

# **IMPLEMENTATION AND USAGE OF DIGITAL LIBRARIES**

A CASE STUDY OF BUNDA COLLEGE OF  
AGRICULTURE GREENSTONE DIGITAL LIBRARY IN  
MALAWI

# OUTLINE

- ▶ Introduction
- ▶ Problem Statement
- ▶ Main and Specific Objectives
- ▶ Methodology
- ▶ Findings and
- ▶ Conclusion

# Introduction

Malawi is located in Southern Africa and bounded by countries such as Zambia to the west, Mozambique to the south and east and Tanzania to the North.

# MAP OF AFRICA SHOWING MALAWI

(extracted from: Images.google.com)



# Map of Malawi Showing Lilongwe Where Bunda College is Located



(<http://geography.about.com/library/cia/blcmalawi.htm>)

# Problem Statement

Attempts to create digital libraries in Malawi have faced several challenges such as lack of equipment, inadequate institutional support and lack of required IT skills among others.

(Bunda College Library n.d).

# Problem Statement Cont.

In the midst of these challenges, Bunda College of Agriculture Library managed to Create a digital library and made it accessible to the College's community in 2008. Are there Some worthwhile lessons that other libraries in Malawi can learn from Bunda College Library? This is the question that the research attempted to address.

# Main Objective

To assess how the Bunda College Greenstone Digital Library was implemented and how it was being used.



# Specifics Objectives

- To investigate the activities carried out to implement the digital library
- To find out the rate of usage of the digital library by the end users
- To examine the challenges faced in the management and usage of the digital library

# Specifics Objectives Cont.

- ▶ To identify elements of good practice in the development and management of the Bunda College Greenstone Digital Library.
- ▶ To develop recommendations for the better development and management of digital libraries in Malawi.

# Methodology

A total of 144 respondents constituting of :

91 undergraduate students,  
10 postgraduate Students and  
43 academic staff

responded to questionnaires.

# Methodology

3-library staff entailing 1 ICT and 2 library assistants were interviewed using Face book Chat facility in investigating the managerial and Technical aspects of the digital library implementation.

Phone interview was used to collect data from the College Librarian.

**Table 2. Research Sample and Response Rate**

<b>Study Group</b>	<b>Research Sample</b>	<b>No. of Responses</b>	<b>Response Rate (%)</b>
Undergraduate Students	101	91	90
Postgraduate Students	17	10	58.8
Academic Staff	50	43	86
Library staff	4	4	100
<b>Total</b>	<b>172</b>	<b>148</b>	<b>86</b>

**Table 3. Faculties Representation of Respondents**

<b>Faculties</b>	<b>Undergraduate Students</b>	<b>Postgraduate Students</b>	<b>Academic Staff</b>
Agriculture	42	5	18
Environmental Sciences	20	2	12
Development Studies	29	3	12
Not Indicated			1
<b>TOTAL</b>	<b>91</b>	<b>10</b>	<b>43</b>

# FINDINGS

- ▶ There was no actual plan for the implementation process of the digital library
- ▶ The project had initial funding that lead to the purchase of equipment
- ▶ Sustenance of the project challenging due to lack of funding

# FINDINGS

- ▶ The library trained staff in various issues regarding digital library
- ▶ However they were involved in other activities of the library



**Table 4. Means of awareness of the digital library**

<b>Means of Awareness</b>	<b>Undergraduate</b>	<b>Postgraduate</b>	<b>Academic</b>
	<b>Students</b>	<b>Students</b>	<b>Staff</b>
Personally from Library Staff	58	7	21
Library Training Sessions	40	6	12
From Colleagues	24	1	6
Library Bulletins	6	0	0
Library Web Pages	6	1	0
Other	11	2	0

# Findings

## **Rights Management**

One Library Assistant reported that: “Many departments do not send electronic copies. This makes me on the College librarian's order to go around the campus departments to ask for the Same which is involving. Some departments do not keep the electronic copies hence the challenge of scanning comes in again.”

# Findings

## **Digital Library Equipment**

The digital Library is hosted by the computer terminal with the following features: HP Desktop, 250GB, 2.7GHZ Duo core, 2GB RAM. However, there was a plan to host the digital library in the main library server, which was holding the (Online Public Access Catalogue – OPAC).

