
Plan Overview

A Data Management Plan created using DMPonline

Title: Assessing the performance of retrofitted buildings. A Post-Occupancy Evaluation of Two Educational Buildings at the University of Plymouth: Fitzroy and The Sustainability Hub.

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Project abstract:

This study of post-occupancy evaluation (POE) is an assessment of the performance and users' satisfaction of two buildings after retrofit: Fitzroy (The new business school building) and The Sustainability Hub in Kirkby Lodge. By using a combination of qualitative and quantitative methods of data collection, the study aims to evaluate different parameters to assess how the buildings are performing after being occupied by different users. These parameters include Thermal comfort, indoor air quality, relative humidity, lighting levels, and overall comfort. The study also aims to understand the users' perceptions of comfort within a working environment. By analyzing the building performance data and users' feedback through a distribution of surveys, the research aims to identify the successes and challenges that come with the process of retrofitting an educational building. The findings will provide valuable insights into creating effective strategies and practices for sustainable building retrofits, helping future projects to improve comfort, efficiency, and user' satisfaction with their surrounding space.

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Assessing the performance of retrofitted buildings. A Post-Occupancy Evaluation of Two Educational Buildings at the University of Plymouth: Fitzroy and The Sustainability Hub.

Data Collection

What data will you collect or create?

1. Indoor environmental data will be collected from both buildings, which includes: temperature of these spaces, relative humidity, indoor air quality, and CO2 levels.
2. Users' satisfaction and perception of environmental comfort will be collected by distributing a survey to the employees of both buildings, which is to evaluate the users' satisfaction in only the workspace within the buildings.
3. All the collected data will be exported and converted into Excel files for analysis.

How will the data be collected or created?

The environmental parameters will be collected through the use of monitoring equipment that will be set up in different spaces within the buildings. This equipment includes: HOB0 data loggers to measure the temperature and relative humidity, and Tamtop M2000 to collect data of indoor air quality and CO2 levels.

As for the users' satisfaction with the buildings, a survey is created using the Jisc online survey system and distributed to the staff of both buildings.

All the data will be kept and organized in encrypted and secure folders in a personal laptop, with copies in an external hard disk to avoid any data loss.

Documentation and Metadata

What documentation and metadata will accompany the data?

The researcher will provide a document explaining the data collection process, accompanying the data with documents like: Architectural drawings of the buildings, a survey document that shows the title, purpose, and consent question, as well as a sheet explaining the meanings of the measured parameters in the building.

Additionally, a metadata file listing each column's meaning and units will be provided along with the documentation.

Ethics and Legal Compliance

How will you manage any ethical issues?

Prior to the data collection, participants will be provided with an information sheet containing a detailed explanation of the research aims, how their participation in this project will remain anonymous, how their data will be collected, stored, and used, and contact information of the researcher will be provided for their records. Additionally, participants will be sent an informed consent sheet to sign. As for the online survey, this consent will cover the preservation of their non-personal survey data.

By using the General Data Protection Regulation, the researcher can provide clear, concise information about data collection and processing. Additionally, access to the collected data will only be restricted to the researcher and those authorized by the researcher. All electronic forms will be securely stored on the University of Plymouth OneDrive.

How will you manage copyright and Intellectual Property Rights (IPR) issues?

The intellectual property of the data generated will remain with the University of Plymouth.

Storage and Backup

How will the data be stored and backed up during the research?

All data will be stored in an encrypted, password-protected and secure personal computer with weekly backups to the University of Plymouth OneDrive. The online survey platform (JISC Online Surveys) that will be used for the survey provides secure, GDPR-compliant data storage during collection.

How will you manage access and security?

All data collected from participants and through monitoring equipment will be kept in an encrypted and password protected laptop, and will be backed up weekly to a secure OneDrive and an external hard disk.

Selection and Preservation

Which data are of long-term value and should be retained, shared, and/or preserved?

Data will be collected and retained as per the University of Plymouth's GDPR policies. No personal data will be collected, so no data needs to be destroyed.

All data can be used for research purposes at the University of Plymouth as most data will be general and related to building standards, with no interpretation of personal or sensitive information.

What is the long-term preservation plan for the dataset?

For the survey, responses will be deleted after 5 years

For future research, the collected data will be kept in Excel sheets format, as well as architectural drawings specifying the placements of the monitoring devices.

Data Sharing

How will you share the data?

No data external sharing is expected. The anonymised data will be included in the final MSc dissertation report. If applicable, the study findings will be disseminated through publication and conference presentations.

However, the data will be shared with the University of Plymouth researchers and academics. The primary audience for data sharing will be researchers and academics in related fields.

Access will generally be open to these users to ensure maximum reuse and impact.

Are any restrictions on data sharing required?

The researcher will implement restrictions on survey data sharing due to the need to maintain the confidentiality and anonymity of participants.

Responsibilities and Resources

Who will be responsible for data management?

The researcher, being the Principal Investigator, will oversee overall data management activities and ensure compliance with the University's policies and regulations. This plan will be reviewed as needed throughout the project to make sure that it aligns with the data management requirements.

What resources will you require to deliver your plan?

Access to the buildings' architectural drawings and retrofit details provided by Estates & Facilities at the University of Plymouth, as well as the Existing cloud storage service.