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**Positioning of Clarification Features in Open Frequency
and Open Narrative Questions**

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Positioning of Clarification Features in Open Frequency and Open Narrative Questions

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Background

- Open ended questions in self-administered surveys

- lack of interviewer assistance
- no predefined response options for orientation



Clarification features improve survey responses by conveying additional information

- Basic problem:

- Effects of clarification features often suffer from limited attention



Attention-enhancing efforts

Previous Findings (1/2)

Design of clarification features:

1. Accessibility:

- Respondents do not always realize their need for clarification
(Kunz & Fuchs, 2012)
- Respondents are not willing to involve a lot of effort obtaining clarification features
(Conrad et al., 2006; Conrad, 2007; Galesic et al., 2008; Peytchev et al., 2010)



Clarification features should be always visible

(Galesic et al., 2008; Peytchev et al., 2010).

Previous Findings (2/2)

Design of clarification features:

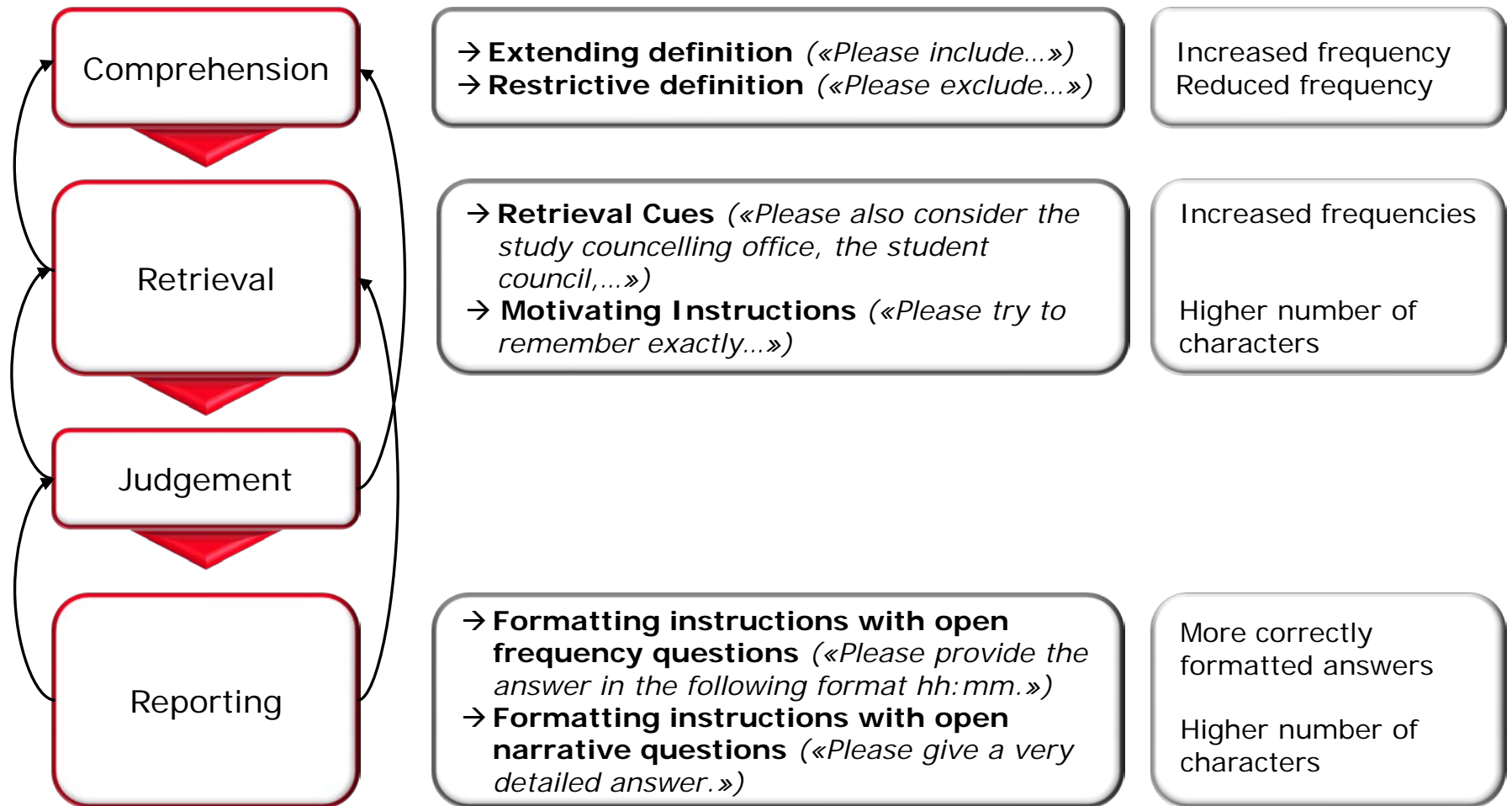
2. Position:

