Making Sense of Phrasal Verbs: A Case Study of EFL Learners in Taiwan

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Outline

• Research background
• Methodology
• Results and discussion
• Conclusion
Research background

• Several studies have attempted to investigate how instruction that explicates the cognitive motivation of these PVs could help learning and retention of PVs and transfer such knowledge from known to unknown PVs (Boers 2000, Kovecses and Szabo, 1996; Condon, 2008, Yasuda, 2010)
Research background: cognitive Instruction in FL classrooms

• Kovecses and Szabo (1996) who contend that the enhancement of metaphor-awareness of particles facilitate students’ acquisition of phrasal verbs.

• Abreu and Vieira (2009) discovered that the subjects received image schema as instruction perform 40% better than traditional method in teaching phrasal verbs
Research background: cognitive Instruction in FL classrooms

• Condon (2008), on the other hand, states that not all phrasal verbs “lend themselves equally well” (p. 133) to such explicit instruction of metaphor awareness and image schemas.

• Yasuda (2010) claimed that metaphor-awareness raising activities helped learners in learning phrasal verbs than those who were taught in traditional method.
Purpose of the study

• The purpose of this study is to explore whether older EFL freshmen can demonstrate better memory retention in both short- and long-term time frame with cognitive instruction (CI) containing image schemas and lexical network, than instruction of list and translation (Non-CI) which provides non-schematic pictures with no obvious link and a list of definitions that are displayed in learners’ first language.
Research questions

• 1. Will CI group outperform significantly than Non-CI group in their short-term memory retention in the immediate post-test administered immediately after the treatment?
• 2. Will CI group outperform significantly than Non-CI group in their long-term memory retention in the delayed post-test administered with a minimum of four to six weeks after the treatment?
• 3. Will CI group outperform significantly better than Non-CI group in terms of basic and extended meanings in both short-term and long-term memory?
• 3. Will CI group outperform significantly better than Non-CI group in terms of concrete and abstract meanings in both short-term and long-term memory?
Basic/ extended/ radial network
Methodology

- Participants
- Establishment of item bank
- The survey
- Materials and test items for the study
- Procedure
- Treatment
Participants

44 subjects for survey

87 subjects for the main study

131 Participants were recruited
Participants

• 44 participants were asked to take a comprehension test with 204 phrasal verbs and their answers were taken as the principle for the researcher to choose phrasal verbs for the following two groups.

• Experimental group which contain 39 participants were instructed with cognitive approach (CI).

• Control group which contain 48 participants were instructed with non-cognitive instruction (Non-CI).

• All the participants were freshmen in one of the university in north Taiwan.

• English proficiency level of all the participants were intermediate, they were recruit by their score of National College Entrance Examination.
Establishment of item bank: Selection of particles and senses

<table>
<thead>
<tr>
<th>Author</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boers (1996)</td>
<td>Analysis of <em>up</em></td>
</tr>
<tr>
<td>Dirven (2001)</td>
<td>Analysis of <em>off</em></td>
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<td>Rudzka-Ostyn (2003)</td>
<td>Analysis of <em>out</em></td>
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<td>Analysis of <em>up</em></td>
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</tbody>
</table>
Establishment of item bank: Selection of particles and senses

- 3 basic senses + 3 extended senses = 6 senses of particle out
- 2 basic senses + 3 extended senses = 5 senses of particle up
- 2 basic senses + 2 extended senses = 4 senses of particle off
Establishment of item bank: Selection of verbs

Step 1:
- 50 most frequent verbs from BNC

Step 2:
- 20 verb lemmas in VPC from COCA
- Gardner and Davies, 2007

Step 3:
- the most 150 frequent phrasal verbs in the COCA and BNC
- Liu, 2001

Finally:
- 74 verbs were selected
Establishment of item bank: Selection of phrasal verbs

Step 1
• 74 verbs from previous selection by the researcher

Step 2
• the most 150 frequent phrasal verbs in the COCA and BNC
• Liu, 2001

Step 3
• Word Power: Phrasal Verbs and Compounds
• Rudzka-Ostyn, 2003

Finally
• 92 phrasal verbs were selected
The survey: to find proficiency level of the PVs

Step 1
• 92 phrasal verbs from previous selection by the researcher

Step 2
• Another 194 phrasal verbs, contain three testes particles were added

Step 3
• 10 other different particles were added as control items

Finally
• Total 204 PVs were presented in multiple choice questions
The survey: to find proficiency level of the PVs
Materials and test items for the study

Proficiency level of PVs
0 to 33 (moderate to difficult)

Number of taught PVs/Number of tested PVs
- 75 PVs
- 29 PVs

Number of senses of taught PVs
15 senses (6 of out, 5 of up, 4 of off)
Materials and test items for the study

