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# Communicative Channels, Cognitive Processing, and Question Understanding

Results from a field-experiment with the  
in a video-enhanced Web survey

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# Introduction

## Befragung zu Partnerschaft, Beziehung und Sexualität

In einer Beziehung ist mir Geborgenheit sehr wichtig.  
Inwieweit trifft diese Aussage für Sie zu?  
Antworten Sie bitte anhand der Skala. Der Wert 1 bedeutet, dass die Aussage für Sie voll und ganz zutrifft, der Wert 7 bedeutet, dass die Aussage für Sie überhaupt nicht zutrifft. Mit den Werten dazwischen können Sie Ihre Meinung abstufen.

trifft voll und ganz zu												trifft überhaupt nicht zu
1		2		3		4		5		6		7
<input type="radio"/>		<input type="radio"/>		<input type="radio"/>		<input type="radio"/>		<input type="radio"/>		<input type="radio"/>		<input type="radio"/>

weiter

zurück

Status: 11 % geschafft

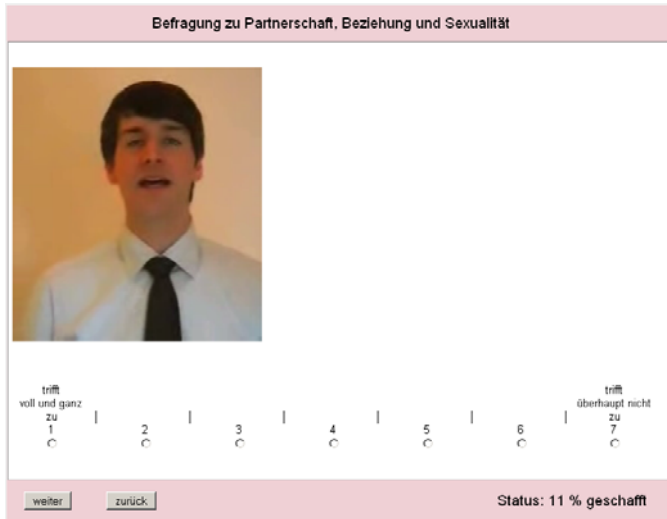
# Introduction

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- ... reading on the Web is about 25% slower
- ... respondents feel the need to move on, to click on a button or link
- ... they are distracted by navigational tasks

# Introduction

Befragung zu Partnerschaft, Beziehung und Sexualität



trifft voll und ganz zu 1 | 2 | 3 | 4 | 5 | 6 | 7 | trifft überhaupt nicht zu

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Befragung zu Partnerschaft, Beziehung und Sexualität

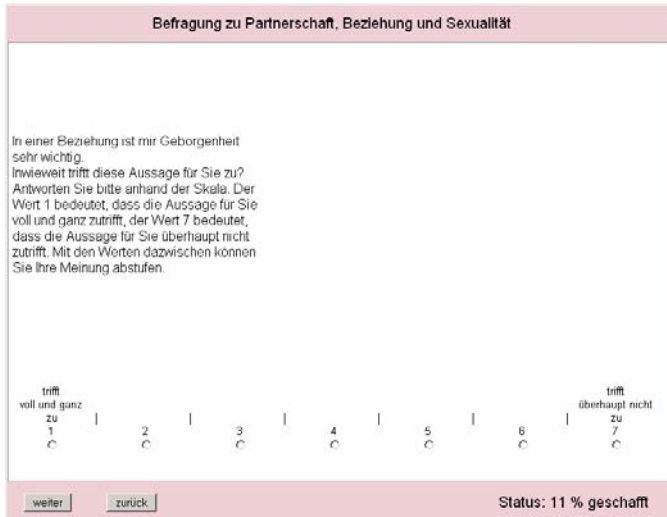


trifft voll und ganz zu 1 | 2 | 3 | 4 | 5 | 6 | 7 | trifft überhaupt nicht zu

weiter zurück Status: 13 % geschafft

Befragung zu Partnerschaft, Beziehung und Sexualität

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trifft voll und ganz zu 1 | 2 | 3 | 4 | 5 | 6 | 7 | trifft überhaupt nicht zu

weiter zurück Status: 11 % geschafft

- Text, male and female
- Layout kept constant
- Same location for text and video
- Response scales identical