- Before the question (Redline, 2013)
- After the question (Christian & Dillman, 2004; Dillman, 2007; Peytchev et al., 2007)
- Clarification feature positions depend on the respective processing stage (Kunz & Fuchs, 2012)
 - Definitions for key terms: before the question
 - Retrieval cues & motivating instructions: before or after the question
 - Formatting instructions: after the question or after the answer box

Research Questions

1. Do clarification features affect survey responses of open narrative and open numeric questions?
2. Does the position of clarification features affect survey responses?
3. Does the effect of the position of clarification features depend on the cognitive stage addressed by the instruction?

Question Answer Process



Positioning of Clarification Features



EG1 Please try to remember exactly every situation and the approximately duration, how long each situation continued.
Consider this while thinking about your answer.

CG **In which situations during the winter semester 2013/14 did you feel very stressed?**

EG2 Please try to remember exactly every situation and the approximately duration, how long each situation continued.
Consider this while thinking about your answer.

EG3 Please try to remember exactly every situation and the approximately duration, how long each situation continued.
Consider this while thinking about your answer.

Next

Survey Methods

	Study 1	Study 2	Study 3	Study 4
Sample:	university applicants (n=5,977)	university applicants (n=7,395)	university freshmen (n=1,696)	university applicants (n=5,996)
Field phase:	July/August 2012	July/August 2013	Feb/March 2014	July/August 2014
Topic:	Qualification and expectation of university applicants		Satisfaction with the university and the subject of study	Qualification and expectation of university applicants
Response Rate:	32%	40%	26%	35%
Study Design:	Between subjects design with random assignment			
No. of Questions:	42	37	25	42

Results

Stage I: Comprehension

Extending Definition – numeric answers

Experimental condition	University Applicants 2012		University Applicants 2013	Freshmen 2013/14	University Applicants 2014
	School activities	Communication with classmates	School activities	Study activities	Study activities
	mean (hours)	mean (hours)	mean (hours)	mean (hours)	mean (hours)
No Definition (CG*)	7 ^{a/b/c}	2 ^{a/b/c}	24 ^{a/b/c}	28 ^{b/c}	25 ^{a/b/c}
Before Question (EGa)	25 ^{*/b/c}	11 ^{*/b/c}	32 ^{*/b/c}	29 ^c	33 ^{*/b/c}
After Question (EGb)	35 ^{*/a}	18 ^{*/a}	40 ^{*/a}	31 [*]	39 ^{*/a}
After Answer Box (EGc)	32 ^{*/a}	17 ^{*/a}	40 ^{*/a}	32 ^{*/a}	39 ^{*/a}

Notes. ^{*/a/b/c} $p < .05$ pairwise post-hoc tests between all experimental conditions

Results

Stage I: Comprehension

Restrictive Definition – numeric answers

Experimental condition	University Applicants 2012		University Applicants 2013	Freshmen 2013/14	University Applicants 2014
	Friends	Computer and Internet usage	Computer and Internet usage	Money	Computer and Internet usage
	mean (count)	mean (hours)	mean (hours)	mean (euros)	mean (hours)
No Definition (CG*)	7	16 ^{a/b/c}	17 ^{a/b/c}	384 ^{a/b/c}	18 ^b
Before Question (EGa)	7	10 ^{*/b}	16 ^{*/b}	236 ^{*/b}	18 ^b
After Question (EGb)	6	9 ^{*/a}	15 ^{*/a/c}	191 ^{*/a}	16 ^{*/a/c}
After Answer Box (EGc)	6	10 [*]	16 ^{*/b}	220 [*]	18 ^b

