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# Effect of prototypicality and dual route processing modal on instructed second language acquisition of Chinese resultative verb compounds

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**Abstract:** The present study investigates the processing of Chinese Resultative Verb Compounds (RVCs) in second language (L2) learners. It focuses on the role of prototypicality of component morphemes and whole-word token frequency in L2 acquisition of Chinese RVCs in a formal instructional setting. Chinese RVC is an important linguistic item in Chinese as second or foreign language (CSL/CFL). Cognitive psychology and other areas of research have found that both components of compound and whole word have effect on compound identification. Based on these findings, Pollatsek and his fellows (2000) proposed dual route processing modal (DRPM) which claimed that both the frequency of components and whole-word frequency have effect on compound identification. However, as regards the frequency effect, more empirical evidences showed that prototypicality is a better indicator than frequency in predicting the acquisition of compound. This study aims to explore the effect of formal instruction, prototypicality of components and whole word frequency on RVC identification. By adopting Zhang. (2023. [Forthcoming] Morphological prototypicality of Chinese verb compound and components. *Chinese Journal of Applied Linguistics*)'s hierarchy of prototypical V1s and RCs, forty two students in two intact classes from Malaysia secondary school participate in a pretest-intervention-posttest research. According to finding in the quasi-experiment study, prototype-based DRPM is proposed with the pedagogical implications that might be conducive to the area of CSL/CFL learning.

**Keywords:** prototypicality; DRPM; instruction; Chinese RVC

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## 1 Introduction

Chinese resultative verb compound (RVC) is an important linguistic item in the lexical syllabus of teaching Chinese as second or foreign language (CSL/CFL) (Hanban 2010; National Office 2002). They are more often than not disyllabic compounds with two component morphemes, namely predicative verb (V1) and resultative complement (RC) and have been widely investigated in terms of polysemous V1 (e.g., Chen and Wang 2020) and RC (e.g., Liang 2014), semantic orientation of RC (e.g., Jiang 2020) and syntactic preference (e.g., Wang 2004) etc. However, rare is touched on the systematic examination of their lexical morphemes.

RVC is a complex verb and extensive evidences (Niswander-Lkement and Pollatsek 2006; Shen et al. 2017) suggests that the root-morpheme frequency and word frequency have significant effect on compound identification. However, as regards the frequency, an increasing number of scholars (Ellis 2002; Littlemore and McArthur 2012) admit that frequency is a necessary but not a sufficient explanation in language acquisition and frequency effect accounts only partially for the acquisition associated with verbs. Recent studies of L2 acquisition revealed that prototypicality is a better indicator to predict the learning outcomes (Chen and Wang 2020; Jiang 2018; Liang 2014), in line with Slobin (1997) who claimed that semantic basicness, salience are major determining factors in the acquisition process. However, no research has been conducted to discuss the effect of prototypicality and dual route processing modal on RVC acquisition in classroom setting. This study aims to bridge the gap by examining the effect of prototypical V1, RC and whole-word frequency in instructed acquisition of Chinese RVC.

## 2 Research targets

The issue of how compound words are processed has been a widely discussed topic in Cognitive Psychology (Humphreys and Evett 1985; Koh et al. 2013). One of the major theories of word processing is dual route theory which holds that both frequency of component morpheme and whole word frequency are playing crucial roles in word identification. However, as regards the frequency effect, some scholars (e.g., Chen and Wang 2020; Liang 2014) argued for the prototypicality as a better indicator to compounds learning and suggested that prototype-based instruction should be introduced into the classroom. Thus, this study addresses the following research hypotheses (RHs):

RH1: The prototypicality of component morphemes of RVCs, namely, V1s and RCs will have effects on RVC identification?