for apprenticeship is the apprentice's annual income which takes 70.0%. This is followed by one of the individual items, which is the opportunity cost of apprentices that accounts for 10.9% of total cost.

Government grants was considered only in the first year of training, which means that it is not possible to measure the amount of government grant after the first year, and as most of the training programs are operated for one year(12 months). Hence it is assumed that government grants will not be provided after one-year training is completed.

The sum of the costs in 2016 and the expected costs in 2017-2020, as converted into present value, is 97,058,824 USD at the national level, 2,434,415,737 USD at the company level, and 314,995,955 USD for the apprentices. Individual costs per apprentice is 123,625 USD.

The largest proportion of total benefits of apprenticeship is apprentice's productivity, which is one of the items in the company level, and it accounts for 50.6%. This is followed by the second largest proportion, the apprentice's income(including government grants), which is on the individual level, and takes up 46.9%.

The sum of the benefits in 2016 and the expected benefits in 2017-2020 in terms of present value is 29,934,592 USD at the national level, 2,668,820,616 USD at the company level, and 2,491,127,481 USD at the apprentice level. Individual benefits per apprentice sums up to 225,402 USD.



Table 4-2 Cost of apprenticeship

| | | (Unit: USD) | | | | | | |
|------------------|--|---------------|---------------|---------------------|---------------------|---------------------|---------------------|--|
| Type | | Total | 2016 | 2017 (Predicted) | 2018 (Predicted) | 2019 (Predicted) | 2020 (Predicted) | |
| National Level | Government grants | 97,058,824 | 97,058,824 | - | - | - | - | |
| | Apprentice's annual income | 1,992,273,098 | 377,683,877 | 388,968,852 | 398,802,968 | 408,400,077 | 418,417,324 | |
| | Apprentice's welfare cost | 106,534,981 | 20,605,528 | 20,933,763 | 21,540,523 | 21,632,160 | 21,823,008 | |
| | Cost for apprentices | 156,970,082 | 156,970,082 | - | - | - | - | |
| | Cost for in-company trainer & HRD staff | 154,452,342 | 154,452,342 | - | - | - | - | |
| | Cost of vacancy (in-company trainer) | 5,074,420 | 5,074,420 | - | - | - | - | |
| | Cost of vacancy (HRD staff) | 2,526,738 | 2,526,738 | - | - | - | - | |
| | Cost of other staff concerned | 1,731,237 | 1,731,237 | - | - | - | - | |
| | Recruitment advertisement and promotional cost | 1,154,298 | 1,154,298 | - | - | - | - | |
| | Cost for recruitment | 792,553 | 792,553 | - | - | - | - | |
| Apprentice Level | Cost for training | 3,822,955 | 3,822,955 | - | - | - | - | |
| | Incentives for interview applicants | 7,987,861 | 7,987,861 | - | - | - | - | |
| | Cost of developing teaching materials | 1,095,172 | 1,095,172 | - | - | - | - | |
| | Cost of training equipment | 4,646,043 | 4,646,043 | - | - | - | - | |
| | Cost of other training concerned | 310,349,912 | 310,349,912 | - | - | - | - | |
| | Transportation fee | 2,846,470,516 | 1,145,951,842 | 409,902,616 | 420,343,491 | 430,032,236 | 440,240,332 | |
| | Opportunity cost | 123,625 | 49,770 | 17,803 | 18,256 | 18,677 | 19,120 | |
| | Total cost | | | | | | | |
| | Cost per apprentice | | | | | | | |

Source: Jeon et al.(2016). Economic & Social Outcome Analysis of Korean Apprenticeship(2016), pp.61-68.

Table 4-3 Benefit of apprenticeship

| | | Benefit of apprenticeship | | | | | | | (Unit: USD) |
|------------------|---|---------------------------|-------------|---------------------|---------------------|---------------------|---------------------|--|-------------|
| | Type | Total | 2016 | 2017 (Predicted) | 2018 (Predicted) | 2019 (Predicted) | 2020 (Predicted) | | |
| National Level | Income tax | 29,934,592 | 4,383,369 | 5,081,524 | 5,741,435 | 6,452,948 | 8,275,316 | | |
| | Apprentice's productivity | 2,625,794,991 | 388,192,039 | 470,310,680 | 538,845,667 | 590,693,597 | 637,753,009 | | |
| Company Level | Net value of serving in a firm for a long time | 5,552,379 | 1,106,290 | 1,114,479 | 1,116,537 | 1,109,255 | 1,105,817 | | |
| | Cost reduction of recruitment advertisement | | | | | | | | |
| | Reducing interview related cost | 6,237,394 | 1,249,893 | 1,238,621 | 1,247,828 | 1,254,502 | 1,246,551 | | |
| | Reducing education cost for new staff | 31,235,852 | 6,396,437 | 6,244,595 | 6,321,622 | 6,242,026 | 6,031,172 | | |
| Apprentice Level | Apprentice's income (Including government grants) | 2,436,042,431 | 476,186,551 | 482,336,315 | 487,302,934 | 492,286,299 | 497,930,332 | | |
| | Reducing cost for get a job | 9,379,301 | 9,379,301 | - | - | - | - | | |
| | Reducing period of job search | 45,705,749 | 45,705,749 | - | - | - | - | | |
| | Total Benefit | 5,189,882,690 | 932,599,629 | 966,326,214 | 1,040,576,023 | 1,098,038,628 | 1,152,342,196 | | |
| | Benefit per Apprentice | 225,402 | 40,504 | 41,969 | 45,193 | 47,689 | 50,047 | | |

Source: Jeon et al.(2016). Economic & Social Outcome Analysis of Korean Apprenticeship(2016), pp.68-73.



2) Result of cost-benefit analysis

The net present value(NPV) is obtained by converting all costs and benefits that occur during the period of analysis(2016-2020) to its present value, and taking the difference between the present value of the benefit and the present value of the cost. The proposed alternative will have a meaningful standpoint from policy-making perspective, if the benefit converted to the present value is greater than 0(NPV>0).

$$NPV = \sum PB - \sum PC$$

The B/C ratio is calculated by dividing the present value of the benefit by the present value of the cost, after converting all the costs and benefits that occur over the period of analysis into its present value. The proposed alternative will have a meaningful standpoint, in case the benefit/cost ratio is greater than 1(B/C Ratio>1).

$$B/C \text{ ratio} = \sum PB / \sum PC$$

As a result of the cost-benefit analysis, the net present value(NPV) for the whole society was 2,343,412,174USD and 101, 777 USD for an apprentice. The benefit/cost ratio(B/C) value was 1.823, which was larger than 1. The results of this analysis emphasized that the apprenticeship has incurred costs more than benefits in the first year; however , from the long term perspective, it is economically feasible because the society will gain more benefits than costs.

Table 4-4 Cost-benefit analysis result of apprenticeship(Total)

(Unit: USD)

| Year | Benefit | Cost | Present value of Benefit(PB) | Present value of Cost(PC) | PB-PC |
|--------|--|---------------|------------------------------|---------------------------|---------------|
| 2016 | 932,599,629 | 1,145,951,842 | 932,599,629 | 1,145,951,842 | -213,352,212 |
| 2017 | 1,019,474,156 | 432,447,259 | 966,326,214 | 409,902,616 | 556,423,599 |
| 2018 | 1,158,187,128 | 467,852,814 | 1,040,576,023 | 420,343,491 | 620,232,532 |
| 2019 | 1,289,362,388 | 504,961,644 | 1,098,038,628 | 430,032,236 | 668,006,391 |
| 2020 | 1,427,549,919 | 545,380,575 | 1,152,342,196 | 440,240,332 | 712,101,865 |
| Total | 5,827,173,220 | 3,096,594,134 | 5,189,882,690 | 2,846,470,516 | 2,343,412,174 |
| Result | NPV(Σ PB- Σ PC) = 2,343,412,174 USD, B/C Ratio(Σ PB/ Σ PC) = 1.823 | | | | |

Source: Jeon et al.(2016). Economic & Social Outcome Analysis of Korean Apprenticeship(2016), p.75.