# Findings

Two HP Scanjet 5590 flat bed, A4 size Scanners were being used for the digitization process. The Staff indicated that this type of scanner is inappropriate for the digitization process because it is not able to scan pages larger than A4. It was also pointed out that the existing scanners were not as fast as more modern scanners.

# Findings

## **OPTICAL CHARACTER RECOGNITION (OCR)**

“The ability to polish up an old document to look presentable, readable, a big document to be sizable, and the ability to change the format suiting your needs”

# Findings

## Collections

Name of Collection	Number of Documents
Bunda Malawiana	34
Bunda Theses and Dissertations	237
BSc Degree Projects	265
Bunda Past Examination Papers	379
Total	915

# FINDINGS

## Preservation

When asked about preservation strategies that were in place for the Bunda College digital library both the CL and SLA stated that they had a back-up of the digital library.

# FINDINGS

This is in agreement with Davidson (2009) Who observed that although some Digital preservation activities may be undertaken, it is more likely that most information technology departments will limit their activities to traditional backup services.



Figure 6. Usage frequency

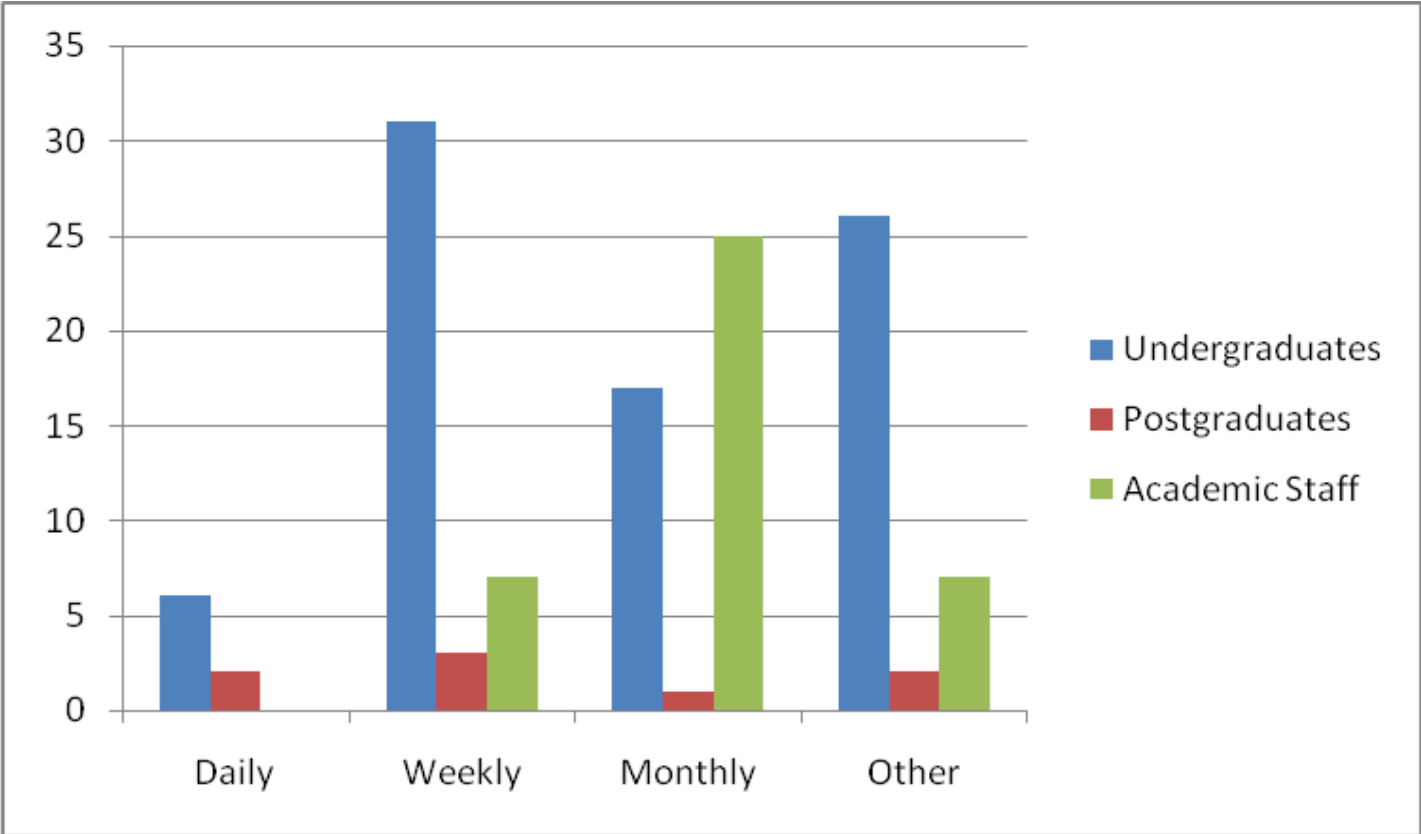


Figure 7. Search abilities

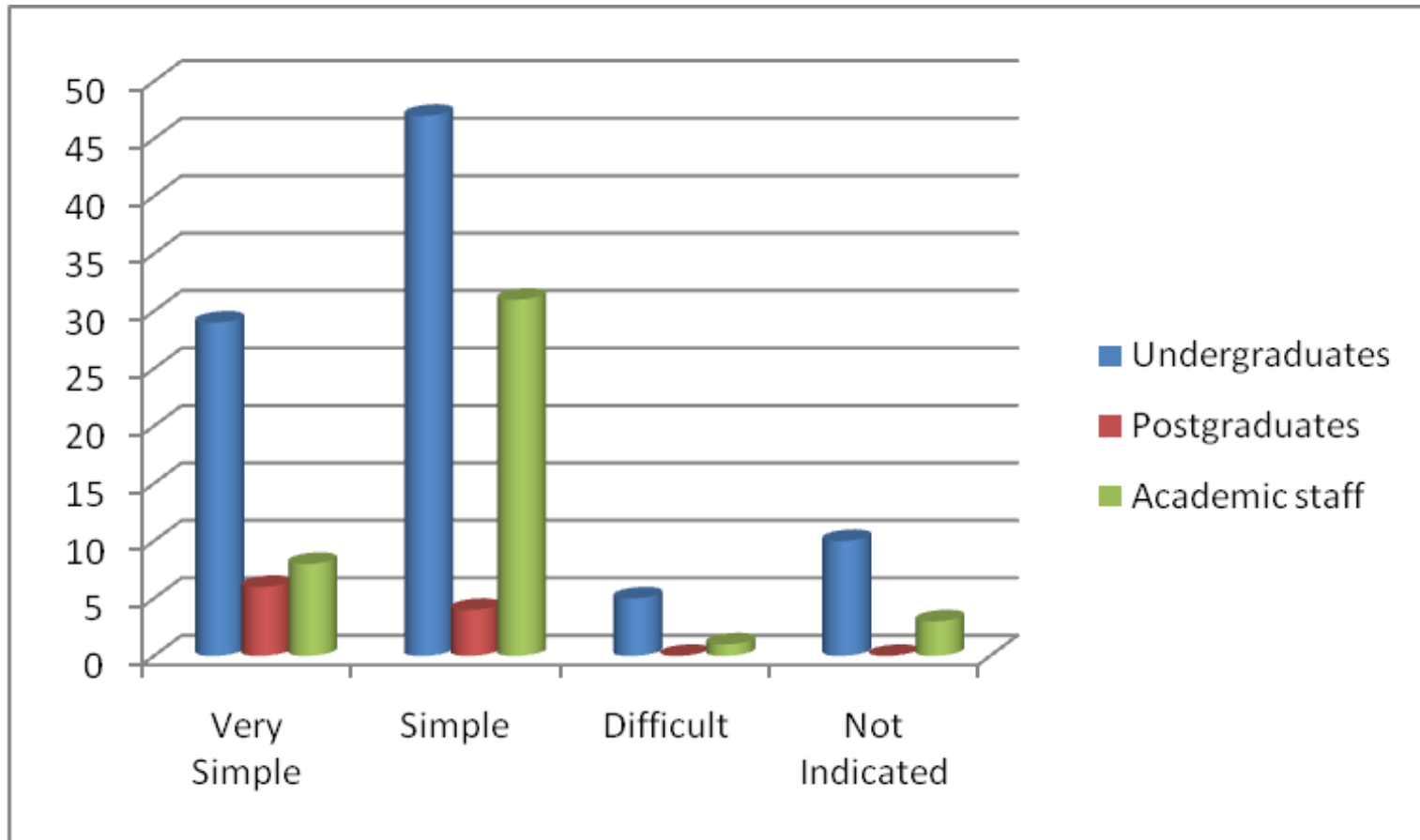
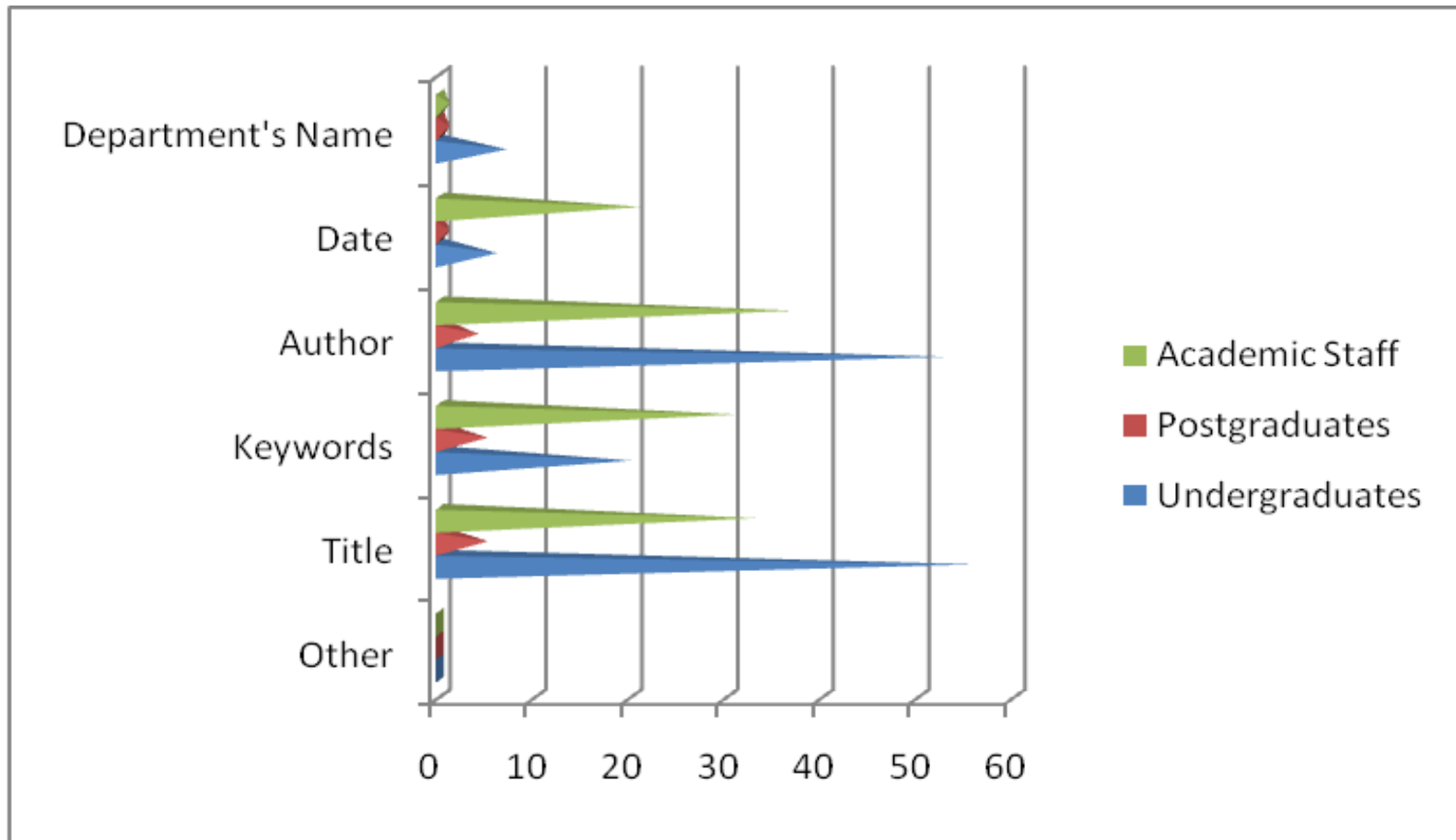
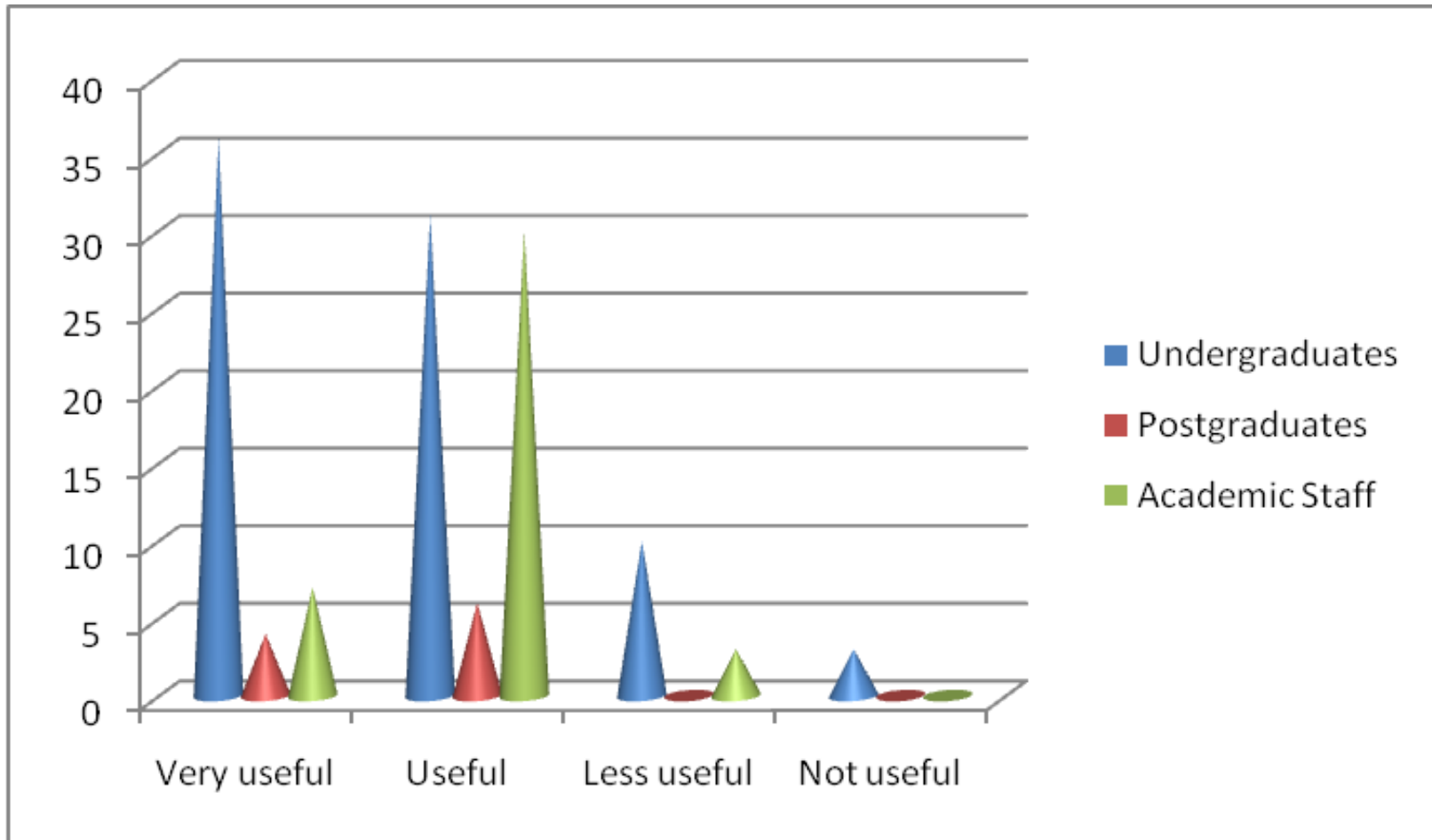


