

## Plan Overview

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*A Data Management Plan created using DMP Tool*

**Title:** EFFECTS OF FINANCIAL CONSTRAINTS TO UNIVERSITY STUDENTS' ACADEMIC PERFORMANCE

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# EFFECTS OF FINANCIAL CONSTRAINTS TO UNIVERSITY STUDENTS' ACADEMIC PERFORMANCE

## Data generated by the project

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**The Data Management Plan should describe the types of data, samples, physical collections, software, curriculum materials, or other materials generated by your project. Any data collection required by the program announcement should be incorporated into the proposal's Data Management Plan. For example, the management of assessment, evaluation, or monitoring data required for all projects within a given program should be addressed in the data management plan. Describe your plan for managing the data.**

**Data description:** The data that will be collected for this project will be a combination of qualitative and quantitative information gathered from human subjects. A variety of cognitive, affective and developmental data will be collected using combination of extant instruments, newly developed instruments, interviews, observations and internet correspondence.

**Metadata:** The metadata I am likely to use will be extracted from three states' office of education which may include accessing publically available data such as aggregate student tracking system data and therefore, will be stripped of identifiers prior to our access and use.

**Existing data:** I will rely on the state and the county government data as well as data organizations and workforce data

**Data organization:** Njiraini John and Rehab Wanjiku will be responsible for data collection, Stanley Mathenge will be in charge of data maintaining and storage and ensure its secure. Data will be named according to the source of the data, the nature of the data and the data the data will be collected. This is close to the procedure the researchers currently use in conducting their research. Our external evaluators will be responsible for collecting evaluated data for the program.

## Period of data retention

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**EHR is committed to timely and rapid data distribution. However, it recognizes that types of data can vary widely and that acceptable norms also vary by scientific discipline. It is strongly committed, however, to the underlying principle of timely access, and applicants should address how this will be met in their Data Management Plan.**

This data will be deposited in Chuka University from Meru University of Science and Technology(MUST) following quality assurance and documentation by my team for a long term storage upon completion of the project study, once data is transferred to Chuka University,all data will be made publicly available immediately. No data will need to be retained for other purposes

## Data format and dissemination

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**The Data Management Plan should describe data formats, media, and dissemination approaches that will be used to make data and metadata available to others. Policies for public access and sharing should be described, including provisions for appropriate protection of privacy, confidentiality, security, intellectual property, or other rights or requirements. Research centers and major partnerships with industry or other user communities must also address how data are to be shared and managed with partners, center members, and other major stakeholders. Data on EHR projects involving human subjects should be made available to the public subject to constraints imposed by IRB decisions. Other data, such as software, publications, and curricula, should be made available subject to intellectual property rights.**

Software code will need adequate metadata wrapping to ensure that either it can be migrated to another coding language, or there can be an emulation solution for future use. The metadata must be complete enough to include technical details, contextual story-lines, user behavior assumptions, and structural information.

Metadata for interactive software objects such as video games is nascent. Using

Metadata recommendations from the projects Preserving Virtual Worlds I and II,

This project plans to employ OWL ontology with METS and OAI-ORE schema to

Sufficiently provide the detailed information required for wrapping this type of

Software code.

Other data formats will be text files from interview transcripts, planning documents and academic papers. These will use METS schema to sufficiently enhance discoverability

With this metadata wrapping, the protocols submitted with our IRB applications will allow easy sharing, standard consistent with quality research and accessibility.

Interviews will be for historical purposes

## **Data storage and preservation of access**

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**The Data Management Plan should describe physical and cyber resources and facilities that will be used for the effective preservation and storage of research data. These can include third party facilities and repositories.**

The research data from this project will be deposited with Chuka University repository, comprised of scalable virtual servers and dedicated research data

storage, to ensure that the research community has long-term access to the data. The Office of Information Technology has built a dependable virtual server infrastructure and Network Attached Storage to provide a predictable cost-based, managed and reliable platform. The virtual servers run on XTML server hosts which have high-tech virtualization platforms. The storage for virtual machines is

on Ubuntu Filers. The Research Data Storage Facility provides a high integrity space for storing data using enterprise-class equipment. This storage is provided by redundant Digilant devices Storage is configured using my own ram supportive portable devices and can be expanded as needed. Data will be replicated from the primary Digilant to a second device using CommVault. Best practice standards for data backup and retrieval will be followed. Additionally, I will work with members of Meru university and chuka university library to

Identify permanent data storage and preservation options, utilizing publicly accessible repositories when appropriate. All public data will be deposited in the Chuka University Repository Service from Meru University of Science and Technology(MUST) that has capabilities to manage, archive and share digital content. Chuka University allows access to the public via persistent URLs, provides tools for long-term data management, and permits permanent storage options. Chuka University has built-in contingencies for disaster recovery including redundancy and recovery plans.

## **Additional possible data management requirements**

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**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.**

My team and I will develop a network/website for this education program that will include a research Blog and links/contacts for easy routing to our data and product.

I will use the data that I will collect to draft manuscripts and reports which will be shared at the annual, regional and national conferences and later publications

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