

Developing Children’s Data Literacy through Navigating, Video-logging, and Making in a Library

Yong Ju Jung^a

^aUniversity of Oklahoma, USA

yongju@ou.edu

ABSTRACT

Data literacy means the ability to understand, evaluate, collect, make, and use data for ethically appropriate purposes (Prado & Marzal, 2013; Yoon & Copeland, 2020). Despite its importance in the 21st century, data is often regarded as a difficult area that only some professional adults can deal with, and most children do not have enough opportunities to feel that their everyday life is indeed connected to data and find it interesting (Acker & Bowler, 2018). To situate data in children’s own lives and the spaces they usually go to (Stornaiuolo, 2020), a design-based research project was conducted by designing and implementing an educational program for children and their families about data literacy in non-computational ways in a public library. Two main sessions (1.5-hour long each) and one optional making session included navigating the whole library space while video-logging with a GoPro camera and worksheets; creating their own creative data visualizations with drawing and making tools (e.g., color papers); making artifacts with maker technologies and brainstorming a metadata structure about the artifacts. Video data from GoPro cameras were collected and preliminary analysis was conducted. Findings show how children could make different observations of familiar objects (e.g., books, tables) in the library and turn their observation to the perspective of “data” and how different types of non-computational activities could align with children’s basic understanding of data.

REFERENCES

- Acker, A., & Bowler, L. (2018). Youth data literacy: teen perspectives on data created with social media and mobile devices. *Proceedings of the 51st Hawaii International Conference on System Sciences*, 1923-1932.
- Prado, J. C., & Marzal, M. Á. (2013). Incorporating data literacy into information literacy programs: Core competencies and contents. *Libri*, 63(2), 123-134.
- Stornaiuolo, A. (2020). Authoring data stories in a media makerspace: Adolescents developing critical data literacies. *Journal of the Learning Sciences*, 29(1), 81-103.

Yoon, A., & Copeland, A. (2020). Toward community-inclusive data ecosystems: Challenges and opportunities of open data for community-based organizations. *Journal of the Association for Information Science and Technology*, 71(12), 1439-1454.

ALISE RESEARCH TAXONOMY TOPICS

Information literacy; Education programs/schools; Children's services; Pedagogy; Public libraries

AUTHOR KEYWORDS

Data literacy; informal learning; family learning.

Copyright 2023 by the authors. Published under a Creative Commons Attribution-ShareAlike 4.0 International License. See <https://creativecommons.org/licenses/by/4.0/>.

DOI: <https://doi.org/10.21900/j.alise.2023.1291>