Journal of Library and Information Science
Journal of Library and Information Science

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Editorial Policy

Zambian Journal of Library and Information Science (ZAJLIS) is a journal in the field of Library and Information Science. It is published biannually by the Department of Library and Sciences, School of Education, University of Zambia. The goal of ZAJLIS is to publish insightful, innovative and effective research to satisfy both local and international scholars and professionals in the province Library and Information Science.

ZAJLIS seeks to publish manuscripts with cutting-edge research that breaks new ground, rather than merely making an incremental contribution to the field of Library and Information Science. The Journal is particularly interested in publishing innovative papers that start up or redirect a line of inquiry. Manuscripts that provide different perspectives and those that deliberate controversial or challenging issues in the realm of Library and Information Science are welcome. The Journal does not publish manuscripts that merely criticize previous works without providing new insights into the limitations of previous works. ZAJLIS is interested in papers that are constructive in nature; which foster better understanding of our ever changing field and would result in better service provision to humankind.

The Journal receives and publishes original manuscripts from both international and local scholars, and professionals in the field of Library and Information Science. The sphere of competencies of the Journal include: Librarianship, Knowledge management, Information communication technologies, Business information and marketing, Management of information systems, Records and archival management, Information retrieval, etc. The Journal welcomes articles in related fields such as Computer Science.

ZAJLIS places premium on papers that use both quantitative and qualitative research methodologies. However, this does not mean that conceptual and theoretical papers are not welcome.

Submissions must follow the Journal’s guidelines, including formatting, length and referencing and citation styles. For information on the writing style, go to the link below http: //www.unza.zm/ education/ index.php?option= com_content&task=view&id=101&Itemid=164.

All submissions to ZAJLIS are subjected a peer-review process before being accepted for publication.
Editorial Comment

We would like to welcome you to the second volume, issue number 2, of the *Zambia Journal of Library and Information Science (ZAJLIS)*. We sincere apologize for late release of this issue. We are working towards ensuring that the next issues will be released on schedule.

Plans are being made to convert this journal into an open access online journal. We hope that by so doing we will cut down the cost of production, increase frequency of release, improve the quality of the papers, make the journal more accessible and more visible, and thus increase the readership. We would like to have the journal indexed by Web of Knowledge, Scopus, Africa Online Journals (AJOL), LISA, and ISA. We also intend to archive the journal on the University of Zambia Institutional Repository. We welcome suggestions and comments.

In this issue we have ten articles discussing a wide range of subjects. We hope you will find these papers informative and valuable.

Dr. A. Akakandelwa
Editor-in-Chief
6 January 2016
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An Investigation into the Information Needs and Information Seeking Behaviour of Small-Scale Cattle Farmers: A Case of Selected Villages of Katima Mulilo Rural Constituency of Zambezi Region, Namibia

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Abstract
The need for information is felt at all levels of society regardless of an individual’s location or intellectual achievement and it is believed that there is a lot of information around that people can use to make decisions, increase knowledge levels and reduce uncertainty. Yet, there are still categories of people in our societies that still face challenges in accessing it. One such group are the small-scale cattle farmers of Katima Mulilo constituency of Namibia. The focus of this study was to investigate into the information needs and seeking behaviours of small-scale cattle farmers of Katima-Mulilo rural constituency of Namibia. A survey method was used in this study and both quantitative and qualitative methods were employed. Cluster sampling technique was used to sample the villages while the cattle farmers were randomly selected and Purposive sampling technique was used to sample the key informants (veterinary medical officers, extension officers and officials from the Likwama farmers union. The questionnaire and focus group discussion guide were used to collect data from the cattle farmers while the interview guide was used to collect data from the key informants. The critical incident technique was used to collect data from focus group discussions. Respondents were asked to recall some previous incidences that they had encountered which prompted them to seek information in order to make a decision or solve a problem. Quantitative data was analysed using the SPSS software while Qualitative data was analysed thematically using content analysis. The results revealed the following information needs of cattle farmers: animal health information, market information, information on animal husbandry, information on new technologies, and information on agriculture policies. The major information sources used by cattle farmers were interpersonal sources for example friend and, relatives and information sources which were used to a lesser extent were extension officers, veterinary doctors, radio, newspapers and books. The satisfaction levels with various sources showed that farmers were satisfied with information obtained from veterinary doctors and extension officers but were least satisfied with information obtained from friends, relatives, neighbours, other cattle farmers and personal experience and were more dissatisfied with information obtained from radio, books and newspapers. The preferred channel of communication was oral communication. The challenges faced by farmers when seeking information included high illiteracy levels, language barrier, format in which information was packaged, inadequate numbers of personnel’s, inaccessible roads, distance to information
centres and agriculture radio programs being aired at odd hours were also stated. The study concluded that there is an increasing need to work in partnership and to share knowledge and skills in order to provide locally relevant services that meet the information needs of smallholder farmers in Namibia. The results showed that the information received by farmers indicated that it was not to the expected level therefore the study concluded that government and local authorities should develop the existing services, information and communication systems to facilitate the farmers to access relevant information on time in order to gain best agricultural productions.

1.0 BACKGROUND INFORMATION TO THE STUDY

The agriculture sector in developing countries is becoming increasingly knowledge intensive. Researchers at the global, regional, and national levels continue to generate new information. As agriculture systems become more complex, farmers’ access to reliable, timely, and relevant information sources becomes more critical to their competitiveness. Information must be relevant and meaningful to farmers, in addition to being packaged and delivered in a way preferred by them (Diekmann et al, 2009).

Agriculture is a vital sector for the sustained growth not only for developed countries but more importantly for developing countries, especially agriculture-based countries such as those in Sub-Saharan Africa. It is for this reason that even some international organisations like the World Bank and Food Agriculture Organisation (2007) have pointed out that “agriculture can work in conjunction with other sectors to produce faster growth, reduce poverty and sustain the environment.” Equally important, significant portions of the world’s population, 86 percent of rural inhabitants still depend on agriculture for employment and sustenance (World Bank 2007).

Agriculture is considered a key ingredient to economic development the world over and therefore scientists have done a lot of research in the field. These researches have yielded tremendous innovations leading to improved food production (FAO, 2005). In most of the African countries, agriculture is the means of alleviating poverty whose incidence is debilitating with conditions that are too dehumanizing (World Bank, 2007). Strengthening agriculture is critical to addressing challenges of rural poverty, food insecurity, unemployment and sustainability of natural resources. The present human society is living in an information age and as a consequence, man has become more and more information conscious. More and more people deliberately and consciously seek information and it has become an integral part of human activity especially in the area of education, research and development, animal husbandry practices (e.g. castrations, dehorning, and marketing of animals, agriculture inclusive all of which have contributed to the improvement of the quality of life).
Demiryurek et al. (2008) has confirmed that information is an important factor that interacts with other production factors such as land, labour, capital and managerial ability and can arguably be improved by relevant, reliable and useful information. He further states that information supplied by extension, research, education and agricultural organisations helps farmers make better decisions. It is important to acknowledge that Information plays an important role in the lives of the farmers as it helps them become more knowledgeable with best animal husbandry practices which help them in improving their production levels and prevents them from making wrong decision that may in turn affect the welfare of their animals. This contributes to the rise in the gross domestic product thereby contributing to economic development.

Information and knowledge are very vital in agricultural development of any community and where they are poorly disseminated as a result of certain constraints, the community’s agricultural development becomes highly impeded. Information is essential for facilitating agricultural and rural development and bringing about social and economic change. It is however sad to know that most African countries have not devoted adequate attention to providing their citizens with access to information especially in rural areas, where 70-80% of the African population resides (World Bank, 1997). Information is needed because it affects individuals’ living activities. When the rural farmers lack access to knowledge and information that would help them achieve maximum agricultural yield, they do not only grope in the dark but are driven to the urban centres in search of formal employment, as the only option for survival (Munyua, 2000).

2.0 STATEMENT OF THE PROBLEM

Information plays a critical role in human life and society as a whole in the sense that it controls, instructs, and therefore tends to influence the actions of the recipient. The small-scale cattle farmers are not an exception in the need for timely delivery of complete and relevant information. Mchombu (2000) has noted that one cannot have knowledge unless one gets information. He argues that information equips a person with the power to choose and to act in an informed manner. Information is therefore needed by the small-scale farmers as it can empower them towards actions that can transform their lives. Over the years, rural farmers have dependent on local knowledge for improved farming animal husbandry and presently, most small-scale cattle farmers in Katima-mulilo constituency are faced with a number of challenges and all that is witnessed are low production levels, high poverty levels and low turn outs to farmers field days meetings. The question is whether the information needed to mitigate these challenges is available, relevant and accessible by the affected farmers. It is not yet known how farmers seek information and the challenges they face therefore this study aimed at investigation into the information
needs and seeking behaviors of small-scale cattle farmers of Katima-mulilo rural constituency of the Zambezi region, Namibia. An extensive review of literature has shown that, researchers have concentrated more on investigating the information needs and seeking behaviors of arable farmers neglecting the livestock farmers. There has not been any study conducted on the information needs and information seeking behavior of cattle farmers in Namibia hence the need for this study.

3.0 METHODOLOGY

3.1 Research Design: A survey method was employed in this study to have an in-depth understanding of the small-scale cattle farmers information needs and seeking behaviours. The study relied on both quantitative and qualitative research methods.

3.2 Target Population: The population for this study comprised of veterinary medical officers, non-governmental officers (the likwama farmers union) and the small-scale cattle farmers in Katima Mulilo rural constituency.

3.3 Research Sample and Sampling Procedure: In this study the sampling design involved a total number of 140 respondents of which 125 respondents were small-scale cattle farmers of Katima Mulilo rural constituency of which 100 farmers responded to the questionnaire while 25 took part in the focus group discussions. The cattle farmers were randomly selected while the villages were sampled using the cluster sampling technique. The 15 key informants were sampled using the purposive sampling technique.

3.4 Research Instruments: Three research instruments were used to collect both quantitative and qualitative data for the study. The instruments used were interviews, questionnaire and focus group discussion guides. Interview guides were used to collect data from the Veterinary medical officers and officials from the Likwama farmers union. Using interviews the investigator gathered data from participants in face-to-face contact. Self-administered Questionnaires were used to collect data from small-scale cattle farmers as well as focus group discussions were ideal for the small-scale cattle farmers. FGDs were effective in terms of obtaining data that could not be obtained through the use of the questionnaire.

3.5 Reliability of the findings: Reliability of the data collection instrument was tested by piloting the instruments. This was done in a pilot test which was undertaken in Mwandi District on (20) cattle farmers and (3) veterinary medical doctors.
3.6 Validity of the Instruments: The instruments were validated by the researcher, the supervisor and other experts in Educational Research and Methods at the Directorate of Research and Graduate Studies (DRGS), who critically examined the face and content values of the instrument. Necessary corrections were made in order to improve the instrument.

3.7 Data Collection Procedure: Primary data was collected through the use of the questionnaires and focus group discussions which were held with the small-scale cattle farmers and the interviews were conducted with Veterinary medical officers, Extension officers and officials from the Likwama farmers union. The researcher, using the authority letters from the University of Zambia and the Ministry of Water and Forestry, permission was granted to convince the extension officers and cattle farmers in order to get their voluntary participatory in the study on the information needs and seeking behaviours of the small-scale cattle farmers of Katima Mulilo rural constituency. Both the key informants and small-scale cattle farmers were assured that all responses would be kept confidential and that data would be published in aggregate form only. Secondary data was collected from official records, annual work plans, internet, and books available in the libraries and from all organizations where data related to the topic could be obtained. The Ministry of Agriculture, Water and Forestry was also used to collect data.

3.8 Data Analysis: The questionnaires were coded and data was analyzed using the Statistical Package for the Social Sciences (SPSS) version (20.0). Qualitative data was analysed thematically using content analysis, as themes and sub themes emerged from the data. The responses from subjects were put into categories according to the emerging themes. This allowed objective and critical interpretation, so as to make decisions that were valid for proper conclusion and recommendations of the study.

4.0 PRESENTATION OF RESULTS

4.1 Characteristics of the Respondents

One hundred questionnaires were distributed to the small-scale cattle farmers, out of all the one hundred were returned, giving a response rate of 100%. The study revealed that ninety-five percent of the respondents were male while five percent were female. Sixty-one were aged above 50years, twenty were aged below 40years and 19 were aged between 40-50 years. Table one summarises the characteristics of the respondents. Seventy percent of the respondents were married, eighteen percent were single, seven percent were divorced and five percent of the respondents were widowed. Information on the education levels showed that forty-four percent of the respondents had never been to
school or received any formal education, twenty-five percent had only gone up to primary level, nineteen percent had reached tertiary level while twelve percent had attained secondary education. In terms of farm ownership, eighty-nine percent of the respondents were owners, seven percent were supervisors and four percent were senior employees.

Table 1: Characteristics of the respondents

<table>
<thead>
<tr>
<th>Variable</th>
<th>Value</th>
<th>Frequency n=(100)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>95</td>
<td>95%</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>5</td>
<td>5%</td>
</tr>
<tr>
<td>Age</td>
<td>Above 50 years</td>
<td>61</td>
<td>61%</td>
</tr>
<tr>
<td></td>
<td>Below 40 years</td>
<td>20</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td>40-50</td>
<td>19</td>
<td>19%</td>
</tr>
<tr>
<td>Marital status</td>
<td>Married</td>
<td>70</td>
<td>70%</td>
</tr>
<tr>
<td></td>
<td>Single</td>
<td>18</td>
<td>18%</td>
</tr>
<tr>
<td></td>
<td>Divorced</td>
<td>7</td>
<td>7%</td>
</tr>
<tr>
<td></td>
<td>Widowed</td>
<td>5</td>
<td>5%</td>
</tr>
<tr>
<td>Educational level</td>
<td>No formal education</td>
<td>44</td>
<td>44%</td>
</tr>
<tr>
<td></td>
<td>Primary</td>
<td>25</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>Tertiary</td>
<td>19</td>
<td>19%</td>
</tr>
<tr>
<td></td>
<td>Secondary</td>
<td>12</td>
<td>12%</td>
</tr>
<tr>
<td>Ownership of farm</td>
<td>Owner</td>
<td>89</td>
<td>89%</td>
</tr>
<tr>
<td></td>
<td>Employee</td>
<td>11</td>
<td>11%</td>
</tr>
</tbody>
</table>

4.2 Information needs of the cattle farmers

A cross tabulation on the type of information needed with the position that a farmer held. The study revealed that all the 89 owners needed information on animal health, they also needed market information (76), 68 mentioned information on agriculture policies, 42 also needed information on animal husbandry, while 39 sought for information on new technologies and 21 needed information on agriculture policies. It was also established that the employees information were as follows; 11 had a higher need for animal health information, 9 sought for market information, 7 needed information on animal husbandry, 3 on information on new technologies and 2 sought for information on agriculture policies.

In order to establish whether there was an association between education level and kind of information required by the small-scale cattle farmers, the researcher conducted a Fishers Exact test at significance level of 0.05. The results were significant ($\chi^2=49.608; \text{df}=15; p=0.001$). The results revealed that
small-scale cattle farmers with no formal education sought for information on animal health, nine sought information on marketing, and to a very lesser extent two sought for information on animal husbandry and only one sought for information on new technologies while none of them sought for information on agriculture policies. The study also revealed that the small-scale cattle farmers who attained primary education, sought for information on animal health, 19 sought for marketing information, 8 were in need of information on animal husbandry while 3 sought for information on new technologies and only 1 sought for agriculture policies. In secondary level, 30 sought for animal health information, 17 sought for market information while 12 had a need for information on new technologies, 7 needed information on animal husbandry and only 1 sought for information on agriculture policies. In addition, those who had acquired tertiary education, 23 sought for information on animal health, 19 needed information on new technologies, 16 sought for market information while 10 needed information on agriculture policies and 13 were in need of information on animal husbandry.

