Student writings as modeling examples?

Examining effects of example-based learning activities on academic writing

Olga Firsova*, Monique Bijker, Saskia Brand-Gruwel en Henny P. Boshuizen

Example-based learning can be an effective instrument for strategy development as was shown in a variety of domains and for learners of different levels(1). Do these findings hold for complex writing tasks?

This study examines if and how analyzing peer writings in a new academic genre helps enhance the quality of produced texts. Studying examples of writing with or without instructional prompts is compared to learning by doing, that is, writing.

Method

<table>
<thead>
<tr>
<th>Group</th>
<th>Treatment</th>
<th>T2</th>
<th>T3</th>
<th>Control variables</th>
<th>Target variables</th>
<th>Control variables</th>
<th>Target variables</th>
<th>Control variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>R m=20</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R n=20</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Historical controls</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R m=20</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R n=20</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Historical controls</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Participants

Students of a 4,3 EC course of a distance education masters’ in Educational Science (n=60).
Age: 25-55. 60% females. Professional background in education. Participants are assigned to the conditions based on course enrolment dates, experimental conditions are counterbalanced.

Instruments

The quality of writing is assessed with a rubric (10 course-based academic writing assessment criteria measured on a 5-point Likert scale) validated through Rasch rating scale model analysis(2). Self reported time on task; perceived mental effort scales(3). Writing strategy questionnaire(4).

Planned analysis and first results

Writing quality measure: Rasch rating scale model analysis of course-based academic writing assessment rubric (10 criteria) was performed in Winsteps(5) on a corpus (n=258) of student reviews (figure 1).
Rasch rating scale model analysis confirmed unidimensionality of the assessment scale (Cronbach α = .89). The ordinal scale was transformed into an interval measure for persons and items

First results: So far, 32 participants active.
Preparatory task: indications of differences in self-reported strategies and reflections on the example-based task between the groups. “Examples with prompts” steer self-efficacy, “examples without prompts” lead to deeper analyses, possible effects on writing are not clear.

Planned analysis: Repeated measures ANOVA (GLM 4); near and far effect on performance, mental effort and time on task.

References