

Chapter 4

Research Data Management Practices at Bindura University of Science Education

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ABSTRACT

The study assessed the research data management (RDM) practices at Bindura University of Science Education (BUSE) with the aim of understanding how research data (RD) is managed. The study was prompted by lack of proper RDM policy. UK data archive research data lifecycle model was adopted in the study for benchmarking RDM practices at BUSE in line with international standards. The research used the interpretism approach and is qualitative in nature. Interviews were used to collect qualitative data from the Research and Postgraduate Centre (RPGC), deputy librarian, sub-librarian, and technology librarian. Quantitative data obtained from departmental chairpersons, assistant librarians, and chief library assistant was gathered by using questionnaires. The population was chosen using purposive sampling. The findings revealed that although respondents appreciated RDM practices, some researchers were managing their RD while RPGC was responsible for RD submitted to their office. The concept of RDM was relatively new to most researchers. The study recommended a policy guideline and training of researchers.

INTRODUCTION

In 1995 the Government of Zimbabwe made a decision to address the problem of the shortage of science teachers in Zimbabwe by setting up the Bindura University College of Science Education, which was established under the University of Zimbabwe. The College opened its doors on 26 March 1996 with an intake of 125 students. This development was a result of the termination of the Zimbabwe-Cuba Science Teacher Training programme which had begun operating in the mid-1980s. The college was conferred with university status in February 2000 under the Bindura University of Science Education. Scientists

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and research institutions face many challenges while attempting to preserve the vast amounts of data for long-term use, including how best to describe data in a consistent way, keep up with evolving data standards, consistently and effectively share data while allowing for some restrictions, and other, often sociological, obstacles to data sharing and data reuse, all while coping with the huge increases in the amount of data being created (Tenopir, Birch and Allard, 2012). In that view, academic libraries are considering ways they can be involved in helping their institutions to solve such challenges surrounding research data.

Research data includes every piece of data acquired and generated during the research process and may comprise, among others, text, spreadsheets, questionnaires, photographs, films, test responses, slides, laboratory notes, statistics, observations, results of experiments, measurements, samples, algorithms, scripts and workflows (Elsayed and Saleh, 2018). This study was conducted at Bindura University of Science Education (BUSE), in Bindura Town (Zimbabwe), where the researcher is employed as a Chief Library Assistant in the Library Department, responsible for assisting users in all aspects pertaining to research and information management issues. There are a number of research collections done at BUSE institution. The Library as a major resource centre, collects student's theses and dissertations, staff publications (on the institutional repository) and past exam papers. The Research and Postgraduate Centre (RPGC) oversees staff research publications in order to meet accepted research standards and provides grants for researches. Faculties are responsible for monitoring and supervision of students' theses and dissertations. As a result, being an employee at BUSE, researcher has observed that proper research data management practices are needed in order to meet required standards in research data management.

OBJECTIVES OF THE STUDY

The purpose of the study was to examine research data management practices at BUSE. The following are the objectives of the study which were informed by the UK Data Archive Research Data Lifecycle Model:

- i. To ascertain how data is collected at BUSE;
- ii. To determine how research data is accessed at BUSE;
- iii. To find out how research data at BUSE is stored and preserved (for re-use);
- iv. To ascertain how research data is shared at BUSE; and
- v. To determine legal issues associated with research data usage rights.

COLLECTION OF DATA AT BUSE

Research data management exists within a context of ever greater transparency, accessibility and accountability (Donnelly, 2015). It involves the everyday management of research data during the lifetime of a research project (for example, file naming conventions). It also involves decisions about how data will be preserved and shared after the project is completed (for example, depositing the data in a repository for long-term archiving and access). However, a study at BUSE showed that research data was collected at faculty, department, library, RPGC and at individual levels. There was no clear policy specifying who is supposed to collect and what would have happened to the research data collected. A research by Chigwada, Chiparausha and Kasiroori (2017) on Research Data Management in research institutions

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