Table 4-5 Cost-benefit analysis result of apprenticeship(per apprentice)

(Unit: USD)

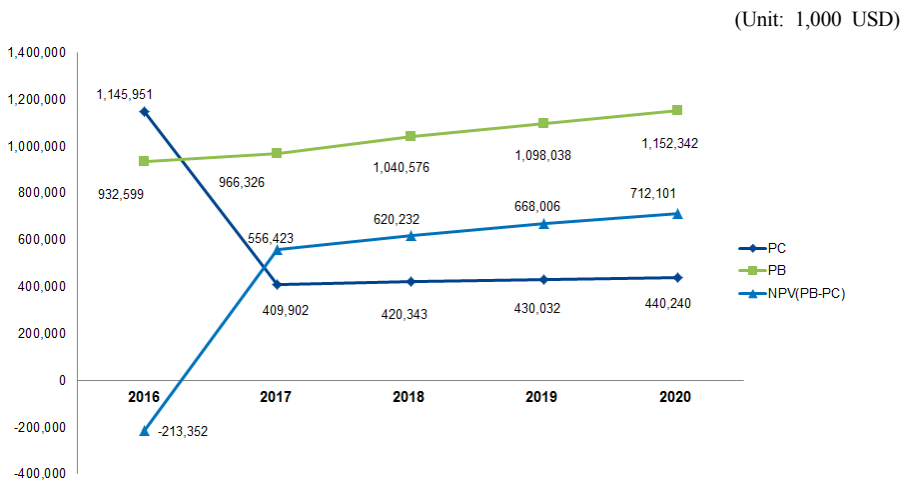
| Year | Benefit | Cost | Present value of Benefit(PB) | Present value of Cost(PC) | PB-PC |
|--------|--|---------|------------------------------|---------------------------|---------|
| 2016 | 40,504 | 49,770 | 40,504 | 49,770 | -9,266 |
| 2017 | 44,277 | 18,782 | 41,969 | 17,803 | 24,166 |
| 2018 | 50,301 | 20,319 | 45,193 | 18,256 | 26,937 |
| 2019 | 55,998 | 21,931 | 47,689 | 18,677 | 29,012 |
| 2020 | 62,000 | 23,686 | 50,047 | 19,120 | 30,927 |
| Total | 253,080 | 134,488 | 225,402 | 123,625 | 101,777 |
| Result | NPV(Σ PB- Σ PC) = 101,777 USD, B/C Ratio(Σ PB/ Σ PC) = 1.823 | | | | |

Source: Jeon et al.(2016). Economic & Social Outcome Analysis of Korean Apprenticeship(2016), p.75.



The [figure 4-3] below shows the results of cost-benefit analysis of apprenticeship in 2016-2020, and it shows that the apprenticeship has incurred a total of 213,352,212 USD of net cost in 2016; but subsequently after, it has gained a net benefit of 556,423,599 USD in 2017, 620,232,532 USD in 2018, 668,006,391 USD in 2019, and 712,101,865 USD in 2020.

Figure 4-3 Cost-benefit analysis result of apprenticeship



Source: Jeon et al.(2016). Economic & Social Outcome Analysis of Korean Apprenticeship(2016), p.76.

2 Social Outcomes of Apprenticeship

Jeon et al.(2016) examines social outcomes of Korean apprenticeship, which is categorized into three levels; a national level, an organizational level and an individual level.

1) National level

Social outcomes of apprenticeship at a national level are analyzed as a) improvement in youth employment, b) reducing age of entry into first job, c) reducing the period for seeking employment, d) alleviate mismatch between supply and demand. Most of the respondents provided a rating of 3 points or more (“more than average”) to all of the question items. The results of the study indicate that apprenticeship contributes to labor market, as an effective policy system.

Table 4-6 Awareness about social outcomes of apprenticeship at a national level

| National Level Outcomes | Mean | | | |
|--|----------|-----------|--------------------|-----------------|
| | Employer | HRD staff | In-company trainer | Training center |
| Improvement of youth employment | 3.66 | 3.53 | 3.59 | 3.40 |
| Reducing age of entry into first job | 3.59 | 3.51 | 3.59 | 3.26 |
| Reducing the period for seeking employment | 3.65 | 3.56 | 3.63 | 3.40 |
| Alleviate mismatch between supply and demand | 3.58 | 3.42 | 3.50 | 3.42 |

1) Rating Scale: ① Strongly Disagree, ② Disagree, ③ Neutral, ④ Agree, ⑤ Strongly Agree

Source: Jeon et al.(2016). Economic & Social Outcome Analysis of Korean Apprenticeship(2016), p.96.



2) Company level

Social outcomes of apprenticeship at a company level are identified based on 11 survey items. The result of research shows that most respondents think that apprenticeship has positive social outcomes.

Table 4-7

Awareness about social outcomes of apprenticeship at an organizational level

| Organizational Level Outcomes | Mean | | | | |
|---|------------|----------|-----------|--------------------|-----------------|
| | Apprentice | Employer | HRD staff | In-company trainer | Training center |
| Train manpower needed by the company | 3.82 | 4.03 | 3.97 | 4.01 | 4.14 |
| Reduce re-education cost and probationary period of new workers | 3.76 | 3.95 | 3.83 | 3.91 | 4.23 |
| Improve company's productivity | 3.67 | 3.74 | 3.66 | 3.83 | 3.61 |
| Improve work performance of apprentice | 3.84 | 4.02 | 3.94 | 4.01 | 4.02 |
| Improve adaptability of apprentice in the work field | 3.83 | 4.04 | 3.95 | 4.04 | 4.05 |
| Improve organizational satisfaction of apprentice | 3.66 | 3.84 | 3.75 | 3.79 | 3.86 |
| Motivate apprentices to work in the long-term | 3.59 | 3.75 | 3.71 | 3.72 | 3.70 |
| Improve companies image | 3.70 | 3.76 | 3.65 | 3.70 | 3.57 |
| Improve jobseekers preference for SMEs | 3.56 | 3.59 | 3.46 | 3.47 | 3.32 |
| Raise the quality of internal corporate training | 3.75 | 3.95 | 3.84 | 3.91 | 4.05 |
| Improve learning-centered corporate culture | 3.67 | 3.82 | 3.71 | 3.76 | 3.73 |

1) Rating Scale: ① Strongly Disagree, ② Disagree, ③ Neutral, ④ Agree, ⑤ Strongly Agree

Source: Jeon et al.(2016). Economic & Social Outcome Analysis of Korean Apprenticeship(2016), p.97.

3) Individual level

Social outcomes of apprenticeship at an individual level are examined through 7 features. As a result, respondents rated all of the given survey items with a score of more than average, thus indicating that most respondents acknowledge apprenticeship as an efficient system in providing social benefits, at the individual level.

