



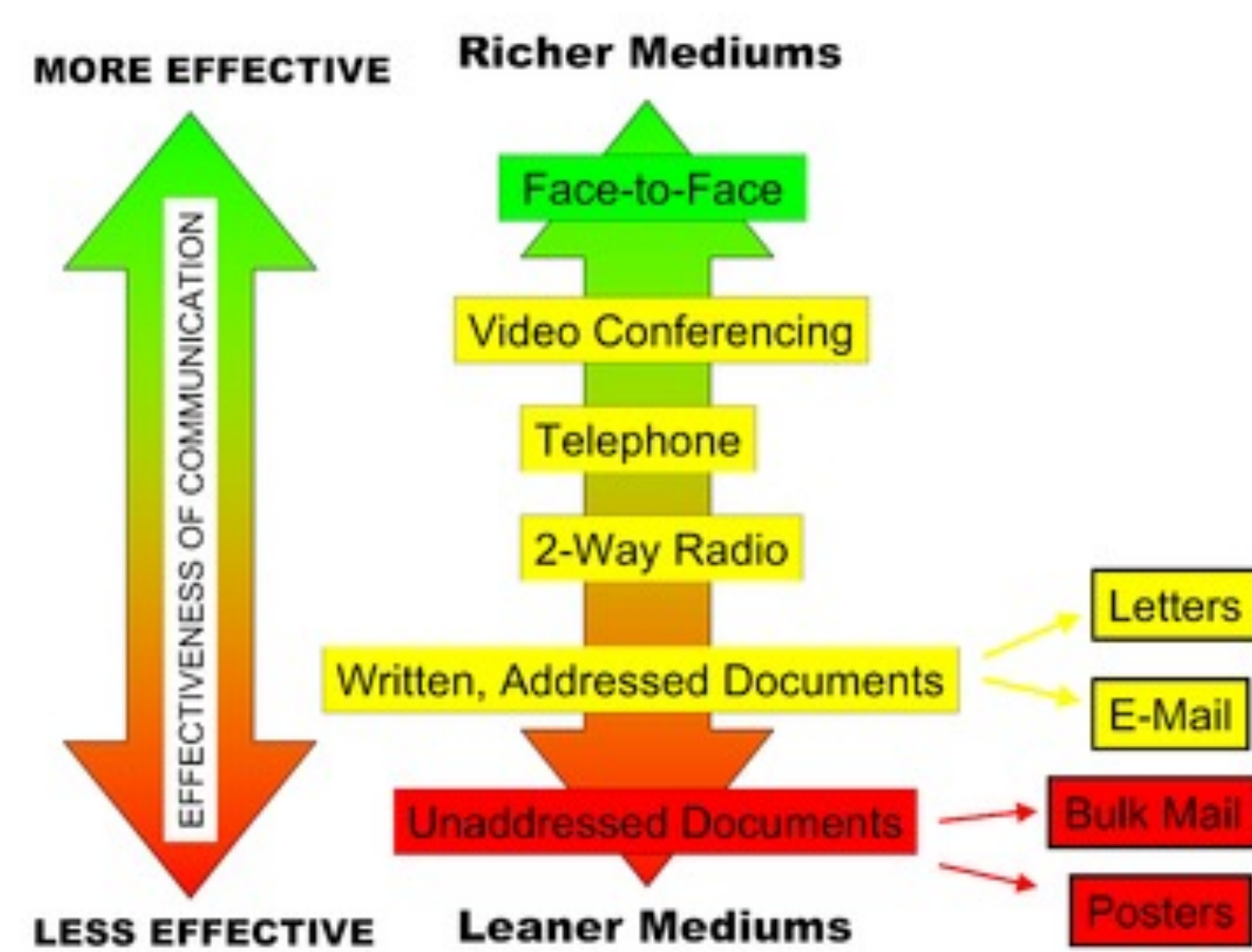
# The Relationship Between Media Richness and Children's Trust

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## BACKGROUND AND SIGNIFICANCE

- The human face can become a crucial factor in determining a stranger's trustworthiness (Bascandziev & Harris, 2014; Ewing et al., 2015).
- Some social interactions, such as face-to-face meetings or video-chat can provide easy access to a partner's face. Others, however, like a telephone call or a text message, do not. To that end, the richness of the interaction medium then, along with a person's epistemic or social characteristics, might be an additional factor in establishing trust.
- Media Richness Theory is the extent to which a channel transmits information and allows effective communication (Daft & Lengel, 1986).
- Messages communicated through richer media tend to be perceived as more accurate (Cable et al., 2000) and trustworthy (Cable & Yu, 2006).



