THE EFFECT OF PLANNING ON ENGLISH L2 SPEAKERS’ INTEGRATED WRITING CAEL TEST PERFORMANCE

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INTEGRATED WRITING TASKS

- Requires use of information from at least one aural or written text
  - Summary of source text
  - Comment on source text
  - Use source text to support own ideas
- Similar to what writers do in academic settings (Cumming, 2013)

Widely used in L2 writing assessments (e.g., TOEFL, CAEL)
CHALLENGES OF INTEGRATED WRITING TASKS

Comprehension of source texts
• (Asención Delaney, 2008; Esmaeili, 2002; Plakans, 2009; Sawadki et al., 2013)

Identification of important ideas in sources
• (Plakans & Gebril, 2013)

Difficulty integrating source text information
• (Cammish, 1997; Cumming et al., 2005; Currie, 1998; Gebril & Plakans, 2014)
WRITING MODELS

Formulation
- Plan
- Translate idea - word

Execution
- Motor movements

Monitoring
- Reading
- Editing

Central Executive

Working Memory

Visuo-spatial

Phonological loop

(Kellogg, 1996)
FORMULATION (PLANNING AND TRANSLATING)

- Significant demands on working memory
- **Predictions**: Strategies that funnel central capacity will lead to increases in
  - Fluency
  - Overall quality
- No clear predictions on complexity
## DOES PLANNING HELP?

<table>
<thead>
<tr>
<th>Study</th>
<th>Subjects</th>
<th>Planning Conditions</th>
<th>Findings of pre-task planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ellis &amp; Yuan, 2004</td>
<td>42 Chinese EFL learners</td>
<td>(1) No planning; (2) Pre-task planning; (3) On-line planning</td>
<td>Increased fluency and syntactic complexity &amp; variety</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Limited impact on accuracy</td>
</tr>
<tr>
<td>Ong &amp; Zhang, 2010; 2013</td>
<td>107 Chinese EFL learners</td>
<td>(1) Extended (plan: 20m. + write: 10m); (2) Pre-task (plan: 10m + write: 20 m)</td>
<td>Negative impact on fluency and complexity</td>
</tr>
<tr>
<td>Johnson, et al, 2012</td>
<td>968 Spanish EFL learners</td>
<td>(1) Idea generation; (2) Organization group; (3) Goal setting; (4) Goal setting + organization</td>
<td>No benefits on lexical &amp; grammatical complexity; Limited impact on fluency</td>
</tr>
<tr>
<td>Johnson &amp; Nicodemus, 2016</td>
<td>Replication 90 L1 English Lang Arts</td>
<td>(1) Idea generation; (2) Organization group; (3) Goal setting;</td>
<td>No impact on any measures</td>
</tr>
</tbody>
</table>
WHAT WE DO NOT KNOW

- L2 writing research primarily focuses on independent writing tasks
  - Is there evidence that planning may be a useful strategy for cognitively more challenging tasks?

- Instructions on the Canadian Academic English Language Assessment (CAEL) encourages test takers to plan their written responses
  - Is there in fact empirical evidence that supports planning time in the context of assessment tasks?
PURPOSE OF THE STUDY

- RQ1: When given different planning instructions, how much time do English L2 university students take to plan and write CAEL integrated writing tasks?

- RQ2: Are there any differences in the texts written by students across the planning conditions?
  - Accuracy
  - Lexical diversity
  - Phrasal complexity
  - Syntactic complexity

- RQ3: Is there a relationship between planning time and text features?
METHOD: PARTICIPANTS

- **Writers:** 111 English L2 writers in EAP courses
- **Gender:** 68 women, 43 men
- **Mean age** = 22.5 (SD = 5.6)
- **Varied L1 backgrounds:**
  - Mandarin (41)
  - Arabic (20)
  - French (16)
  - Spanish (12)
  - Other (22)

- **Undergraduate degree programs:**
  - Business (50), Arts & Science (37), Engineering & computer science (20), Fine Arts (4)
- **Mean years of previous English study:** 8.9 (SD = 5.1)
- **Mean length of residence in Canada:** 17.5 months (SD = 20.2)
## Materials: CAEL Sample Test

**Writing task: ~45 minutes**

**Should governments invest money in and report long-range forecasts for weather and other geophysical events?**

**Using the information in the readings and the lecture**

<table>
<thead>
<tr>
<th>Reading 1: 25 minutes</th>
<th>Consequences of Long-Range Forecasting: Preparation or Panic</th>
<th>11 questions: multiple-choice; open-ended; cloze</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening 1: 20 minutes</td>
<td>Lecture format</td>
<td>Listening for details; Listening for main ideas</td>
</tr>
<tr>
<td>Reading 2: 30 minutes</td>
<td>Assessing the Economic Benefits of Improved Long-Range Weather</td>
<td>12 questions: multiple-choice; open-ended; cloze</td>
</tr>
</tbody>
</table>

**Listening 1: 20 minutes**

**Lecture format**

**Reading 2: 30 minutes**

**Assessing the Economic Benefits of Improved Long-Range Weather**

**Writing task: ~45 minutes**

**Should governments invest money in and report long-range forecasts for weather and other geophysical events?**

**Using the information in the readings and the lecture**
### 3 Planning Conditions

<table>
<thead>
<tr>
<th>Suggested planning</th>
<th>Fixed-time required planning</th>
<th>Self-timed required planning</th>
</tr>
</thead>
</table>
| • Current CAEL instructions  
  • Planning:  
    • Suggested 15 min  
  • Writing:  
    • Suggested 30 min | • Planning:  
    • Mandatory 15 min  
  • Writing:  
    • Maximum of 30 min | • Planning:  
    • Suggested 15 min  
  • Writing:  
    • Maximum of 30 min |
PROCEDURE

