Poster 12

DO PROMPTS WORK? EXPERIMENTAL INSIGHTS INTO METACOGNITIVE SUPPORT IN DIGITAL LEARNING

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INTRODUCTION:

Digital learning environments require students to assume an active role in managing their own learning processes, positioning **Self-Regulated Learning (SRL)** as a central competence in higher education [9, 13]

Encompasses the coordinated processes of: [14]

01 Planning
02 Monitoring
03 Self-reflection

Consistently associated with improved academic performance [9]

NEVERTHELESS

Many students fail to apply these strategies spontaneously or effectively [7]

Metacognitive prompts are brief instructional cues, such as questions, suggestions, or reminders, designed to direct learners' attention toward key regulatory processes. [12]

What mechanisms can be employed to support SRL ?

Empirical evidence on the effectiveness remains inconclusive, so **what factors may compromise learning outcomes?** [9,10]

Individual characteristics:

- **Self-efficacy** [4]
- **Metacognitive strategies** [3]
- **Metamemory** [1]

METHOD:

Within-subjects design, with counterbalancing to minimize order and learning effects.

Sample:

University Portuguese Students (≥18 YO)

Vision or hearing difficulties that could affect the perception of the task materials

	W/PROMPT		W/O PROMPT
Condition 1	VIDEO A	+	VIDEO B
Condition 2	VIDEO B	+	VIDEO A
	W/O PROMPT		**W/PROMPT**
Condition 3	VIDEO A	+	VIDEO B
Condition 4	VIDEO B	+	VIDEO A

INSTRUMENTS AND TASK (CONDITION 1 EXAMPLE)

Procedure

1. Informed consent
2. Task explanation
3. Sociodemographic questionnaire
4. GSE [2]
5. MSLQ (Metacognitive sub scale) [11]
6. MMQ (Satisfaction sub scale) [5]

Task: two multimedia learning sessions (approximately 10 minutes each)

Video A (W/Prompt) → Multiple-choice knowledge tests → Video B (W/O Prompt) → Multiple-choice knowledge tests

1 → 2 → 3 → 4

Pre-task planning metacognitive prompt
"What strategies can you use to better understand the content?"

Mid-task monitoring metacognitive prompt
"Are you managing to apply the strategies previously defined?"

Post-task reflection metacognitive prompt
"Were the strategies effective? What were the most relevant points in this video?"

EXPECTED RESULTS:

1. Students exposed to metacognitive prompts are expected to show higher learning outcomes. [6]
2. Students with higher self-efficacy are expected to show smaller gains from the prompts. [4,8]
3. Students who already use more metacognitive strategies are expected to benefit more from the prompts. [3]

REFERENCES: