S & M 0836

Hot-Spring-Experience Apparatus Based on Questionnaire

Kayoko Murakami*, Takashi Oyabu¹ and Yuko Shimomura²

Shibaura Institute of Technology, Saitama-shi 337-8570, Japan ¹Kanazawa Seiryo University, Gosyo-machi, Kanazawa 920-8620, Japan ²Kinjo University, Hakusan, Ishikawa 924-8511, Japan

(Received April 6, 2010; accepted December 20, 2010)

Key words: virtual apparatus, five senses, hot spring, questionnaire, YouTube

There is a growing demand to feel a healing effect using a hot spring facility with a universal design. Sometimes, it is impossible to experience a hot spring under the constraints of space and time or physical impairment. The five-sense images of the hot spring were gleaned from a questionnaire, and the functions of the pilot unit (devices and materials for experiencing a hot spring (onsen) at home) were summarized to construct the virtual hot-spring-experience apparatus using the result of the questionnaire. It is clear that the unit can be built at a moderate price. The functions of the unit involve visual, auditory, tactual, and olfactory senses except taste sense. The important senses are visual, auditory and olfactory. The visual and auditory senses can be experienced using a head-mounted display (HMD) and "YouTube." A mineral deposit was used to satisfy the subjective olfactory sense in a home bath. The tactual sense is also satisfied because the test subject really takes a bath. In general, the images of a hot spring resort are a yukata (light cotton kimono) in summer, smoking steam, sulfur smell, open-air hot spring, sound of running the hot spring, and the rustle of leaves. The taste for spring drinking water is salty.

*Corresponding author: e-mail: kayoko@shibaura-it.ac.jp