Table 4-8 Awareness about social outcomes of apprenticeship at an individual level

| Questionnaire | Mean | | | | |
|--|------------|----------|-----------|--------------------|-----------------|
| | Apprentice | Employer | HRD staff | In-company trainer | Training center |
| Enhancement of job performance | 3.80 | 3.95 | 3.89 | 3.98 | 3.93 |
| Improvement in the adaptability of enterprises | 3.72 | 3.90 | 3.84 | 3.93 | 3.86 |
| Motivate apprentices to work in the long-term | 3.53 | 3.76 | 3.70 | 3.74 | 3.80 |
| Increase of interest towards work | 3.72 | 3.91 | 3.80 | 3.90 | 3.82 |
| Obtain confidence in the ability to grow as professionals | 3.72 | 3.91 | 3.82 | 3.94 | 3.55 |
| Feel psychological secure due to the job security and welfare provided | 3.48 | 3.81 | 3.72 | 3.75 | 3.18 |
| Ease economic burden | 3.38 | 3.67 | 3.56 | 3.53 | 3.57 |

1) Rating Scale: ① Strongly Disagree, ② Disagree, ③ Neutral, ④ Agree, ⑤ Strongly Agree

Source: Jeon et al.(2016). Economic & Social Outcome Analysis of Korean Apprenticeship(2016), p.97.

Challenges and Improvement Strategies of Korean Apprenticeship

1. Hindrance Factors of Apprenticeship Sustainability
2. Improvement Plans to Increase Sustainability of Apprenticeship

Jeon et al.(2017) had examined factors hindering the sustainability of apprenticeship system, and the study is divided into four areas: 1) Agenda setting, 2) Policy decision, 3) Policy enforcement, 4) Policy evaluation. In addition, improvement plans for system were proposed in accordance to the results of the study.

1

Hindrance Factors of Apprenticeship Sustainability

1) Agenda setting

The analysis result of factors hindering apprenticeship sustainability are as follows: ① there are inadequate channels for collecting opinions about improving the system and comments about major decisions, ② the operation outcomes of regional councils are insufficient, ③ opinions gathered from training centers(project teams) are not reflected in the improvement of the system.

2) Policy decision

In terms of the system and regulations, the study found out that ① the system has put too much focus on quantitative goals; especially, the system has been biased in achieving quantitative targets such as the numbers of companies and apprentices, rather than focusing on qualitative improvement, ② the ultimate goal of apprenticeship has not been clear; whether its goal is to increase employment linkage, or to decrease mismatch in labor market,

or to improve skills for job. Also ③ there is a problem with regards to establishing apprenticeship goals at the high school level, ④ there is a need for reevaluation about stakeholder of the system, ⑤ and need for reassessment of operational method at the high school level.

In terms of the legal system, ① the legal foundation of apprenticeship is weak, ② the concept and range of apprenticeship is not clear and delay of legislating qualification is a problem.

3) Policy enforcement

In terms of governance, there are hindrance factors such as ① governance using top-down model, ② complicated governance; duplicating roles among agencies, ③ absence of a one-stop service which could provide immediate solution, whenever there are difficulties in company and school.

In terms of apprentice support, the hindrance factors are as follows; ① apprentice has a dual status as a worker and learner, but not only is the definition unclear, the legal basis for it is lacking and protection for apprentice are not solid. ② the learning time of apprentice is not well secured and it is unclear whether wages should be paid for off-JT hours. Also ③ there are not enough institutional strategies to reduce drop-outs(no matching system between apprentice and company, inadequate support system for initial settlement of apprentice, inadequate support for linking to other companies, and uncertainty about transition to full-time employment after training), ④ there is no systematic programs for developing apprentices career.

In terms of support for in-company trainers, the following were found to be hindrance factors ① the review process for trainer's required skills is inefficient, ② training and educating trainers is ineffective, ③ lack of support system for developing motivation and



expertise for trainers. The hindrance factors for the company are as follows; ① the government provide grants irrespective of the performance of the company, ② excessive administrative work for SMEs, ③ absence of a One-Stop service and communication channel for company support.

The study found the hindrance factors in developing, operating and securing the training program, which are ① unclear concepts of OJT & Off-JT, ② inadequate system of developing and operating the training program for human resource with practical skills, ③ inadequate update system of training program.

4) Policy evaluation

In terms of quality management of system, the study emphasizes ① inadequate system for managing the overall performance, ② invalid indicators and goals for the performance evaluation of each related organization.

The inhibitory factors of evaluations are as follows; ① lack of internal evaluation guidelines and expertise of in-company trainer, ② cursory implementation of internal evaluation and low recognition of public confidence, ③ lack of external evaluation's basis (guideline, tools, facility and qualification), ④ there is a gap between the external evaluation scope and the company's job or training content; and the evaluation is more difficult than expected.

In terms of improving recognition for apprenticeship, ① parent's negative awareness about apprenticeship and high school graduate, ② company's negative awareness about apprenticeship, and it is hard to attract participating companies due to lack of recognition.

The results of each stage are shown in <Table 5-1>.

Table 5-1 Main sustainability hinderance factors of apprenticeship

| Category | | Main factors |
|--------------------|--------------------------------------|--|
| Agenda setting | Collection of stake holders' opinion | <ol style="list-style-type: none"> 1) Lack of opinion collecting channels when making system improvement and major decision 2) Operation performance insufficiency of regional operation council 3) Lack of assimilation of the opinions, collected from each agency, into system improvement |
| Policy decision | System and regulatory framework | <ol style="list-style-type: none"> 1) System operation centered on quantitative goals 2) Fundamental reconsideration of objectives (link to employment vs solve mismatch vs improve job performance) 3) Goal setting of types of apprenticeship for students 4) Need to review the major target groups of the system (students vs workers & new hire vs the holder of a position) 5) Need to reconsider operational methods of types of apprenticeship for students |
| | Legal system | <ol style="list-style-type: none"> 1) Insufficiency of legal evidence for apprenticeship 2) Ambiguity of the concept and scope of apprenticeship qualifications & entitlement delay 3) Ambiguity of legal evidence for types of apprenticeship for students |
| Policy enforcement | Governance | <ol style="list-style-type: none"> 1) Governance system centered on vertical linkage 2) Complex governance system such as duplicating interagency roles 3) Absence of an immediate support platform such as One-Stop service |
| | Support of apprentices | <ol style="list-style-type: none"> 1) Double identity of apprentices 2) Learning hours securement of apprentices & Including Off-JT hours in working hours 3) Lack of strategies to reduce dropouts 4) Absence of systematic career development programs |
| | Support of in-company trainers | <ol style="list-style-type: none"> 1) Insufficiency in reviewing the necessary abilities when appointing in-company trainers 2) Low effectiveness of training in-company trainers 3) Lack of support system for motivation and professional development of in-company trainers |



