The Effect of Morphological Strategies Training for English Language Learners

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Deng, Q. and Trainin, G., "The Effect of Morphological Strategies Training for English Language Learners" (2014). Faculty Publications: Department of Teaching, Learning and Teacher Education. 169.
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Native speakers have a vocabulary size of about 50,000 when they enter college, but English as a second language learners (ELLs) have a size between 3500 and 4500 word families to take TOEFL exam (Chui & Ogihiny, 2009). It is not difficult to conclude that, when students enter college, the vocabulary size of native speakers is about 12 times of that for ELLs.

Of the recently developed Academic Word List (Coxhead, 2000), more than 82% of the entries are of Greek or Latin origin, indicating that the knowledge of morphemic structures, such as prefixes, suffixes, and word stems, positively affects vocabulary learning (Tong, Deacon, Kirby, Cain, & Parrila, 2011). This is especially true for college-level vocabulary as most college textbooks are filled with technical terms, jargon, and new disciplinary concepts (Francis & Simpson, 2009).

Morphological awareness refers to the conscious awareness of the morphemic structures of words and abilities to reflect on and manipulate the structures (Carlisle, McBride-Chang, Nagy, & Nunes, 2011). Morphological awareness influences lexical processing in the sense that students with better morphological awareness are more likely to retrieve their prior knowledge of the component morphemes in their memory storage, and hence make connection between the morphological knowledge and the meaning of the new word to construct a schema for the new word, which enables the learners to achieve a deeper level of processing and store the new word in semantic memory (Goodwin & Ahn, 2010).

There is evidence, however, that college students do not possess a high level of consciousness regarding the morphological awareness. There was little evidence that college students are capable of understanding the morphological awareness (Carlisle, McBride-Chang, Nagy, & Nunes, 2011; Francis & Simpson, 2009; Nation, 2001). Up to date, it is not known how well ELL college students are equipped with morphological strategies and knowledge that enable them to learn vocabulary more effectively.

The purpose of this study was to examine the effect of morphological strategies training for ELLs with different English proficiency levels. A secondary goal was to examine how the training influence their cognitive load during morphological analysis tasks.

We hypothesized that students would improve their morphological knowledge after training in their skills of sentence completion, breaking words down, and guessing meanings from words parts. We also hypothesized their cognitive load for morphological tasks would be lower after the training.

Research questions:
1. Does morphological training affect the morphological awareness of ELLs?
2. Does morphological strategies training affect the cognitive load of ELLs?
3. How does the training effect on morphological awareness differ for ELL students with different English proficiency levels?
4. How does the training effect on cognitive load differ for ELL students with different English proficiency levels?

Morphological Training (60 minutes)

Participants were 22 students (13 Female, 9 Male) from an Intensive English Program that serves non-native English students in preparation for academic study in Midwestern research university. They speak a variety of L1s (refer to Figure 1).

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The intervention took place in a quiet room on campus in groups ranging from 2 to 6 students that took about 1.5 hours. The training resemble a real classroom teaching format. The training procedure consisted of the following sections after obtaining students’ informed consent: (1) Morphological Awareness Pre-test, (2) A Demographic Survey, (3) Morphological Strategies Intervention with Guided and Independent Practices with Feedback, (4) Morphological Awareness Post-test. For the intervention, the experimenter used overhead projector to present the training material and distributed printed handouts for guided and independent practices. During teaching the morphological knowledge, the experimenter engaged students by asking students to provide examples and giving them credit by providing positive feedback. Students receive positive and corrective feedbacks during guided practices and after independent practices.

1. Morphological strategies training positively affect the morphological awareness of ELLs.
2. Morphological strategies training reduces the cognitive load of ELLs for all four types of tasks.
3. The training is effective to ELLs’ morphological awareness regardless of their English proficiency level.
4. The training reduces ELLs’ cognitive load regardless of their English proficiency level.