## RESEARCH AIMS AND QUESTIONS

- First, given the cross-field support for distinctive types of trust: epistemic and social, the current study aims to investigate children's performance on epistemic and social trust task.
- Second, the study aims to investigate whether children's decision to place trust in an informant, either for social or epistemic reasons, varies by the degree of communication channels the child has with the informant.

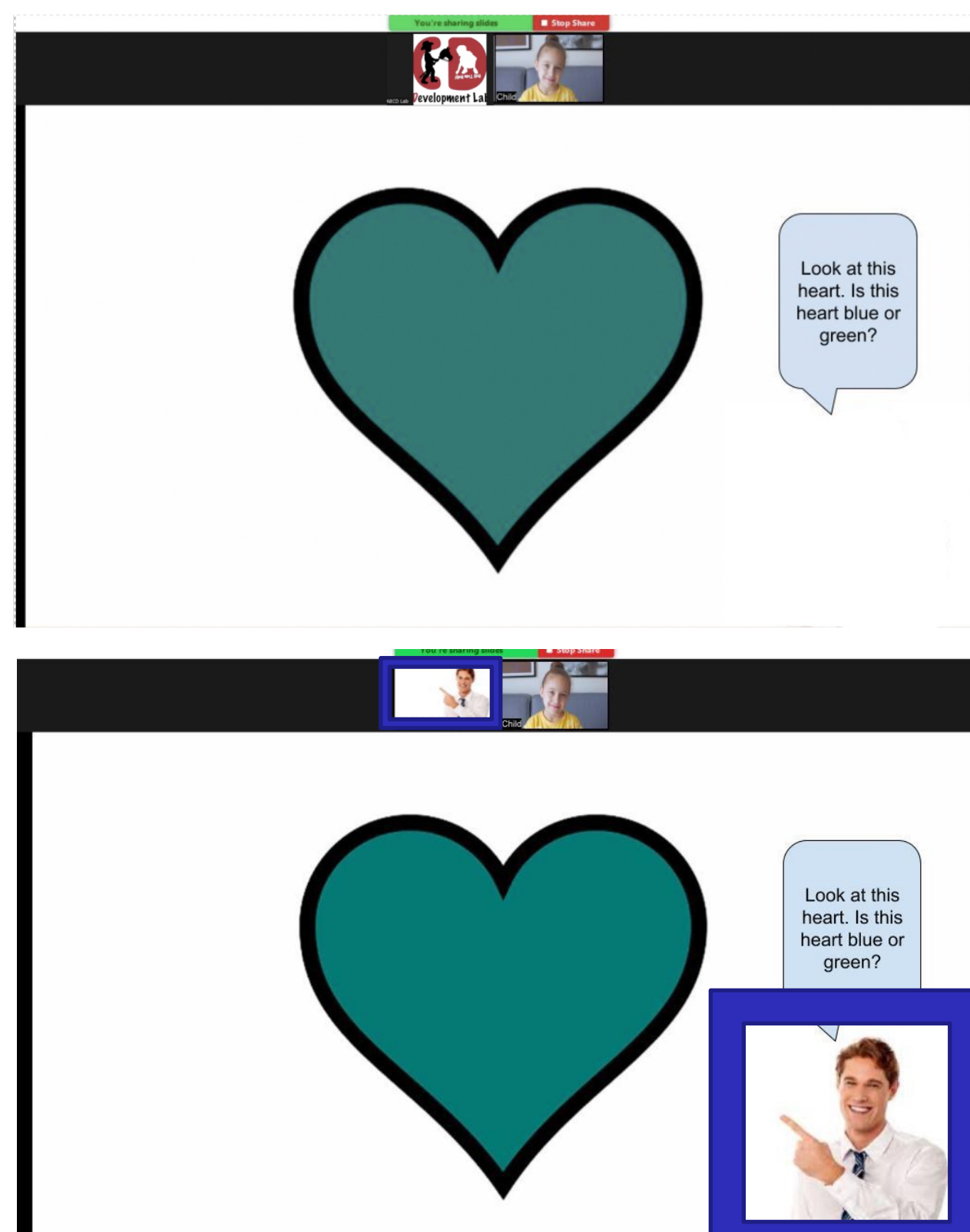
## METHOD

### Participants

- Sixty-four 5- and 7-year-olds participated in the study (38 Female, M age = 6.27; range = 