Notes. ^{a/b/c} $p < .05$ pairwise post-hoc tests between all experimental conditions

Results

Stage II: Retrieval

Retrieval Cues – numeric and narrative answers

Experimental condition	University Applicants 2012		University Applicants 2013	Freshmen 2013/14	University Applicants 2014
	Bodily impairments	Information sources	Information sources	Reasons for studying	Challenges
	mean (count)	mean (count)	mean (count)	mean (count)	mean (count)
No Definition (CG*)	0.4 ^{a/b/c}	2.6 ^{a/b/c}	1.7 ^{b/c}	1.6 ^{a/b/c}	2.2 ^{a/b/c}
Before Question (EGa)	1.2 ^{*/b/c}	2.8 ^{*/b/c}	1.8 ^b	1.9 ^{*/b}	2.4 ^{*/b/c}
After Question (EGb)	2.2 ^{*/a}	3.1 ^{*/a}	2.0 ^{*/a/c}	2.2 ^{*/a}	2.9 ^{*/a}
After Answer Box (EGc)	2.4 ^{*/a}	3.0 ^{*/a}	1.9 ^{*/b}	2.1 [*]	2.9 ^{*/a}

Notes. ^{*/a/b/c} $p < .05$ pairwise post-hoc tests between all experimental conditions

Results

Stage II: Retrieval

Motivating Instruction – narrative answers

Experimental condition	University Applicants 2012		University Applicants 2013	Freshmen 2013/14	University Applicants 2014
	Reasons for studying	Situations of stress	Situations of stress	Situations of stress	Situations of stress
	mean (characters)	mean (characters)	mean (characters)	mean (characters)	mean (characters)
No Definition (CG*)	128 ^{a/b/c}	86 ^{a/b/c}	87 ^{a/b/c}	71 ^{a/b/c}	106 ^{a/b/c}
Before Question (EGa)	150 ^{*/b/c}	108 ^{*/b/c}	101 ^{*/b/c}	97 ^{*/b}	127 ^{*/b}
After Question (EGb)	170 ^{*/a}	155 ^{*/a/c}	125 ^{*/a}	132 ^{*/a/c}	148 ^{*/a}
After Answer Box (EGc)	166 ^{*/a}	130 ^{*/a/b}	116 ^{*/a}	109 ^{*/b}	135 [*]

Notes. ^{*/a/b/c} $p < .05$ pairwise post-hoc tests between all experimental conditions

Results

Stage IV: Formatting

Formatting Instruction – numeric answers

Experimental condition	University Applicants 2012		University Applicants 2013	Freshmen 2013/14	University Applicants 2014
	Extracurricular activities (hh:mm)	Decision to study (MM.YYYY)	Decision to study (MM.YYYY)	Extracurricular activities (hh:mm)	Decision to study (MM.YYYY)
	correctly formatted (%)	correctly formatted (%)	correctly formatted (%)	correctly formatted (%)	correctly formatted (%)
No Definition (CG*)	0 ^{a/b/c}	3 ^{a/b/c}	24 ^{a/b/c}	0 ^{a/b/c}	29 ^{a/b/c}
Before Question (EGa)	32 ^{*/b/c}	69 ^{*/b/c}	65 ^{*/b/c}	27 ^{*/b/c}	67 ^{*/b/c}
After Question (EGb)	55 ^{*/a/c}	77 ^{*/a}	81 ^{*/a/c}	59 ^{*/a}	82 ^{*/a}
After Answer Box (EGc)	49 ^{*/a/b}	77 ^{*/a}	86 ^{*/a/b}	52 ^{*/a}	85 ^{*/a}

Notes. ^{*/a/b/c} $p < .05$ pairwise post-hoc tests between all experimental conditions

