

# An Analysis of Knowledge Acquisition by Self-Service Technology: A Case of 3D Printer Workshop for Traditional Pottery Personnel

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[Abstract]

Kutani pottery is one of the famous traditional pottery in Japan. However, the output of traditional industries has been greatly reduced in Japan as a whole (Sunasaki, 2014). Kutani pottery personnel are required to improve their communication skill with customers as business marketing.

As one of the effective tools for creating communication, a self-service technology (SST) is currently being used in more diverse ways in business (Mukesh Kumar, 2007). In this study, we use a 3D printer as a tool of SST. A 3D printer can support customers to create form of pottery. This technology can offer customers knowledge about traditional pottery and benefit from creating pottery by themselves. This may create communication between service providers and customers. The purpose of this research is to identify how SST promotes knowledge acquisition for traditional pottery personnel.

We conducted a 3D printer school consisting five lectures by Shumpei Taniguchi who is an expert of 3D printer technology from September to December in 2014. During the school, participants who engage in Kutani pottery business learned about 3D printer technology and how to use of design software. At the final lecture, participants created their own designed goods by 3D printer. We administrated a feedback questionnaire survey which includes (i) how many time you join this lecture series? (ii) What was your motivation to join this series? (iii) What do you think of the goods that you output by 3D printer? (with its reason) and (iv) how the 3D printer technology will utilize your business?

We obtained 6 participants' data. The results show that the 3D printer will be effective for promoting creative communication between creator and customers. In addition, it will be more effective for business communication by using 3D printer technology. Based on the concept of 3D printer as a self-service technology, the printer will become a knowledge transfer interface between agents, thereby increasing the opportunity to create a value.