

A Study on Improvement of Laws Related to Teachers for Application of NCS-based High School Vocational Curriculum

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This study was conducted, upon request of Ministry of Education, in order to define the qualities required for teachers of specialized subjects that are distinguished from general teachers according to high school vocational curriculum based on national competency standards (NCS), and also propose specific improvement of the legal system related to appointment, fostering, training, and supporting teachers of specialized subjects. Also, by building a road map for mid-to-long term improvement of the relevant laws and systems, the study aimed to help establish the new curriculum in schools in an effective manner.

For this study, expert meeting and literature review were performed. Considering that NCS and NCS curricula are created and operated based on cooperation between the education field and industries, a Focus Group Interview (FGI) was conducted among education-related professionals such as working teachers, school administrators including principals as well as education officers related to vocational education (senior supervisor, junior supervisor etc), and industrial professionals with good understanding of NCS and vocational high schools(including company executives, association officials, and industrial experts), who had discussed and exchanged opinions related to the current problems and possible improvements.

Opinions of the expert advisory committee consisting of government officials from Ministry of Education and Ministry of Government Legislation, which is directly involved in the administration, were actively taken into account.

Based on opinions collected from the FGI, Focus Group Discussion (FGD) was conducted among professors of teachers training institute, officials of

relevant government departments, officials of local offices of education, educational professionals related to vocational education, and law experts who are involved in fostering, appointment, training, and supporting teachers of specialized subjects, in order to identify fundamental issues yet examining suitability, executive and legislative feasibility of the proposed improvements.

Finally, considering the likely effects of this study on the field, beneficial to secure reliability and validity, the Delphi method was also applied for making a reliable prediction and bringing out consensus based on anonymity and controlled feedback process. The expert panel for the Delphi survey was created by sending official notices to the relevant institutions, follow by gathering an equal number of experts from both the field of education and industries based on researchers meeting and experts advisory committee.

Definition of qualities of subjects based specialized teachers, short-term improvement and mid-to-long-term review of fostering, appointment, training, and support of teachers for application of NCS-based vocational high school curriculum, with referred to the mentioned above process as well as relevant legal systems are as follows:

First, teachers of specialized subjects, like general teachers, must possess skills related to teamwork and communication, student instruction and class management, yet have a sense of duty and willing to sacrifice. Such humanity qualities shall prevail above all other qualities. Also, in addition to expertise and practical skills related to the field, they must possess a passion for and faith in vocational education, instructional design skills, and ability to plan curricula.

Second, regarding fostering of teachers, six items were identified as pre-requisite for improvement. For short-term improvement: ① NCS curriculum must be introduced to teachers training institutes, ② industrial field practice must be introduced, and ③ practical subjects in the basic curriculum must be changed. On the other hand, for mid-to-long term improvement, ① practical education consignment system, and ② teacher certification system must be introduced. Meanwhile, if industrial field practice is introduced, eight weeks is thought to be an appropriate period, and practical subjects will need to account for 30% to 50% of the basic curriculum but may differ considering characteristics of the subjects and teacher training institute.

Third, regarding the appointment of teachers, eight items were identified as requiring improvement and, among them excluding the dual system of employment examination, the need to executing them is great. Items that need to be introduced most urgently, in short term, include: ① the requirement of practical qualification in the teacher appointment process, and ② the inclusion of a practical test in the teacher appointment exam. Moreover, items that must be reviewed for mid-to-long term adoption are ① an expansion of the industry-academy teacher system, and ② flexible appointment. Especially, for the latter, overall method for special appointment of experienced industrial professionals and flexible employment of temporary teachers were proposed. Specifically, it was proposed that appointment of industrial professionals be limited to specialized areas for which official subjects are not assigned, such as semiconductor and energy, and flexible appointment of temporary teachers are based on the open employment system for civil servants. In other words, the proposed method was that people who have experience in the relevant industry and official teacher qualification can be employed by the office of education or education support agency and assigned to schools;howsoever limited special appointment is allowed to those who complete a certain period of teaching and show outstanding professional performance through special examination. A flexible appointment can allow people who have a good understanding of the industry and teaching to be included in the field of education. As a result, further, detailed review based on policy research is required as a flexible appointment would results in a significant conflict of interest between teaching position applicants, and therefore, requires a highly precise plan.

Fourth, regarding training and support of teachers, 11 items were identified as requiring improvement. Items that need to be adopted in short term include: ① mandatory training for NCS-based industry job, ② securing and providing funding for teacher training, ③ establishing areas of job training and raising the required credits, ④ long-term industrial training, ⑤ linking job training performance and teacher evaluation, and ⑥ reducing the number of students per class. Meanwhile, items that must be reviewed for mid-to-long term adoption are ① an expansion of the research year system and ② linking local companies with central and local offices of education.

All items related to training and supports of teachers were found to be highly necessary. This finding suggests the participants in this study agreed that, in order for the NCS curriculum to be settled, systematic training and support for currently working teachers are required.

Fifth, laws that must be revised regarding fostering, appointment, training, and support of teachers of specialized subjects include: 「Elementary and Secondary Education Act」, 「Act on Promotion of Industrial Education and Promotion of Industry-Academy Cooperation」, 「Rules for Competition for Appointment of Candidates of Educational Civil Servants」, 「Appointment Ordinance of Educational Civil Servants」, 「Enforcement Ordinance of Elementary and Secondary Education Act」, 「Rules for Training of Teachers and Others」, 「Enforcement Ordinance for Training of Teachers and Others」, and 「Standard Curriculum for Qualification Training of School Principal (Director), Vice-Principal (Deputy Director), Master Teacher, and Regular Teachers」, and drafts for amendment of the relevant laws were proposed in this study based on an advisory meeting of law experts.