Examining the Roles of Fluency and Memory Beliefs in Participants’ Encoding Strategies, Judgments of Learning, and Memory Performance

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**Abstract**
We investigated fluency and memory beliefs’ roles in the font-size effect using a 5 x 3 x 2 (Condition x Block x Font size) mixed design. We manipulated collection of strategy reports and use of a pre-experiment strategy questionnaire to investigate the role of encoding strategies in the font-size effect. Biasing instructions suggesting small/large fonts are more memorable were provided in two of the conditions to examine whether altering participants’ memory beliefs would impact their judgments of learning (JOLs). Instructions did not alter JOLs. Participants provided higher JOLs to large font than to small fonts in all conditions, but font size did not impact recall performance. Results further suggest that using the strategy questionnaire and collecting strategy reports may alter metamemory awareness and that encoding strategies may influence the role of font size in learners’ JOLs. Overall, the results suggest that fluency plays a key role in the font-size effect.

**Method**

**Participants**
- 238 UAH students ($M_{age} = 19.87$, $SD = 3.70$), 62% female

**Design**
- 5 (Condition: Small instructions, Large instructions, Control, Control no strategy report, Control no strategy report/ no PEP-1) x 3 (Block: 1, 2, 3) x 2 (Font size: 18 pt., 48 pt.) mixed design
  - Within subjects: Block, Font size
  - Between subjects: Condition

**Materials**
- 72 word pairs (24 per block), with font size randomly assigned to word pairs 
  - Item-level strategy reports: collected in the Small instructions, Large instructions, and Control conditions.
  - PEP-1 and 2: used in Small instructions, Large instructions, Control, and Control no strategy report conditions. The PEP-2 was used in the Control no strategy report/PEP-1 condition.

**Procedure**

**Small instructions, Large instructions, and Control**

**Control no strategy report & Control no strategy report/ no PEP-1**

**JOLs**

**Recall**

**Discussion**

- JOLs were higher for large font than for small font items, with no difference in JOLs for effective and ineffective encoding strategies.
- There was no difference in recall based on font size, but recall was higher for items studied with effective strategies than for items studied with ineffective strategies.
- There seems to be a combination of fluency and memory beliefs at play.

**References**


