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Authors

Takahashi, Maiko

Hirabayashi, Rumi

Nakamura, Kenryu

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How Can We Access Children Basic Academic Skills? The Possibility of Corrected Academic Skills via an Alternative Approach

Maiko Takahashi

University of Tokyo, Tokyo, Japan

Rumi Hirabayashi

University of Tokyo, Tokyo, Japan

Kenryu Nakamura

University of Tokyo, Tokyo, Japan

Abstract

The skills of reading, writing, and calculating manually are fundamental parts of subject learning. However, information-communication technology is expected to serve as an alternative to these basic academic skills. We conducted a study of 158 Japanese elementary students (2nd to 6th grade) comparing students basic academic skills to their corrected academic skills, as measured with accommodations. Students were asked to perform independent reading and reading with a listening comprehension task (Experiment 1), a manual Kanji-writing word task (Japanese characters) and a multiple-choice task to measure Kanji knowledge (Experiment 2), and a manual calculation task and one using a calculator (Experiment 3). Comparing the scores on the tasks performed by themselves and with accommodation, we found that 5 to 13% of the students were supported in their basic academic skills by the accommodation. The cognitive processes involved in learning the basic academic skills and the corrected one are discussed.