# Introduction

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- We feared

- Social presence
- Social desirability
- Underreporting of sensitive issues

- No evidence

- Social presence not higher (measurement problem?)
- Social desirability not higher
- Moderate gender-of-interviewer effects

# Hypotheses

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- $H_1$

Respondents pay more attention to questions if they hear them (instead of reading them)

- $H_2$

The change from reading to listening shifts the respondents' attention from early parts of a question stem to the final part of a question

# Methods

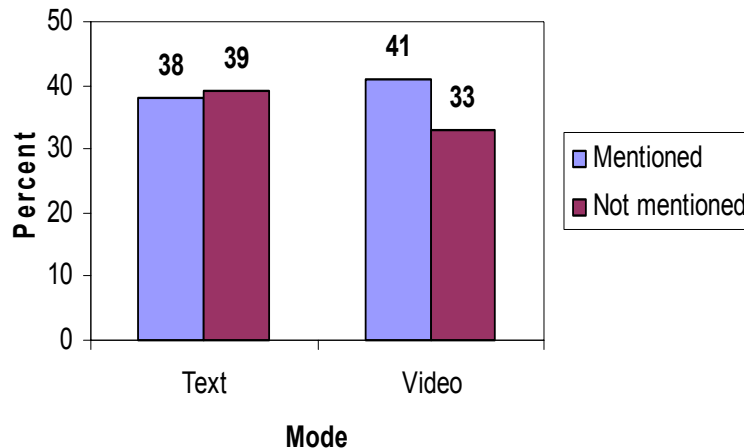
- Universe
  - Student online access panel at the University of Kassel, Germany
  
- Sample
  - N = 1.148 (880 for this experiment)
  - Response rate (within the panel): 49%
  
- Field work
  - Summer 2007, e-mail invitation and 2 reminders
  - Incentive: lottery drawing of book vouchers
  
- Experiment
  - Text vs. video/male vs. female
  - Between subjects design
  
- Fuchs/Funke 2007, 2008

Version	Part 1 of questionnaire			Part 2 of questionnaire		
1		Male	+			+
2	Video	Male	-	Text		-
3		Female	+			+
4		Female	-			-
5			+			Male
6	Text		-	Video	Male	-
7			+		Female	+
8			-		Female	-
9			+			Male
10	Video	Male	-	Video	Male	-
11		Female	+		Female	+
12		Female	-		Female	-
13			+			
14	Text		-	Text		-

# Results

Version A	Introduction to questionnaire section: .... <b>anal sex is quite common</b> ... introduction ...	How often have you performed anal sex?
Version B	Introduction to questionnaire section: .... introduction ...	How often have you performed anal sex?

Percent ever performed anal sex



- Experiment on priming
  - In the introduction the questionnaire module anal sex has been mentioned as “quite common”
- Text mode
  - No effect
- Video mode
  - Social desirability
  - Statement in introduction is recognized
  - Information more salient

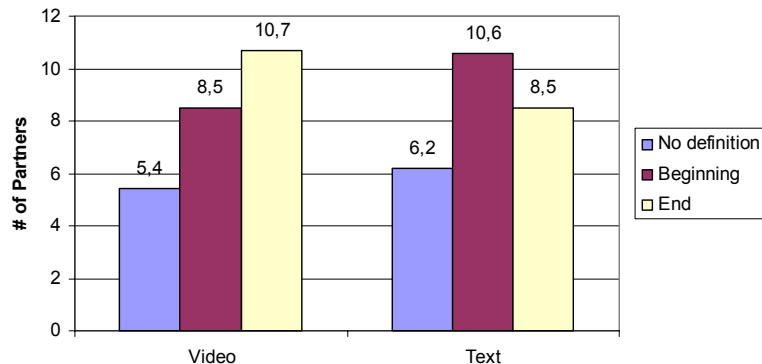


# Results

Version A	How many sexual partners did you have so far?
Version B	How many sexual partners did you have so far? <b>By sexual partner we mean ...</b>
Version C	<b>By sexual partner we mean ...</b> How many sexual partners did you have so far?