Table 2: Education level attained versus Type of information required

<table>
<thead>
<tr>
<th>Type of information required by farmers</th>
<th>Animal health</th>
<th>New technology</th>
<th>Market information</th>
<th>Agricultural policies</th>
<th>Animal husbandry</th>
</tr>
</thead>
<tbody>
<tr>
<td>No formal education</td>
<td>12</td>
<td>1</td>
<td>9</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Primary</td>
<td>33</td>
<td>3</td>
<td>19</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Secondary</td>
<td>30</td>
<td>12</td>
<td>17</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Tertiary</td>
<td>23</td>
<td>19</td>
<td>16</td>
<td>10</td>
<td>13</td>
</tr>
</tbody>
</table>

A Chi square test was further conducted to establish whether there was an association between age and kinds of information required by the small-scale cattle farmers at significance level of 0.05. The results were not significant ($\chi^2 = 8.292; df= 10; p=0.600$). The study revealed that respondents below the age 40 years, 18 sought for animal health information, 12 had a need for market information, 4 sought for information on new technologies, another 4 sought for information on animal husbandry but none in this age group sought for information on agriculture policies. It was further established that those between 41 and 50 years, 30 had a need for animal health information, 19 on market information, 11 needed information on new technologies, 11 required information on animal husbandry while 4 sought for information on agriculture policies. Those above 50 years, 50 had a much higher need for animal health information, 30 on market information, 20 needed information on new technologies and 15 wanted information on animal husbandry while 8 sought for information on agriculture policies. The table below illustrates
results from a cross tabulation between type of information required and age.

Table 3: **Type of information required versus Age**

<table>
<thead>
<tr>
<th></th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt;40 years</td>
</tr>
<tr>
<td>Animal health</td>
<td>18</td>
</tr>
<tr>
<td>New technologies</td>
<td>4</td>
</tr>
<tr>
<td>Market information</td>
<td>12</td>
</tr>
<tr>
<td>Agriculture policies</td>
<td>0</td>
</tr>
<tr>
<td>Animal husbandry</td>
<td>4</td>
</tr>
</tbody>
</table>

### 4.3 Information sources used by cattle farmers

The researcher wanted to establish the respondents’ information seeking behaviour. The cattle farmers were asked to state the sources used when seeking information. Table 3 below shows the sources of information used by cattle farmers. The study revealed that forty-nine percent of the respondents accessed information from other cattle farmers (friends, relatives and neighbours), twenty-one percent accessed information from extension officers, and twelve percent obtained information from veterinary doctors while eight percent used personal experience. The study further revealed that six percent of the respondents’ accessed information from the radio, two percent used books and another two percent accessed information from newspapers.

A chi square test was conducted to establish whether there was an association between age and information sources used by cattle farmers at significance level of 0.05. The results were not significant ($\chi^2 = 16.829; \ df = 14; \ p=0.265$). The results revealed that those below 40 years, 14 sought for information from friends and relatives, 13 consulted veterinary officers, 12 used personal experiences, 11 also consulted extension officers and only 4 used the radio. From this age group (<40yrs), none of them used newspapers or books. While those between 40-50 years of age, 22 consulted veterinary officers, 20 used personal experience, 17 consulted friends and relatives while 16 consulted extension officers, 13 used the radio, 4 used newspapers and 3 also consulted books. The study further established that those above 50 years, 37 used personal experience, 33 consulted friends, another 33 sought information from veterinary officers, 23 also consulted extension officers while 16 used the radio, 7 also used books and 6 sought for information from newspapers.

Another Chi square test was conducted to establish whether there was an association between gender and information sources cattle farmers used at significance level of 0.05. The results were significant ($\chi^2 = 18.703; \ df = 7; \ p=0.009$). The results revealed that male cattle farmers relied heavily on
personal experience (45), veterinary medical officers (6), friends/relatives, (20), extension officers (11), radio (5). To a lesser extent, the male respondents also sought information from books (5) and 3 also used newspapers while all the female respondents relied heavily on friends and relatives.

Table 4: **Information source versus Gender**

<table>
<thead>
<tr>
<th>Information sources</th>
<th>Sex of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Male</strong></td>
</tr>
<tr>
<td>Personal experience</td>
<td>45</td>
</tr>
<tr>
<td>Friends/relatives</td>
<td>20</td>
</tr>
<tr>
<td>Extension officers</td>
<td>11</td>
</tr>
<tr>
<td>Veterinarians</td>
<td>6</td>
</tr>
<tr>
<td>Radio</td>
<td>5</td>
</tr>
<tr>
<td>Books</td>
<td>5</td>
</tr>
<tr>
<td>Newspapers</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>95</td>
</tr>
</tbody>
</table>

A Fishers Exact test was further conducted to establish whether there was an association between education level and information sources cattle farmers used at significance level of 0.05. The results were significant ($\chi^2 = 58.324; \text{df} =21; p=0.001$). The results revealed that the respondents with no formal education 10 relied on friends and relatives, another 10 on personal experience, 8 on extension officers, 7 on veterinary medical officers and another 7 used the radio while only 1 used newspaper and none of them used books. While those in primary level, 23 used personal experience and another 23 consulted friends and relatives, 21 also consulted veterinary medical officers, 15 consulted extension officers, 11 used the radio while none of them used newspapers or books. In secondary level; 24 used personal experiences, 17 sought for information from friends and relatives, 15 consulted veterinary officers, 13 consulted extension officers, and 16 used the radio while 3 read newspapers and only 1 used books. Lastly, those in tertiary level, 20 used veterinary medical officers, 16 consulted friends and relatives, 15 used personal experiences, 14 consulted extension officers, 9 obtained information from the radio and another 9 also used books while 6 used newspapers. Table 5 shows results from the Fishers’ exact test.
Table 5: Information source versus education level

<table>
<thead>
<tr>
<th>Source of information</th>
<th>Highest educational level attained</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>no formal education</td>
</tr>
<tr>
<td>Personal experience</td>
<td>10</td>
</tr>
<tr>
<td>Newspapers</td>
<td>1</td>
</tr>
<tr>
<td>Friends/relatives</td>
<td>10</td>
</tr>
<tr>
<td>Books</td>
<td>0</td>
</tr>
<tr>
<td>Extension officers</td>
<td>8</td>
</tr>
<tr>
<td>Veterinarians</td>
<td>7</td>
</tr>
<tr>
<td>Radio</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

4.4 Channel of communication

In order to understand the preference channel of communication used by the small-scale cattle farmers, the level of education was used to understand which channel was the most preferred by which category of farmers. The results showed that those who had no formal education, respondents who had primary education and secondary used oral communication as a channel of communication and to a lesser extent only 2 among those who had attained secondary education used mobile phones while the respondents who had acquired tertiary education, 6 preferred oral communication, 10 read books and 3 used mobile phones. Table 6 shows the results of a cross tabulation between channel of communication and education level of the respondents.

Table 6: channel of communication versus education level

<table>
<thead>
<tr>
<th>Communication channels</th>
<th>Education levels</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No formal education</td>
</tr>
<tr>
<td>Oral communication</td>
<td>44</td>
</tr>
<tr>
<td>Reading</td>
<td>0</td>
</tr>
<tr>
<td>Use of mobile phones</td>
<td>0</td>
</tr>
</tbody>
</table>

4.5 Satisfaction levels with information source

The respondents were asked to state their satisfaction levels on the sources they used when accessing information. This was to understand the respondent’s satisfaction levels towards the sources. The study revealed that twelve percent of the respondents who obtained information from veterinary doctors were
very satisfied; eight percent of those who used extension officers were very satisfied while thirteen said they were satisfied. The study further revealed that all the respondents who accessed information from other cattle farmers (friends, relatives, and neighbors), personal experience, radio, books and newspapers were not satisfied with the information they obtained.

Table 7: Respondents satisfaction level with information source

<table>
<thead>
<tr>
<th>Source</th>
<th>Frequency</th>
<th>Very satisfied</th>
<th>Satisfied</th>
<th>Not satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Veterinary doctors</td>
<td>8</td>
<td>8</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Extension officers</td>
<td>12</td>
<td>12</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Friends/ Relatives</td>
<td>49</td>
<td>0</td>
<td>0</td>
<td>49</td>
</tr>
<tr>
<td>Personal Experience</td>
<td>21</td>
<td>0</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Radio</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Books</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>News papers</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

4.6 Information challenges faced when seeking information

Cattle farmers experience various challenges when seeking information in order to solve their problems. In order to identify the problems that the respondents faced, they were asked to tick the challenges they encountered when seeking information. This made it possible to rank the problems. Table 5 summarizes the challenges faced by farmers. Fifty-nine percent of the respondents said that the language used to disseminate information was a barrier to them as most of the information was presented in English which they could not understand. Twenty percent indicated distance to information centres while ten percent said format in which information was presented was a challenge that hindered them from accessing information. Furthermore, six percent mentioned the unavailability of skilled personnel to consult from whenever the need for information arose, three percent (3%) indicated poor public relations of extension worker and two percent stated the lack of financial resources. Table 8 below shows the challenges faced by cattle farmers when
seeking information.

**Table 8: Challenges faced by cattle farmers**

<table>
<thead>
<tr>
<th>Type of challenge</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>High illiteracy levels</td>
<td>59</td>
<td>59</td>
</tr>
<tr>
<td>Language barrier</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Long distance to information centers</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Inadequate numbers of personnel to consult</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Poor public relations of extension workers</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Agriculture information on radio aired at odd hours</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

A Fishers Exact test was conducted to establish whether there was an association between age of farmers and challenges they face when seeking information. The test was conducted at a significance level of 0.05. The results were not significant ($\chi^2 = 11.504; \text{df} = 8; p=0.175$). Respondents below the age of 40, six pointed out high illiteracy levels, three mentioned language barrier, three also highlighted distances to information centers, five said the inadequate numbers on personnel to consult and three said poor public relations of extension workers while six said agriculture information on radio was aired at odd hours.

The study further established that in the age group between 40 and 50, six pointed out high illiteracy levels, four mentioned language barrier, two also highlighted distances to information centers, five said the inadequate numbers on personnel to consult and none mentioned poor public relations of extension workers while nine said agriculture information on radio was aired at odd hours. In addition, those above 50 years expressed the following challenges; ten pointed out high illiteracy levels, four mentioned language barrier, ten again also highlighted distances to information centers, four said the inadequate numbers on personnel to consult and none mentioned poor public relations of extension workers while fifteen said agriculture information on radio was aired at odd hours. Table 14 below shows the cross tabulation of the challenges faced by small-scale farmers with age.

A Fishers Exact test was also conducted to establish whether there was an association between education level of farmers and challenges they face when seeking information. The test was conducted at a significance level of 0.05. The results were significant ($\chi^2 = 21.218; \text{df} = 12; p=0.047$). The study revealed that those who had no formal education, 8 pointed out high illiteracy levels, seven mentioned language barrier, 3 highlighted distance to information centers, one said the inadequate numbers on personnel to consult and two said agriculture information on radio was aired at odd hours. None in this category mentioned poor public relation of extension officers as being a challenge to them. Those that had attained primary level, eighteen mentioned high illiteracy...
levels, six said language in which information was presented, four said long
distance to information centers, four again mentioned the inadequate numbers
of personnel while three said poor public relations of extension officers and one
said agriculture information was on radio was aired at odd hours.

The study further established that the respondents who had attained
secondary education, fourteen said high illiteracy levels, eighty said language
in which information was presented, three said long distances to information
centers while two mentioned the inadequate numbers of personnel’s to consult
from and none in this category mentioned poor public relation of extension
officers and agriculture information being aired at odd hours. In addition, those
who had gone up to tertiary level none mentioned high illiteracy levels and
language barrier as being challenges they were facing but eighty complained
of the long distances to information centers while eighty again mentioned
inadequate numbers of personnel’s to consult and three said agriculture
information on radio was aired at odd hours and none of them mentioned
poor public relations of extension officers. The table below shows the cross
tabulation results of challenges faced by cattle farmers and educational level.

A Fishers Exact test was conducted to establish whether there was an
association between gender of farmers and challenges they face when seeking
information. The test was conducted at a significance level of 0.05. The results
were significant ($\chi^2 = 21.368; \text{df}=14; p=0.037$). The results revealed that from
the male category, 37 highlighted high illiteracy levels, 23 said language used
when presenting information was a barrier to them, 13 complained of long
distances to information centers, 9 said inadequate numbers of personnel to
consult while 3 complained of the poor public relations of extension officers
and 10 said agriculture information on the radio was aired at odd hours. It was
further noted that all the 5 females pointed out high illiteracy levels as being
the biggest challenge to them.

4.7 Findings from the focus group discussions

4.7.1 Background information of participants

Five focus group discussions were held with 25 cattle farmers. Each
group consisted of five (5) participants making a total number of 25
discussants who participated in the focus group discussions. The
respondents were randomly selected from five villages. The critical
incident technique was used in collecting data. This helped the
cattle farmers in recalling some of the past incidences that they had
encountered that prompted them to seek information. This method
helped in soliciting new information which could have been left out in
the questionnaire.

The findings from the focus group discussions revealed the
following incidences as being the ones that triggered the cattle farmers
information needs; the incidences were grouped into the following: Outbreak of diseases, the desire to sell animals which was influenced by the need to sustain themselves and to raise funds for their children’s school fees, the need to improve on a particular practice in order to increase production levels also prompted them to seek for information new technologies and the desire to understand the registration process and other policies which were in place, the farmers saw the need to seek for information on agriculture policies. The study further revealed the following information sought by the cattle farmers’; animal health information, market information, information on animal husbandry, information on nutrition, information on agriculture policies and new technologies. The study revealed that farmers heavily relied on information which was obtained from friends and relatives. While veterinary doctors, extension officers, Meat Corporation board of Namibia, Likwama farmers union were consulted though not so often and to a lesser extent the radio, television and newspapers were used.

It was observed that farmers were satisfied with information obtained from veterinary doctors, extension officers and were least satisfied with information obtained from Likwama farmers union, friends/relatives, personal experience. Furthermore, farmers were dissatisfied with information obtained from the radio, books and newspapers. In addition, it was revealed that the need to seek information was mainly influenced by the number of animals a farmer had and also the education level influenced the type of source where information was sought.

The results from the focus group discussions also established the following challenges: illiteracy level, language barrier, inadequate personnel, format in which information was packaged, inaccessible roads and distances to information centres. The following suggestions to overcome the challenges were highlighted: there was need for government to increase awareness programs, more information to be presented in local languages, employ more extension workers, build proper roads, and build information centres in the villages.

4.8 Findings from the interviews held with the key informants

4.8.1 Background information of interviews

This section presented the findings from the interviews which were held with three veterinary doctors, ten animal health technicians (extension officers) and two key informants from the Likwama Farmers Union. The key informants were selected using purposive sampling. This method was used to enable the researcher to sample only the people who were relevant in providing information for this study. The findings from the interviews were guided by the four objectives namely: (a) to
find out the information needs of cattle farmers, (b) to investigate the
information sources they were using, (c) to find out the challenges
cattle farmers were facing when seeking information.

4.8.2 Information provided to cattle farmers
The study established that the following information was provided by the
veterinary doctors and extension workers: animal health (information
on disease status in the region), vaccination days, information on
animal husbandry, information on new technologies, information on
nutrition, information on animal care handling to avoid diseases like
rabbits and tuberculosis which can easily be transmitted to human
beings. The Meat Corporation Board provided market information to
the farmers while the Likwama Farmers Union provided the farmers
with information on animal husbandry.

4.8.3 Number of contacts with the farmers
The results revealed that all the three (3) vet doctors who were
interviewed provided information to the farmers on a daily basis for
those that could manage to visit their offices and once a month to those
that could not visit their offices while the ten (10) extension officers
who were interviewed all stated that they met the farmers only once
a month and when attending to emergencies. The Likwama Farmers
Union only met the farmers once in a while during field days and
agriculture exhibitions.

4.8.4 Channels and formats of information transfer
The results showed that information was given to the farmers through
verbal conversations with them. Information was also written in books,
brchures, notice boards, newspapers and the radio. The key informants
acknowledged that the usage levels of print materials were very low
as farmers were more comfortable with receiving information through
verbal communication and in their local languages though this was a
challenge to the key informants who could not speak or understand the
local languages.

4.8.5 Problems facing cattle farmers
The key informants highlighted the following problems: illiteracy,
language barrier, inadequate personnel (vet-doctors and extension
officers), and long distance to information centres, inaccessible roads
and agriculture information on radio aired at odd hours.
5.0 DISCUSSION OF FINDINGS

Understanding what information small-scale cattle farmers need, how they search for information, which sources they depend on for accessing information, and the challenges they face when seeking information can help in designing effective extension programs and advising services in developing countries. This study investigated into the information needs and seeking behaviour of small-scale cattle farmers of Katima Mulilo rural constituency of Zambezi region, Namibia.