Results

Stage IV: Formatting

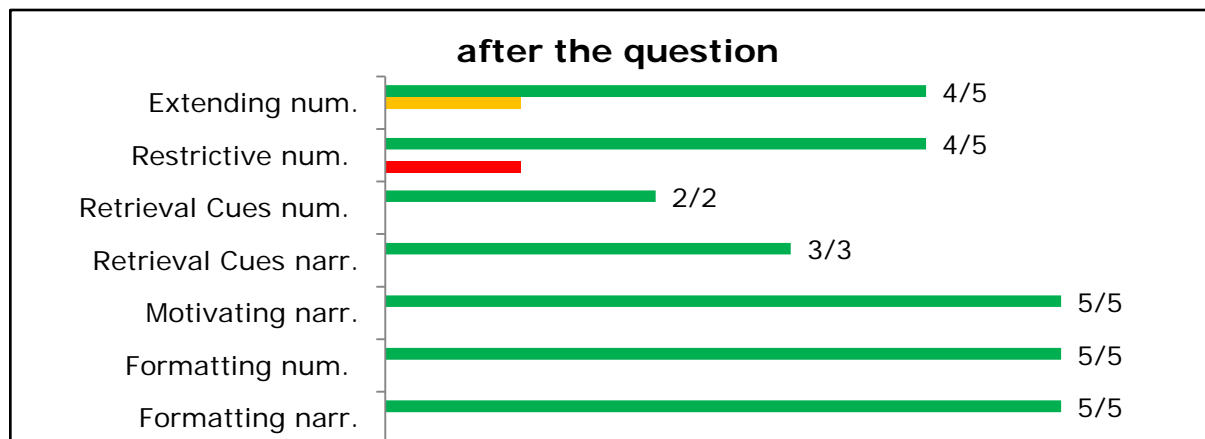
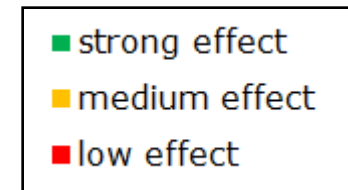
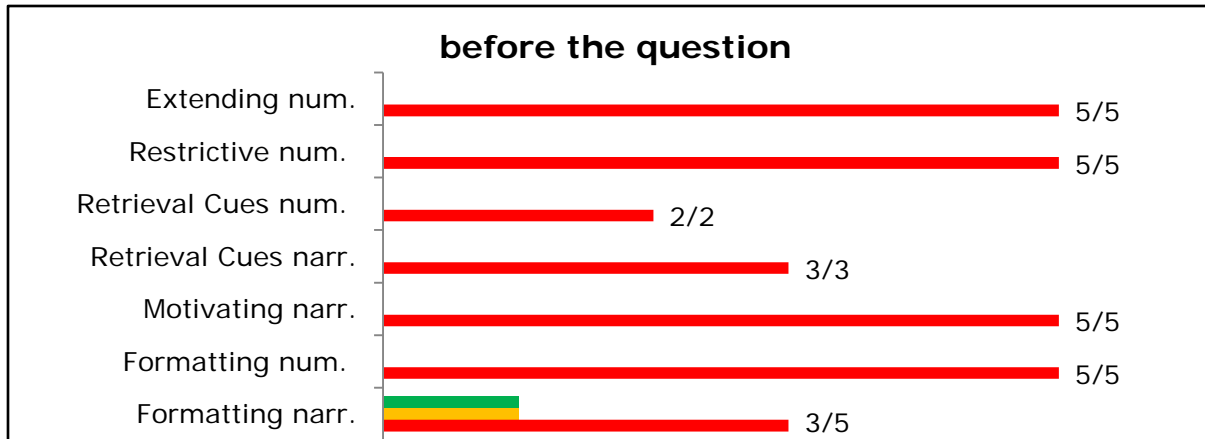
Formatting Instruction – narrative answer

