STUDY PROTOCOL (V0.1)

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

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# 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. Lack of knowledge about managing and sharing data is a barrier to both voluntary and mandatory data sharing. Educational interventions therefore offer one way to overcoming this barrier. Gamifying these interventions could encourage engagement with them and increase uptake within the community, given evidence that XXXX.

* Theory of game-based/gamified learning?
* Empirical evidence on previous gamification in educational interventions

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.

~~The RIP game could have numerous and low-cost applications if effective. The current cards are in English and focus on data management but could be translated and adapted for different topics. A randomised controlled trial (RCT) could establish the efficacy of the cards in increasing data sharing since participants can be followed over time. We plan to conduct a pilot to inform a future RCT and confirm its feasibility.~~