- Definition of “sex partner”
  - Should increase the reported number since included not only intercourse
- Definition either at beginning or end of question

Number of Livetime Sex Partners



- Social Desirability
- Text mode
  - Definition is recognized at beginning of question
- Video mode
  - Information is recognized at end of question

## Summary

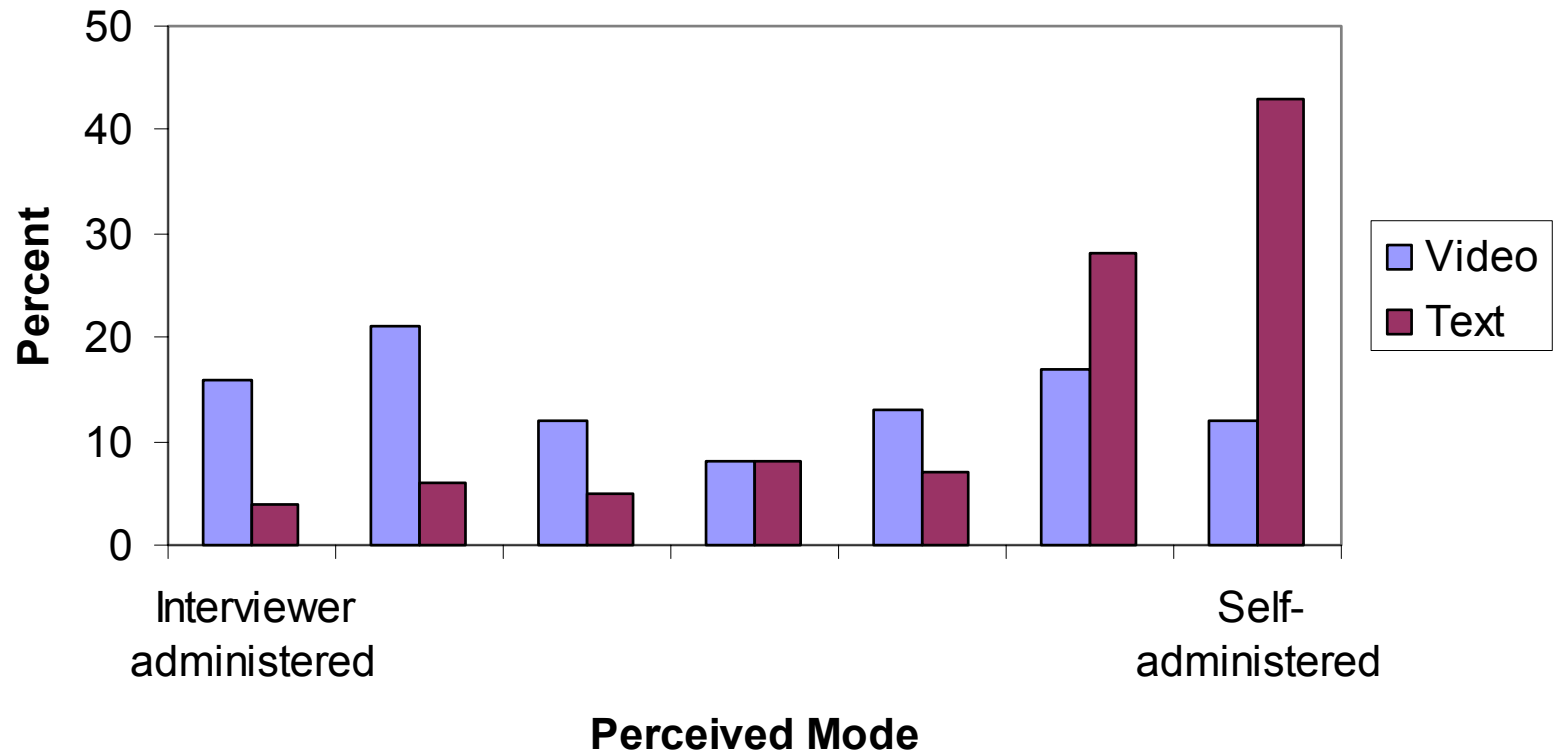
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- Video: Respondents pay more attention to information provided in the questionnaire
- Video: underreporting -> social desirability
- Video: resembles interviewer-administration; later parts of the question text receive more attention