5.1 Information needs of the farmers

The study revealed that 55 of the cattle farmers had felt the need for information on animal health, 20 needed information on animal husbandry, 13 sought for information on new technologies, 9 felt the need for market information and 3 sought for information on agriculture policies. Contrary to findings of the study, Hu et al (2006) who investigated into the information needs of livestock farmers in China reported that livestock farmers had a higher need for market information, information on nutrition and market. In another related study, Muhammad (1999) investigated on the agricultural information needs of Pakistan farmers and found that they had a higher need for information on feeding, followed by animal health information e.g. vaccination against viral and bacterial diseases and their time intervals. The need for market information was rated third.

The results of the study and from the literature showed that there were some differences in the ranking of the information needs of the farmers. This is to say that the highest felt need for a particular country may not be the most information needed in another country due to the types of farming systems practiced in different countries and the levels at which it is done as in some countries, cattle farming is practiced at a commercial level while in most developing countries like Namibia; there is a mixture of commercial and communal type of farming being the most practiced by many farmers who only farm at subsistence level. Therefore, it is obvious that there information needs are bound to differ.

Education level was also found to be a factor that appeared to be positively related to the type of information needed by the small-scale cattle farmers as it was revealed that respondents who had acquired tertiary and secondary education had a need for a wide range of information while those with no formal education and in primary levels showed no interest in information on agriculture policies and new technologies. Factors like age and gender did not have any influence on the type of information needed by the farmers and this is because the need for information is felt at all levels of society regardless of
one’s age or gender. People need information. These findings were in consistent with what Zhao (2000) also found that information needs of farmers depended on their education level as the highest, income level, the level of economic development in a particular area, information service capacity and cost of accessing the information.

5.2 Information sources used by farmers

Inappropriate or poor-quality information could be a hindrance to farmers’ use of information sources. Small–scale cattle farmers just like any other farmer be it those practicing arable farming rely on various sources of information to solve problems that they encounter in their farming business or to make a decision on a particular issue they are faced with. Most of these farmers decide to use certain sources because of the kind of information they expect to find there. The different needs that farmers have and the various problems they experience may require them to use certain sources of information. The study revealed that 49 respondents obtained information from friends and relatives, 21 used personal experiences, 12 obtained information from extension officers, 8 used veterinary medical doctors, 6 used the radio while 2 obtained information from newspapers and another 2 obtained information from books.

The study further revealed factors like gender and educational level of the respondents as being positively related to the perceived usefulness of information sources as the results revealed that there was a positive significance between the information sources used by small-scale cattle farmers with gender as majority of the male relied heavily on personal experience and veterinary officers while female cattle farmers relied heavily on friends and relatives. The results were consistent with what Achia (2002) reported that women’s access to agricultural information is based mainly on their everyday interactions with the communities of which they are a part and the groups of individuals with whom they regularly come into contact. Durutan (1999) noted that, although there is a growing awareness of the need to reach women farmers, agricultural extension services are generally geared to male farmers. Aina (2006) adds that, even when extension agents visit farmers, they usually focus their activities on the male farmers, hardly reaching out to the women, who constitute a substantial proportion of farmers in Africa.

Education levels of the respondents was seen to also have an influence on the type of information sources used by farmers as the results showed that those who had tertiary education had a used a wide range of information sources compared to those with no formal or low education. This was in confirmation with what Lazarus and Smith (1998) stated in their survey of dairy farmers that education level was among the variables that had an influence on the use of veterinary services. Equally, Zhao (1998) also reported that most educated
farmers read newspapers to get information on agricultural technologies. The results from the study showed low usage of newspapers, books and the radio as information sources. This was because of the language (English) in which information is presented in these medias as majority of the farmers were illiterates as shown from the number of farmers with no formal education. Information on radio is usually aired at odd hours when farmers are out in their fields. Therefore, it is important for information providers to consider delivering information in simple languages and formats which would be user friendly to the farmers.

5.3 Channels of communication

There are a lot of channels used in transferring information. The study revealed that oral communication was the most preferred channel of communication and to a lesser extent the farmers also said they obtained information through reading and the use of mobile phones being the last to be ranked. It was observed that indeed there education had an influence on the channel of communication as farmers with no formal education, those in primary and secondary levels relied heavily on oral (Verbal) communication while those in tertiary level also obtained information through reading and the use of mobile phones.

These results were consistent with those reported by Riesenbeg (1999) who conducted a study to determine the information literacy level of paddy farmers of Ampara district in Sri Lanka in accessing agricultural information and explored how much this support the enhanced agricultural productivity. The study reviewed that majority of the respondents’ preferred verbal communication, print sources and the use of computer and internet is reported poor. In addition, Rao (1981:63) and Uhegbu (1997:87) had similar findings with regard to the channel of communication. They contend that rural villagers prefer non-print materials because they are more accustomed to acquiring information through listening rather than reading. They further go on to state that this channel of communication is deeply rooted in orality.

Furthermore, oral information transfer as observed by Leach (1999:165) is an old as humankind. He further describes it as an immediate and requires no technology. He however, laments that it lacks permanence therefore; he is of the view that it is a basic medium of information transfer which does not require the acquisition of new skills such as reading. Oral information provision is a suitable means of communication especially for a group of people who are not educated like the cattle farmers.

In this study, the information seeking behaviour of farmers was depicted from the sources they use when seeking information. The study revealed that their information seeking behaviour was more aligned to informal sources (information gotten from friends, relatives and personal experiences) than formal. This according to Mmoh (2002) is because these sources to them are
more accessible, reliable and authentic’. The results on information seeking behaviour of small-scale cattle farmers were in confirmation with Zipf’s (1949) ‘principle of least effort in human behaviour’. This is to say that, as human beings seek information, they will always consult sources that are near to them than those that are far away or will give problems for them to access information. Equally the issue of trust also comes in, mostly rural people would want to use sources they are familiar with it’s when they tend to feel more comfortable and convinced.

5.4 Challenges faced when seeking information

Small-scale cattle farmers in Katima Mulilo constituency face various challenges when seeking information. The study revealed some the major challenges which they faced, high illiteracy levels, language barrier, long distances to information centers, inadequate numbers of personnel’s to consult, poor public relations of extension officers and agriculture information aired at odd hours on the radio.

Despite the difference in the level of ranking, the findings of the study were similar with what Aina (2007) found in his study where he associated the following problems or constraints with dissemination of agricultural information in Africa: inadequate financial power of farmers in Africa, high illiteracy levels, farmers living in areas where there is lack of basic infrastructure such telephones, good roads and electricity. Also few numbers of extension workers and agriculture information aired at odd hours.

Ozawa, (1995), Momodu, (2002) and Aina, (2007), have noted that a large number of African farmers are illiterate and so they cannot read or write in any language. Information which is written in English is not useful to small-scale farmers. This is to say that farmers in most developing countries are unable to acquire up-to-date information due to language barriers. Therefore, the information provided to them has to be simple, and in a language which can be understood by many farmers,

Ozawa et al (1995) reported that because of the low numbers of Agricultural Extension Workers, farmers hardly obtain new information. This is because the ratio of Agricultural Extension Workers to farmers is low. This situation is not different from the findings of this study.

6.0 CONCLUSION

In recent decades, the value of information has increased considerably as the agricultural systems in developing countries become more knowledge intensive. Access to and use of current information is critical, not only for the financial success of farmers, but to support sustainable agricultural systems. Yet, farmers are rarely consulted about their needs and preferences before the design of extension services. But by understanding how farmers access and use
agricultural information, their agricultural information needs, and the factors that influence their information search behaviour, programs disseminating agricultural information could better target farmers. Despite all the efforts made by the ministry of Agriculture, water and forestry through the extension workers in providing information and services to the cattle farmers, there are still some farmers that lack access to information and services. This does not mean that their information needs are not met. Some information needs are met but what farmers still lack is adequate to a wider range of current information sources. Farmers are embedded with a lot of challenges ranging from conventional literacy, inadequate personnel, distance to information centres, lack of resources, inaccessible roads, agriculture information broadcast at odd hours on radio and lack of rural electrification are some of the challenges that need to be addressed if Namibian’s dream to have an agricultural transformation is to be met. Based on the results of the study, the information received by farmers indicated that it was not to the expected level therefore the study concluded that government and local authorities should develop the existing services, information and communication systems to facilitate the farmers to access relevant information on time in order to gain best agricultural productions.

7.0 RECOMMENDATIONS

The study results and conclusion made the following recommendations:

1. There is need for the government and other relevant authorities in charge of disseminating information to do the following: understand that demographic variables like gender and education levels of farmers which may have a negative impact in accessing and usage of agriculture information and extension should be designed with the farmer’s information needs in mind.

2. Government should implement policies that would guide and support the building of adult education centres and facilitate extension education hence the need for adult educational centers to be built. There is need to incorporate the women in any agricultural activities and encourage them to use other various information sources which could be of help to them.

3. There is need for information needs to be presented in the local languages both during field days meetings with the farmers and in print form because technical language used in communicating information is incomprehensible to the farmers.

4. There is need to employ more extension officers and veterinary doctors
to enhance on information delivery.

5. Information on radio should be aired in the evening when farmers are back from the fields and there is also need for more sensitization to be given to farmers on other information sources.

6. There is need to provide information services using more accessible information formats, channels and sources as access to reliable agricultural information is significant to the growth and development of the region and the country at large.

7. Extension and other agricultural educators must consider the capability of the information source for delivering the information, and their target clientele’s preferences for receiving information from various sources.

REFERENCES


Riesenbeg (1999). Farmers’ preferences for methods of receiving information on new or innovative farming practices, library review. 56 (2)


An Assessment on the Usage of Information, Communication Technologies in the Delivery of Quality Education: A Comparative Study of Hillcrest National School and David Livingstone Secondary School in Livingstone

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ABSTRACT

ICTs have been found to be a very important step in education around the world. The study aimed doing a comparative assessment on the usage of ICTs in the delivery of quality education; at Hillcrest National School and David Livingstone Secondary School in Livingstone. The objectives were to identify the usage and benefits of using ICTs in Schools, challenges faced by both teachers and pupils and lastly suggest measures towards improvement of ICTs. The sample firstly considered Grade 12 the pupils of these schools as these seen to have been at these school of long period. Then the teachers as well as the ICTs Co-coordinators were considered. The sample size consisted eighty (80) pupils, forty (40) pupils from each school and twenty (20) teachers which was ten (10) from each school and two (2) ICT coordinators meaning one (1) from each school. The sampling frame used was the establishment registers for 2014 while simple random sampling was used as a sampling technique. Eighty (80) questionnaires were distributed to pupils while twenty-two (22) semi-structured questionnaires were prepared for teachers and ICT coordinators to supply key information about the institutional framework. There was a 100% response rate in all categories. The study revealed that 100% respondents s at Hillcrest used ICTs as a source of information while only 50% used it at David Livingstone. Additionally, 100% at Hillcrest saw ICTs as a need in their studies while only 80% at David Livingstone thought so. The findings further reveal that 77.8 % of respondents at Hillcrest used ICTs for academic purposes while only 48.5 % at David Livingstone used it for such purposes. The findings of the study reviewed that benefits were enormous. In terms of challenges, 85% of respondents at Hillcrest thought time allocated for the usage of ICTs was not enough while at David Livingstone the lack of adequate ICTs was seen as a challenge. It was thus concluded are that the use of ICTs at Hillcrest was better than David Livingstone. Majority of the pupils at Hillcrest used computers because they were adequate as compared to David Livingstone which had very few computers. It was thus recommended that more time be allocated for ICT usage at Hillcrest while David Livingstone secondary School should improve on ICT facilities.
1.0 INTRODUCTION

Information and communication Technologies (ICTs) are powerful enabling tools for educational change and reform. When used appropriately, different ICTs help expand access to education, strengthen the relevance of education. According to Morrison, (1999) when used appropriately, ICTs have the potential to enhance learners ‘achievement and assist them in meeting their learning objectives. Similarly, Branson (1991) argues students can learn much more than what the teacher teaches in conventional learning environment because they can learn independently having a wide choice information and knowledge. Haddad and Draxier (2002) indicated that ICTs contributes to effective learning through expanding access, promoting efficiency, improving the quality and quantity of teaching, learning and research. In this vein students can be involved in skill oriented activities in group learning environments for accumulated knowledge. They can interact and share learning experiences with their teachers and fellow learners’ in knowledge construction and dissemination process. They can receive and use information of all kinds in more constructive and productive way, rather than depending upon the teacher. Cuban (1996), noted that in recent years there has been a groundswell of interest in how computers and the internet can best be harnessed to improve the efficiency and efficiency and effectiveness of education at all levels and in both formal and non-formal settings. It is in this regard that this research was carried out at Hillcrest National Technical School and David Livingstone Secondary School in 2014. These schools are both in Livingstone.

1.1 Hillcrest National Technical Secondary School

Hillcrest Technical School, in Livingstone, Zambia, was opened on the 3rd of October 1956 with a register of ninety nine pupils and a total of ten staff. The school became a technical and a national high school in 1969. Since then it has continued to hold and enjoy a rich reputation owing to its excellent academic performance in as far as School Certificate Examinations are concerned. Most of the school leavers then either went to the University of Zambia or abroad for further studies. Hillcrest was a co-educational school in 1956 to 1972, later became a boys’ school in 1973 and then became a co-education again 1992. The school became a senior technical school with Grades 10 to 12 only, in 1985. In terms of ICTs, the school have computer Laboratory with 80 computers and offers lessons to all students at the School. Teachers have also access to the computer laboratory and wireless internet network is available for both teachers and pupils to do their research. The school has a total of 74 teachers and total pupil enrolment of about 2300.
1.2 David Livingstone Secondary School

David Livingstone Secondary School was opened in 1956 after a split from the first Government school in Livingstone which is Hillcrest National Technical School. It started as a Junior Secondary School then later became a primary school. With the growing number of secondary going students Livingstone, David Livingstone was turned into a secondary school in the year 1999. In 2003 the school was later changed to a High School due to Government policy. In 2014, the school started offering Grade 8-12 due to yet again the change of Government policy. The school has about 10 computers and an enrolment of about 80 teachers and 3000 pupils.

1.3 Statement of the problem

These schools have tried to put in certain measures in order to improve the impact or use of ICTs, through purchasing more computers and scheduling computer lessons as a subject especially with the coming of the new curriculum, as a subject for each class, and lobbying for skilled manpower to handle computer classes. All teachers who are illiterate on the use of ICTs are encouraged to undergo training through workshops organized by schools. Despite these measures put across by schools to improve the negative impact of these ICTs in most schools, it appears ICTs has not brought about the widespread changes in teaching methodologies to enhance quality education that was initially hoped for and also learning processes. As noted in the world Educational Report (UNESCO, 1998), education worldwide is facing a significant challenge in preparing students and teachers for “our future” during a time when most teachers are not prepared to use ICT and “the majority of existing school buildings, even in the most developed countries, are not equipped to integrate the new information and communication technologies.” The few schools that have proper ICT facilities do well in the delivery of quality education. This study therefore, investigated the use of ICTs in the delivery of quality education at Hillcrest National Technical School and David Livingstone Secondary School in Livingstone.

1.4 Research objectives

The general objective of the research was investigate the usage of ICTs in the delivery of quality education at Hillcrest National School and David Livingstone secondary School in Livingstone with the following specific objectives

1. To establish usage of ICTs as means of accessing academic information in schools.
2. To identify the benefits of application of ICTs in schools.
3. To discover the challenges faced accessing ICTs in schools.
4. To suggest measures towards improvement of the status and use of ICTs in schools.
LITERATURE REVIEW

The literature review specifically look at the need and usage of ICTs as a means of accessing academic information, benefits associated to ICTs, challenges and later look at measures to improve these ICTs.

2.1 Needs and usage of ICTS

Students need ICTS in their education for a number of academic reasons like research, preparing for assignments and exams and generally to improve the standard of education. Becta, (2003) indicated that broadly speaking the research into the use of ICT in teaching and learning is fairly consistent in finding that ICT helps improve writing and reading skills, supports collaboration and develop speaking and listening skills. In this vein, Becker, et al. (1999) conducted a study in selected senior High Schools in the Tema Metropolis in Ghana and it was revealed that those who used ICT facility attested to the fact that Internet and computers had helped them to achieve new things which they could not have done. According to a study done by Condie and Munro (2007) done in India, on the use of ICTs in teaching and learning, they concluded that the use of ICTs has had positive effects in a number of subjects, as well as being constructive in assisting students that are marginalized as a result of personal issues.