- Context for each tested PV were moderated to fit the participants’ perception.
- Tenses of the context were limited to three categories: present, past and future tense.
- No more than two clauses in one sentence.
- The moderated test items were checked by two native speakers of English for their authenticity.
Procedure of the study

**Pre-test**
- 29 items for production test (fill-in the blanks without any clues)
- Before the 7-weeks treatment

**Treatment**
- 7 times
- Except for the first time (3 senses), 2 senses were taught each time
- Each senses were explained by 5 phrasal verbs in context
- 30 minutes teaching session
- 10 minutes practicing session

**Immediate Post-test**
- 29 items for production test (fill-in the blanks without any clues)
- Immediate after the 7-weeks treatment

**Delayed post-test**
- 29 items for production test (fill-in the blanks without any clues)
- Two months after the immediate post-test
Treatment for experimental group: metaphor/ metonymy and image schema

Extended sense 2: sets, groups are containers

According to your choice on our online poll, we will find out the winner in this Friday.
Treatment for experimental group: radial network of polysemous senses of particle *out*
Treatment for control group

Phrasal Verbs with Spatial Particle OUT

According to your choice on our online poll, we will **find out** the winner in this Friday.
Results and discussion
Validity/ reliability

- Validity, $r = 0.364^*$
- Reliability:
  - Pre-post, $r = 0.261$
  - Pre-delayed, $r = 0.575^*$
  - Post-delayed, $r = 0.319^*$

Pearson correlation
Results and discussion of the main study

• 1. Will CI group outperform significantly than Non-CI group in their short-term memory retention in the immediate post-test administered immediately after the treatment?

• 2. Will CI group outperform significantly than Non-CI group in their long-term memory retention in the delayed post-test administered with a minimum of four to six weeks after the treatment?
Main study-overall score

- **EG-production**
  - Pre-test: 7.43
  - Immediate post-test: 13.00
  - Delayed post-test: 12.64
  - Immediate post-test vs. Delayed post-test: *0.006*

- **CG-production**
  - Pre-test: 10.34
  - Immediate post-test: 11.14
  - Delayed post-test: 12.73
  - Immediate post-test vs. Delayed post-test: *0.000*
Main study-overall score

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<th>CG-production</th>
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<td>pre-test</td>
<td>7.43</td>
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</tr>
<tr>
<td>delayed</td>
<td>10.34</td>
<td></td>
</tr>
<tr>
<td>post-test</td>
<td>12.64</td>
<td>12.73</td>
</tr>
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*Significant difference at p < 0.05
Results and discussion of the main study

• 3. Will CI group outperform significantly better than Non-CI group in terms of basic and extended meanings in both short-term and long-term memory?
Learning of basic meaning

- EG-production
- CG-production

- .000*

- pre-test
- immediate post-test
- delayed post-test

Graph shows the learning of basic meaning over time with two groups: EG-production and CG-production. The graph indicates a significant difference (*p < 0.0001) in the learning outcomes between the two groups.
Learning of basic meaning

![Graph showing learning of basic meaning with pre-test, delayed post-test, EG-production, and CG-production values with p-values].

- Pre-test: EG-production = 1.03, CG-production = 1.60
- Delayed post-test: EG-production = 2.05, CG-production = 1.98

Significance levels: .023* for EG-production and .000* for CG-production.
Learning of extended meaning

- Pre-test
- Immediate post-test
- Delayed post-test

- EG-production
- CG-production

Significance: .007*
Learning of extended meaning

![Graph showing learning of extended meaning with pre-test and delayed post-test results for EG-production and CG-production. The graph indicates a significant difference at the p<0.001 level.]

- Pre-test: EG-production = 1.13, CG-production = 1.40
- Delayed post-test: EG-production = 1.64, CG-production = 1.69

Significance: *p<0.001
Conclusion: Implications

• Although the translation instruction also illustrated some efficacy in aiding learning outcome, its impact is mostly felt in the short term retention. For long-term retention, especially from the pre-test to delayed post-test, the longest time lapse, CI proved to be significantly better than translation approach.

• The spatial concepts in learners’ L1 can be constructively and effectively incorporated in instruction.
Conclusion: Limitations and recommendations

• The significant improvement of exposed and unexposed PVs in terms of basic meaning and extended meaning is still in question.
• The deficiency of lab hour that allowed subjects to practice within 10 minutes during treatment each time.
• The huge quantity of test items in all given tests is the limitation for analyzing their written protocol.
• In future research, lab hours and practice time should be lengthened.
• More communicative tasks should be incorporated in treatment and evaluation.
Thanks for listening