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Author(s)	柳澤, 瑛莉花
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Description	Supervisor:日高 昇平, 先端科学技術研究科, 修士(知識科学)

文章構造に関するペアワークによる文章理解の促進効果の実験的検討
The Effect of Pair Work on Promoting Text Comprehension: An Experimental Study on
Text Structure

2210171 YANAGISAWA, Erika

The importance of “understanding by reading”—the ability to accurately extract meaning from written text—has grown significantly against the backdrop of modern society's informatization and the accompanying flood of information. In recent educational settings, the focus has been on practical reading comprehension to cultivate logical thinking skills. At the same time, there is renewed recognition that the ability to comprehend the “multilayered meaning structures” inherent in fairy tales (narrative texts) forms the foundation for empathy toward others and understanding complex social situations and circumstances. Academic reading comprehension is understood not merely as decoding letters, but as a dynamic process where the reader's prior knowledge interacts with textual information. Text comprehension has a hierarchical structure, progressing through the stages of “surface expression,” “text-based understanding,” and “situational modeling.” In other words, “understanding by reading” is the ability to reconstruct the world behind the text—that is, the ability to construct a “situational model.”

Fairy tales feature characters (anthropomorphized characters) and extraordinary settings, requiring readers to flexibly apply their own common sense (schemas) while reconstructing the story's unique logic. Fairy tales, due to their universal structure and accessibility, are well-suited as standard materials for measuring reading processes. They hold potential for comparing reading abilities across generations and for isolating specific cognitive skills.

Moreover, in daily life, mutual teaching between individuals can deepen understanding of a text. Such pair work is incorporated into school education, and its effects are suggested to influence individual text comprehension. It is therefore hypothesized that sharing knowledge about the exposition-development-turn-conclusion structure through pair work could promote text comprehension.

This research aimed to identify aspects of the cognitive processes involved in reading comprehension. Using fairy tales, we tested the effects of knowledge about text composition and structure, and the sharing of that knowledge with others, on reading comprehension among 28 graduate students. Specifically, it focused on the relationship between knowledge of text composition, structure, and development and text comprehension. It experimentally examined the promotional effect on individual text comprehension achieved by learning about others' text comprehension processes through collaborative work (pair work).

The experiment examined whether pair work affected comprehension test scores and whether pairing methods influenced these effects, comparing an experimental group that performed pair work with a control group that did not. The comprehension test questions, developed by the authors, consisted of 1) fill-in-the-blank questions, 2) multiple-choice questions, and 3) summary selection questions, assessing the levels of “surface expression,” “text-based understanding,” and “situational modeling.” The results showed that some participants in both groups showed their scores increase after pair work, while others showed a decrease. A two-way ANOVA comparing the pair work group and the non-pair work control group revealed no statistically significant difference. However, when comparing only the participants who did pair work, their scores after pair work were significantly higher than before, regardless of the pairing method. When visualized graphically, a slight tendency was observed in the “experimental group,” suggesting the need for experiments and analysis with larger sample sizes. Furthermore, since this experiment lacked participants who only performed individual work, it cannot

be definitively stated that the difference between the control and experimental groups stemmed solely from pair work. It is necessary to examine changes in participants' responses during individual and pair work and confirm whether these changes correlate with test scores.