2.2 Benefits of application of ICTs in school

The use of technology in the learning environment has become an unstoppable force in recent years. The uses of ICTs are making major differences in the learning of student and teaching approaches. According to Volman and Eck, (2005) Schools in the western world invested a lot in the ICTs infrastructure over the last 20 years, and students used computers more often and for a larger range of applications. The studies review those teachers who use ICTs facilities mostly show higher teaching gains than those who do not use. Kulik’s (1994) finding across 75 studies in the United States showed the following: teachers who used computer tutorials in mathematics, natural sciences and social sciences scored significantly higher on their student’s exam results subjects. Teachers who use simulation software in science also produced higher results. As put by Volman and Eck, (2005), there is a common belief that the use of ICTs in education contributes to a more constructivists learning and an increase activity and better responsibility of students. In this line Diaz (2002) conducted a study in Wales were it was discovered that teachers made significant progress where schools rated ICTs use and its perceived impact as significant or substantial. One component of the report found out that ICT use led to increased commitments to the teaching task, enhanced enjoyment and interest in teaching, an enhanced sense of achievement in teaching, and
enhanced self-esteem. It was noted Schools with good ICTs in science related subjects achieved on or above standards, while schools with no satisfactory use of ICTs scored below set standards.

### 2.3 Challenges in the usage of ICTS in schools

A study by the Organization for Economic Cooperation and Development (OECD), (2009), involving 14 countries, confirmed that there were a number of challenges inhibiting the use of ICTs in education. These challenges included an inconsistent number of computers to students, a deficit in maintenance and technical assistance and finally, a lack of computer skills and or knowledge among teachers, lack of confidence, accessibility, and lack of time, fear of change, poor appreciation of benefits of ICTs and the age.

Frederick and Manion (2006), in his study on challenges associated with ICT use in Nigerian schools showed that student mobility, special needs, and anxiety over standardized test results are the main challenges associated with ICT use. Whelan (2008) also identified more barriers from the student perspective in his study in Egypt’s school as including, subpar technical skills that reduce access to ICT in classroom, an insufficient number of academic advisors and lack of timely feedback from instructors, reduced interaction with peers and instructors and lastly lack of ICT equipment to use.

Additionally, Baylor and Williama (2002), in an examination of a number of American public schools, discovered that teacher related issues were crucial in determining ICTs use in the classroom. Brossard and Loyd (1985) asserted that teacher altitude towards ICTs was one of the key factors which determined successful use, while Baskins and Williams, (2006) indicated that substantial body of research identifies time constraints as an important challenge to the use of ICTs in teaching. Becta (2004) in particular, found that teachers who failed to fully use technology were often restrained by lack of time. Among the major concerns expressed by teachers were the time needed to: locate internet advice, prepare lessons, explore and practice using the technology, deal with technical issues and receive adequate training.

On the other hand, Castro and Law (2011) asserted that teacher competence refers primarily to the ability to integrate ICTs into pedagogical practice. Pelgrum (2001) found that lack of knowledge/competence in technology, among teachers in developing nations was the primary obstacle so the uptake of ICTs in education. In relation to the lack of knowledge is the lack of training opportunities among teachers. One finding from Pelgrum’s (2001) study was that there were not enough training opportunities for teachers in the use of ICTs in the classroom. Similarly, a study conducted by Cox et al (1999a), argues that ICTs training for teachers need to incorporate pedagogical aspects. Additionally, a study done by Deanes, (2003) in Southern African countries noted that one of the major constraints of ICT development has been the
lack of adequate ICTs infrastructure. UNESCO (2004) also added that, the effective use of ICTs would require the availability of equipment, supplies of computers and other proper maintenance including other accessories. Most of the rural areas in Africa do not have electricity and therefore one cannot even run a computer in the first place. The development of the ICTs infrastructure in a country is dependent on the availability of a reliable electricity supply.

3.0 RESEARCH METHODOLOGY

The research design used in this research was a comparative study as it helped describe two units in detail, in context and holistically. It should be noted that in a comparative study, a great deal can be learned from new examples of the phenomenon under study. It can allow an in-depth investigation on the problem at hand. It brought about deeper insights and better understanding of the problem faced by students. The sample firstly considered Grade 12 the pupils of these schools as these seen to have been at these school of long period. At Hillcrest a total of 120 grade 12s and David Livingstone a total of 130 grade 12s. The second group included teachers at these schools as they are the ones that are supposed to use ICTs in their teaching and learning process. The school personnel establishment for Hillcrest National School is 74 while at David Livingstone Secondary School there were 78 teachers. The third group comprises of 2 ICT co-coordinators. The sample size was 80 pupils, forty (40) pupils from each school and twenty (20) teachers which was ten (10) from each school and two (2) ICT coordinators meaning one (1) from each school. The sampling frame used was the establishment registers for 2014 while simple random sampling was used as a sampling technique. Primary data was collected using questionnaires and interview guides. The analysis of quantitative data was done using Statistical Packages for Social Sciences to come up with frequency distribution, percentages and graphic presentation in form of tables. The qualitative data was analyzed manually though content analysis, categorization and coding of themes.

4.0 PRESENTATION AND DISCUSSION OF FINDINGS

4.1 Introduction

At each schools a total of forty (40) Questionnaires will distributed to grade twelve (12) pupils and all the 40 questionnaires were completed and returned. In the other two groups, that is the teachers and ICT coordinators, a total of twenty two (22) semi-structured questionnaires were distributed and there was a 100% response rate.
4.2 Pupils source of information

From the findings of the study, 100% of the respondents at Hillcrest indicated that they accessed information that they used in their studies mostly from the Internet. In this regard, internet is seen as the best source of information. This is in agreement with Sivin (1998), who said that the majority of the pupils appreciate the usefulness of Internet in accessing information for academic purposes. David Livingstone’s case is different where 50% of the respondents indicated that they accessed information from their friends, then, 30% and 20% indicated that they accessed information from the library and internet respectively.

4.3 Pupils ICTs needs

In relation to pupils ICTs needs, all the respondents from Hillcrest stated that they needed both computers and Internet while 80% and 20% of respondents from David Livingstone indicated that they needed computers and Internet, respectively. Evidently, pupils at the two schools have appreciated the role ICTs can play in enhancing their learning and improving their performance in school. This is in line by Cuban (1996) who noted that there had been a groundswell of interest in how computers and internet can best be harnessed to improve the efficiency and effectiveness of education at all levels. The findings are further supported by Haddad et al (2002) who discovered that computers have become motivating tools for teaching and learning in schools. This is also in line with Sivin (1998) who observed that, the use of the internet in accessing information on various subject areas is imperative as it makes valuable contribution towards the quality of students learning. The observation is also put forward put by Morrison (1999), who said that when used appropriately, ICTs have the potential to enhance learner’s achievement and assist them in meeting learning objectives. The findings of the study also correspond to that of Shelly, Cashman (1999), who explained that computers can provide many unique, effective and powerful opportunities for teaching and learning. These opportunities include skill-building, practicing real world problem solving, interactive learning, discovery learning and linking learners to instructional resources.

4.4 Use of ICTs

The results showed that 48.5% of pupils from David Livingstone indicated that they used ICTs for academic research. In contrast, the findings from Hillcrest showed that 77.8% of pupils from indicated that they used ICTs for academic research. Availability of ICTs at Hillcrest makes pupils use more Internet than David Livingstone. These findings are similar by those found by Becker, et al (1999), who conducted a study in selected Senior High School in the
Tema Metropolis in Ghana consisting of 120 students and it revealed that less than 50% of the students respondents used the computer and Internet facility for entertainment, whereas less than 25% used the facility for research and learning. As regards to e-mail usage and browsing, less than 10% of student’s respondents used the facility.

**Figure 1: Use of ICTs at Both School**

On the other findings concerning which subjects they mostly used ICTs for, 50% of pupils from David Livingstone said that they used them for Mathematics while 40% said for Science related subjects. From Hillcrest on the other hand, 55% stated that they used them for Science related subjects while 40% said for Mathematics. This is in line with what was done by Curriculum Online survey (National Center for Social Research, 2006) on the impact ICTs in specific subjects areas who stated that the proportions of primary and secondary teachers considered ICTs as e important in the teaching of specific subjects.
Findings in this research are similar to that conducted by Becta (2003) who discovered that in secondary schools, substantial increases were observed in the percentage of teachers who considered ICTs as important aspect of teaching mathematics, science, geography, music and modern languages. In mathematics, the key benefits identified from research into ICTs use have increased pupil’s motivation, a more concentrated focus on strategies and interpretation, faster and more accurate feedback to pupils and greater pupil’s collaboration and co-operation (Becta, 2003. Additionally Rogers (2003) concluded in his research that the use of ICTs has had positive effects in a number of subjects, as well as being constructive in assisting students that are marginalized as a result of personal issues.

4.5 **Benefits of using ICTs**

Concerning the benefits pupils derived from the use of ICTs services, the findings from David Livingstone showed that 37.5% of the students stated they benefited from the ICTs when doing research for projects while 32.5% benefited when preparing for tests and exams. From Hillcrest on the contrary, 40% benefited when preparing for tests and exams while only 27.5% benefited when doing research. A good number of them stated that ICTs enabled them to research widely and write good assignments. These findings is supported by Becta (2004) who discovered that broadly speaking, research into the use of ICTs in learning is fairly consistent in finding that ICTs helps improve writing and reading skills, supports collaboration and develops speaking and listening skills. On the responses from teachers concerning the benefits of ICTs, teachers from both schools stated that they use them for accessing their lesson materials. Others said that they used them in keeping records, preparing lessons for their classes and preparation of schemes of work/lesson planes. This is in agreement by what was stated by Bush and Mott (2009) that ICTs impacts on a large section of education, from records keeping and school websites to the creation of online learning communities.
The key informant who is the ICT coordinator at David Livingstone indicated that the ICTs benefit that have been observed in both teachers and pupils included availability of teaching and learning information and also exchange of information with other teachers. The key informant from Hillcrest who is the ICT coordinator indicated that benefits for teachers included easier planning and preparation of lessons and designed materials. Then the students gained an understanding of analytical skill, improvement in reading, comprehension and development of writing skills including spelling and grammar to a larger extent exam results had improved as compared to other secondary schools in the province.

4.6 Challenges in using ICTs

Pupils from both schools also faced more than one challenge as shown by the findings. It can be concluded that the challenges were enormous especially from David Livingstone. From David Livingstone, 37.1% of the respondents stated that they had little time allowed to use the computers while 35.5% said that the computers were too few. Other challenges faced by some pupils were that the ICTs were not timetabled and the unskilled ICT personnel and hence it was not taught as a subject.

From Hillcrest, 85% of the respondents indicated that there was little time allowed to them when using the ICT facilities while 15% said that there were unskilled ICT personnel at the school thus making the lessons difficult for them. The findings are similar OECD (2009) who conducted a study involving 14 countries, also confirmed that there were a number of challenges inhabiting the use of ICT in education. These challenges included an inconsistency number of computers to students, a deficit in maintenance and technical assistance and, finally, a lack of computer skills and or knowledge among teachers, lack of confidence, accessibility, lack of time, fear of change, poor appreciation of benefits of ICT and age.
The research findings revealed that teachers from both schools too faced some challenges especially for David Livingstone where teachers indicated challenges that included inadequacy of computers, lack of time, lack of knowledge about ICTs and little previous experience with computers and lack of training. Few teachers at Hillcrest stated that there was no support if something went wrong with computers, age and also lack of competence to use computers. The challenges stated are in agreement with Pelgrum (2001), who stated that obstacles for ICTs implementation included the insufficient number of computers, teacher’s lack of ICT knowledge/skills, difficult to integrate ICT to instruction, scheduling computer time, insufficient peripherals, not enough copies of software, insufficient teacher time, not enough simultaneous access, not enough supervision staff and lack of technical assistance. On other hand, the ICT coordinator at David Livingstone indicated that the challenges faced were enormous. The Co-ordinator summarized the challenges as:

- The insufficient number of computers to use.
- Other challenges included lack of training opportunities for teachers, inadequate space to locate computers appropriately, not enough staff for supervising computers/internet using pupils and lack of interest/willingness of teachers to use computers/the internet, lack of funds, problems
scheduling enough computer/Internet time for different classes, lack of interest/willingness of teachers to use computers/the internet, lack of knowledge/skills of students in handling computers and also teachers felt uncomfortable because some are more competent with ICTs than they are.’

In the case of the ICT Co-ordinator from Hillcrest the challenges were summarized as ‘not enough staff to supervise computers internet using pupils, problem scheduling enough computer/internet time for different classes and also lack of regular in-house training for computer lessons for teachers’. From the findings, it can thus be conclude that David Livingstone has a lot of problems as compared to Hillcrest which has only two because of the few computers they have.

4.7 Measures to improve ICTs

It was imperative to find out what the respondents thought could be the measures that school management should implement in order to solve the challenges faced. From the findings, majority of the pupils and teachers including key informants (ICT coordinators) from David Livingstone School stated that their school needed to provide more computers. Other measures as indicated by some pupils were providing training in ICTs to them which was to include hands-on training, employ ICT skilled personnel and put up a timetable for computer lessons for all classes and add more periods for those timetabled classes. Teachers and ICT coordinator felt that there was need for in-house training in ICTs focusing on MS Word, MS Power point and Internet Explorer to be provided to them and provide computers in the staff room. Hillcrest on the other hand had few recommendations from both teachers and ICT coordinator like regular in house training for all teachers and provision of computers in the staff room so they do there research between periods.

The findings from this study also correspond with those of Akbaba-Altum (2004), who discovered that ninety six percent of teachers in his study on teacher preferred training greed with the provision of informal training in word processing, excel, and power point. He further stated that the study demonstrated that teachers preferred such trainings as opposed to sessions where copious amounts of information are distributed and teachers are sometimes left to wade through it themselves.

5.0 CONCLUSION

ICTs have become an integral part of our personal and working lives. The prevalence of ICT requires educators to ensure that all students are capable of full participation in this digital world. The research revealed a positive finding on the respondent’s impact of the ICTs as a very important tool for academic purposes and can widen knowledge scope of users. However, it was discovered that a substantial proportion of respondents do not access information using
ICTs (computer/Internet) due to various challenges faced. Overall, David Livingstone pupils have less usage of computers than Hillcrest pupils this was due to very few computers in the school. Other challenges included lack of training, little time allowed for use, lack of knowledge, lack of support by management and also ICT not being taught as a subject. Generally, the majority of pupils and teachers do not use ICTs in their teaching and learning process. It was thus recommended that:

- ICT training should be provided in the schools, during teaching time, making use of the ICT equipment that teachers themselves use.
- More time should be allocated to ICT instruction for all grades at both David Livingstone and more periods should be added to Hillcrest National School.
- At David Livingstone, the computer laboratory should be expanded, or if possible, establish another one, to make pupils accessibility to ICTs quicker, efficient and effective.

REFERENCES


Bush J. and Mott W., (2009), The Transformation of Learning with Technology-Learner Centrality, Content and tool Malleability, and network effects


Knowledge Levels and Practices of Records Management Staff at Ministry of Education, Science and Vocational Training and Early Education

Juliana Filomina Chirwa and Akakandelwa Akakandelwa

ABSTRACT

The aim of this study was to investigate the knowledge levels and practices of the records management staff at the Ministry of Education, Science and Vocational Training and Early Education in Zambia. The study used a case study design and it was a total survey. Primary data relating to research objectives was collected using the triangulation method (comprising of a survey questionnaire, face-to-face interviews, non-participant observations, and secondary sources). Out of a target population of 48 records management staff earmarked for the study, 46 took part in the study representing 96% participation. Quantitative data was analyzed using the Statistical Package for Social Science (SPSS) version 16. Interview and observation schedules and secondary sources were analyzed using content analysis techniques. The findings showed that the majority of the records management staff at MESTVEE were generally knowledgeable about the basic records management concepts and practices. There was no association between knowledge levels and educational level and work experience. While the registries were generally adequately staffed several had no records management qualifications. Secondly, MESTVEE registries lacked key elements of a records management program such as a records management policy and up-to-date records retention and disposal schedules resulting into an inefficient records management program. This study recommended that the establishment register be revised owing to the growth of the volume of records and the administrative structure at MESTVEE. That the Public Service Management Division accelerates the development and publication of records management policy.

Keywords: Knowledge Levels; Records Management; Records Management programme; Ministry of Education, Science and Vocational Training and Early Education.

