

Working Memory and Thematic Inference Processing in L2 Narrative Comprehension

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This paper investigates the effects of working memory (WM) on Chinese English as a Foreign Language (EFL) learners' thematic inference generation during L2 narratives comprehension. Eighty-five sophomore English majors in a university in mainland China participated in the study. The experiment was implemented by using E-Prime and L2 narrative passages to measure the response time and response accuracy on the topic sentence. The experimental design is a 2 (WM: low and high) × 2 (discourse relation: same-theme and different-theme condition) factorial design. The results demonstrate that (a) WM span contributes considerably to Chinese EFL learners' thematic inferential processing during L2 narrative comprehension. Compared with low-span participants, high-span learners responded significantly faster to topic sentences and had higher response accuracy during thematic inference processing; (b) On the response time, the main effect of working memory span and the main effect of discourse relation are both significant. The interactive effect of the two factors is not significant. Regarding response accuracy, the main effects of each factor and the interactive effect of the two factors are not significant; (c) Discourse relation also influences learners' thematic inference construction, but does not reflect on response accuracy.

Introduction

Working memory (WM) refers to the capacity-limited cognitive mechanism that enables us to temporarily maintain several pieces of