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DO PRODUCTIVE SKILLS OF LANGUAGE ENHANCE LEARNERS' COGNITIVE ABILITY? : AN EXPERIMENTAL STUDY OF SOFT CLIL TO TECHNOLOGY MAJORS

Abstract:

STEM (Science, Technology, Engineering, and Mathematics) is one of the subject areas which are being taught in Japan by employing CLIL (Content and Language Integrated Learning). Within the framework of teaching methodology, output tasks are considered to be effective in helping learners' cognition with the target language. UBM (Usage-based model) supports this idea as learners can use the language more in the output tasks to explain and illustrate what they are paying attention to. In this study, the hypothesis is examined by teaching English in CLIL methodology to technology majors at a Japanese university. Throughout the semester, the output-focused group (N=54) is oriented to output tasks, while the input-focused group (N=24) is focused on reading material. Both groups are taught by the same English teacher in Soft CLIL. Their improvement of understanding of English involved with logical thinking can be measured by pre- and post-GJTs (Grammaticality Judgement Tests) which contain causal relationship with conjunctions. A t-test of the results shows that both groups shows significant differences between pre- and post-tests (input: $t=1.7633$, $p=0.04181$; output: $t=1.9017$, $p=0.03491$). However, no significant differences between the input group and output group are observed in both pre- and post-tests.

Keywords:

STEM, CLIL, UBM, GJT

JEL Classification: I20, I23