Experimental condition	University Applicants 2012		University Applicants 2013	Freshmen 2013/14	University Applicants 2014
	Study expectations	Experiences of success	Reasons for studying	Orientation for freshmen (one keyword)	Reasons for studying
	mean (characters)	mean (characters)	mean (characters)	correctly formatted (%)	mean (characters)
No Definition (CG*)	114 ^{a/b/c}	113 ^{a/b/c}	111 ^{a/b/c}	62 ^{a/b/c}	106 ^{a/b/c}
Before Question (EGa)	164 ^{*/b}	150 ^{*/b}	184 ^{*/b/c}	81 [*]	160 ^{*/b/c}
After Question (EGb)	189 ^{*/a/c}	186 ^{*/a/c}	213 ^{*/a/c}	79 [*]	212 ^{*/a/c}
After Answer Box (EGc)	176 ^{*/b}	148 ^{*/b}	157 ^{*/a/b}	79 [*]	185 ^{*/a/b}

Notes. ^{*/a/b/c} $p < .05$ pairwise post-hoc tests between all experimental conditions

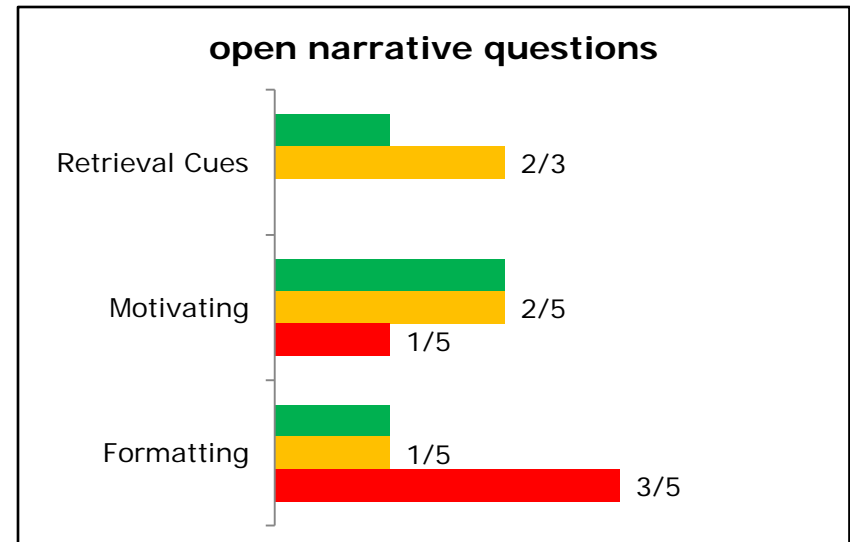
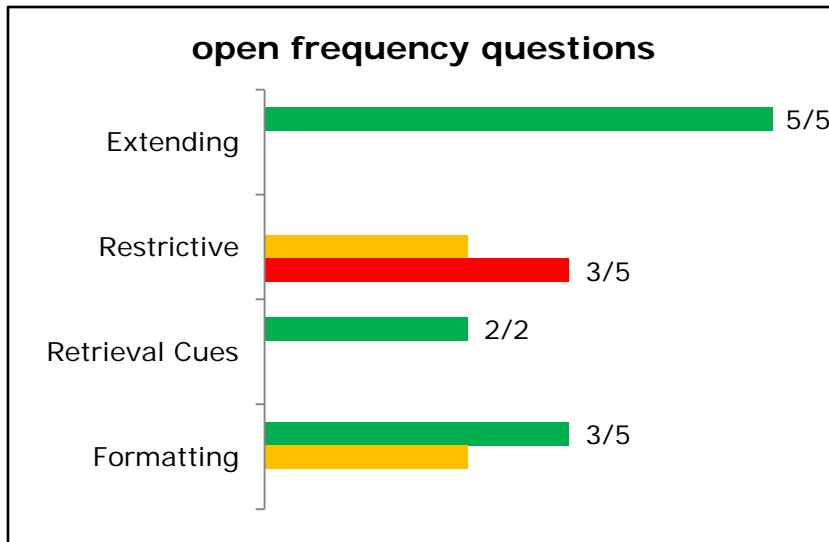
Results

Summary (EG1 & EG2)



Results Summary (EG3)

