Learning L2 idioms for real-time processing: Flashcards versus reading

What this research was about and why it is important
Idioms, such as once in a blue moon, can be troublesome for second language (L2) learners because they may mistakenly interpret these opaque phrases literally. There is an ongoing debate about whether idioms are processed holistically or word by word. In this classroom-based study, we sought to determine whether idioms are better learned deliberately using flashcards or contextually through reading. Flashcard learning fostered holistic processing but learning through reading supported a word-by-word approach. Our main focus was the learning of L2 idioms for real-time processing. The ability to comprehend meanings in real-time is an essential ability for L2 learners to develop because it directly affects their ability to use the target language. To investigate the development of real-time processing, we used a self-paced reading test (SPR), in which readers are in control of when they move on to the next bit of text. This test showed whether the learned idioms' figurative meanings had become accessible for real-time processing during reading. Results showed that both learning with flashcards and learning through reading resulted in some knowledge development. However, the finding that idioms learned using flashcards resulted in fluent access to idiom knowledge was particularly notable because this learning method is not typically associated with real-time use.

What the researchers did
- Participants were 72 pre-service English teacher-trainees at a university in Japan. They were native speakers of Japanese, most of whom had never visited an English-speaking country. They took most of their courses using Japanese, and they participated in 2 or 3 classes each week focused on developing English proficiency.
- 36 two- to five-word idioms were used as targets for the learning treatment (for example, once in a blue moon, right away, dog eat dog, turn down).
- The participants used web-based applications to learn the idioms. Participants learned the idioms in three 25-minute weekly sessions and learned half of the idioms using flashcards and half contextually from reading.
- Idiom knowledge development was measured in two ways: (1) on a SPR test after the learning (measure: reading times of the word related to the idiom); (2) on a pen-and-paper idiomatic expression test (measure: response accuracy).
- We conducted an SPR test that measured the reading times of related words that followed the learned idioms. For example, in the sentence, In moments like this, when you are walking on air, life is a joyful experience., the idiom learning target was walking on air, and the target word was joyful. In the analysis of reading times on the SPR, we compared the reading times on the related words (joyful) for cases in which idioms (walking on air) were learned with flashcards, cases in which they were learned through reading, and control cases (non-idiomatic phrases) for which there was no learning.

What the researchers found
- Both learning conditions resulted in real-time access to the idioms' meanings during reading, but the observed effect was not robust.
- Results on the translation test were superior for the idioms learned using flashcards to those learned by reading.
- The SPR test was first trialed with 60 first language (L1) participants to validate the method.

Things to consider
- Testing knowledge development for real-time use in second language acquisition research is essential but is not very common in second language acquisition research. Pen-and-paper tests are more widely used, but this type of testing allows participants to take ample time to respond.
- This study's SPR test was validated with L1 participants, confirming a new experimental method for measuring real-time processing of idiomatic expressions.
- Taken together, the L2 participants’ results on the SPR and translation measures revealed that flashcard learning might be more effective at early learning stages for idiom learning than contextual learning through reading.

Materials, data, and open access article: N/A

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