# Discussion

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## Perception of Survey



## ■ Implications

- Social presence (video channel) and improved question understanding (audio channel) counterbalance each other
  - Seems to apply to a lengthy introduction as well as to a short question
  - Works only if respondents listened to the questions till its end
- Revision of earlier results indicating no difference in social presence and social desirability

## ■ Caveats

- 1 introduction and 1 question only
- Student population restricts generalization
- Backchannel is keyboard and mouse only

## ■ Next steps

- Less sensitive questions
- „Choose your interviewer“
- Avatar or animated agent

End

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Thank you!

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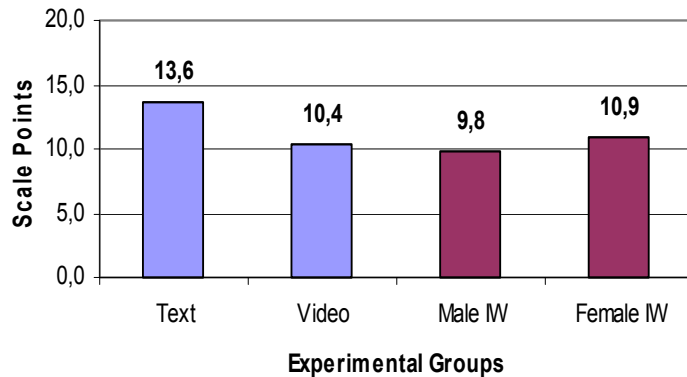
Video channel

Social co-presence

Social desirability

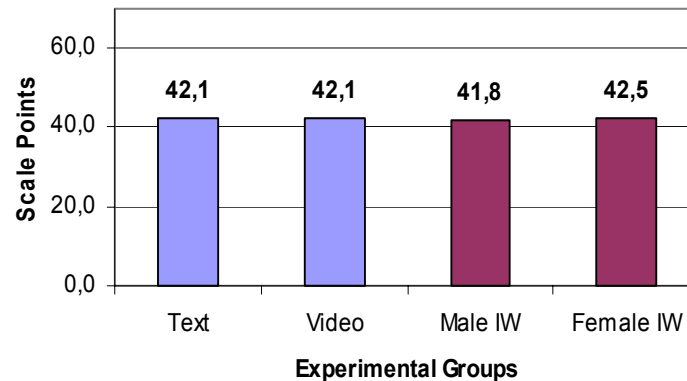
# Video

**Social Co-Presence**



- Social co-presence higher in text mode (!)

**Social Desirability Scale**



- Social desirability does not differ



# Video

	<b>Video version</b>	<b>Text version</b>	<b>Total</b>	
<b>Sexual behaviors</b>				
Homoerotic fantasies	62%	64%	63%	n. s.
Porn material	91%	94%	93%	+
Imagined someone other than the person you were having sex with	61%	62%	62%	n. s.
Masturbation	95%	94%	94%	n. s.
Oral sex (active)	89%	85%	87%	n. s.
Anal sex	37%	39%	38%	n. s.
Sex with more than one partner at a time	9%	11%	10%	n. s.
Frotteurismus	12%	15%	13%	n. s.
<b>Other sensitive items</b>				
Ever had STD	15%	17%	16%	n. s.
Number of lifetime sex partners	8,3	8,5	8,4	n. s.
Never had sex	6%	7%	7%	n. s.

