Connections between type of instruction and type of L2 knowledge and ability

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University of Toronto
Does type of instruction make a difference?

- **Consensus:** Instruction is most effective if it includes attention to both form and meaning.

- **Debates:** How to draw learners’ attention to form – explicitly or implicitly.

- **Less agreement:** When it is most effective to draw learners’ attention to form?
Pedagogical timing of attention to form

- Isolated form-focused instruction
- Integrated form-focused instruction
Instructed SLA

What type of L2 knowledge results from instruction?
Type of L2 knowledge

- Explicit knowledge: analyzed, declarative
- Implicit knowledge: unanalyzed, intuitive
Instruction >> Type of L2 knowledge?

Theoretical disputes

$L2 \text{ instruction contributes to}$

- only explicit knowledge (Krashen, 1982; Schwartz, 1993)
- both explicit and implicit knowledge via practice (DeKeyser, 1998)
- implicit knowledge via “noticing” (R. Ellis, 2005)
In Practice

- Most instructed SLA studies measure of explicit knowledge
  - discrete-point grammar tests
  - tasks without time pressure

- Fewer instructed SLA studies measure of implicit knowledge
  - meaning-focused tasks
  - time pressured tasks
Two Quasi-Experimental Studies

**Integrated and Isolated FFI**

Pre/post-test study to measure effects of isolated and integrated FFI on different aspects of L2 learning

**Integrated FFI/Control Group**

Pre/post-test study to investigate effects of integrated FFI on implicit & explicit L2 knowledge
Attention to form always embedded in meaning-based and communicative practice.

- Integrated FFI
- Isolated FFI

- Attention to form always separate from meaning-based and communicative practice.
Why integrate?

- **Efficiency**: Students have an opportunity to engage with meaning AND receive feedback as they communicate.

- **Motivation**: Knowing that immediate help is available precisely when it is needed may respond to the expectations and preferences of students.
Why isolate?

- Traditional presentation/practice pedagogy
  A “natural” way to teach
- Humans are limited capacity processors
  You can’t pay attention to everything at once
- Motivation
  No interruption of communicative interaction
Research on FFI

- No studies have directly compared outcomes for students receiving isolated versus integrated form-focused instruction.

- No research has investigated whether there are different benefits that come with both types of instruction.
Transfer Appropriate Processing

- We retrieve knowledge best in contexts that are similar to those in which we originally acquired it (Blaxton, 1989)
- The greater the similarity between the processing types activated when we learned something and those activated in our later attempts to retrieve it ......
- … the greater the likelihood of quick and accurate retrieval
Type of instruction & L2 knowledge

Isolated FFI

Integrated FFI
Participants

<table>
<thead>
<tr>
<th>Learners</th>
<th>Teachers/Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>▶ 109 adult learners</td>
<td>▶ 4 teachers</td>
</tr>
<tr>
<td>▶ 4 classes</td>
<td>▶ 2 Iso and 2 Int</td>
</tr>
<tr>
<td>▶ Intermediate level of proficiency</td>
<td>▶ More than 15 years teaching experience</td>
</tr>
<tr>
<td>▶ Studying English full-time</td>
<td>▶ Community-based ESL program for new Canadians</td>
</tr>
<tr>
<td>▶ Language groups</td>
<td></td>
</tr>
<tr>
<td>◦ Spanish, Mandarin</td>
<td></td>
</tr>
</tbody>
</table>
Research Design

Pre-test
  • Oral & Written Measures

Instruction
  • 4 classes: 2 Integrated & 2 Isolated

Immediate Post-test
  • Oral & Written Measures

Delayed Post-test
  • Oral & Written Measures
Target Feature

Passive construction

- Difficult to learn
- Introduced at intermediate level proficiency
Instruction

► Integrated FFI

► All activities:
  ◦ Attention drawn to meaning first
  ◦ Target form focus woven into activities
  ◦ Explicit and implicit corrective feedback throughout

► Isolated FFI

► Form activities:
  ◦ Attention to target form only
  ◦ Explicit corrective feedback

► Meaning activities:
  ◦ Attention to meaning only
  ◦ No corrective feedback
Isolated vs. Integrated Activities

Medical Practices – True or False?
1. Surgery was invented in the 1800’s.
2. The first X-rays were taken using radium.
3. Florence Nightingale introduced modern nursing methods.
4. Vitamins were discovered in the early 1900’s.
5. The first transplant of an artificial heart took place in the 1950’s.
6. The first vaccination was for polio.
7. Freud developed the psychoanalytic method of treating mental illness.