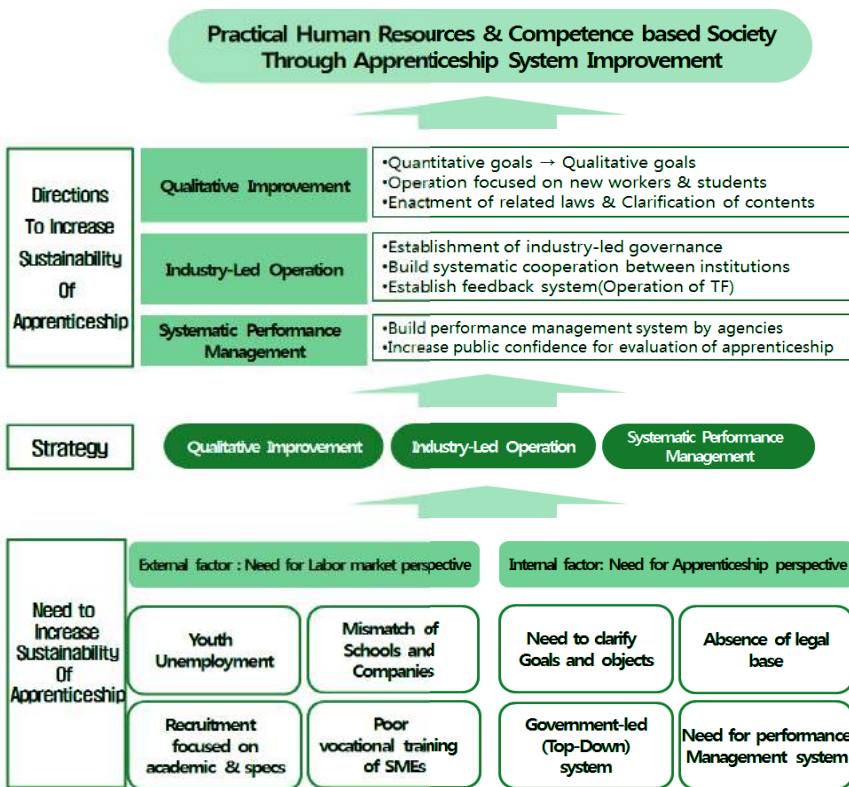
| Category | | Main factors |
|-------------------|---|--|
| | Support of enterprises | 1) Provision of government funding regardless of company performance 2) Administrative work burden of small and medium enterprises(SMEs) 3) Lack of corporation support On-Stop service and communication channels |
| | training program development, operation and supplementation | 1) Concept ambiguity of OJT and Off-JT 2) Insufficiency of training program development to cultivate practical talent and operating system 3) Inadequacy of training program update system |
| Policy evaluation | Quality management system | 1) Insufficiency of performance management system for apprenticeship system 2) Problems in setting performance evaluation indicators and target values of each organization |
| | Assessment of learning outcome | 1) Lack of internal evaluation guidelines and lack of professionalism of in-company trainers 2) Cursory implementation of the internal evaluation and lowered public confidence 3) Lack of the external evaluation implementation base (guidelines, facilities & equipment, currency of qualifications) 4) Wide gap between the external evaluation scope and actual contents of training, high level of difficulty |
| | Image promotion and improvement | 1) Negative images of parents about high school graduates and apprenticeship 2) Negative recognition and lack of awareness of corporations about apprenticeship |

Source: Jeon et al.(2017). System Improvement Plans to Increase Sustainability of Korean Work-Learning Dual System, pp.189-193.

2 Improvement Plans to Increase Sustainability of Apprenticeship

The direction and strategy to improve sustainability of apprenticeship are established as follows 1) Qualitative improvement, 2) Industry-led operation, 3) Systematic performance management.

Figure 5-1 The direction & strategy to improve sustainability of apprenticeship



Source: Jeon et al.(2017). System Improvement Plans to Increase Sustainability of Korean Work-Learning Dual System, p.198.



The necessary details were discussed in previous chapter about hindrance factors of apprenticeship's sustainability, and the tasks for improvements includes four aspects 1) agenda setting, 2) policy decision, 3) policy enforcement, and 4) policy evaluation.

1) Agenda setting

In terms of setting policy agenda, following tasks are proposed; ① establishment of an agenda setting and an feedback/opinion gathering system on the national level, ② increase feedback system to get opinions from the fields(systematic operation of regular consultation committee by region, industry and project, communication system for participating companies).

2) Policy decision

The specific tasks at policy decision stage are suggested as follows: ① setting a clear goal for qualitative improvement related to ameliorate system and regulations, implementation of system focusing on current & new apprentices, redesign of operation model for apprenticeship. Regarding the regulations of apprenticeship, ② enactment of 「A legislative bill on support for apprenticeship in industrial sites」, revision of 「Vocational education and training promotion act」, establishment of a legal basis of apprentice's dual status, and institutionalization of apprenticeship qualification.

3) Policy enforcement

In terms of policy enforcement, the following tasks are proposed: ① establishing an industry-led operation system, efficient system of governance with reducing dual roles of agencies and One-Stop service for companies, schools and apprentices, ② consolidating strategies to reduce dropouts and building systematic support for career development, ③ developing and using competency model for in-company trainers, improving mandatory

training course for in-company trainers, support for developing motivation and professional development of in-company trainers.

For the improvement of support system for the company, the study points out the need ④ to reduce administrative work of the companies, and to introduce an autonomous model and differential support system based on their performance. Also ⑤ related to development & operation of training program, the study had suggested to establish the concepts of OJT, improve training program development, operation and revision methods.

4) Policy evaluation

As an improvement measure of the policy evaluation aspect, the study proposes ① establishment and operation of institutional level performance management system and establishment of performance system, and validation of performance management system through opinions from field. ② In relation to the validity, reliability and fairness of evaluation, it is necessary to strengthen the credibility of the internal evaluation and to expand the basis for conducting external evaluations. ③ Regarding the improvement of image and attractiveness of the system, the image of apprenticeship needs to be improved for potential apprentices, parents and companies.

Detailed tasks at the stages is summarized as follows.



Table 5-2 Improvement plans to increase sustainability of apprenticeship

| Category | | Policy tasks |
|--------------------|--|--|
| Agenda setting | Establishment of an organization for agenda setting and feedback at the national level | <ol style="list-style-type: none"> 1) Establish 「Policy Cooperation Committee for Apprenticeship(tentative name)」 2) Re-operate 「Apprenticeship support TF」 |
| | Expansion of the channels to gather opinions from the field | <ol style="list-style-type: none"> 1) Operate the regular consultative body by region, industry and agency systematically 2) Arrange communication channels between cooperation |
| Policy decision | Improvement of system and regulatory framework | <ol style="list-style-type: none"> 1) Certify policy goals from the perspective of qualitative improvement 2) Implement the system focusing on students and new workers 3) Redesign the operation model of apprenticeship for students |
| | Establishment of legal system | <ol style="list-style-type: none"> 1) Enact 「A legislative bill on support for apprenticeship in industrial sites」 2) Arrange the legal basis of apprentice's dual status 3) Prepare the legal basis of apprenticeship qualification 4) Revise and review 「Vocational education and training promotion act」 5) Clarify terms and contents of 「A legislative bill on support for apprenticeship in industrial sites」 |
| Policy enforcement | Improvement of governance system | <ol style="list-style-type: none"> 1) Establish and operate industry-led horizontal governance system 2) Increase governance efficiency by minimizing role duplication between organizations 3) Provide One-Stop service for companies and apprentices |
| | Improvement of support system for apprentices | <ol style="list-style-type: none"> 1) Consolidate the strategy to reduce dropouts 2) Make systematic support scheme for career development of apprentices |

| Category | | Policy tasks |
|-------------------|--|---|
| | Improvement of system of appointing, training and managing in-company trainers | 1) Develop and apply the competency development model for in-company trainers 2) Improve training programs for in-company trainers 3) Motivate trainers and support their expertise development |
| | Improvement of support system for companies | 1) Reduce administrative work of companies 2) Introduce autonomous model and provide distinct support according to performance |
| | Improvement of training program development, operation and revision methods | 1) Establish terms of Apprenticeship OJT 2) Improve development, operation and revision methods of training program |
| Policy evaluation | Construction of performance management system | 1) Establish and implement performance management system 2) Validate performance management system by reflecting opinions of people in the field |
| | Assurance of validity, reliability and fairness of evaluations | 1) Reinforce public confidence of the internal evaluation 2) Expand infrastructure for implementing the external evaluation |
| | Improvement of image and attractiveness of apprenticeship | 1) Improve images of apprenticeship for prospective apprentices and parents 2) Improve images of apprenticeship for prospective participating companies |

Source: Jeon et al.(2017). System Improvement Plans to Increase Sustainability of Korean Work-Learning Dual System, p.246.