+  $p < 0,10$ .

## Video channel

Gender of interviewer effects

- Gender of interviewer effects
  - Well documented for face-to-face interviews (e. g. Huddy et al. 1997)
  - Especially for sensitive items (e. g. Catania et al. 1996; Frankel et al. 2006)
  - Interviewer-respondent gender match recommended

## Results 4

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- Percent “never had sex”

	Video male IW	Video female IW	Text based
Male R	3	10	8
Female R	6	6	6

## Results 3

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- Percent “ever had sexually transmitted disease (STD)”

	Video male IW	Video female IW	Text based
Male R	7	2	9
Female R	17	26	22

## Results 4

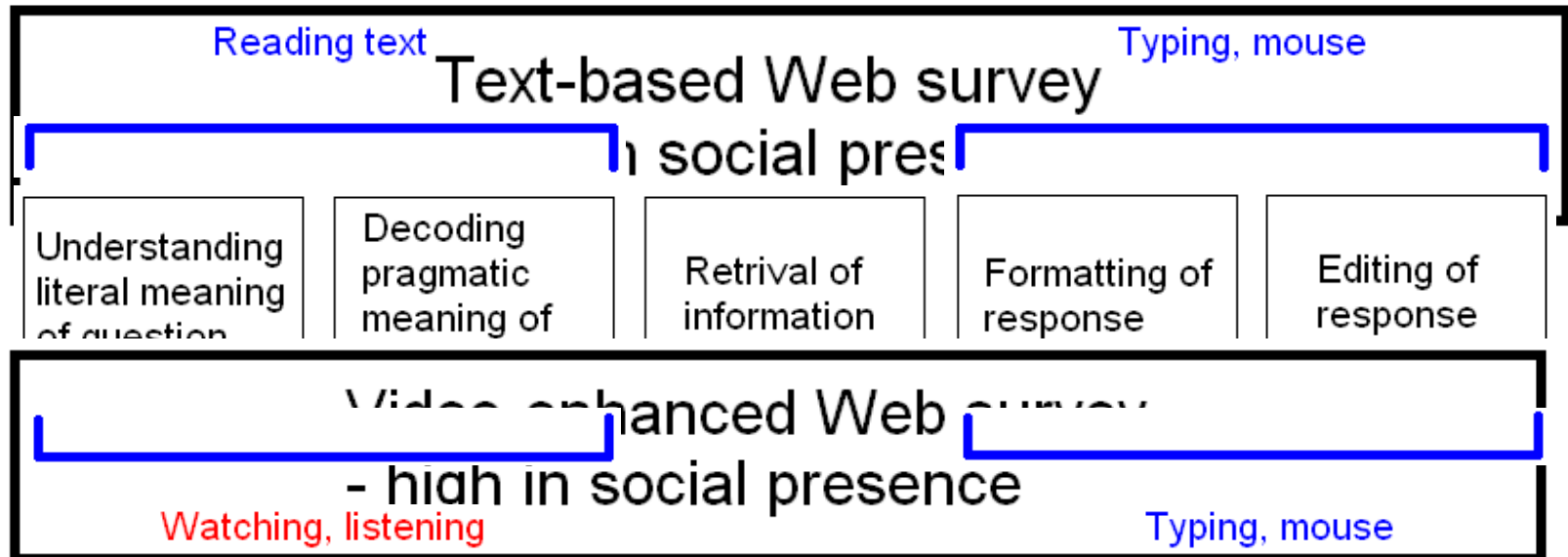
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- Percent “ever did frotteurismus” [= sexual behavior]

	Video male IW	Video female IW	Text based
Male R	21	12	20
Female R	4	12	12

# A Draft Explanation

## Text-based Web survey



## Video-enhanced Web survey