1.0 INTRODUCTION

It is common knowledge that to fail to plan is to plan to fail. Planning is an important component of effective management in any given organization. Read and Ginn (2007) define management as the process of using an organization’s resources to achieve specific goals through the management functions of planning, organizing, leading and controlling. The duo added that information is one of valuable and important business resource to be used to achieve organizational goals. Information received and created by
organizations in the course of business or conduct of business and retained as evidence of the activities and policies of the organization is referred to as a record (Kennedy and Schauder, 1994). Records not only provide information on which to base decisions but tell a story of what goes on in an organization thus providing evidence for accountability purposes. Organizations need to develop records management frameworks and systems designed to ensure that records are managed appropriately (Read and Ginn, 2007). A well designed records recordkeeping system will enhance information retrieval with corresponding improvements in office efficiency and productivity. A records management program can help ensure that managers and executives have the information they need on time. In today’s dynamic world it is the manager that has the relevant data first that often wins, either by making the decision ahead of the competition, or by making a better and more informed decision. By implementing an organization-wide file organization, including classification, indexing and retrieval capabilities, managers can obtain and assemble pertinent information quickly for current decisions and future business planning purposes (United States Environmental Protection Agency, 2013).

2.0 BACKGROUND TO THE STUDY

Good records and information management principles are universal therefore, any deviation will create problems. The commonly identified problem and typical symptoms include among others lack of an overall plan for managing records problems, for retaining or destroying records, lack of standards for evaluating workers, hoarding of records, overloaded and poorly labeled drawers and folders, failure to protect records, misfiles resulting in lost records or slow retrieval, no equipment standards, no use of fire-resistant equipment, improper type of storage containers for records, lack of or improper use of automated systems, crowded working conditions, poor layout of storage area and resistance to the use of magnetic media (Read and Ginn, 2007).

Bennett and Mannix (2002) strongly contend that governments cannot be held accountable for their decisions and actions, and the rights and obligations of citizens and corporate bodies cannot be upheld without accurate and reliable records and with no effective systems to manage them. They further point out that without reliable records no government can administer justice and manage the state’s resources, its revenue or its civil service. In fact it cannot deliver services such as education and health care. Records provide the essential evidence that a particular action or transaction took place and in a particular manner or that a particular decision was made. Records support all business functions and reveal the operations of an organization critical to the assessment of policies and programs, and to the analysis of individual and organizational performance (Bennett and Mannix, 2002). Once records are not properly managed, fostering accountability, transparency and good
governance may not be possible in government ministries (Chaterera, 2013). Kennedy and Schauder (1994) highlighted nine elements of a comprehensive records management program. These include Records management feasibility study and Records survey; filing system for active records; records retention and disposal planning; management of semi-active and inactive records; management of the creation and generation of different types of records; vital records protection programme; policy and procedures documentation; training programmes and ongoing review.

3.0 STATEMENT OF THE PROBLEM

According to Chaterera (2013) the delays and failure to access services due to missing or misplaced records in public institutions is a common challenge in Africa generally. The Zambian scenario is not different. For instance, at the Ministry of Education, where the files of the Teachers Services Commission are kept, access to files for specific teachers is not easy. The general picture is that registries are struggling to maintain registry systems. Staff at the Ministry do not always provide copies of correspondence to registries for filing, which results in records being lost.

4.0 OBJECTIVES OF THE STUDY

The main objectives of this study were:
   1. To assess knowledge levels of registry staff levels registries at the MESVTEE
   2. To assess the elements of the records management program at the MESVTEE
   3. To establish the challenges affecting the execution of an effective records management program at MESVTEE.

5.0 SIGNIFICANCE OF THE STUDY

It is hoped that the findings of this study will help in creating awareness of the need to establish an efficient records management program that will support efficiency, equity, accountability and cost effectiveness in the provision of education in Zambia.

6.0 LITERATURE REVIEW

Unegbu and Adenike (2013) conducted a research to look at the record management practices of the Ministry of Information and Strategy, Lagos, Nigeria. The findings despite having a well-documented records policy guide which all the workers were aware of, the Ministry had no weeding policy. They observed that none of the workers had qualification below first degree
although the majority lacked records management qualification. The cost of records management was a foreseen challenge and inadequate funds in the office contributed to some challenges faced by the employees.

Chaterera (2013) conducted a study to investigate the influence of records surveys in the management of public records in Zimbabwe. The study results indicated that the majority of the public registries had no registry procedures manuals in place and were operating without a documented guide to assist them in systematically managing their records. He noted that a record disposal was rarely done. The results of the study indicated that the levels of formal records management training in public registries were relatively low and that the majority of registry personnel had received training in records management at certificate level. Records management professionals in public registries were paid up to the national diploma level. The results of the study revealed among others lack of a registry manuals, written disaster management plans, vital records protection programmes, lack of adequate records management training among registry personnel, unclear archival legislation, lack of records retention and disposal schedules, lack of top management support, and financial constraints as challenges which were affecting records surveys from attaining their intended goal of enhancing sound records management practices in public registries.

Hoyle and Sebinna (2007) conducted a study to explore the development of the human resource and payroll system and its recordkeeping functionality, as well the paper-based records systems in the Zambia Public Service. The survey showed that a large number of files were created for the same public servant at various locations in the public service with several numbering systems that was affecting retrieval speeds. Filing tended to be slow, and some records were not filed at all on ministry level resulting in delay in retrieving the records. According to the study manuals and guidelines were not updated regularly. The finding indicated that records management received low recognition in the public service and was considered to be work that could be done by anyone, regardless of skills and qualifications.

Nabombe (2012) conducted a study to assessed records management and how it contributed towards the process of accessing justice in the courts of law in Zambia. Research findings showed there was congestion in court registries. Findings further showed that court registries lacked guidance on how to manage records due to lack of a records management policy and this resulted into failure to apply internationally recognized records management standards. Research findings also showed that there was a poor work culture and low morale among registry clerks due to over staffing and lack of a clear policy on in-service training, poor conditions of service, and lack of career progression.
7.0 RESEARCH METHODOLOGY

A case study design was used. The choice of the research design was influenced by the type of research topic, the target population, data collection methods and the research process. Primary data was collected using self-administered questionnaires and non-participant observations. Secondary data was collected from legal documents and government documents at the MESTVEE. The study was a census as it targeted all the 48 registry staff clerks. Qualitative data was analyzed using content analysis techniques while quantitative data was analyzed using descriptive and inferential methods using the Statistical Package for Social Sciences Version 20.

8.0 LIMITATIONS OF THE STUDY

The study did not include all government ministries in Zambia. It focused on the Ministry of Education, Science, Vocational Training and Early Education headquarters registries, excluding provincial and district registries. Secondly, the study was confined to Lusaka, thus making generalization to other ministries and the entire country inaccurate.

9.0 RESEARCH FINDINGS

9.1 Biographical characteristics of the respondents

A total of 48 questionnaires were distributed and responses were obtained from a total of 46 questionnaires. Therefore, the response rate was 96%. Of the 46 participates 28 (60.9%) were females while 18 (39.1%) were males. In terms of the respondents’ age 3 (6.5%) were in the age range 24 years and below, 11 (23.9%) were in the range of 25-30 years, 5 (10.9%) were in the age range 31-35 years, 9 (19.6%) were in the age 31-40 years, 10 (21.7%) were in the age range 41 years and above. Eight (17.4%) did not state their age. The MESVTEE has a departmentalized or decentralised registry system with eleven registries. The Ministry Headquarters accounted for 32 (69.6%) of the respondents. The Department of Science and Vocational Training accounted for 8 (17.4%), Bursaries 3 (6.5%), National Science Council 1 (2.2%) and Zambia National Commission for UNESCO 1 (2.2%). With regards to work experience, 12 (26.1%) research respondents had work experience in the range of 5 years and below, 4 (8.7%) were in the work experience range of 6-10 years, 6 (13%) were in the range 11-15 years, 5 (10.9%) were in the range 16-20 years and 2 (4.3%) were in the range of 21 years and above. Seventeen (37%) of the informants did not state their work experience. The level of education attainment showed that 1(2.2%) had a university degree, 11(23.9%) had diplomas and 24 (52.2%) had certificates in records management. Six (13%) had no professional qualification and 4 (8.7%) did not state their education qualifications.
9.2 Knowledge levels of records management staff

To ascertain the knowledge levels of participants in records management nineteen questions with the total score of thirty four were used. Two respondents got 27 (79.41%) out of 34 while one participant got five (14.70%) out of 34. Six respondents got 17 (50%) out of thirty four. Eight (17.39%) respondents got below (50%) while thirty eight respondents (82.60%) got above 17 (50%). The average score was 52.94% and mode was 58.82%. Three participants got the average score and most of the participants got 58.82% (Table 1 below).

Table 1: Total knowledge scores

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Further analysis was conducted to ascertain whether there was an association between knowledge levels and a) educational level and b) work experience and an analysis of variance between groups (ANOVA) was used to test these associations at a significance level of 0.05. The results were F=0.533 (df=3, 38); p=0.663. Since p> 0.05 we accept the null hypothesis. In other words, there was no association between knowledge levels and educational level. With regards to knowledge levels and work experience, the results were F=0.811 (df=4, 24); p=0.530. Since p> 0.05 we accept the null hypothesis. In other words, there was no association between knowledge levels and work experience.
Table 2: ANOVA for knowledge levels and education level

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<tr>
<td>Between Groups</td>
<td>22.024</td>
<td>3</td>
<td>7.341</td>
<td>.533</td>
<td>.663</td>
</tr>
<tr>
<td>Within Groups</td>
<td>523.595</td>
<td>38</td>
<td>13.779</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>545.619</td>
<td>41</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3: ANOVA for knowledge levels and work experience

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>49.993</td>
<td>4</td>
<td>12.498</td>
<td>.811</td>
<td>.530</td>
</tr>
<tr>
<td>Within Groups</td>
<td>369.800</td>
<td>24</td>
<td>15.408</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>419.793</td>
<td>28</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9.3 Elements of a records management program

When respondents were asked whether they had a records management policy, 43 (93.5%) indicated that they had a records management policy, 1 (2.2%) indicated they did not have the policy and 2 (4.3%) did not indicate whether they had or not. However, a face-to-face interview revealed that Zambia as a country did not have a written national records management policy and that the policy was in draft form waiting to be endorsement by cabinet and published.

When asked as to whether their department had a registry procedure manual to assist them manage their record systematically, 95.7% of the respondents stated that they had while one respondent stated that they did not have and one did not state whether they had or they did not have. The researcher observed that there was a registry service manual prepared by the Public Service Management Division and made available to all government ministries, departments and divisions. In response to a multiple response question regarding the activities described in the registry manual, 91.1% stated that the registry described how to handle incoming mail in paper form, 88.9% stated that the registry manual gave instructions on how to create a new file, 84.4% indicated that the manual provided filing procedures and 82.2% stated that the registry manual gave guidance on how to handle outgoing mail in paper form. The study also revealed that 75.6% of the respondents stated that the registry manual described how to control the movement of files. Through content analysis of the registry service manual and a face-to-face interview the researcher observed that the records manual mainly focused on classification, indexing and filing. It basically gave instructions on how to categorize, label, title and tracking systems for paper based records. Instructions on how to carryout routine registry duties were contained in a document called government office instructions (table 4 below)
Table 4: **Activities described in the registry manual**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Frequency (n=46)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>How to handle incoming mail in paper form</td>
<td>41</td>
<td>91.1%</td>
</tr>
<tr>
<td>How to create a new file</td>
<td>40</td>
<td>88.9%</td>
</tr>
<tr>
<td>Filing procedures</td>
<td>38</td>
<td>84.4%</td>
</tr>
<tr>
<td>How to handle outgoing mail in paper form</td>
<td>37</td>
<td>82.2%</td>
</tr>
<tr>
<td>Controlling file movement</td>
<td>34</td>
<td>75.6%</td>
</tr>
<tr>
<td>Instructions for closing files</td>
<td>27</td>
<td>60.0%</td>
</tr>
<tr>
<td>Responsibilities of registry staff towards users</td>
<td>25</td>
<td>55.6%</td>
</tr>
<tr>
<td>Security of records</td>
<td>24</td>
<td>53.3%</td>
</tr>
<tr>
<td>How to record existence of a new file</td>
<td>23</td>
<td>51.1%</td>
</tr>
<tr>
<td>How to handle incoming electronic mail</td>
<td>13</td>
<td>28.9%</td>
</tr>
<tr>
<td>How to handle outgoing electronic mail</td>
<td>7</td>
<td>15.6%</td>
</tr>
</tbody>
</table>

Research participants were asked to indicate the measures they have put in place to control the creation of records; 35% indicated policy and procedures management program, 33% indicated report management program, 30% indicated forms management program, and 11% correspondence management program as measures put in the place to control the creation of records (Table 5 below).

Table 5: **Measures put in place to control creation of records**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Frequency (n=46)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy &amp; procedures management program</td>
<td>16</td>
<td>34.8%</td>
</tr>
<tr>
<td>Report management program</td>
<td>15</td>
<td>32.6%</td>
</tr>
<tr>
<td>Forms management program</td>
<td>14</td>
<td>30.4%</td>
</tr>
<tr>
<td>Correspondence management program</td>
<td>5</td>
<td>10.9%</td>
</tr>
</tbody>
</table>

The study revealed that different filing methods were used. Twenty two (47.8%) of the respondents stated that they used numeric filing, 30.4% stated serialization filing, 21.7% indicated alpha-numeric filing, 21.7% showed subject filing, 13% stated chronological filing and 8.7% indicated alphabetical filing as the filing method used (Table 6).
Table 6: **Filing methods used**

<table>
<thead>
<tr>
<th>Filing Method</th>
<th>Frequency (n=46)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Numeric</td>
<td>22</td>
<td>47.8%</td>
</tr>
<tr>
<td>Serialization</td>
<td>14</td>
<td>30.4%</td>
</tr>
<tr>
<td>Alpha-numeric</td>
<td>10</td>
<td>21.7%</td>
</tr>
<tr>
<td>Subject</td>
<td>10</td>
<td>21.7%</td>
</tr>
<tr>
<td>Chronological</td>
<td>6</td>
<td>13.0%</td>
</tr>
<tr>
<td>Alphabetical</td>
<td>4</td>
<td>8.7%</td>
</tr>
</tbody>
</table>

On filing equipment used, the majority of the respondents cited boxes (65.2%) as the storage equipment used followed by shelves (63%), then compactus (50%). The study also revealed that drawers (45.7%) and cupboards (23.9%) were also used as storage equipment. Others cited were filing cabinets. Findings from observation and interviews revealed that newly acquired compactus and cabinets were mostly used storage equipment. Files in boxes were slowly being put in the newly acquired compactus. Boxes were still used for records at semi current stage waiting to be transferred to the secondary facility and in the confidential registry.

With regards to the type of records center used, 56.5% of the respondents indicated warehouse records center, 43.5% indicated off-site records center, 26.1% on-site records center and none cited commercial records center.

Respondents were asked whether they managed electronic records, in response 52.2% stated that they managed electronic records while 30.4% stated that they did not manage electronic records. Eight (17.4%) respondents did not state whether they managed electronic records or not. In a structured interview it was established that electronic records were not managed by registry staff currently in government registries because there were no written guidelines or policy. However, he added to acknowledge the existence electronic records in government offices and ministries but that they were managed by individual officers.

### 10.0 DISCUSSION AND INTERPRETATION OF FINDINGS

The research results indicated that the MSVTEE registries were generally adequately staffed going by government establishment register. All things being equal, adequate staffing in registries could imply that employees had normal worked load, less stress, low levels of absenteeism, excellent performance with interest in work. While the MESTVEE registries were generally adequately staffed, research results showed that the quality of registry staff might have been compromised as most of the registry staff had certificates; six had no tertiary training and four did not state their qualification. The quality of
staff has been cited as one of the constraints that affected the development of records management programmes in most public institutions.

The study results showed that only eight of the respondents got below fifty while the majority of the respondents got above fifty percent. By implication the majority of the respondents were knowledgeable in records management practices. This could be as a result of interacting with those who had been to college to pursue records management and in-service training or workshops that were periodically conducted in collaboration with Public Service Management Division (PSMD). However, the results further revealed that there was no association between knowledge levels and work experience and also between knowledge levels and educational levels. In other words people who have worked longer and those who have worked for fewer years more or less possessed the same knowledge levels. It may also suggest that the people with records management qualifications and those without records management qualification had more or less the same knowledge in records management. This could be attributed to the fact that most of the staff had worked in the registry for a long period of time and so with passage of time they may have acquired a certain level of knowledge in records management. On the part of education and knowledge levels, the likelihood is that since most of the participants were certificate holders their knowledge levels were superficial hence there was no much difference with the knowledge of those who had not done any records management training course.