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〈Legislation〉

「A Legislative Bill on Support for Apprenticeship in Industrial Sites」(Proposed by Assembly Woman Han, Jeong-Ae)

「Employment Insurance Act」

「Workforce Development and Training Act」

| Articles | | Regulations |
|------------------------------------|--------------------------|--|
| Chapter 1. General Provision | Article 1. Objectives | This law stipulates matters about apprenticeship system such as contents and methods of apprenticeship which is operated as part of vocational education & the protection of apprentices' working conditions; while aiming to contribute to the improvement of the nation's economy by promoting apprentices' employment, improving their socioeconomic status by linking apprenticeship with qualification system. |
| | Article 2. Terms | <p>The definition of the terms used in the rules and regulations are as follows;</p> <p>① "Apprenticeship" is defined as form of vocational education and training, whereby employers hire apprentices to work in a particular job while offering them vocational training, as shown below, and providing them with a recognized qualification depending on their assessment.</p> <p>a. Vocational training which delivers the necessary knowledge and skills for job to apprentices, from people with professional skills and knowledge, by using firms' production facilities and equipments; (Hereinafter will be referred to as 'apprenticeship OJT'; On the Job Training)</p> <p>b. Vocational training which is performed at a vocational competency development facility or vocational training institution, that is separated from the working place; (Hereinafter will be referred to as 'Off-JT'; Off the Job Training)</p> <p>② "Training company" is defined as a company, which conducts dual training as part of the apprenticeship system pursuant to Article 13.</p> <p>③ "Apprentice" is defined as a worker who is provided apprenticeship programs by employers pursuant to subparagraph 1, paragraph 1 in Article 2.</p> <p>④ "Contract of apprenticeship" is defined as a contract between apprentice and employer, and includes contents about apprentices performing job duties while being</p> |



| Articles | | Regulations |
|---|-------------------------------|--|
| | Article 2. Terms | <p>provided with vocational training set by the dual training system; and employers providing apprentices apprenticeship programs with wages.</p> <p>⑤ “Trainer” is defined in accordance to Article 33 of 「Workforce Development and Training Act」 which includes Vocational competency development instructors and/or a person with professional knowledge and technique in related fields who is assigned by employers to deliver the necessary knowledge and skill to apprentices.</p> <p>⑥ “Apprenticeship qualification” is defined as the qualification given which accredits technique, skills and services according to apprenticeship system.</p> |
| | Article 3. Basic Principle | <p>① Apprenticeship should reflect the industrial demands and should be implemented systematically while considering the apprentices’ capability and aptitude.</p> <p>② Apprenticeship should be provided so that apprentices can acquire vocational competencies that is customized to match their work, such as required knowledge and skills.</p> <p>③ Apprenticeship should be implemented focusing on OJT; moreover, the job, Off-JT and OJT that will be performed by the apprentice, should be tightly linked together.</p> <p>④ The apprenticeship program should ensure that the vocational competency acquired by apprentices is socially acceptable by linking them to the related qualifications; and the program should contribute to the creation of a competence based society.</p> |
| Chapter 2. Promotion system and Apprenticeship | Article 4. Obligation | <p>① The government and local government should devise a scheme to accomplish goals of apprenticeship.</p> <p>② Government shall evaluate the vocational competence acquired by the apprentice and depending on the result, grant the apprentice with the related qualifications; and should ensure that the qualified apprentice will be given the same treatment as regular worker who has received the same level of qualification.</p> <p>③ Employers, employers’ representatives, and human resource development councils of industrial sectors(hereinafter shall be referred as HRD council), which is pursuant to paragraph 2, Article 2 of 「Industry development law」</p> |

| Articles | Regulations |
|--|--|
| Article 4. Obligation | should provide high-quality and efficient programs to apprentices, and train them as capable workers with required knowledge, skill; and should collaborate in the protection of working conditions and employment stability of the apprentices. |
| Article 5. Establishment of Promotion plan for apprenticeship | <p>① The Minister of Employment & Labor should establish the promotion plan for apprenticeship triennially.</p> <p>② The details of the content to be included in the promotion plan, pursuant to Article 1, are as follows:</p> <ul style="list-style-type: none"> a. Direction of the policy and a survey of the current status of apprenticeship b. Matters regarding employment stability and treatment of apprentices c. Roles and support of trade unions, employer's groups and HRD councils. d. Matters regarding the linkage between apprenticeship qualification and national technical qualification. e. Other necessary items that the Minister of Employment & Labor deems necessary |
| Article 6. Relations with other law | <p>① With regards to the working conditions of apprentices, matters that are not covered in this law should follow the 「Labor Standards Law」</p> <p>② With regards to the vocational training of apprentices, matters that are not covered in this law should follow the 「Occupational Skills Development Act」.</p> <p>③ Students currently enrolled in industrial education institution, pursuant to Article 2(2) of 「Enforcement Decree of The Promotion of Industrial Education and Industry academic Cooperation Act」, who are participating in the apprenticeship, will adhere to the provisions of this act, except for special rules of 「Vocational Education and Training Promotion Act」.</p> |
| Article 7. Deliberation for important affairs of apprenticeship | <p>The following matters of apprenticeship should undergo deliberation from the employment policy council, according to Article 10 of 「Framework Act on Employment Policy」.</p> <ul style="list-style-type: none"> a. Establishment of promotion plan for apprenticeship pursuant to Article 5. b. Apprenticeship occupation and standards for vocational |



| Articles | Regulations |
|---|---|
| <p>Article 7. Deliberation for important affairs of apprenticeship</p> | <p>training pursuant to Article 11. c. Support system for vocational education training organizations participating in apprenticeship d. Assessment and qualification of apprentices e. The other necessary items that chief of the employment policy council deems necessary for effective management and promotion of apprenticeship.</p> |
| <p>Article 8. Regional cooperation for apprenticeship</p> | <p>① The Minister of Employment & Labor should cooperate with local government, regional training organizations and sector councils in order to achieve the regional goals of apprenticeship. ② The details of the matters that is required to accomplish the regional goals of apprenticeship, should be decided by the Presidential Decree.</p> |
| <p>Article 9. Construction of network system between training company and apprentices</p> | <p>① The Minister of Employment & Labor is obliged to establish a system that effectively links companies and young job-seekers, by providing information about training company to apprentices and establishing the network system for apprentices and training company. ② The Minister of Employment & Labor should build apprenticeship information network for efficient data collection, system management and match between training company and apprentice. ③ The Minister of Employment & Labor can request executives from the local government, public groups, and training company, to submit data and documents of apprentices, apprenticeship programs, in order to build network system mentioned above in Article 2. Those who have received the request, should follow the request, if there is no other justifiable reason to disagree with the request.</p> |
| <p>Article 10. Research about vocational training occupations and standards</p> | <p>① The Minister of Employment & Labor should perform a long term research about occupational field that requires vocational training, training standards and working conditions of apprentices while considering workforce supply, and the results for this research should be reflected in the promotion scheme pursuant to article 5. ② The Minister of Employment & Labor could entrust part of the research work pursuant to Paragraph 1, to a</p> |