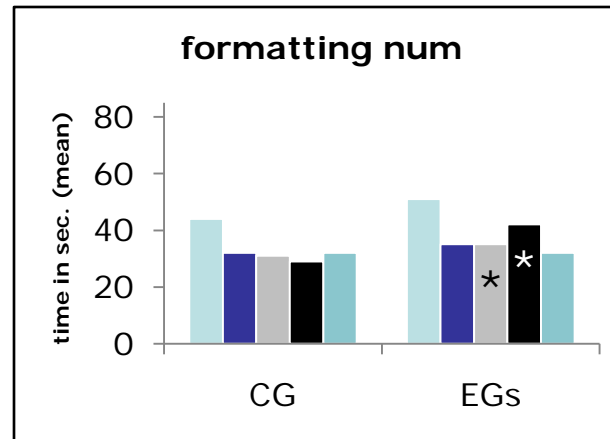
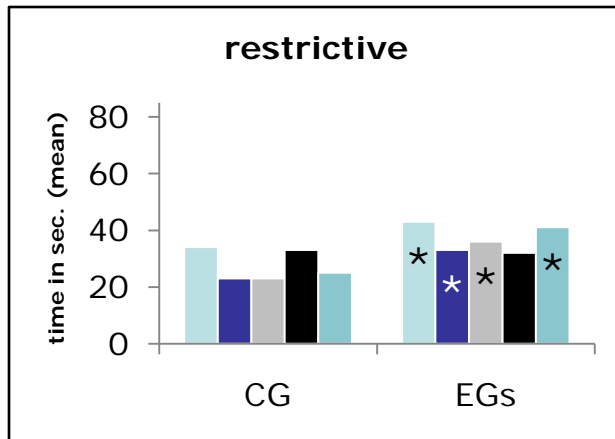
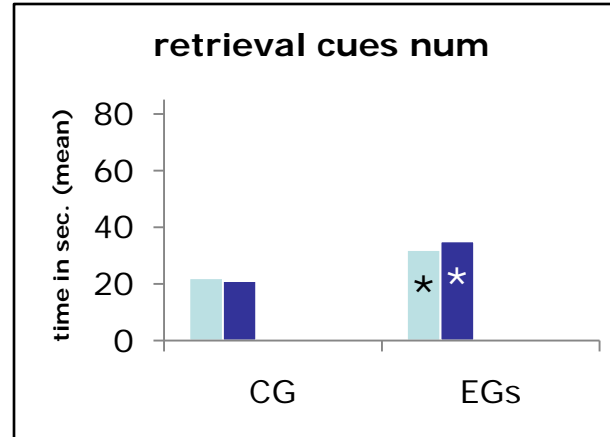
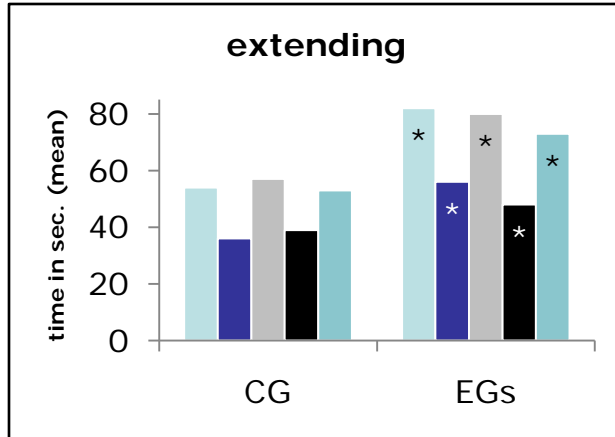
after the answer box



■ strong effect ■ medium effect ■ low effect

Results

Time



- Study 1 (Exp.A)
- Study 1 (Exp.B)
- Study 2
- Study 3
- Study 4

Notes. F-Test: control group vs. experimental groups: * $p < .05$

Conclusion

- Clarification features are considered by respondents regardless of their position.
- Respondents rather incorporate clarification features into the question-answer process if they are placed after the question.
 - Clarification features positioned after the question maximize the effectiveness.
- The optimal position does not depend on the cognitive stage of the question-answer process.
- If the position after the response options can be similar effective as the position after the question requires further research.
- Clarification features should not be positioned before the question.



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Thank you.

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