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## Motivation

- **Video abstracts (VA)** communicate research using sound and sight. Previous studies have focused on VAs in the sciences. Less is known about what makes an effective social science VA.
- There is growing recognition that research needs to be accessible to non-academic audiences, and VAs are a promising format for this purpose.
- It is important to know how VAs can be designed to increase research understanding, visibility, and uptake. Yet few studies have used established comprehension frameworks and valid engagement questionnaires to measure interactions with VAs.
- This poster summarizes a study that investigated the effect of two VA presentation styles (slideshow, animation) on comprehension of and engagement with social science research.

## Research Questions

1. What is the effect of video abstract (VA) presentation on viewers' comprehension?
2. What is the effect of VA presentation on viewers' engagement?
3. What, if any, relationship exists between comprehension and user engagement?

## Methodology

- Amazon Mechanical Turk participants ( $n=237$ ): 142 men, 95 women; Age  $M=36.37$ ,  $SD=9.69$  years
- VAs – 3 animations and 3 slideshows – selected based on the Cognitive Theory of Multimedia Learning (Mayer, 2020)
- Post-task questionnaire
  - Comprehension: Barrett's Taxonomy (as cited in Clymer, 1968)
  - User engagement: Cognitive Absorption (Agarwal & Karahanna, 2000), User Engagement Scale (O'Brien et al., 2018)

## RQ1: Slideshow vs. animation VA comprehension

There were no significant differences between slideshow ( $Mdn = 2.00$ ) and animation ( $Mdn = 2.00$ ) VAs for Recall Comprehension (RC) ( $U = 6565$ ,  $z = 0.91$ ,  $p = .36$ ) nor between slideshow ( $Mdn = 2.00$ ) and animation ( $Mdn = 2.00$ ) VAs for Reorganization Comprehension (RO) ( $U = 7890$ ,  $z = 1.77$ ,  $p = .08$ ). **VA presentation style may not be critical in comprehension.**

Video Abstract Presentation

Animation VA (Literacy Research, 2021)

Slideshow VA (Sociology of Health and Illness, 2021)

## RQ2: Slideshow vs. animation VA engagement

Participants in the animation condition had higher focused attention, aesthetic appeal, heightened enjoyment, and curiosity than those in slideshow condition ( $p < .05$ ). There were no differences in perceived reward between the animation and slideshow conditions. This finding suggests that VA designers should **choose animations when user engagement is a priority.**

For all VA materials in this study, please scan the QR code.



## RQ3: Relationship between comprehension and engagement

There was a weak negative correlation between user engagement and comprehension (particularly Recall). Animations may have required more mental effort since they contained less text. Alternatively, animations were attractive but distracting, or the slideshow VAs assisted with understanding but were not particularly engaging.

Comprehension	Engagement				
	Focused attention	Aesthetic Appeal	Reward	Heightened Enjoyment	Curiosity
Recall	<b>-0.306**</b>	<b>-0.294**</b>	<b>-0.212**</b>	<b>-0.204**</b>	<b>-0.201**</b>
Reorganization	<b>-0.163*</b>	-0.046	-0.084	0.081	-0.112

Note. \* $p < .05$ . \*\* $p < .01$

## Limitations

- Confounding video design variables (e.g., topic) were not controlled for. Use of actual VAs increased realism, but offered less control.
- User perceptions (e.g., topic interest, knowledge, difficulty) were not examined in this paper, but may play important roles in comprehension and engagement.

## Future Directions

- Explore elements in slideshow VAs that increase engagement while retaining high comprehension.
- Consider the right balance between attracting viewers and facilitating comprehension when selecting VA presentation style.

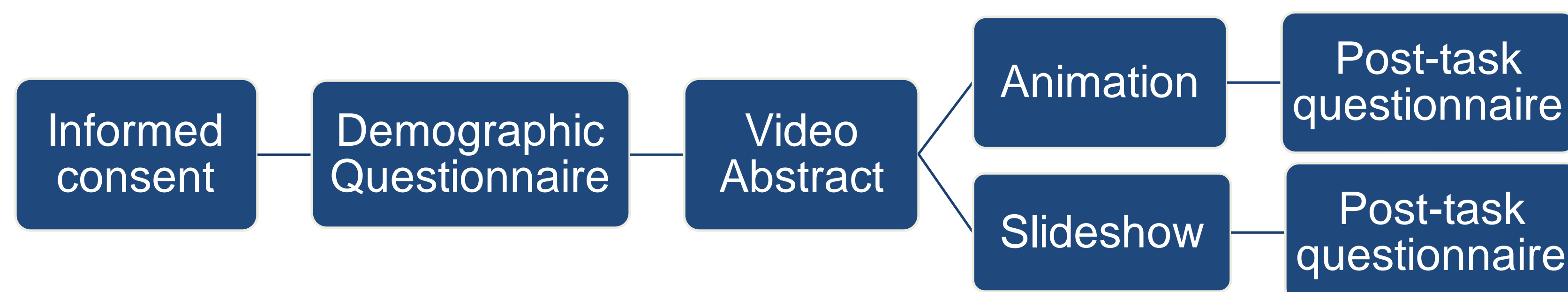


Fig. 1. Study Procedure

## References

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