| Articles | | Regulations |
|---|--|--|
| | | relevant research agency that is assigned by the Presidential Decree. |
| Chapter 3. Implementation of apprenticeship and vocational training | Article 11. Apprenticeship occupation and Standards for vocational training | <p>① The Minister of Employment & Labor shall develop the occupational types and the educational training standards for the respective occupations that can carry out the work combination considering the fields of the following subparagraphs. In this case, he/she can hear opinions from the HRD councils, labor organizations and business associations.</p> <p>a. Fields developed NCS</p> <p>b. Fields where there is a demand for manpower training through the apprenticeship in the industrial field</p> <p>c. Fields that need to develop national work force and improve job performance in order to maintain national key system and strategic industry, and develop new industry according to the Article 4, paragraph 2(3) of 「Industry Development Law」</p> <p>d. Fields that The Minister of Employment & Labor recognizes that the operation of the qualification system at the national or industrial level is appropriate through the apprenticeship</p> <p>② The education and training standards referred to in paragraph 1 shall include the following matters;</p> <p>a. Contents and period of the apprenticeship</p> <p>b. Goals of OJT and Off-JT</p> <p>c. Qualification of occupational fields and requirements for verifications of the apprentices who complete the programs</p> <p>d. The rest that the Minister of Employment & Labor considers necessary in order to accomplish the goals of education and training</p> <p>③ The education and training standards referred to in paragraph 2 shall be operated linked to the following subparagraphs criteria.</p> <p>a. Training standards of vocational competency development according to the Article 38 in 「Occupational Skills Development Act」</p> <p>b. Criteria of national technique qualification that can be obtained if the education and training course is completed</p> |



| Articles | Regulations |
|--|--|
| Article 11. Apprenticeship occupation and Standards for vocational training | <p>in accordance with Article 10 of 「National Technical Qualification Act」</p> <p>④ The Minister of Employment & Labor may, pursuant to the provisions of the Presidential Decree, conduct the tasks prescribed in the Presidential Decree as matters relating to the development and operation of the apprenticeship occupations according to paragraph 1, and it can be entrusted to HRD councils, business associations and labor organizations.</p> |
| Article 12. Pilot project | <p>① The Minister of Employment & Labor may conduct a pilot project, if deemed necessary, for the development and supplementation of occupations in apprenticeship program and standards for vocational training pursuant to the paragraph 1, Article 11. In this case, the paragraph 2, 3 of Article 11 do not apply.</p> <p>② The methodology and process of pilot project according to paragraph 1 shall be defined by Ordinance of the Ministry of Employment & Labor.</p> |
| Article 13. Designation for training company | <p>① The Minister of Employment & Labor may designate companies which meet all the following requirements in the subparagraphs below, as training companies that operates apprenticeship programs.</p> <p>a. The company should possess the criteria for management that is stipulated by the Presidential Decree to provide apprenticeship programs in a stable manner.</p> <p>b. The company should be equipped with space for OJT and Off-JT, and personnel, facility and equipments that are required for training programs as stipulated by the Presidential Decree. However, for the situation where a facility cannot be installed due to the nature of the workplace operation, a company is deemed to be fully equipped for training if they have commissioned an education facility for their Off-JT.</p> <p>② Application and designation requirements, methods, procedure and other matters relevant for the operation of training company shall be determined by Presidential Decree.</p> |
| | <p>① If a training company falls under any of the following subparagraphs, the Minister of Employment & Labor</p> |

| Articles | Regulations |
|--|--|
| <p>Article 14. Cancellation of designation as a training company</p> | <p>may give an order for the cancellation or suspension of the designation as training company for 2 years. However for the case of subparagraph(a), the cancellation is immediate.</p> <p>a. If a company is designated as a training company through dishonest and fraudulent means.</p> <p>b. If a company fails to meet the requirements mentioned in paragraph 1, Article 13.</p> <p>② The detailed criteria for the administrative measure should be assigned by Ordinance of the Ministry of Employment & Labor in consideration to the type of violation and the degree of violation</p> <p>③ Even if the training company is subjected to suspension or cancellation, the local employment and labor office, HRD councils and training centers should cooperate to ensure that apprentices could maintain their programs. <new regulation></p> |
| <p>Article 15. Development and verification of apprenticeship training program</p> | <p>① The employer of training company should develop a training program(Hereinafter will be referred to as 'apprenticeship training program') which is suitable for the implementation of the apprenticeship program, in accordance to apprenticeship occupation and standards for vocational training pursuant to Article 11.</p> <p>② According to paragraph 1, the employer of training company that developed apprenticeship training programs, must obtain a verification from the Ministry of Employment & Labor as having met all the requirements pursuant to Article 11,</p> <p>③ The Minister of Employment & Labor can impose suspension of one year or cancellation of the operation of the apprenticeship training programs mentioned in paragraph 2, if the employer who has been given verification falls under any of the subparagraphs below. However, for subparagraph(a), the cancellation is immediate.</p> <p>a. If a company obtain verification about apprenticeship program through dishonest and fraudulent means.</p> <p>b. If a company has obtained funding or in the process of obtaining funding through dishonest means.</p> <p>c. If a company violates paragraph 2.</p> |



| Articles | Regulations |
|--|--|
| <p>Article 15. Development and verification of apprenticeship training program</p> | <p>d. If a company fails to comply with the request to submit data under Article 36(1), or if false data is submitted.</p> <p>e. If a company evaluates its apprentices through dishonest means or completes its programs through illegal means. (new regulation)</p> <p>④ The Ministry of Employment & Labor shall determine the necessary matters regarding application, methods, and procedure for apprenticeship training program.</p> <p>⑤ The detailed criteria for administrative measure in paragraph (3) shall be determined by Ordinance of the Ministry of Employment & Labor, in consideration to the type of violation and the degree of violation.</p> |
| <p>Article 16. Appointment of apprenticeship dual training center</p> | <p>① The Minister of Employment & Labor may appoints an institution under Article 17 as a dual training center for apprenticeship(Hereinafter referred to as 'apprenticeship dual training center'), where training company can consign apprenticeship training. However, when designating a school under Article 2(2) of 「Enforcement Decree of The Promotion of Industrial Education and Industry academic Cooperation Act」 as dual training centers, the matters should be discussed the Minister of Education.</p> <p>② Apprenticeship dual training center's duties are as follows.</p> <p>a. Support development of training company's apprenticeship training program</p> <p>b. Support development and management of training company's OJT</p> <p>c. Implement education of Off-JT as commissioned by training companies</p> <p>d. Support administrative duties on apprenticeship such as application for becoming a training company, for verification of training programs, application for financial support to the national and regional government.</p> <p>e. The other items that the Minister of Employment & Labor deems necessary for effective management and promotion of apprenticeship.</p> <p>③ Other matters necessary for the application, designation requirements, and procedure for dual training center shall be determined by the Minister of Employment & Labor.</p> |