5.01–7.75). This sample size was based on having 80% power to detect a moderate effect size of  $f = .36$ .

### Design

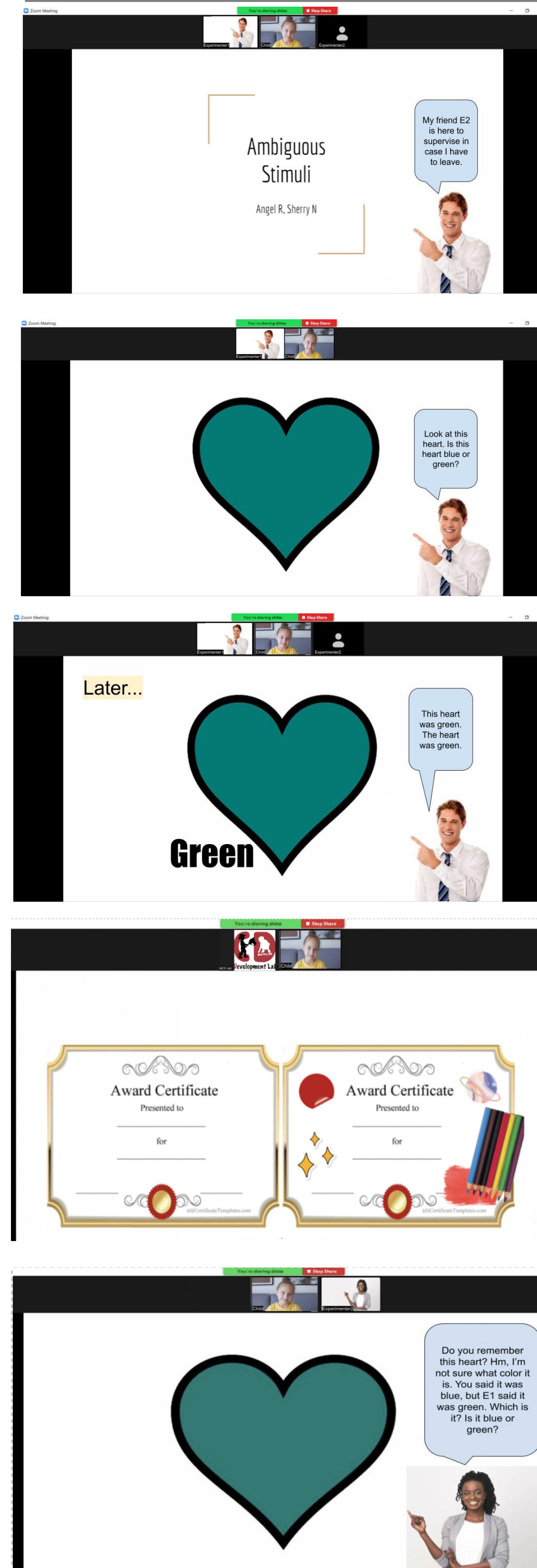
- Children were randomly assigned to one of the two conditions (as visualized in graphs below): **voice-chat** ( $n = 32$ , 16 females, M age = 6.32; range = 5.01–7.75) or **video-chat** ( $n = 32$ , 17 females, M age = 6.25; range = 5.00–7.50)



Children were randomly assigned to one of the two conditions: Voice-chat vs. Video-chat. In the voice condition, children could only hear E1

In the Video condition, children could both hear and see E1.

