



## 한옥 전문인력 교육 및 자격 인증방안 연구

A Study on Education and Certification System for Hanok Construction Professionals

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High quality of training policy for Hanok professionals has not sufficiently established while the number of the professionals is expected to grow as the Hanok demand increases. Also, a plan that changes the existing education system according to the modernized production method of Hanok and that systematically verifies the professionals' expertise is inadequate. Hence, this research proposes a systematical plan for the Hanok professionals' education, establishes a certification system for training curriculums for the Hanok professionals, and finds a way to improve the qualification system of the Hanok professionals.

The Hanok professionals are divided into professional designers, construction managers, and construction technicians. The professional designers are registered architects, and they can design Hanok as well as conducting supervisory businesses. The construction managers manage the whole process of construction at a site which includes materials, progress, costs, safety, and workforces, etc. They also manage the work of the construction technicians who take orders from the managers and work directly at the site.

Looking into the government's current plan on the training program for the Hanok professionals, the Ministry of Land, Infrastructure and Transport has selected the educational institutions and funded the operational costs since 2011. Also, they proceed with the 「Act on the Promotion of Hanok and Building Assets」 and

prepare to select the training institutions and to certify the exemplary institutions for the Hanok professionals based on the law. The Korea Forest Service enacted 「Act on the Sustainable Use of Wood」, and based on this, they conducted a qualification system for wooden structure experts and certificate-manage the professionals. The qualification related to Hanok includes national professionals such as registered architects and cultural property repairing technicians, and privately certified professionals such as construction technicians from private Hanok carpentry schools. However, a qualification system that adequately fits for the professional Hanok designers and Hanok construction managers is absent, and the area of the construction technician is limited to the field of cultural properties restoration. As for the current education system for the construction technicians, it is mostly a short term technical course focusing on timberwork, and it is difficult to discern if every graduate has similar ability to work because each institute has different curriculums and training systems.

To increase number of the professional Hanok designers, providing education on the Hanok design with currently active registered architects is most reasonable. Thus, this research examines the education certification system for the Hanok designers on the basis of the Ministry of Land, Infrastructure and Transport's improvement plan for Hanok design professionals training program, which is almost the only education program for the design professionals at this time. It proposes a standardized education program for the certification, suggests a development direction for standard textbooks, and reinforces qualification standards and evaluation criteria on facilities, faculties, curriculums, and costs, etc. It also proposes intensive curriculums and continuing education programs by various agencies to support Hanok design competency. Moreover, this research examines intensifying certification standards as a way of assuring the expertise of the graduates with certificates. For the qualification of the professional Hanok designers, operating private certification by related associations or communities was considered as a short term resolution. In the long term, the architect/engineer architecture examination needs to include questions on Hanok design, and a plan to make colleges encourage Hanok design education is necessary.

The Hanok construction managers are produced through the Ministry of Land, Infrastructure and Transport's training program for Hanok construction middle manager and through a small number of private Hanok carpentry schools. These institutions have a significant gap between their curriculums, and the education they provide does not much differentiate the education for the designers from the education for the technicians. Therefore, to train the managers, strengthening their expertise should be preceded—for example, revising the course materials focusing on practice. For this, the research provides the basic curriculum with intensified construction management courses, suggests an improvement direction for standard textbooks, and proposes certification standards and evaluation criteria for the institutions. Also, to reinforce the importance of the Hanok construction management, it suggests a tailored curriculum for various levels of students and a way to certify a continuing education program. It reviews authenticating expertise of the graduates by providing standards for course completion and issuing certificate to them. To certify the qualification of the Hanok construction managers, this research suggests, in the short term, to utilize the Korea Forest Service's qualification system for wooden structure management technician or to establish private certifications that are community oriented. In the long term, it considers a plan to include questions related to the Hanok management in the engineer architecture and industrial engineer architecture examination.

Education for the Hanok construction technicians depends on private Hanok carpentry schools despite of its importance. Due to the difference in curriculums at about 25 Hanok carpentry schools in the country, it is difficult to secure the same quality of training ability, and individualized certification hinders systematic management. Therefore, it is critical to secure the high quality of Hanok construction by improving education certification of Hanok carpentry schools and the related qualification system to train the Hanok construction technicians whose expertise is proven for predictable and efficient construction management. For this reason, the research provides the basic curriculum that can be commonly used among the Hanok carpentry schools, suggests an improvement direction for the standard textbooks, and provides certification standards and qualification criteria for the institutions. Also, it proposes specialized courses to strengthen the Hanok construction technology, and

reviews a plan to certify the graduates' expertise through issuing their certificates. For the qualification of the Hanok construction technicians, it suggests affiliating with the Korea Forest Service's qualification system for the wooden structure construction technician and establishing community oriented private certifications.

Educational institutes need to make an effort to be independent in order to vitalize training the Hanok professionals, and establishing a foundation for active Hanok business is important. For the institutes' independence, building a system that can coexist by affiliating and cooperating with the agencies should be prioritized. After creating the Hanok professionals, they need to organize the communities and expand their areas, and they need to promote workforce creation by sharing information with professionals from different institutions. On the other hand, the government and the local authorities should make an effort to improve the current situation where a proper treatment for the graduates is absent. For the Hanok professionals' balanced development in the long term, understanding and anticipating what they need and what they demand is necessary. Thus, a survey of demand on the Hanok professionals to cope with the change of Hanok business is urgent. Also, to increase Hanok business's demand and to support the activities of the Hanok professionals, education and discussions with the related agencies must be emphasized.

**Keyword: Hanok professionals, Education certification, Qualification system**