STUDY PROTOCOL - Intro

Does gamification increase [positive attitudes/capability?] of data sharing?

Katie Drax, Kirsty Merret, Robert Thibault, Christopher Warren, and Marcus Munafò

07 May 2021

# 1 Background

Funders and publishers are increasingly requiring data sharing as a condition of funding or publication. Data sharing can encourage reuse, and serve as a quality control process that increases the rigour, reproducibility, impact, and efficiency of research. However, despite the support for and benefits of data sharing, there are barriers to this, in particular lack of awareness of good practice. For example, there is growing evidence that many data deposits on uncurated repositories such as the Open Science Framework use a proprietary format, or include potentially identifying information about participants. Other barriers include researcher attitudes. For example, researchers may believe that sharing their data will disadvantage them compared to researchers who do not share share their data (Kim & Stanton, 2016).

Increasing data sharing will therefore require infrastructure (e.g., institutional repositories), incentives (e.g., recognition of data deposits as research outputs), and training. Labout.Etherefore oneovercoming this barrier, given evidence that XXXX.

The University of Bristol Research Data Service recently created the Researchers, Impact, and Publications (RIP) game (Merrett & Warren, 2020). Adapted from “Cards Against Humanity”, the RIP game aims help people learn about research data management and its relationship to funding and publishing research. The Research Data Service are in the process of creating an online version of the card game using Roll20.com. As of November 2020, the RIP game data had been downloaded at over 150 different locations. If shown to be effective, the RIP game could form part of a comprehensive approach to increasing the degree and quality of data sharing across the sector. This study is a feasibility and pilot study of the RIP game as an educational intervention to improve attitudes towards and knowledge of data sharing, to inform a future RCT.

# 20 References

Merrett, K., & Warren, C. (2020). Researchers, Impact & Publications (R.I.P.) Game data (01-2020). <https://doi.org/10.5523/bris.1nufzjw3m9ho72cwisj1pwc75h>

Wilkinson, M. D., Dumontier, M., Aalbersberg, Ij. J., Appleton, G., Axton, M., Baak, A., Blomberg, N., Boiten, J.-W., da Silva Santos, L. B., Bourne, P. E., Bouwman, J., Brookes, A. J., Clark, T., Crosas, M., Dillo, I., Dumon, O., Edmunds, S., Evelo, C. T., Finkers, R., … Mons, B. (2016). The FAIR Guiding Principles for scientific data management and stewardship. Scientific Data, 3(1), 160018. <https://doi.org/10.1038/sdata.2016.18>

European Commission. Joint Research Centre. (2016). *Research performance based funding systems: A comparative assessment.* LU: Publications Office.

*European legislation on open data*. (2021). https://web.archive.org/web/20210419043326/https://digital-strategy.ec.europa.eu/en/policies/legislation-open-data.

Kim, Y., & Stanton, J. M. (2016). Institutional and individual factors affecting scientists’ data-sharing behaviors: A multilevel analysis. *JOURNAL OF THE ASSOCIATION FOR INFORMATION SCIENCE AND TECHNOLOGY*, *67*(4), 776–799. <https://doi.org/10.1002/asi.23424>

Park, H., You, S., & Wolfram, D. (2018). Informal data citation for data sharing and reuse is more common than formal data citation in biomedical fields. *JOURNAL OF THE ASSOCIATION FOR INFORMATION SCIENCE AND TECHNOLOGY*, *69*(11), 1346–1354. <https://doi.org/10.1002/asi.24049>

Tenopir, C., Dalton, E. D., Allard, S., Frame, M., Pjesivac, I., Birch, B., … Dorsett, K. (2015). Changes in data sharing and data reuse practices and perceptions among scientists worldwide. *PLOS ONE*, *10*(8). <https://doi.org/10.1371/journal.pone.0134826>

The Open Research Data Task Force. (2018). *Realising the potential: Final report of the Open Research Data Task Force* (pp. 1–64).

Yoon, J., Chung, E., Schalk, J., & Kim, J. (2021). Examination of data citation guidelines in style manuals and data repositories. *Learned Publishing*, *34*(2), 198–215. <https://doi.org/10.1002/leap.1349>