| Articles | Regulations |
|--|--|
| Article 17. Place for Off-JT | <p>Training company's employer can manage Off-JT at/in following facilities or institutions which fall under the subparagraph below.</p> <ul style="list-style-type: none"> a. Facility for vocational competency development pursuant to Article 2(3) of 「Occupational Skills Development Act」 b. Polytechnic colleges pursuant to Article 2(5) of 「Occupational Skills Development Act」 c. Industrial education institutions pursuant to Article 2(2) 「Enforcement Decree of The Promotion of Industrial Education and Industry academic Cooperation Act」 d. Facility of training company that is separated from production site e. Facilities or institutions, other than those listed in subparagraph 1 to 4, that is decided on by the Minister of Employment & Labor |
| Article 18. Appointment cancellation of dual training center | <ul style="list-style-type: none"> ① If a dual training center falls under one of the following subparagraphs, the Minister of Employment & Labor would impose cancellation or suspension for two years, of its designation as an apprenticeship dual training center. However, for subparagraph(a), the cancellation is immediate. <ul style="list-style-type: none"> a. If a dual training center obtains designation through dishonest and fraudulent means. b. If a dual training center fails to meet requirements in Article 16. c. If a dual training center submits false documents. ② The detailed criteria for administrative measure in paragraph(1) shall be determined by Ordinance of the Ministry of Employment & Labor, in consideration to the type of violation and the degree of violation. |
| Article 19. Appointment and management for trainer | <ul style="list-style-type: none"> ① The employer of the training company's should appoint a person who has met the requirements stipulated by the Presidential Decree, as trainers for apprenticeship, if the person intends to work as a trainer. ② Trainers perform following duties. <ul style="list-style-type: none"> a. Establish a promotion plan for apprenticeship training program b. Educate apprentices knowledge and skills |



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| Article 19. Appointment and management for trainer | <p>c. Evaluate and confirm apprentices' achievement</p> <p>③ A person appointed as apprenticeship trainers, according to paragraph 1, should complete learning program assigned by the Presidential Decree.</p> <p>④ The person who falls under any of the items in Article 34 of 「Occupational Skills Development Act」 can not be assigned as trainers.</p> |
| Article 20. Developing trainer | <p>① The Minister of Employment & Labor should strive to develop trainers through education for trainers, and by increasing their vocational competency for effective management of apprenticeship.</p> <p>② The matters necessary for the education and training of in-company trainers and increasing their vocational competency should be determined by the Presidential Decree.</p> |
| Article 21. Making a contract with apprentice | <p>① The employer of the training company, who intends to conduct a training program, should form contract with apprentice in accordance to Article17(1) of 「Labor standards law」.</p> <p>② The contract mentioned in paragraph(1) should include the following items</p> <ul style="list-style-type: none"> a. Objectives and methods of apprenticeship b. Period of apprenticeship c. Daily learning-working hours d. The other vocational training conditions that are deemed necessary by the Minister of Employment and Labor. <p>③ The employer of training company should give a written form of contract, as mentioned in paragraph1&2, to the apprentice and report about the handing to the Minister of Employment and Labor. The same shall apply in the case where the contents, set in each subparagraph of paragraph(2), changes.</p> <p>④ The employer should gain the approval of the Minister of Employment and Labor, with the consent of the apprentice, when he/she intends to adjust the period of apprenticeship, according to Article 2(2)</p> <p>⑤ The necessary items pursuant to paragraph 4 shall be determined by Ordinance of the Ministry of Employment & Labor.</p> |

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| | Article 22. Termination of Apprentices's training employment contract | <p>① A training employment contract is terminated when the contract period expires.</p> <p>② Despite paragraph 1, the contract is terminated when apprentice passes the external evaluation pursuant to Article 30(2) before the end of contract.</p> <p>③ The employer of training company should extend employment period up to two times when the apprentice intends to extend, if the apprentice fails the external evaluation pursuant to Article 30(2) until the period ends.</p> |
| | Article 23. Restriction on cancellation of the Apprentices's training employment contract | <p>① The employer of training company shall not terminate the training employment contract during the period of training without any justifiable reasons</p> <p>② When terminating a contract pursuant to the preceding paragraph(1), the reasons and time of cancellation should be documented.</p> |
| Chapter 4. Obligations of training company and apprentice | Article 24. Continuous employment of apprentice | <p>① The employer of training company should hire apprentice as a general employee when he/she passes the external evaluation pursuant to Article 30(2).</p> <p>② When the apprentice status is converted into a general worker as stated in paragraph(1), the employer of training company should treat apprentices in a fair and equal manner, as they would treat a worker having the same level of qualification, career and experience.</p> |
| | Article 25. Guidelines for training company's employer | <p>① The employer of training company should develop vocational training programs that are suitable for the apprenticeship program, which enable apprentices to achieve the level of competency within the contract period, and provide them opportunities for vocational training under the contract.</p> <p>② The employer of training company should appoint a trainer with capability and knowledge to train apprentices, while providing the trainer with the necessary working conditions that is required for them to conduct training effectively.</p> <p>③ The employer of training company should assure the amount of time for training and evaluation of apprentices, when they take courses in facilities outside of the company</p> |



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| Article 25. Guidelines for training company's employer | | <p>④ The employer of training company should regularly check the achievement of apprentices and instruct them to manage their training performance.</p> <p>⑤ The employer of training company should provide textbooks, materials, equipments, and other tools, for training complimentary during the training period, free of charge.</p> <p>⑥ The employer of training company should take a necessary measure assigned by 「Occupation Safety and Health Acts」 to prevent apprentice' accidents while on duty.</p> <p>⑦ In addition to the matters stipulated in paragraphs (1) to (6), other items that are deemed necessary for the employer to offer to apprentices, in order to accomplish goals of apprenticeship, shall be decided by the Presidential Decree.</p> |
| | Article 26. Guidelines for apprentices | <p>① Apprentices shall make effort to obtain the vocational competencies necessary to achieve the objectives of apprenticeship.</p> <p>② Apprentices should faithfully carry out the vocational training tasks and assessment for apprenticeship program.</p> <p>③ Apprentices should participate in OJT and Off-JT with sincere attitudes.</p> |
| | Article 27. Apprenticeship training hours and break | <p>① Learning-working hours of apprentices include working hours at the company, learning hours of OJT and Off-JT.</p> <p>② The employer of a participating company is not allowed to make apprentices work during night time and during holidays. Provided, however, that this shall not apply in cases where there is an inevitable circumstances, as determined by Presidential Decree.</p> <p>③ Minor apprentices' learning-working hours shall comply to Article 69 of 「Labor Standards Law」.</p> |
| Chapter 5. Evaluation and Qualification | Article 28. Prohibition of discriminatory treatment | <p>① The employer of training company should not treat apprentices discriminatorily, without reasonable grounds, in compare to other employees who have same and/or similar jobs in the company.</p> <p>② The Minister of Employment & Labor can issue correction order when the employers violate the paragraph 1.</p> |
| | Article 29. Certificate | <p>① The employer of training company should issue certificates when apprentices had completed the apprenticeship</p> |