The absence of a records management policy in the MESVTEE meant registries lacked guidance and direction on the creation, generation and management of information and records and clarity on staff responsibilities and tasks. With this state of affairs, it is possible that the staffs in the Ministry of Education were not creating and capturing certain records as there were no clear guidelines on which records to create and capture or not to create.

A registry procedures manual is an essential guide for the operations and daily routine tasks of a registry. It provides personnel with guidelines that define departmental records management procedures thus serving as a model for establishing acceptable and sound records management practices. However, a content analysis of the registry service manual developed and released by PSMD revealed that it lacked certain features generally described in the registry procedure manual. The registry service manual mainly focused on records classification, indexing and filing. For instance it lacked an introduction explaining what a record and records management are. This is intended to help the reader distinguish a record from any other document and inculcate an appreciation of the importance of managing records.

It was established through an interview that the records retention and disposal schedule was revised after five (5) years. This implies that the records retention and disposal schedules are outdated as it was revised seven years ago. The non-availability of retention and disposal schedules or outdated
records retention and disposal schedules in many public registries in Zambia and in Africa in general implied that disposition was rarely practiced and when it was done, it was on an ad-hoc basis. That probably explained why some government departments were congested with semi and non-current records kept in corridors, on the floor in offices where ever space was available thus creating congestion in offices (Chaterera, 2013:106).

On storage equipment, boxes, shelves and compactus were the mostly used storage equipment. When it comes to boxes, they are susceptible to hazards such as fires, water and termites. They easily suffer from wear and tear which may result in the destruction of records. Retrieval speed is also compromised when records are stored in boxes. Ultimately this might affect the efficient and effective operations of an organization. Boxes are labeled according to the number of records stored there and with passage of time the numbers begin to fade away making identification and retrieval difficult.

On the existence of a records center in the MESVTEE, the study revealed that there was a records centre in the MESVTEE and that they used a warehouse records center. The results from the interview further revealed that MESVTEE had a warehouse records center and that it was not purpose built hence lacked the required facilities of records center.

11.0 CONCLUSION

Research results have clearly shown that MESTVEE registries were faced with many challenges. Delayed retrieval of active records, lack of supplies and poor and inadequate funding and low morale might affect the management of active and semi-active records. The MESTVEE failure to develop the records management policy and records retention and disposal schedule might have contributed to poor records management in the Ministry registries. The caliber and professional qualifications among registry staff raise some concerns regarding the quality of the registry staff regarding their capacity to implement records management programmes in the MESTVEE. Low motivation and inadequate training personnel might be indicative of poor conditions of service in the MESTVEE. This raises the need for the MESTVEE to re-design registry jobs in order to motivate and more qualified employees.

12.0 RECOMMENDATIONS

In order to improve records management, MESTVEE should:

1. Come up with clear policies on staff recruitment, career development and in-service training for all registry staff.
2. Urge Public Service Management Division and Cabinet Office to endorse and launch a unified records management policy that would serve as a guide in good records management practices in all Government ministries.
3. Revise the registry service manual to include chapter 5 of the Government Office Instructions so that it could be used both as a guide and a training tool for registry staff at all levels.

4. Revise the records retention and disposal schedule to include new records series and to consistently implement the records retention and disposal schedule.

5. Establish purpose built record centres in order to improve the management of semi-active.

REFERENCES


The Legal Framework of Archives and Records Management in Financial Institutions in Zambia

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ABSTRACT

Financial institutions transact locally and internationally. In this regard, there is need to enact comprehensive records and archival legislation to ensure that records emanating from such transactions are managed in an effective manner to protect their integrity. The paper posits that without an effective legislation on financial institutions, issues of transparency and accountability will not be tenable in these institutions. This scenario will not only affect the financial institutions but also the users of these financial institutional . The situations may also lead to financial crimes and other related crimes that thrive on financial transactions. The paper discusses the various legal frameworks for archives and regards management in financial institutions in Zambia and its role in the control and management of . The article was written based on a critical analysis of various anti-crime regulatory frameworks pertaining to banking and finances in Zambia. It was discovered that each regulatory framework had penalties for not managing records in an appropriate manner. The contends that the provisions of the regulatory frameworks in a way encourages appropriate records management and archives administration in financial institutions as they act as a guiding principle to custodians and users of records and archives. The paper concludes that guidelines in financial institutions concerning records and archiving processes, retention periods and all associated legal frameworks though punitive in nature are actually very good as they ensure that financial records in Zambia are managed in an appropriate manner. It was thus recommended that National Archival Institutions’ legislation should have punitive measures in place to ensure that institutions under their mandate adhere to their wishes.

Keywords: Accountability, Archival legislation, Financial Institutions, Financial Records, Money Laundering.
1.0 INTRODUCTION

The International Standards Organisation 15489-1 (2001) defines records management as “the field of management responsible for the efficient and systematic control of the creation, receipt, maintenance, use and disposition of records, including the processes for capturing and maintaining evidence of and information about business activities and transactions in the form of records. Additionally, The International Standards Organisation 15489-1 (2001) defines records as “information created, received, and maintained as evidence and information by an organization or person, in pursuance of legal obligations or in the transaction of business” .The International Records Management Trust (1999) points out that records themselves form a part of or provide evidence of such transactions. It is in this vein that they are subsequently maintained by or on behalf of those responsible for the transactions and kept for their own future use or for the use of their successors or others with a legitimate interest in the records.

In this regard, control should be exercised over the creation, distribution, utilization, retention, storage, retrieval, protection, preservation and final disposition of all types of records within an organization. However, for this to happen, it requires appropriate records management programs that can manage organizational information so that it is timely, accurate, complete, cost-effective, accessible and useable.

Ultimately, the purpose of records management is to provide relevant, accurate, complete, and timely information to the user in the most efficient manner. It should be noted that records management programs are not generally an organization’s primary business. However, Robek, Brown and Stephens (1995) highlighted the following as the most important reasons to set up a good records management program in any organisation;

1. To control the creation and growth of records
2. To reduce operating costs
3. To improve efficiency and productivity
4. To assimilate new records management technologies
5. To ensure regulatory compliance
6. To minimize litigation risks
7. To safeguard vital information
8. To support better management decision making
9. To preserve the corporate memory
10. To foster professionalism in running the business

To this effect, Robek, Maedke and Brown, (1987) points out that records management is based upon three functions of service, profit and social responsibilities. It should be noted that the service function is essential because users need recorded information to assist them to carry out their tasks more efficiently while profit is essential if an organization is to continue operating
or offering a service or a product, and; social responsibilities are important because the objectives of an organization should be attained within the moral and ethical codes of the society in which the organization is operating.

In this regard, good records management is essential for any institution to function effectively. The effective management of records allows for fast, accurate and reliable access to information. It ensures the timely destruction of redundant records and the protection of valuable records. It is in this vein that Shepherd and Yeo (2003) contends that poorly managed records will often be inadequate for the purposes for which they are needed and will probably be destroyed prematurely and others retained unnecessarily. Ultimately, Shepherd and Yeo (2003) points out inadequate records management practices may lead to serious consequences such as;

1. An organisation inability to prove that it did what was required.
2. An organisation may be unable to defend itself if liabilities are made against it.
3. Business operations may be compromised if critical information is unavailable when required.
4. The rights of customers, citizens and the wider community may also be impaired.

In this regard, an effective records management programme will ensure that records are available for use when needed and that redundant records are destroyed. However, to have an effective records management programme, there must be legislation in place to guide and institution.

1.2 Records and Archives Legislation

Legislation in general terms means laying down of instructions to people responsible for running an institution or an organisation so that they can properly discharge each function of that particular institution or organisation within an agreed regulatory framework. Subsequently, legislation it provides for the powers, obligations and limits of such institution or organisation. Legislation relating to the management of records and archives exists in some form in most countries. However, some legislation relating this has some weaknesses. Hamooya et al (2011) contends that the weaknesses that are found stem largely from their failure to recognise the life-cycle concept of records and archives and the importance of managing records in a continuum. This is often compounded by the inflexibility of the legislation in the face of the changing nature of records and archives in an electronic age. It should however be noted that comprehensive, up-to-date records and archives legislation is a critical prerequisite of effective life-cycle records and archives management. It establishes the framework within which appropriate records and archives systems can be put in place. This is bearing in mind the view of Parer (2001) who observed that no organisation can operate without records. To this effect, institutions must use legislation to ensure records and archives are properly managed and preserved over time.
It is in this regard that records and archives legislation becomes an essential component of the broader regulatory framework of accountable and effective institution. In this vein that Barata, Piers and Routledge (2001) submits that records and archives legislation enables institutions to operate with authority in its dealings. Some of the institutions that need to operate within a proper legislative framework in terms of records management and archives administration are financial institutions. This is especially so because records are ultimately essential for financial accountability. It is in this line that The International Records Management Trust (1999) contends that records provide a reliable, legally verifiable source of evidence of decisions and actions about finances and are the basis for determining responsibility. They are a powerful tool in constraining individuals from engaging in corruption. In this vein, it can be argued that financial records are interlinked with financial accountability. In this regard, if financial records management systems are weak, individuals cannot be held accountable for their decisions and actions. Subsequently fraud, corruption and other related organized crimes such as drug trafficking, money laundering and human trafficking will flourish. In order to avoid this, proper records management in financial institutions would be a cost-effective restraint because when individuals know that there is an audit trail, they are less likely to take the risk.

1.3 Financial Records and Accountability

The International Records Management Trust (1999:2) defines financial records as those records ‘resulting from the conduct and activities relating to financial management’. On the other hand financial management involves ‘the planning, controlling, implementation and monitoring of fiscal policies and activities, including accounting and audit of revenue, expenditure, assets and liabilities’ (Ibid). Financial records are produced in every area of financial management. If these are records not well managed, the financial management function suffers.

Amongst financial records that are mostly created by financial institutions that fall in the ambits of financial management are deposit slips. Deposit slips are written forms that are sometimes used to deposit funds into an account. It indicates the date, the name of the depositor, the depositor’s account number and the amounts of cheques, cash, and coin being deposited. The bank clerk typically verifies the funds received against the amounts listed on the deposit slip. The deposit slip is processed to indicate that funds have been received from the customer.

Another important record is the withdraw slip form. The withdraw slip is the opposite of the deposit slip as it is a written forms that are sometimes used to withdrawn funds from an account. It indicates the date, the name of the drawer, the drawers’ account number and the amounts of cheques, cash, and coin being withdrawn. It should equally be noted that for a costumer to operate an account, there is need to open one for this purpose. This also requires
documentation such as application forms, photocopies of identity documents of the customer as well as letters of reference that supports the application. The others standard account documents that are created by banks are statements, reconciliations, purchase orders and vouchers.

It is important that these records are management in a manner that when they are needed they should be accessible and subsequently quickly retrieved. This is where the issue of records management comes in because records management ensures the provision of relevant, accurate, complete, and timely information to the user in the most efficient manner. As alluded by Robek, Maedke and Brown, (1987) records management fulfils furnishing of accurate and complete information based upon three functions of service, profit and social responsibilities where the service function is essential because users need recorded information to assist them to carry out their tasks more efficiently. On the other hand profit is essential if an organization is to continue operating or offering a service or a product, and; social responsibilities are important because the objectives of an organization should be attained within the moral and ethical codes of the society in which the organization is operating. Ultimately, with proper records management in place accountability can be achieved.

The International Records Management Trust (1999:2) submits that accountability is the ‘requirement to perform duties, including financial and operational responsibilities, in a manner that complies with legislation, policies, objectives and expected standards of conduct.’ Additionally, the Business Dictionary (2013) looks at accountability as an obligation of an individual or organization to account for its activities, accept responsibility for them, and to disclose the results in a transparent manner. It also includes the responsibility for money or other entrusted property.

It should be noted that proper financial management that adheres to principles of accountability depends upon a system of internal controls that make it possible to carry out business in an orderly and efficient manner, ensure adherence to management policies and safeguard assets. In this regard, The International Records Management Trust (1999) is of the view that management of financial records is a critical component of this control system. In this vein, where financial records are not controlled, their completeness and accuracy cannot be guaranteed. Subsequently, records needed for reference, decision making and risk assessment can become difficult to access. It is in this regard that (Ibid) argues that records management reinforces financial management controls and supports accountability because it is able to establish who did what, when, why and how. This is especially so in that well maintained and managed records provide an unbiased account of responsibility and liability. However, for this to happen, financial institutions require a comprehensive regulatory framework that will compel them to manage records according to acceptable standards.
1.4 Regulatory Requirements and Financial Records

Financial records created and held by financial institutions should be subject to regulation and control to allow them their conduct business in an orderly, efficient and accountable manner. It should be noted that Government financial records are usually subject to legislation that forbids their destruction for a set period of years after the accounts have been audited. This implies that before these records are audited, they cannot be destroyed and even after auditing, a specified period is given on how long they should be kept.

It should be not that the legal framework affecting government financial records mostly comprises the constitution, which may provide for the supervision and audit of public accounts, and laws relating to finance, audit and government records. These finance and audit laws generally require ministries, departments and agencies to ensure that financial and accounting records are adequately kept and managed. They also empower the audit body to obtain access to all financial records.

The International Records Management Trust (1999) on the other hand points out that other legislation on financial records are in place to support of government functions that specifies conditions for their maintenance, use or disposal. The Trust gives an example of pension’s legislation that imposes an obligation on departments to maintain records of contributions. Additionally, revenue laws may indicate a time limit on the recovery of tax or duties, thereby establishing a minimum period for the retention of revenue files. These requirements lay down more detailed conditions and requirements for accounting and financial records, including their creation, filing, storage, production and disposal. The idea is to ensure that at any given time records should be able to show who did what. It is in this regard that Smith (1993) contends that the role of Records Managers and Archivist is increasingly concerned with the maintenance of a document trail as legal obligations imposed on them make the ability to trace and to track financial records an essential feature of the records management work. This is especially so because the requirements of proof and evidence which have always confronted Records Managers and Archivist over time appear to have become broader now (Ibid). Smith (1993:124) notes that ‘issues such as fraud, money laundering, tax evasion, negligence and deception coupled with strengthened disclosure laws and the extensive search powers of regulatory authorities means that document trail extends past the basic ideas of proof and evidence and into such areas as substantiation, authentication, increased accountability and the demonstration of reason care’. It should be noted that issues such as fraud, money laundering and tax evasion mostly leave a financial documents/records trails that can help law enforcement officers be able to detect, investigate and possibly prosecute would be offenders. As noted by the International Records Management Trust (1999), records provide a reliable, legally verifiable source of evidence of decisions
and actions about finances and are the basis for determining responsibility. However, these records have to be kept in an appropriate manner as they are a powerful tool in constraining individuals from engaging fraud, corruption and other related organized crimes such as drug trafficking, money laundering and human trafficking. For these records to be kept in an appropriate manner that will ensure that law enforcement officers can access them as they carry out their various mandates pertaining to financial crimes there is need to put in place effective regulatory frameworks that will guarantee the availability of these records.

1.5 Regulatory Frameworks for Financial Records in Zambia

In Zambia, there are several regulatory frameworks that compel financial institutions to manage records in a manner that enhances the operations of other organisations. The regulatory frameworks include the Banking and Finance Act No 18 of 387; the Prohibition and Prevention of Money Laundering Act No.14 of 2001; The Anti-Human Trafficking Act No 11 of 2008; The Forfeiture of Proceeds of Crime Act No,19 of 2010; The Anti-Corruption Commission Act No 38 of 2010; and The Finance Intelligence Centre Act No 46 of 2010. The records management practices enshrined in the laws applicable in Zambia are in line Robek, Maedke and Brown, (1987) who view records management an object of fulfilling the furnishing of accurate and complete information based upon the functions of service and social responsibilities where the service function is essential because users need recorded information to assist them to carry out their tasks more efficiently and social responsibilities are important because the objectives of an organization should be attained within the moral and ethical codes of the society in which the organization is operating. Based on this, financial institutions in Zambia needs to manage records based on the functions of service and social responsibility and not look at the laws as punitive as they seem to be in some cases.