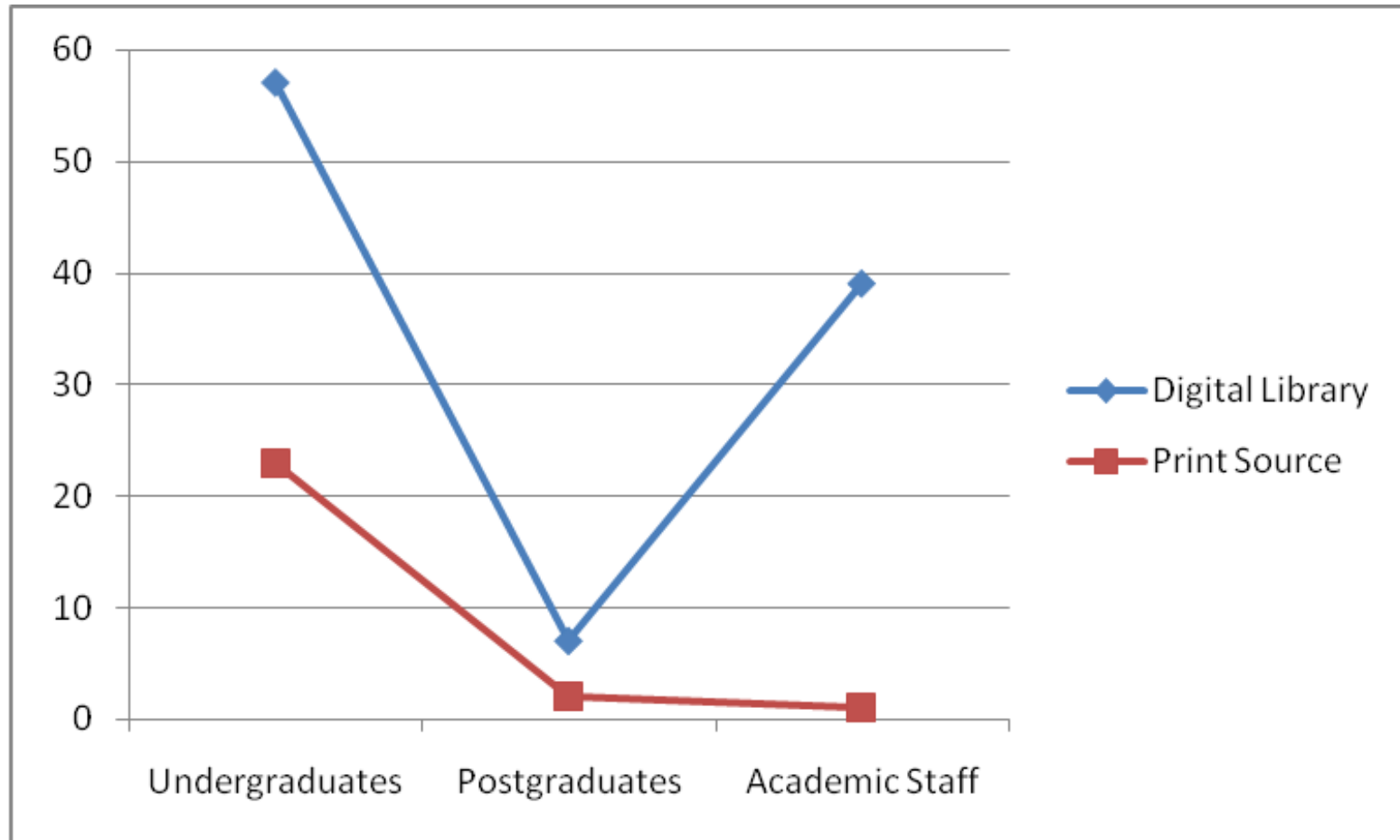
Figure 8. Search terms used



# Usefulness of the Digital library



## Preferences between the Digital Library and Print Source



# Conclusion

- ▶ Implementation and usage of the Bunda College Digital Library has largely been successful.
- ▶ Challenges Include: Lack of funding, staff shortage, Inadequate equipment and willingness for staff to submit documents,

# Conclusion

- ▶ Rising demand for digital information
- ▶ Elements of Good practice
  - The direct involvement of the CL
  - Use of available resources for the project
  - Staff training
  - Face to face marketing strategy;
  - Use of incentives to motivate staff and
  - Backing up

# Conclusion

## Recent Events

- ▶ The Malawi Library Association promoting usage of Dspace through workshops.
- ▶ Area of further study: *Experiences, challenges and opportunities with Dspace implementation and usage*



# References

Davidson (2009) Davidson, S., 2009. If We Build It, Will They Come? Strategies for teaching and research with digital special collections. *RBM: A Journal of Rare Books, Manuscripts, and Cultural Heritage* [online], 10(1), 37–50.

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Map of Malawi, <http://geography.about.com/library/cia/blcmalawi.htm>