Press Simulators Reduce Teaching Costs

Practical operation and hands-on practice have been a major challenge for professional colleges during their printing teaching. Expensive printing equipment and how to reach a perfect balance between student headcount and time allotment of practical operation involve the issue concerning application of theoretical knowledge in practical operation. Wang Xunquan, Director of Printing Department at Beijing Industry and Trade Technicians College (BITTC), talked about the college's use of press simulators at the 1st Sinapse Asian Print Simulator User Meeting held on 22-24 April by Beijing Institute of Graphic Communication.

BITTC is a large comprehensive vocational skill college, a leading source of talents ranging from middle and high-level skilled workers, technicians to senior technicians. The college's printing technology department has a teaching history of more than 30 years. With enhanced financial support from the Beijing government in recent years, the college has purchased increasing internship and experimental equipment, leading to significant improvement in students' practical skills. The college has been a cradle of talents for Beijing's printing sector, who become the backbone force of a host of companies.

BITTC Printing Department Director Wang Xunquan giving a speech at the meeting

After introduction by Chen Zhangcai, Professor at Anhui Vocational Technical College of News and Publication, BITTC purchased the first set of planographic printing computer simulator teaching software in 2007 to solve teaching problems as a result of the lack of printing equipment and used the software in teaching in September 2007. The college also established a network lab in 2008.

The application of simulation teaching software solves the problem of the lack of printing equipment in practical operation, giving students the operation experience. Hands-on operation increases students' interests in learning, while consolidating their skills acquired during study and enhancing their ability of analyzing and solving problems.

The simulation software also motivates students to learn, enabling them to learn professional knowledge through play. Especially, the open system of the software can flexibly and conveniently integrate the practical production process as well as process and methods of regulating printing machines of enterprises into the simulation environment and show the practical operation to students in the course of teaching, strengthening the intuitive effect of the entire teaching and making the class more vivid and interesting.

In addition, checking students' understanding of skills through exercise practice and teaching through group discussions help cultivate them to analyze and address problems. In an environment that is created by setting malfunctions for the simulation software and where students can analyze and address problems, students can use the knowledge they learned to analyze and then resolve the malfunctions. This is a process of how students master professional knowledge and also process of enhancing their ability to analyze and resolve problems.

More importantly, printing industry experience is accumulated through the printing of numerous papers, while the accumulation means more investment in teaching for printing schools. Investing substantial teaching funds in production practices would lead to waste of a large number of raw and auxiliary materials, as a result, schools need to increase their teaching investment. Simulation of teaching software can reduce teaching costs as it helps complete some practical operations through computer and generates no waste in the process of teaching.

The convenient human-machine interface, simulation of the current mainstream multi-color offset printing machine and various optional simulation printing formats of the system has opened a new way of training practitioners in the printing industry in a theoretical and practical manner, and also provided an economic, intuitive and effective training model for the industry. For printing schools and printing enterprises dedicated to high-quality printing, the system offers an ideal solution that can address widespread issues in the industry, including lack of teaching fields and high costs, while fully and economically enhancing students’ skills and experience in the practical operation of printing machines.