1.5.1 The Banking and Finances Services Act No 18 of 2000 Cap 387

The overall law that regulates financial institutions in Zambia is The Banking and Finances Services Act No 18 of 2000 cap 387 laws of Zambia. The law provides for the regulation of the conduct of banking and financial services, provides safeguards for investors in and customers of banks and financial institutions. It should be noted that The Banking and Financial Services Act Cap 387 confers on the Bank of Zambia to act as the Regulatory Authority for all financial institutions. In relation to records, section 52(1) provides that every bank of financial institution shall cause to be created and shall maintain in its principal office in Zambia proper ‘credit documentation’ and any other information concerning its business relations with its customers.
and other persons that the Bank of Zambia may prescribe. The provision in subsection 2 credit documentation means a contract entered into by a bank or financial institutions with any other person for the provision of a financial services or in respect of a financial services performed or to be manner of keeping records performed by the bank or institutions. Furthermore section 54 of the act outlines that a register or record required or authorised under this Act to be prepared and maintained shall be retained by the bank or financial institutions that prepared it for at least 6 years and in case of a register or record for unclaimed funds, for at least 10 years. In addition to this provision, section 55 provides that every bank or financial institutions, and very manager, employee and agent thereof shall take reasonable precaution to:

1. Prevent loss or destruction of;
2. Prevent falsification of entries;
3. Facilitate deletion and correction of inaccuracies;
4. Ensure that no unauthorised person obtains access for or the use of information prepared and maintained by the bank of financial institution.

The provisions of the Act are in line with the principles of records management that ensures that records should not only be available and accessible but also be authentic. The provisions are also in line with Robek, Maedke and Brown, (1987) contends that records management ensures thus rendering of maximum service to the customer or user of records.

It should be noted that should banks or financial institutions fail to comply with the provision of this Act, The Bank of Zambia as a regularity institutions may take punitive measures .This is in line with Section 81(2) of the act that provides that The Bank of Zambia in its supervisory action may take the following measures for financial institutions that fail comply;

1. Taking possession of the bank or financial institutions.
2. Suspending the banks or financial institutions licence for a period not exceeding six months.
3. Restricting the banks or financial institutions licence.
4. Revoking the banks or financial institutions licence.

The provisions of Act though they seem very punitive in nature are actually very good as they ensure that records are management in consideration of the issues of accountability. This in line The International Records Management Trust (1999: 2) who contends that accountability is the ‘requirement to perform duties, including financial and operational responsibilities, in a manner that complies with legislation, policies, objectives and expected standards of conduct’.
1.5.2 The Prohibition and Prevention of Money Laundering Act No. 14 of 2001

In addition to The Banking and Finances Services Act No 18 of 2000 cap 387 laws of Zambia there is also The Prohibition and Prevention of Money Laundering Act No. 14 of 2001 that regulates in some sections how records created by banks and financial institutions should be maintained. In principle The Prohibition and Prevention of Money Laundering Act No. 14 of 2001 provides for the prohibition and prevention of money laundering, the constitution of an Anti-Money laundering Authority and the Money Laundering Investigation Unit and provides for the disclosure of information on suspicion of money laundering activities by the supervisory authority. In relation to records, the Act under section 6 empowers the unit to collect, evaluate and investigate financial information from regulated institutions. This information must relate to financial and business transactions suspected to be part of money laundering. The provision implies that law enforcement officers have the mandate of inspecting records held by banks and financial institutions as they investigates matters related to money laundering. The implication of this provision is that records should be kept in a manner that they are available and accessible in a timely manner. In this line, the issue of document/records trial is important as financial records will help determine who did what over the issue being investigated upon. In this vain Smith (1993) points out that money laundering coupled with strengthened disclosure laws and the extensive search powers of regulatory authorities means that document trail extends past the basic ideas of proof and evidence and into such areas as substantiation, authentication, increased accountability and the demonstration of reason care. This is critical as noted by the International Records Management Trust (1999) that records provide a reliable, legally verifiable source of evidence of decisions and actions about finances and are the basis for determining responsibility.

It should be further noted that section 13(1) of The Prohibition and Prevention of Money Laundering Act No. 14 of 2001 of the imposes a duty upon regulated institutions to keep identification and business transaction records for a period of 10 years after the termination of the business transactions so recorded. Additionally section 13(4) provides that any regulated institution which contravenes the provisions of subsection 1 shall be guilty of an offence and shall be liable, upon conviction, to a fine not exceeding two hundred thousand penalty units. This provision is a very good control mechanism that ensures that financial records are available overtime and subsequently
help law enforcement officers carry out their mandates. On the part of financial institutions this control mechanism makes it possible for individuals to be accountable for their activities. This is line with The International Records Management Trust (1999) who views management of financial records a critical component in the issues of accountability. In this vein, where financial records are not controlled, their completeness and accuracy cannot be guaranteed. Subsequently, records needed for reference, decision making and risk assessment can become difficult to access.

1.5.3 The Anti-Human Trafficking Act No 11 of 2008

The other legislation that ensures that financials records are kept in an appropriate manner in Zambia is The Anti-Human Trafficking Act, No 11 of 2008. This is an Act that provides for the prohibition, prevention and prosecution of human trafficking. In relation to financial records, section 50(1) provides that where the Attorney–General has reasonable grounds to suspect that a person has committed, is committing or is about to commit an offence under this Act, or is in possession of property obtained through the commission of an offence under this Act, the Attorney–General may, for purposes of investigating the offence, apply to the High Court for an order to among other things require a bank or any other financial institutions, trustee or custodian to produce all information and deliver up all documents and records regarding any business transaction by or on behalf of the person. Additionally, subsection 2 provides that any order made under this section may authorize an authorized officer to enter any premises, including a bank or other financial institutions, and search the premises and remove any documents or records for the purposes of executing the order. Furthermore, subsection 3 of the Act provides that any person who delays, interferes with or willfully obstructs an authorized officer in the exercise of powers under this section commits an offence and is liable upon conviction, to imprisonment for a period not exceeding twenty years.

It should equally be noted that section 63(1) of The Anti-Human Trafficking Act, No 11 of 2008. Act provides that where an order has been made under this part in relation to an investigation relating to an offence under this act, a police officer of above the rank of inspector may require a bank, financial service provider or a financial institution customer information for the purposes of an investigation and subsection 4 provides that a bank, financial service provider or financial institutions which fails to comply with the requirement under an order commits an offence and is liable to a penalty not exceeding
five hundred thousand penalty units. In this regard, ensuring the safety and accessibility of financial records is an essential need for all banks and financial institutions as financial records often contain sensitive, proprietary and even confidential information that can help law enforcements officers carry out their investigative mandates. As it is, it is the responsibility of these institutions to maintain the confidentiality of accounting information, customer financial data and financial information as other partnerships may need. The irony of it all is that if records managers in these institutions to comply, they may be jailed.

1.5.4 The Forfeiture of Proceeds of Crime Act No 19 of 2010

Additionally, in Zambia, there is also The Forfeiture of proceeds of crime act No 19 0f 2010 `which provides for the confiscation of the proceeds of crime; for the deprivation of any person of any proceed, benefit derived from the commission of any serious offence and the facilitation of the tracing of any proceed, benefit and property derived from the commission of any serious offence. In relation to financial records, section 64(1) of the Act provides that The Director of Public Prosecutions may apply to a court in chambers for a monitoring order directing a financial institution to give information to a police officer. Specifically subsection 3 outlines that a monitoring order shall direct a financial institution to give information obtained by the financial institutions about transactions conducted through an account held by a particular person with the financial institution. For the financial institutions that may fail to comply with this monitoring order, subsection 7 of the Act provides that where a financial institution that has been given notice of a monitoring order contravenes the order, the financial institution commits an offence and is liable, upon conviction, to a fine not exceeding seven hundred thousand penalty units.

For the financial institution to avoid such penalties, they need to have effective records management programme in place. This is especially so in that records are the basis of most business activities. Thus it is imperative that they are kept in such a way that the users should have easy access to them. It is important, that record maintenance practices for current use should be designed in such a way that records are found quickly when they are wanted. This can be achieved if records are kept in an orderly and accessible manner.

1.5.5 The Anti-Corruption Commission Act No. 38 of 2010

The Banks and Financial Institutions in Zambia have also to contend with Anti-Corruption Commission Act No. 38 of 2010 which also amended
in 2012. The Act provides for the prevention, detection, investigation, prosecution and punishment of corrupt practices and related offences based on the rule of law, integrity, transparency, accountability and management of public affairs and property. Pertaining to financial records created and maintained by Banks and Financial Institutions, Section 56(1) outlines that The Director-General, Deputy Director-General or an officer of the Anti-Corruption Commission may, with a court order, investigate any bank account, share account, purchase account, expense account or any other account or safe deposit box in any bank. Additionally subsection 2 indicates that an order made under subsection (1) shall be sufficient for the disclosure or production by any person of all or any information, account, document or article that may be required by an officer of the Commission so authorised. In this regard, if the record is not found, the chances are that the case may fail to take off. This is especially so because records provide verifiable evidence of fraud and can lead investigators to the root of corruption. It can thus be argued that financial management and control though a well-managed record systems is vital to the success of most anti-corruption strategies.

1.5.6 The Financial Intelligence Centre No.46 of 2010

To crown it all in relation to all legislation related to financial records and how they should be kept in Zambia, there is the Financial Intelligence Centre No.46 of 2010 of 2010 (FIC Act). The most notable feature of the FIC Act is that it creates the Financial Intelligence Centre whose principal objective is to prevent money laundering and the financing of terrorism. The Centre is also responsible for the receipt, requesting, analysing, disclosure and dissemination of Suspicious Transaction Reports (STRs).

The FIC Act places various obligations on supervisory authorities and reporting entities (defined as institutions regulated by a supervisory authority). Supervisory authorities include BOZ; the registrar of pensions and insurance; the Securities and Exchange Commission; the Patents and Companies Registration Agency; the Zambia Development Agency; the Licensing Committee established by the Tourism and Hospitality Act; the Law Association of Zambia and the Zambia institute of Chartered Accountants. The supervisory authorities are under an obligation to monitor and ensure compliance by reporting entities with their obligations under the FIC Act. In order to galvanize this role, the supervisory authorities are given authority to compel the production of any information by reporting entities and to impose sanction for any failure by reporting entities to comply with their obligations under the FIC Act.
Specifically, Section 22(1) of the FIC Act compels a reporting entity to maintain all the books and records with respect to customers and transactions and shall ensure that such records and the underlying information are available, on a timely basis, to the centre. Additionally, Section 22(2) provides that the books and records referred under Section 22(1) shall be maintained for not less than ten years after the business relationship has ended. The FIC Act through Section 43 furthermore provides that a person who intentionally or negligently:
1. Fails to maintain books and records as required by section 22;
2. Destroys or removes any records or books;
3. Fails to make information available in a timely manner in response to a lawful request for any books or records
Commits an offence and is liable, upon conviction, to a fine not exceeding two hundred thousand penalty units or to imprisonment for a period not exceeding two years or both. Situlile et al (2013) submits that these directives were issued with a view to ensuring that banks and other financial institutions could enhance the prevention and detection of money laundering and related activities. It should be noted that banks and financial institutions go through a tremendous amount of paperwork on a yearly, monthly and daily basis. However, the amount of paper cannot simply be shred anyhow. In this regard, Banks and Financial institutions must have appropriate records management programmes that will ensure that are kept in compliance with the various laws of the land.

Overall, the enactment of the Banking and Finance Services Act in 2000, The Anti-Human Trafficking Act of 2008, Anti-Corruption Commission Act of 2010, the Financial Intelligence Centre Act (No. 46 of 2010) (the FIC Act) and the Forfeiture of the Proceeds of Crime Act (No. 19 of 2010) (the FPC Act) when read together with the Prohibition and Prevention of Money Laundering Act (No. 14 of 2001) reveals a much more holistic approach to the prevention of financial crimes. Cardinal to the Acts is the provisions of making available financial records and maintaining them for specified numbers of years. The provisions though punitive in nature are actually very good as they ensure that financial records are management in an appropriate manner. In this regard, ensuring the safety and accessibility of financial records is an essential need for all banks and financial institutions as financial records often contain sensitive, proprietary and even confidential information.
1.6 Lessons Learnt and Way Forward

Records management is the first important task in the process of sound financial management. Maintaining good financial records on a regular basis requires time and effort that you might believe would be better spent on running your business. It should be noted that banks and financial institutions go through a tremendous amount of paperwork on a yearly, monthly and daily basis. However, the amount of paper, the banks and financial institutions receive and produce during the process of their mandate cannot simply be shredded when they feel like doing so. This because there are certain regulatory frameworks pertaining to financial crimes that they banks and financial institutions have to comply with. However, it is recommended even without these regulatory frameworks, banks and financial institutions must have a policy for retention of their records. This way, if the customer comes back or if the bank needs to revisit the records for legal reasons, the record can easily be found.

Lastly, it is recommended that a comprehensive research is done to determine the compliance of banks and financial institutions pertaining to the regulatory frameworks

REFERENCES


Preservation and Conservation of Library materials in Academic Libraries in Lusaka Province

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Abstract

Preservation and conservation of library materials more paramount in countries where resources are limited and libraries need to balance them with the needs of an ever increasing number of students hoping to use them. Any loss to such materials is simply irreplaceable. In this regard, the issues of preservation and conservation of such materials is critical. It is in this vein that this study assessed the preservation and conservation measures of library materials in academic libraries in Lusaka province. This research used both qualitative and quantitative research methods. The qualitative aspect collected objective data while the quantitative collected numeric data. Ultimately the survey method was adopted. The targeted population in this study in terms of environment comprised all the 40 academic libraries in Lusaka province (as per 2014 Ministry of Education, Science, Vocational and Early Education) these included ten (10) institutions with university status, and 30 colleges. The total populace in terms of person subjects was therefore one Head Librarian from every institution; this brought the total number of the study population (person subjects) to 40. In this regard, purpose sampling was used and primary data was collected using questionnaires.

In terms of findings, it was established that high levels of temperature as well as relative humidity were the major cause of deterioration of library materials. On the measure libraries were using to preserve and conserve library materials, lamination and proper shelving was considered the best followed by cleaning/dusting of shelves as well as the installation of air conditioners. It was further noted that the majority libraries did not have preservation policies, lacked adequate funding and equipment as well as competent human resource. It was thus concluded that the level/degree of preservation and conservation of library materials in the Lusaka province academic libraries was very low, and it required an urgent aspect of retrospective analysis. It was recommended that financial (budgetary) allocations towards the academic libraries must increase, and the safeguard of library resources should be one of the priorities of library administration and academic institutions so that the great need to develop and improve on modern infrastructures and equipment for preservation and conservation of library materials in academic libraries could be enhanced.

Key Words: Academic Libraries, Conservation, Lusaka Province, Preservation
1.0 INTRODUCTION

Academic libraries are repositories of wisdom of great thinkers of the past and the present. They are social institutions charged with the responsibility of disseminating knowledge to the people without any discrimination. Academic Libraries provide access to scholarly resources that support intellectual inquiry, knowledge creation, and lifelong learning for the students and faculty of the university/college, the citizens of the State, and the broader scholarly community. Simmonds and Andaleeb (2001) observed that the academic library has been described as the ‘heart’ of the learning community that provides a place for students and faculty to do their research and advance their knowledge. It should be noted that, in these institutions, library staff provide numerous services to these users, addressing their diverse needs, characteristics, and interests. It should be noted that contemporary libraries maintain collections that include printed materials such as manuscripts, books, newspapers and magazines as well as art reproductions, films, sound and video recordings, maps, photographs, microfiches, CD-ROMs, computer software, online databases, among others. The holdings of academic libraries are the priceless heritage of mankind as they preserve facts, ideas, thoughts, accomplishments and evidences of human development in diverse areas, ages and directions. Any loss to such materials is simply irreplaceable. In this regard, the issues of preservation and conservation of such materials is critical.

The purposes of preservation and conservation measures include: addressing/reducing the devastating consequences of deterioration (Agrawal and Barkeshli 1997; Adebola, 2008); leading to proper dissemination of library materials and continued supply of information. The functionality of a library is ameliorated and become possible only if the documents are in good and usable condition. Kademani, et al. (2003) demonstrated that in fulfilling the central mission of a library of collecting, organizing, preserving and providing access to knowledge and information, there is the demand for the proper preservation and conservation of the valuable library materials. Kanjengo (2009) justifies the importance and necessity of preservation and conservation of library resources and stated that this task is more paramount in countries where resources are limited and libraries need to balance them with the needs of an ever increasing number of students hoping to use them.