## METHOD (CONT.)



**Introduction:** Children met with E1 on Zoom and hears her briefly mentioning E2, who later serves as the substitute player for E1.

**Pre-testimony:** E1 suggested playing a guessing game, where players classified different hybrid objects (e.g., animal, color). Children are shown pictures of hybrid stimuli and asked for initial categorization.

**Testimony:** Next, E1 began her labeling event by providing labels conflicting to children's initial responses. For instance, if the child said the heart was blue, E1 made a counterclaim by stating that the heart was green

**Delay of gratification:** E1 administered a delay of gratification task, where children can have an immediate white plain certificate. If children, however, decide to wait for E1 to get stickers and return, they can customize the certificate. She waited until the participant had verbally asked her to be her back, or 8 minutes had elapsed.

**Post-testimony:** E1 then left the video-chat or voice-chat room. Before leaving, she told children that E2 would continue to play the guessing game with them. After greeting children, E2 showed children pictures they saw previously and claimed that she did know what these objects were.

Finally, E2 asked children to make a *final* choice by categorizing the objects.

Figure 1. Flowchart of the study's procedure. In both conditions, E2 always has her camera turned on. She is also described to children as naïve to the hybrid-object categorization game.

## RESULTS

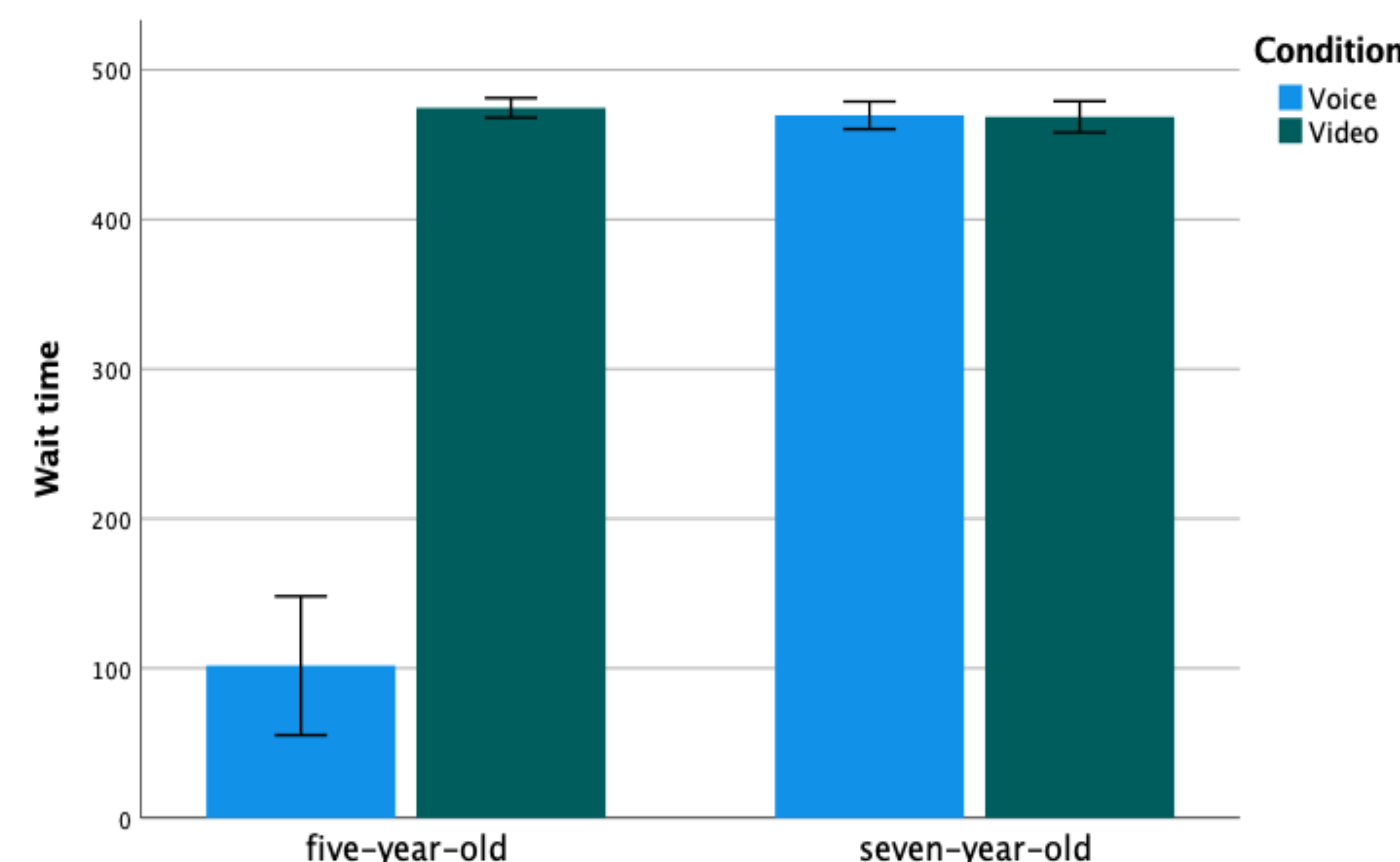


Figure 2. Mean wait time (max wait time = 480s) that participants waited on the delay-of-gratification task as a function of condition. Error bars represent standard errors of the mean.