| Articles | Regulations |
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| Article 29. Certificate | <p>training programs.</p> <p>② The certificate of completion should include training program, training period and contents of training.</p> <p>③ When the apprentice's contract has expired before the termination, the employer of training company should reissue documents which show training period, programs of the apprentice.</p> <p>④ The necessary procedure to issue a certificate of completion, pursuant to paragraph 1 & 3 should be decided by the Ordinance of the Ministry of Employment & Labor.</p> |
| Article 30. Evaluation for apprentice | <p>① The Minister of Employment & Labor and the employer of training company should evaluate apprentices in terms of whether they have achieved their goals, according to the standards of the vocational training in Article 11 about the apprenticeship training program.</p> <p>② The evaluation referred to in paragraph 1 consists of internal evaluation which is performed by the employer of training company and/or the chief of commissioned education for Off-JT; and external evaluation which is performed by the Ministry of Employment & Labor Ministry.</p> <p>③ The Minister of Employment & Labor should appoint evaluation committee to perform the external evaluation.</p> <p>④ The Minister of Employment & Labor have the final decision of whether to give a pass/ fail, by combining the results of both the internal and external evaluation.</p> <p>⑤ The methods and process of evaluation, and the composition of evaluation committee, as well as the pass/ fail criteria stated in paragraph 1 shall be defined by the Presidential Decree.</p> |
| Article 31. Apprenticeship qualification and issue of qualification | <p>① The apprentice who has completed apprenticeship program and passes the evaluation pursuant to Article 30(4) is eligible to receive the apprenticeship qualification.</p> <p>② The Minister of Employment & Labor shall issue a one-time qualification to the person who has been deemed eligible.</p> <p>③ The Minister of Employment & Labor should operate a digital system, which is necessary for easing the administrative work such as, confirmation of apprenticeship and issuance of the qualification.</p> <p>④ The other items related to issuance and reissuance of</p> |



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| Chapter 6. Supplementary provisions | Article 31. Apprenticeship qualification and issue of qualification | qualification and items necessary for managing the apprenticeship qualification are defined by the Ordinance of the Ministry of Employment & Labor. |
| | Article 32. Prohibition on renting the apprenticeship qualification | Renting the apprenticeship qualification pursuant to Article 31(2) is strictly prohibited. |
| | Article 33. Cancellation of the apprenticeship qualification | <p>① The Minister of Employment & Labor shall revoke the apprenticeship qualification when the person in possession of the qualification falls under any of the following subparagraph.</p> <p>a. Achieving the apprenticeship qualification through dishonest and fraudulent means</p> <p>b. Renting the apprenticeship qualification against the Article 32.</p> |
| Chapter 6. Supplementary provisions | Article 34. Support | <p>① The government and local government shall support apprenticeship partners, employers, Off-JT institutions and groups and enable them to develop programs, textbooks for apprenticeship program and to educate trainers.</p> <p>② The government and local government shall provide support for apprentices to lead a stable lifestyle as they participate in apprenticeship programs.</p> <p>③ The Minister of Employment & Labor can provide financial aid for apprenticeship expenses to apprenticeship partners such as HRD council and Dual training center, provided that they fall within the budget allocated.</p> <p>④ When the partners get support through dishonest means, they should reimburse the expenses.</p> <p>⑤ The necessary items of application, methods and process for support pursuant to paragraph (1) to (3), shall be defined by the Presidential Decree.</p> |
| | Article 35. Preserve documents | ① The employer of training company and commissioned education staff pursuant to Article 16 &17 should preserve documents that transcribe recognition and |

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| Article 35. Preserve documents | <p>performance of apprenticeship program for five years. <New regulation></p> <p>② The documents referred to in paragraph 1 can be preserved as electronic documents.</p> |
| Article 36. Instruct and Examine | <p>① The Minister of Employment & Labor is authorized to instruct and examine the training company, dual training center and related organizations to check their performance and request them to submit data and report, or to request relevant public officials to hold on-site inspection.</p> <p>② The Minister of Employment & Labor should inform related organizations who are receiving the on-site inspection in pursuant to paragraph (1), about the date and time and details of inspection, in advance. However, this shall not apply in cases where it is recognized that an advance notification could not be done due to urgency.</p> <p>③ The staff of field inspection team should have an identification as an inspector.</p> |
| Article 37. Fee | <p>Individuals who fall under any of the following subparagraphs shall pay a commission fee in accordance with the provisions of the Ordinance of the Ministry of Employment and Labor.</p> <p>a. Person applying for the external evaluation pursuant to Article 30</p> <p>b. Person requesting to issue or reissue the apprenticeship qualification pursuant to Article 31</p> <p>c. Person requesting to issue the certificate related to apprenticeship</p> |
| Article 38. Hearing | <p>The Minister of Employment & Labor should conduct a hearing to take action on the following measures.</p> <p>a. Cancellation of training company pursuant to Article 14(1)</p> <p>b. Cancellation of apprenticeship training program pursuant to Article 15(3)</p> <p>c. Appointment cancellation of apprenticeship dual training center pursuant to Article 18(1)</p> <p>d. Cancellation of apprenticeship qualification pursuant to Article 33</p> |
| Article 39. Entrust with Authority | <p>① The Minister of Employment & Labor may delegate the authority to the executive of regional employment and labor administration and/or the chief of the local government.</p> |



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| | Article 39. Entrust with Authority | ② The Minister of Employment & Labor can refer the duties to HRD Korea, associations and vocational training institutions according to the Presidential Decree. |
| Chapter 7. Penalty | Article 40. Penalty | ① Individuals who fall under one of following items may face up to two years in prison and a maximum of 20 million won in fines. a. Those who violate the regulations of training company pursuant to Article 24 b. Those who perform OJT at night and on weekends against Article 27(2) c. Those who train minor apprentices against Article 27(3) d. Those who disobey correction order according to Article 28(2) ② Those who rent or borrow the apprenticeship qualification against Article 32 may face up to one year in prison and a maximum of 10 million won in fines. |
| | Article 41. Joint Penal Provisions | The executives, firm, delegates and other individuals may face a penalty when they violate Article 40. Provided, however, that this shall not apply where a juridical person or an individual has failed to give due consideration and supervision of such work in order to prevent such violation. |
| | Article 42. Fine | ① Individuals who fall under any of following items will face up to a maximum of 10 million won in fines. a. Those who fail to inform apprentices of the adjustment in training employment(apprenticeship) contract against Article 20(3). b. Those who violate Article 28(1) c. Those who fail to preserve documents for apprenticeship against Article 35(1) d. Those who fail to comply to the request from the Ministry of Employment & Labor and reject field inspection against Article 36(1) ② The fine for negligence pursuant to paragraph (1) shall be imposed and collected by the Minister of Employment and Labor as determined by the Presidential Decree. |
| ADDENDUM | Article 1. Date of Enforcement | This act shall take effect after six months from the date of its proclamation. |

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| <p>Article 2. Measures concerning enforcement for apprenticeship and apprenticeship qualifications</p> | <p>① Prior to the enforcement of this act, Minister of Employment & Labor refers apprenticeship to HRD Korea according to 「Human Resources Development Service of Korea Act」 and the participants of apprenticeship are defined as training company, dual training center and apprentices under this act.</p> <p>② Prior to the enforcement of this act, the Minister of Employment and Labor shall determine the qualifications acquired through the recognition of the HRD Korea and these qualifications shall be regarded as an apprenticeship qualification pursuant to this Act.</p> <p>③ Prior to the enforcement of this act, qualifications that are obtained through the completion of all of apprenticeship programs and/or only a subset of the work-related programs, or if the recognized field is not part of the field of assessment under Article 30; it can an be accepted as the apprenticeship qualification provided that HRD Korea has given approval.</p> |