#### Plan Overview

A Data Management Plan created using DMPTool

DMP ID: <a href="https://doi.org/10.48321/D1XK87">https://doi.org/10.48321/D1XK87</a>

Title: GRASPE: Gamified Realities and Storytelling Platform for Education

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Template: NSF-EHR: Education and Human Resources

Project abstract:

DMP for the NSF BSCER 2023 grant submitted by Dr. Ryan Straight (PI).

**Start date:** 07-01-2023

End date: 06-30-2026

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## GRASPE: Gamified Realities and Storytelling Platform for Education

## Roles and responsibilities

#### Specify the roles and responsibilities of all parties with respect to the DMP activities.

The PI is responsible for all research data collection and management. The University of Arizona's Data Cooperative provides free consultation for data management and offers a data storage and dissemination platform, the Research Data Repository (ReDATA).

## Types of data or products

Specify the types of data or products that will be generated (e.g., test scores, survey responses, images, data tables, video or audio data, sftware, curricular or exhibit materials).

Data generated through this project include a wide range of types, including test scores, survey responses, static images, video recordings of interviews for analysis, transcripts, software, and instructional content.

# Data storage, preservation, and sharing

## Specify how data or products are to be stored, preserved, and shared.

Data generated through this project will be stored in a variety of places appropriate to its type. For surveys and questionnaires, raw data will be stored in the Qualtrics servers. Smaller data like transcripts, static images, and audio recordings will be stored in the UArizona Box system. Larger files like video recordings will be stored on UArizona-owned servers made precisely for the storage of "non-traditional" data. Back-ups will be kept on encrypted non-network-connected drives locked in the PI's laboratory. UArizona has a strong commitment to the preservation of research data. Appropriately cleaned and deidentified data will be shared through the ReDATA platform and the Open Science Framework (OSF).

Dissemination of various project-related content like software, materials, analytic code, and so on, will be shared through public repositories on GitHub and websites built therein.

# Restrictions on data or product storage, access, preservation, or sharing

Specify any restrictions on data or product storage, access, preservation, or sharing

All efforts will be made to deidentify any disseminated data that has not been explicitly approved for release otherwise. As data will be generated via research with minors, this is especially important in this project. Any identifiable information like consent forms will be kept electronically on secure servers and encrypted non-network-connected drives in the PI's laboratory.

#### **Data formats**

Specify what data formats will be used (e.g., XML files, websites, image files, data tables, software code, text documents, physical materials).

All data types will be stored in non-proprietary formats. For example: **Documents**: plain text or markdown (Rmarkdown and Quarto) or RTF; Audio: FLAC - Free Lossless Audio Codec or OGG (Ogg Vorbis); Images: JPEG-2000 or TIFF; Video: MP4 or MKV (H.264 or H.265 encoded). Code types will include XML, JSON, R, and/or Python.

#### Period of data retention

Specify how long access to data and products, and sharing of data or products, will be maintained after the life of the project, and how any associated costs will be covered and by whom.

Primary data will be preserved for 10 years in the ReDATA platform. UArizona covers the cost of data retention and preservation through the Data Cooperative initiative. Other data cleaned and designed for public sharing will also be retained in on the OSF platform. This is also cost-free.

## Third-party preservation

If data or products are to be preserved by a third party, please refer to their preservation plans if available.

The UArizona ReDATA platform maintains that datasets will remain publicly accessible via download for the life of the Repository. An archival copy will be retained for a minimum of 10 years from the date of deposit, access provided by request.

## Additional possible data management requirements

More stringent data management requirements may be specified in particular NSF solicitations or result from local policies and best practices at the PI's home institution. Additional requirements will be specified in the program solicitation and award conditions. Principal Investigators to be supported by such programs must discuss how they will meet these additional requirements in their Data Management Plans.