Pair Activity

Medical Practice Timeline

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Language Measures

**Written Production**
- Error Correction Task (ECT)
- Cloze Task

**Oral Production**
- Picture Stimulated Oral Production Task (OPT)
Laws are making by the government.

made

Laws are making by the government.
Cloze

- Version A: Pre-test & Delayed Post-test
  - 6 target items
  - Example:
    - Statue of Liberty

- Version B: Immediate Post-test
  - 6 target items
  - Example:
    - Portal Dolmans
Oral Production Task (OPT)

- Pre-test, Post-test & Delayed Post-test
  - Picture-cued story-telling task
  - 5 target items
Analyses and Results

- High reliability levels: ECT, OPT, Cloze
- Multilevel Modeling
Growth Model: ECT
Growth Model: Cloze
Growth Model: OPT
Summary of results

- Both groups improved on:
  - Error correction task
  - Cloze task
  - Oral production task

- No advantages for isolated or integrated FFI on error correction or cloze task

- Advantages for integrated FFI on oral production task
Interpretation and next steps

- Advantages for integrated group on OPT
  - Previous L2 knowledge?

- Second study: Effects of integrated FFI on different types of L2 knowledge
  - A second measure of implicit L2 knowledge
Participants

- 107 intermediate-level adult learners of English
- Variety of L1 backgrounds & in full-time study
  - Instructed Group (n = 25)
  - Comparison Group (n = 17)
  - 37 learners completed all tests at all testing sessions
  - No differences in overall proficiency
## Instructed and Comparison Groups

<table>
<thead>
<tr>
<th>Instructed Group</th>
<th>Comparison Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 3 hours of instruction</td>
<td>• 3 hours of instruction</td>
</tr>
<tr>
<td>• Attention to target feature within communicative practice and meaning-based activities</td>
<td>• No attention to target feature</td>
</tr>
<tr>
<td>• Same experienced ESL teacher</td>
<td>• Focus on idiomatic expressions in meaning-based activities</td>
</tr>
<tr>
<td>• Free English language workshop in university-based ESL program</td>
<td>• Same experienced ESL teacher</td>
</tr>
<tr>
<td></td>
<td>• Free English language workshop in university-based ESL program</td>
</tr>
</tbody>
</table>
Measures of L2 Knowledge

Measures Taping L2 Implicit Knowledge

• Elicited Imitation Task (EI)
• Oral Production Task (OPT)

Measure Taping L2 Explicit Knowledge

• Error Correction Test (ECT)
Research Design

Day 1
3 hours
- Pretests
- Instruction
- EI, OPT & ECT

Day 2
3 hours
- Instruction
- Posttests
- EI, OPT & ECT

Day 3
1.5 hours
- Delayed Posttests
- EI, OPT & ECT

(1 wk later)
(2 wks later)
Error Correction Test (ECT)

• 30 items (24 target items & 6 distracters)

  e.g. Apples are picking in the fall.
  picked

• 2 versions (same items, different order)
OPT: Pre-test & Delayed Post-test

Immediate Post-test
Elicited Imitation Task

- 21 items
  - 7 grammatical, 7 ungrammatical, & 7 distracters
  - 7-13 syllables
- 2 versions: same items, different order
- Items from same pool as ECT
- Participants were asked: listen to an item, make a truth judgment, repeat the item they hear
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>True</td>
<td>False</td>
<td>Not sure</td>
</tr>
</tbody>
</table>
Please repeat now.
<table>
<thead>
<tr>
<th>True</th>
<th>False</th>
<th>Not sure</th>
</tr>
</thead>
</table>

Please repeat now.
## Coding and Scoring

<table>
<thead>
<tr>
<th>Measure</th>
<th>Accuracy</th>
<th>Interlanguage</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECT</td>
<td>Correct/Incorrect (0/1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Apples are picked in the fall. (1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Apples pick in the fall. (0)</td>
<td></td>
</tr>
<tr>
<td>OPT</td>
<td>Correct/Incorrect</td>
<td>Partial scoring</td>
</tr>
<tr>
<td></td>
<td>The package was sent to Toronto. (3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The package was sended /were sent to Toronto. (2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>He sent the package to Toronto. (1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The package sending to Toronto. (0)</td>
<td></td>
</tr>
<tr>
<td>EI</td>
<td>Correct/Incorrect (0/1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Healthy food is baked in oil. (1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Healthy food baked in oil. (0)</td>
<td></td>
</tr>
</tbody>
</table>
Data Analysis

- One-Way Repeated Measures ANOVA for:
  - Instructed Group
  - Comparison Group

- Separate ANOVA’s for each measure
  - ECT
  - OPT
  - EI
Results: ECT
Results: OPT
Results: El
Summary of results

Error Correction Task (ECT)
-- Both groups improved over time
-- No effects for instruction

Oral Production Task (OPT)
-- Both groups improved over time
-- Greater improvement for instructed group

Elicited Imitation Task (EI)
-- Both groups improved over time
-- Slightly greater improvement for instructed group
Interpretation

ECT findings >>>> No effects for instruction

………BUT!

OPT findings >>>> Effects for instruction

EI findings >>>>>> Effects for instruction
Nature of tasks: OPT and EI

Strong effects for instruction on the OPT

► Not a timed task
► Focus on meaning?

Some effects for instruction on EI

► Timed task
► Focus on meaning
Conclusion

Implicit learning takes time

Challenges of measuring type of L2 knowledge

Rapid & automatized access to explicit L2 knowledge

Implicit/Explicit >>>> Does it really matter?

More validation studies of L2 measures
Acknowledgements

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