## RESULTS (CONT.)

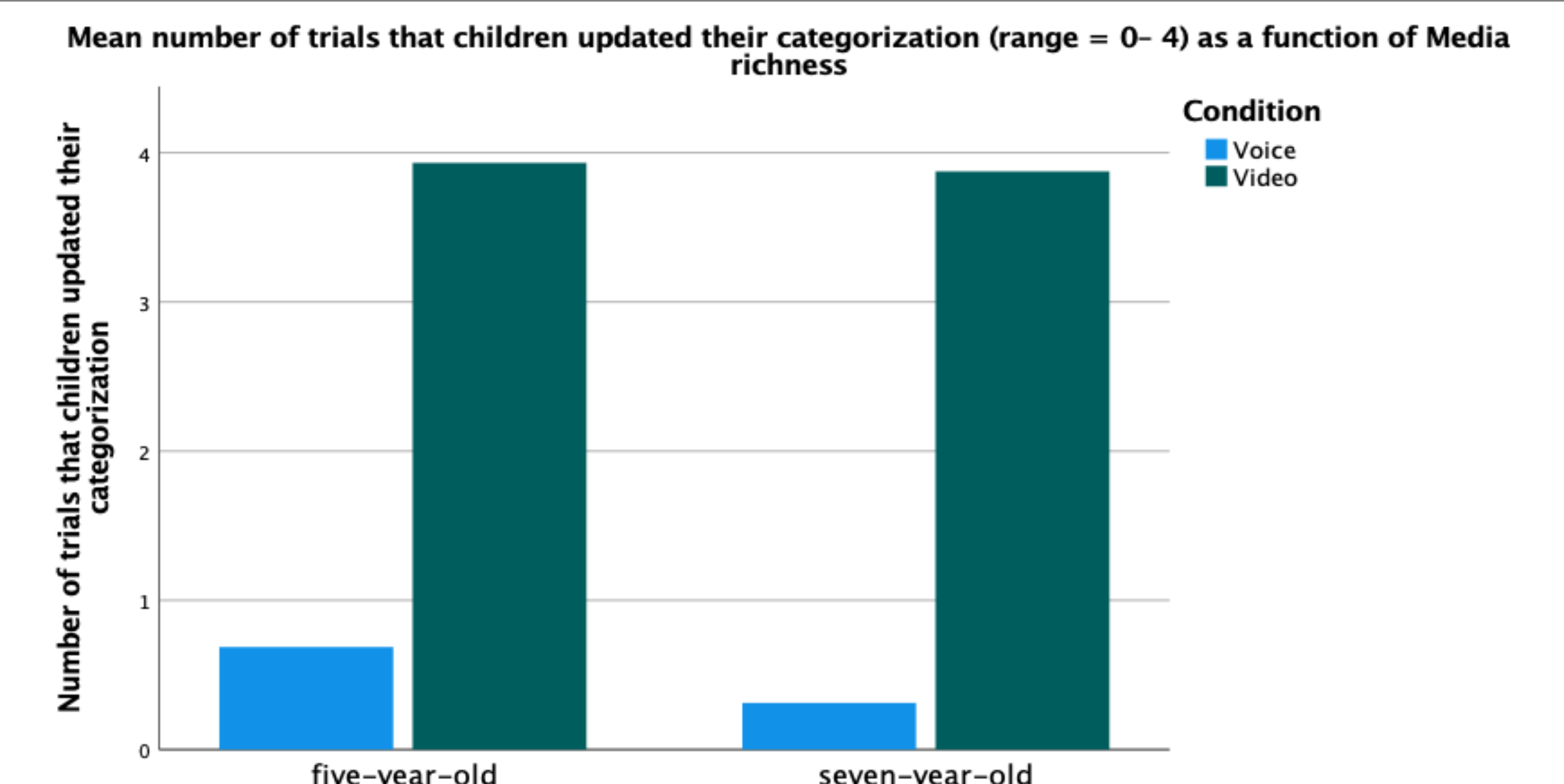
