

Title	外国人研修生用工場ノウハウ取得のための研修支援システムの構築
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Development of factory Kow-How learning system for foreign workers

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Currently, many Japanese companies are expanding their overseas business in other countries. Especially in China, these companies are recruiting Chinese as trainees. After being trained in manufacturing factories of these companies in Japan, these trainees are assigned to work in the companies' factories in China. During the worker's training in Japan, these companies also engage some Chinese overseas students in Japan as interpreters for these trainees, in order to help the trainees to master the manufacturing knowledge and know-how. However, more often than not, the interpreters are not able to convey the manufacturing knowledge and know-how correctly to the trainees due to the lack of professional knowledge of manufacturing. Moreover, the trainees usually cannot master the manufacturing know-how completely due to the difference of language, culture and customs between China and Japan, resulting in that the trainees cannot work independently after their study in Japan. This research proposes an e-learning system, which includes the function of step-by-step video recording, to promote the trainees' study in Japan. The functions of the system include language translation, different culture providing and step-by-step video recording. The function of language translation is different from general translation software in that it includes image prompt mechanism, which makes the trainees able to better understand the tools, parts and equipments used

in the workshop for a better study of the knowledge in the factory. The functions of different culture providing and step-by-step video recording are to compare the videos between the trainees and supervisors, which enable the trainees to find their disadvantages and differences with foreigners, in order to understand each other and promote each other. By this way, the trainees will perfect their work in latter studies and understand the factory know-how so that the efficiency of their studies can be improved. We conducted many experiments to validate the effectiveness of the proposed system. Experimental results show that this system is effective in practical application to facilitate the trainees understanding know-how in factory and improve efficiency of study.