Reading + listening (75 minutes)

Planning + Writing (~45 minutes)

Background questionnaire (~10 minutes)

Writing anxiety & self-efficacy questionnaire (~20 minutes)

Post-writing interview (10 minutes)
ANALYSIS OF WRITTEN TEXTS

Length
- Total words

Accuracy
- Number of spelling errors
- Number of errors
  - Hand coded following Polio & Shea, 2014

Lexical diversity
- VocD
  - Coh-metrix

Syntactic & Phrasal Complexity measures
- Mean length sentence
- Coordinated phrases/clauses
- Dependent clauses/clauses
- Complex nominals per clause
  - Lu’s Syntactic Complexity Analyzer

Accuracy
- Number of spelling errors
- Number of errors
RQ1: How much time do English L2 university students take to plan and write their texts?

<table>
<thead>
<tr>
<th>Condition</th>
<th>Plan Mean</th>
<th>Plan SD</th>
<th>Write Mean</th>
<th>Write SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suggested planning (n = 37)</td>
<td>*9.5</td>
<td>4.7</td>
<td>25.8</td>
<td>5.1</td>
</tr>
<tr>
<td>Required, Fixed time (n = 38)</td>
<td>11.9</td>
<td>3.6</td>
<td>24.6</td>
<td>5.5</td>
</tr>
<tr>
<td>Required, Self-timed (n = 36)</td>
<td>12.1</td>
<td>2.9</td>
<td>27.1</td>
<td>3.7</td>
</tr>
</tbody>
</table>
- RQ2: Differences in the texts written by students across the planning conditions?
  - Text length & accuracy

<table>
<thead>
<tr>
<th>Condition</th>
<th>Words</th>
<th>Spelling errors/words</th>
<th>Other errors/words</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Suggested planning</td>
<td>232.5</td>
<td>45.1</td>
<td>.01</td>
</tr>
<tr>
<td>Required, Fixed time</td>
<td>247.8</td>
<td>62.5</td>
<td>.02</td>
</tr>
<tr>
<td>Required, Self-timed</td>
<td>243.6</td>
<td>47.8</td>
<td>.02</td>
</tr>
</tbody>
</table>
RQ2: Differences in the texts written by students across the planning conditions?

- Lexical diversity

<table>
<thead>
<tr>
<th>Condition</th>
<th>VocD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suggested planning</td>
<td>91.8 (24.3)</td>
</tr>
<tr>
<td>Required, Fixed time</td>
<td>83.5 (27.1)</td>
</tr>
<tr>
<td>Required, Self-timed</td>
<td>87.9 (22.4)</td>
</tr>
</tbody>
</table>
RQ2: Differences in the texts written by students across the planning conditions?

- Syntactic & phrasal complexity

<table>
<thead>
<tr>
<th>Condition</th>
<th>Mean length sentence</th>
<th>Coordinate phrases / clause</th>
<th>Dependent clauses / clause</th>
<th>Complex nominals / clause</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suggested planning</td>
<td>19.8 (5.2)</td>
<td>.4 (.3)</td>
<td>.4 (.1)</td>
<td>1.3 (.4)</td>
</tr>
<tr>
<td>Required, Fixed time</td>
<td>19.2 (4.2)</td>
<td>.4 (.2)</td>
<td>1.3 (4.5)</td>
<td>1.3 (.4)</td>
</tr>
<tr>
<td>Required, Self-timed</td>
<td>18.9 (3.3)</td>
<td>.4 (.2)</td>
<td>.3 (.1)</td>
<td>1.3 (.3)</td>
</tr>
</tbody>
</table>
RQ3: Is there a relationship between planning time and text features?

- **Accuracy**
  - Spelling errors/words: $r = -0.25$

- **Syntactic complexity**
  - Coordinated phrases per clauses: $r = -0.35$

- **Phrasal complexity**
  - Complex nominals per clause: $r = -0.22$
DISCUSSION: SUMMARY

L1 writing
- Fluency
- Complexity

L2 writing
- Fluency: Limited
- Complexity: No

Current study
- Accuracy
- Positive
- Complexity: No
CAEL instructions - suggest 15 minutes to plan

**Present study:** Requiring or suggesting 15 minutes to plan does not seem to impact writer’s practices
- Required, fixed time: 21/38 spent at least 13 minutes (55%)
- Required, self timed: 19/36 (53%)
- Suggested time: 10/37 (27%)

Previous research - 10 min provides ample pre-task planning (Ellis & Yuan, 2004; Johnson, et al., 2012)

What motivates learners to promptly begin the writing process?
- Desire to start writing or concern about running out of time?
Current results – positive relationship between accuracy and planning time

Next step is to examine band scores across three groups

- If planning benefits accuracy AND is associated with higher band scores = **Consider implementing stricter rules for planning**
Not quantity of time, but quality of planning?
- Future analysis of their notes and the interview data
- Qualitative study of planning notes (Ojima, 2006)

No impact on text features, but ability to use source text more judiciously
- RQ to explore further: Does planning time impact quantity and quality of source text?
- Future analysis using source text use rubrics in development (Neumann, Leu, & McDonough)
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