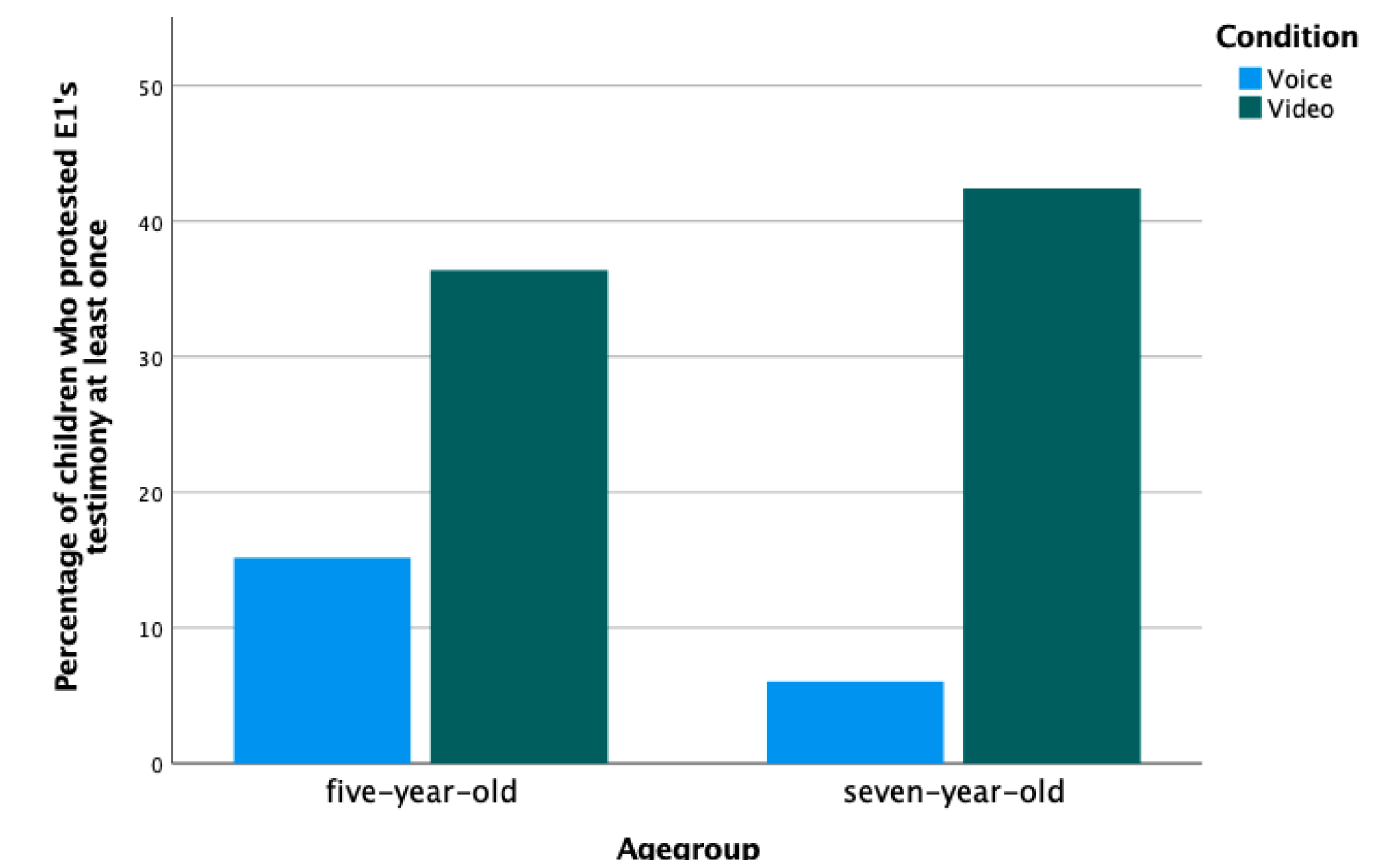


