The cognitive validity of repeating the input in second language listening assessment

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Overview

• Literature review
• Research questions
• Research methods
• Research design
Literature review (1)

• Repeating input improves test scores

• Repeating input decreases item discrimination
  (Fortune, 2004; Henning, 1991)

• Repeating input does not have any noticeable effects
  (Brindley & Slatyer, 2002)
Literature review (2)

Majority of studies
• Did not look at repetition alone
• Does repetition influence test scores or item discrimination?

However...

More relevant
• Effects of repetition on coverage of the listening construct
• Do test takers listen differently during first and second listening?
Literature review (3)

Field (2009)
• Focussed exclusively on repitition
• 18 students, if/why they checked answers and if/how they changed them during second listening, MCQ and gap fill task
• Many participants: second play to check answers, collocates and co-text
• Gap fill particularly benefits from second listening

Field (2013)
• refers to 2009 paper
• Test takers tend to use lower level processes during first listening and higher level processes during second listening
Literature review (4)

Novelty of study

• Linking listeners’ processes to pre-established models of second language listening

• Focus on test-specific behaviour (test-taking strategies)

→ cognitive validity (Weir, 2005)

• 3 different task types

• Combining qualitative data (processes and strategies) with quantitative data (test scores and affective measure)

• Eye-tracking

• Control condition
Listening processes

Lower level processes
- Input decoding
- Lexical search
- Parsing
- Meaning construction
- Discourse construction

Higher level processes

e.g. Field (2013)
Test-taking strategies


• Test-management strategies
timing, instructions, reading questions first, etc.

• Test-wiseness strategies
answering without understanding (e.g. KOW, grammar, etc.)
Research questions

1. Do listening test takers use different cognitive processes during the first and second hearing of a passage?

2. Does repeated input in listening assessment have an effect on the use of test-taking strategies?

3. Is there a difference in terms of item difficulty and item discrimination between once and twice listening?

4. What are test takers’ perceptions of the two different formats?
Research methods (1)

4 types of data

Study 1 (qualitative)
• Eye tracking
• Stimulated recall

Study 2 (quantitative)
• Test scores
• Questionnaire targeting affective responses

Listening processes
Test-taking strategies
Item difficulty/discrimination
Test-taker perceptions
Research methods (2)

Eye-tracking in listening?

• Eye-mind hypothesis
  • Strong evidence for inter-dependency of gaze position and attention for tasks involving saccades (e.g. Moore, Burrows, Armstrong, Schafer, & Chang, 2012, pp. 259–262)

• “Ear-eye-mind hypothesis”?
  • Visual world paradigm (Cooper, 1974; Allopenna, Magnuson, & Tanenhaus, 1998)
  • Testing situation more complex, however
    “[…] [W]e may only see the underlying simplicity of the system when we observe and model its behavior in complex situations.” (Salverda, Brown and Tanenhaus, 2011, p. 179)

• Eye-movements as stimuli for stimulated recall protocolls
Research design (1)

Tasks

• English listening section of Austrian school leaving exam

  • Multiple choice
  • Open format
  • Multiple matching
Research design (2)

**Multiple choice example**

John’s original intention was to be

A a short-term soldier.
B an army officer.
C a skilled mechanic.
D a pilot.

**Open format example**

The first Oxfam Walk took place ___.

So far the charity event has brought in ___.

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Multiple matching example

What does the Academy observe in players after their initial training?

What does the Academy try to prevent?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Toughness and creativity.</td>
</tr>
<tr>
<td>B</td>
<td>Pushing and rowdy behaviour.</td>
</tr>
<tr>
<td>C</td>
<td>The integration of all team members.</td>
</tr>
<tr>
<td>D</td>
<td>Determination and civilised behaviour.</td>
</tr>
</tbody>
</table>
Research design (4)

Participants
• Austrian students
• 7th form (academic upper secondary schools)
• 17 years old
• not too proficient, but already at B2
• N=30 (study 1)
• N=400 (study 2)
### Research design (5)

**Study 1 – qualitative**

<table>
<thead>
<tr>
<th></th>
<th>Condition 1 – listening once</th>
<th>Condition 2 – listening twice</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First listening</strong></td>
<td>Eye tracking</td>
<td>Eye tracking</td>
</tr>
<tr>
<td></td>
<td>Stimulated recall</td>
<td></td>
</tr>
<tr>
<td><strong>Second listening</strong></td>
<td>-</td>
<td>Eye tracking</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stimulated recall</td>
</tr>
</tbody>
</table>

- Analyse recalls and eye-movement metrics
# Research design (6)

## Counterbalancing

<table>
<thead>
<tr>
<th>Participants</th>
<th>Listening once</th>
<th>Listening twice</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-5</td>
<td>MCQ 1</td>
<td>MCQ 2</td>
</tr>
<tr>
<td>6-10</td>
<td>MCQ 2</td>
<td>MCQ 1</td>
</tr>
<tr>
<td>11-15</td>
<td>OF 1</td>
<td>OF 2</td>
</tr>
<tr>
<td>16-20</td>
<td>OF 2</td>
<td>OF 1</td>
</tr>
<tr>
<td>21-25</td>
<td>MM 1</td>
<td>MM 2</td>
</tr>
<tr>
<td>26-30</td>
<td>MM 2</td>
<td>MM 1</td>
</tr>
</tbody>
</table>
Research design (7)

Study 2 – quantitative

• 400 participants

<table>
<thead>
<tr>
<th>Participants</th>
<th>Listening once</th>
<th>Listening twice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1 (N=200)</td>
<td>MCQ 1</td>
<td>MCQ 2</td>
</tr>
<tr>
<td></td>
<td>MM 1</td>
<td>MM 2</td>
</tr>
<tr>
<td></td>
<td>OF 1</td>
<td>OF 2</td>
</tr>
<tr>
<td>Group 2 (N=200)</td>
<td>MCQ 2</td>
<td>MCQ 1</td>
</tr>
<tr>
<td></td>
<td>MM 2</td>
<td>MM 1</td>
</tr>
<tr>
<td></td>
<td>OF 2</td>
<td>OF 1</td>
</tr>
</tbody>
</table>

• Analyse test scores and affect questionnaire
Thank you for listening (once)!

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References (1)


References (2)