Figure 4. Mean number of trials that children change their initial categorization in the post-testimony phase (range = 0–4) as a function of Media Richness. Error bars represent standard errors of the mean.



Percentage of children in each age group and media richness condition in which they protested E1's testimony. Result indicates a significant difference between conditions ( $p < .01$ ).

## CONCLUSIONS

- Regardless of age, children tend to change their response in the post-testimony phase when interacting with the researcher via video. One explanation is that the video condition allows children to observe the speaker's and pedagogical cues (e.g., eye contact and referential cues like pointing). These cues can support learning testimony (Farroni et al., 2002).
- We also found that children tended to engage in active protest in response to speakers in the video rather than voice condition. The video helps E1 offer testimony in a more direct and intentional way (Koenig & Li, 2020).
- Young children (5-year-olds) tend to wait longer on the delay-of-gratification task (i.e., social trust) in the video condition. However, 7-year-olds tend to wait for the same amount of time in both conditions. It is possible that trust and executive function have opposite effects on delaying gratification, with trust decreasing and executive function increasing as individuals age (Ma et al., 2018).
- Our study's findings also suggest that children appreciate that an informants can be epistemic trustworthy (i.e., share accurate knowledge), but they may not be interpersonally or socially trustworthy (i.e., delay of gratification).
- Future studies could further investigate why did 5-year-olds made a distinction between social and epistemic trust? Perhaps, they could conduct a study with younger age group (3 and 4-year-olds) to see if faces more important for young children

## REFERENCES

Bascandziev, I., & Harris, P. L. (2014). In beauty we trust: children prefer information from more attractive informants. *The British journal of developmental psychology*, 32(1), 94–99. <https://doi.org/10.1111/bjdp.12022>

Cable, D. M., Aiman-Smith, L., Mulvey, P. W., & Edwards, J. R. (2000). The sources and accuracy of job applicants' beliefs about organizational culture. *Academy of Management Journal*, 43(6), 1076–1085. <https://doi.org/10.2307/1556336>

Cable, D. M., & Yu, K. Y. T. (2006). Managing job seekers' organizational image beliefs: The role of media richness and media credibility. *Journal of Applied Psychology*, 91(4), 828–840. <https://doi.org/10.1037/0021-9010.91.4.828>

Ewing, L., Caulfield, F., Read, A., & Rhodes, G. (2015). Perceived trustworthiness of faces drives trust behaviour in children. *Developmental science*, 18(2), 327–334. <https://doi.org/10.1111/desc.12218>

Farroni, T., Csibra, G., Simion, F., & Johnson, M. H. (2002). Eye contact detection in humans from birth. *Proceedings of the National Academy of Sciences of the United States of America*, 99(14), 9602–9605. <https://doi.org/10.1073/pnas.152159999>

Li, P. H., & Koenig, M. A. (2020). Children's evaluations of informants and their surprising claims in direct and overheard contexts. *Journal of Cognition and Development*, 21(3), 425–446. <https://doi.org/10.1080/15248372.2020.1745208>

Ma, F., Chen, B., Xu, F., Lee, K., & Heyman, G. D. (2018). Generalized Trust predicts young children's willingness to delay gratification. *Journal of Experimental Child Psychology*, 169, 118–125. <https://doi.org/10.1016/j.jecp.2017.12.015>