1.1 Statement of the problem

Academic Library staff overtime has always struggled against destruction and deterioration of library collections. Despite the awareness and technological advancement in the field of preservation and conservation, there seems to be more books deteriorating. This problem has included, physical and environmental factors such as temperature, relative humidity, light, sound/vibration; chemical agents that include dust and dirt, internal acidity of paper...
and ink, and atmospheric pollution which includes solid particles of carbon, tarry matters, sulphurous and sulphuric acids resulting from the combustion of fuels and from other industrial processes (Mahmud and Mari, 2013; Teygeler, et al., 2001). Others stated by Kademani, et al., (2003); Maravilla (2008); and Aina (2004) are: biological agents such as macro organisms (book lice, book worm, cockroaches, man, white ants, rodents); microorganisms (fungus and mildew); Human factors: materials handling (storage system, exhibition, transportation, photocopying), theft and vandalism; fire; and natural disasters. The deterioration of library materials did exist in Lusaka academic libraries basing on studies from the University of Zambia libraries by both Kanyengo (2009) and Shameenda (2011). The visible consequences of this deterioration are that they damage the holdings of countless libraries leading to loss of information. Consequently, this was the impetus for the need and struggle to find out preservation and conservation measures that will avert this problem.

1.2 Research Objectives

The general research objective of this study was to assess preservation and conservation activities of library materials in academic libraries in Lusaka province. The specific objectives were as follows;
1. To find out the types of deterioration experienced in the selected libraries.
2. To investigate the preservation and conservation measures in use in the selected academic libraries in Lusaka province
3. To investigate if there are preservation policies applied by the selected academic libraries in preserving the library materials.
4. To discover possible constraints against effective preservation and conservation of library materials

1.4 Research questions

1. What are the types of deterioration experienced in the selected libraries?
2. What are the preservation and conservation measures in use in the selected academic libraries in Lusaka province?
3. Are there preservation policies applied by the selected academic libraries in preserving the library materials?
4. What are the possible constraints against effective preservation and conservation of library materials?

2.0 LITERATURE REVIEW

2.1 Theoretical framework

The theoretical perspective this study employed the ‘Preventive Conservation’ theory in its endeavour to assess the preservation and conservation of library
materials in academic libraries. According to Wirilander (2012), preventive conservation is a multidisciplinary orientation that uses indirect measures and actions to avoid or to minimize future deterioration or loss of cultural heritage. The aim of preventive conservation is to minimize deterioration and loss of cultural heritage. This was evident in the long standing practice of cultural heritage protection such as buildings, floods, rainwater, earthquakes, insects, mould and high humidity. It is in this regard that the literature review critically examines the types of deterioration of library materials; preservation and conservation measures of library materials; preservation policies and constraints against effective preservation and conservation of library materials.

2.2 Types of deterioration of library materials

Deterioration is a change of original state of any material by interaction between the object and the factors of destruction. The different types of deterioration of the paper based materials are reflected in wear and tear, shrinkage, cracks, brittleness, warping, bio-infestation, discoloration, abrasion, hole, dust and dirt accumulation and other (Sahoo, n. d.).

Mahmood and Mari (2013) conducted a study in Nigeria whose aim was to examine the issues of deterioration of library resources and its causes. The major findings were: lack of electric fan system affects ventilation; and that most foundations of all library buildings have no anti-insect treatment, and insects such as termites, cockroaches and booklice therefore attack the library resources. Other causes were atmospheric pollutants, temperature and relative humidity changes, and accumulations of dirt and dust from poor or careless housekeeping practices. Also, rapid and serious deterioration of paper was believed to be caused by the oxidation of cellulose brought about by the ultraviolet rays in sunlight and fluorescent light. The authors recommended that wilful acts that damage library materials must not be practised. Additionally, National Diet Library (2008) executed a research in Japan with view to establishing the various causes of library materials deterioration, and means of controlling the trend so that library resources can be preserved for the next generations. The major causes identified were: people’s behaviour of cutting pieces off and writing on the pages, inappropriate storage environments such as high temperature and humidity, inadequate cleaning, and exposing materials to sunlight for a long time, can cause damage to materials from insects, mould, and discoloration. Inappropriate storage environments were also indicated that they can cause both physical and chemical damage and loss of data from non-paper materials. Environmental management was recommended as a good measure to retard deterioration.
2.3 Preservation and conservation measures of library materials

Ogunniyi and Adejubee (2014) conducted a study in Nigeria whose main objective was to find out the strategies of curbing deterioration of undergraduate projects in selected colleges of education Libraries. The major findings were the need for training of library staff on preservation; provision of preservation policies; and use of digital preservation activities. The study recommended the need for adequacy of trained manpower in the libraries for preservation programmes, adoption of digital method of preservation, and provision of adequate funds for the effective functioning of the academic libraries. Additionally, Minicka (2012) conducted a research in Timbuktu whose main objective was to determine preservation for paper-based heritage library and archive collections. The major findings of the study were need to provide preservation measures such as good housekeeping programme (GHP), integrated pest management (IPM), and disaster preparedness. Others included the provision of ultraviolet (UV) radiation filters, good storage and proper handling of the library materials. It was thus recommended that Librarians should always strive to get more detailed information about preservation and conservation of library resources available online from various weblogs and institutes involved in this information practice.

2.4 Preservation Policies

Preservation and conservation policies are always critical in libraries. It is in this vein that Chapman (1990:2) submits that the starting point of conservation programmes is “the creation of a policy document that specify preventive measures that minimise the deterioration of library materials.” In this regard, Milner Library (2010) carried out a research at Illinois State University whose aim was to establish the philosophy of preservation policy. The major findings were in two categories: (a) on preservation, there was need for replacement, reformatting, environmental control, and control of temperature and humidity levels. (b) On conservation: there was need for disaster preparedness plan that must include names and phone numbers of pertinent personnel; enhance binding services, de-acidification, proper shelving, and orientation all new employees on preservation matters.

Foot (2001) carried out study in London whose aim was to determine the benefits of having preservation policies in libraries. Major findings highlighted the need to clarify the relationship between the organisation’s mission and preservation activity; and demonstration of responsible stewardship. Recommendations from the study are that the long term retention of collections requires suitable storage accommodation to protect against physical and chemical deterioration. It was concluded that all the functions of a library (acquisition, access, use, preservation philosophy, risk assessment, collections retention, and others) will be enhanced when there is a preservation policy in a library.
2.5 Constraints against effective preservation and conservation of library materials

Lyall (1994) has long identified preservation knowledge as a significant factor in preservation endeavour by his assertion that the level of knowledge in a country is one of the four major factors that determine the ability of any country to develop a satisfactory preservation programme for information resources. It was observed that ignorance of Librarians of the agents of deterioration serves as a major constraint to the preservation and conservation of library and archival materials. Giving adequate attention to preservation by library administration was recommended. It is in this vein that Ngulube (2005) was of the view that the real impediment to having viable preservation programmes is not entirely resources-based, but lack of preservation knowledge.

On the other hand, Ogunmodede and Ebijuwa (2013) carried out a research in Oyo State which investigated various problems of conservation and preservation of library resources in African academic libraries. Their major challenges identified include lack of maintenance culture, poor quality of paper, lack of preservation and conservation policies, inadequate infrastructure and lack of well-trained manpower, inadequate finances and lack of equipment. The study recommended the provision of a well-equipped bindery section with trained staff; the conclusion from the study was that there was need to address the aforementioned constraints and employ qualified conservation librarians.

3.0 RESEARCH METHODOLOGY

This research used both qualitative and quantitative research methods. The qualitative aspect collected objective data while the quantitative collected numeric data. Ultimately the survey method was adopted. This was considered important because to gives the opportunity to understand the population. In addition to that, the breadth of coverage of many people or events means that it is more likely than some other approaches to obtain data based on a representative sample, and can therefore be fairly generalized to a population (Kelly et al, 2006; Kombo and Tromp, 2006). The targeted population in this study in terms of environment comprised all the 40 academic libraries in Lusaka province (as per 2014 Ministry of Education, and Zambia 2013 Telephone Directory database for academic institutions in Lusaka); these included ten (10) institutions with university status, and 30 colleges. The total populace in terms of person subjects was therefore: one head librarian from every institution, this brought the total number of the study population (person subjects) to 40.

Selection of the target populace was on purposive basis. The purposive sampling technique was employed as those selected appeared to be relevant for the participation. The other justification is that the Librarian as being the overseer of the library stock was more likely to be knowledgeable about the
deliberate policies towards the protection of the resources. Primary data was collected using questionnaires. The analysis of quantitative data was done using Statistical Packages for Social Sciences to come up with frequency distribution, percentages and graphic presentation in form of tables. The qualitative data was analyzed manually though content analysis, categorization and coding of themes.

4.0 RESEARCH FINDINGS AND DISCUSSION

4.1 Profile of Respondents

During the survey, respondents were asked to give their highest educational qualification in order to determine whether it may have a bearing on the topic under assessment. In this respect therefore, results indicated that 41.18% for both diploma holders and degree holders as librarians while 11.76% of the respondents had Master’s degree; and 5.88% gave no response to all the various option indicated in the questionnaires. In terms of the years of experience of the Librarians, results indicated that 23.53% worked between 1-5 years while 29.41% showed work experience of between 6 and 10 years. Additionally, 23.53% of the respondents had work experience of 11-15yrs and 17.65% gave work experience of 16 years and above. 5.88% gave no responses to the question.

With regards with the number of years of being in existence by a library as a factor in assessing the preservation and conservation measures of academic library resources, respondents were asked to indicate how long their libraries have been in existence. Results shows the variations as: before 1980 was 52.94%, between 1980 and 1990 was 11.76%, between 1990 and 2000 showed 5.88%, between 2000 and 2010 was at 11.76%, from 2010 and above gave a 11.76% as in the preceding category, and 5.88% of the respondents gave no response.

4.2 Existing Sections

On the aspect of presence of sections found in the academic libraries, the presence of the sections (Lending desk by 82%, Classification and cataloguing by 82%, General reference by 82%, Technical department by 71%, Short loan by 71%, and computer room by 53%) appeared to be a prerequisite for the preservation and conservation services of library resources although this depends entirely on what actual services are carried out by individual libraries in the services, because the mode of operation therein may either be predominantly fraught with retrogression or executed with progression and total commitment. These sections were believed to be cardinal for such reasons as the control of materials leaving the library and may mount restrictions against both thefts and damage of materials, and prevent these vices, among others.
On the other hand, the indication of **nonexistence** of the following sections (Bindery by 82%, Special collection by 71%, and Technical department by 71%) as indicated in figure 1 had the likelihood of negatively affecting the devising of preservation and conservation in relation to these sections. It was established that the non-existence of bindery sections by the majority (82%) generated the non-existence of bindery services by 65%. This, in simplicity, implied that the lower level of the presence of particular sections in the library may lead to lower levels of preservation and conservation services related to those sections. In other words, there appeared to be a relationship between the provision of sections and the devising of safeguard measures related to those sections in the academic libraries. In this regard, **Milner Library** (2010) indicated that the provision and enhancement of bindery services and special collections should be much emphasized in libraries.

**Figure 1: Distribution by existing sections**

![Distribution by existing sections](image)

### 4.3 Possible causes of deterioration of Library materials

The knowledge about possible causes of deterioration of library materials appeared to be a significant move. On the aspect of **print materials**, it was collected from the survey findings (in figure 2) as, the existence of wear and tear due to excessive photocopying was indicated by (35%) librarians, (47%) said Air pollution existed, majority (59%) indicated that Relative humidity was prevalent in their libraries and (53%) said bad shelving was a cause in their libraries. On Dust and particulate matters, most (41%) indicated that
it existed as a cause but was low, and Biological agents as a cause were also mentioned by most (29%) of respondents on that particular option.

Figure 2: **Possible causes of deterioration of Library materials**

It was established from the results that ‘High temperature levels’ was prevalent in most academic libraries and was indicated by 69% majority. The analysis of these causes however, are that the greatest or most prevalent threat appeared to be wear and tear due to excessive photocopying as this cause was adding up to 82% when taking into consideration its results which showed 18% low prevalence, 35% high, and 29% very high. In other words, its mean prevalence (82% / 3 = 27.3%) is the highest on all the options on that section; that is when focusing on prevalence from all the three areas of low prevalence, high prevalence and very high prevalence.

The above elements (root causes) that seem to pose complications on library resources are also acknowledged in the works and findings of various researchers. For instance, Kademani, et al. (2003) claimed that most academic libraries experience indiscriminate photocopying, water leakages and insects infestation. Ogunmode and Ebijuwa (2013) highlighted air pollution, pests and thefts as challenges in academic libraries. Olatokun (2008) acknowledged the element of dust to be a major cause of library print materials deterioration. Mahmood and Mari (2013) also claimed that most foundations of buildings have no anti-insect treatment.

Taking into account the responses on the aspect of causes of deterioration of non-print materials, causes shown were moisture (by most respondents of 41%), dust (by most respondents of 29%), and poor handling (by most
respondents of 29%); you may refer to figure 6 of chapter four for further clarification. This realisation of ‘moisture, dust, and poor handling’ was supported by Agarwal and Barkeshli (1997) who stressed that poor handling of library materials was a major cause of deterioration.

4.5 Preservation and Conservation measures of Library Materials

From the findings established, it appeared that preservation and conservation measures indicated by the majority respondents as being in existence are lamination (82%), cleaning and dusting (65%), photocopying (53%), proper shelving (82%), installation of air conditioners (65%), and provision of adequate security (53%). These measures were in line with findings with especially those observed by Sahoo (n. d.) who pointed out that both good air-conditioning and good housekeeping were relevant measures in the safeguard of library resources. Kademani, et al. (2003) also supported the measures on this section by indicating that there is great need to ensure that libraries are centrally air conditioned, fumigated, and the shelves be cleaned regularly.

In relation to the level of qualifications in regards to measures used in the preservation and conservation of library materials, out of the 65% who indicated that they did not have binding service as a preservation measure, the majority (52%) from this 65% were librarians with qualifications below Master’s degree level! This entails that higher academic qualifications may lead to adequate devising of safeguard measures for library resources. This perception is in concurrence with Ogunmodede and Ebijuwa (2013) who claimed that employing highly qualified librarians may lead to provision, realization and adequacy of preservation and conservation measures in academic libraries.
4.6 Preservation policies used in academic libraries

Basing on the findings from field work, it was discovered that the majority (76.5%) of the academic libraries do not have preservation policies. The non-existence of policy guidelines on both the security and restoration of library materials (by 76% majority on each), lack of training of library staff on preservation and conservation matters (by 59% majority), and the most (38%) non-response on the type of equipment librarians thought was necessary in safeguarding library materials, all these three unfavorable options or realizations appear to be attributed to the lack of preservation policies in the majority of academic libraries, as indicated in the opening sentence of this paragraph. The non-availability of written policy towards this preservation and conservation venture appeared to have a strong negative influence on the devising of safeguard measures as there couldn’t be directives dictated vision toward the protection of library resources.

As a reaction to the seemingly unfavorable situation, it was claimed and justified by Foot (2001), Milner Library (2010), and Banach, et al. (2011) that a preservation policy may lead to collection retention and risk assessment of library resources, enhancing the role of collection care, and development of expertise, respectively. The arguments from these authors are concurrence with favour of the provision of preservation policies seems to be very persuasive, especially where they stress that in the absence of a preservation policy, the preservation philosophy appeared to be undermined or it hardly exists.

In relation to years of existence of a library against the presence of preservation policies showed that out of the 76.5% majority who did not have preservation policies, 53% of them belonged to libraries that were established before 1980. At the same time, the whole of the 11.8% that had preservation policies are only those libraries established between 1990 and 2014 (the year when the research was conducted). In other words, none of the libraries established before the year 1990 had preservation policies in place. This entails that most old academic libraries in Lusaka province appear not to have preservation and conservation policies.

4.7 Constraints against effective preservation and conservation of library materials

In accordance with the findings presented in figure 4, the prevalent constraints established were inadequate funding (shown by 65% majority), lack of preservation and conservation policy (indicated by 71% majority), inadequate infrastructure (shown by 65% majority), and inadequacy of equipment (indicated by 59% majority) of the respondents. The lack of preservation and conservation policy was also indicated in the preceding section. The presence of the challenges indicated above was acknowledged by various researchers. For instance, Akande (2009) also subscribed to this view and gave the
impression that financial constraints (lack of money) was one of the critical challenges that negatively affects preservation and conservation of academic library materials. Ogunmodede and Ebijuwa (2013) also highlighted lack of preservation and conservation policies, inadequate infrastructure, lack of well-trained manpower, inadequate finances and lack of equipment, as having parallel merits and concurrence with the findings from the opening of this section.

Figure 4: **Distribution on constraints against effective preservation and conservation of library materials**

<table>
<thead>
<tr>
<th>Constraint</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Others</td>
<td>59%</td>
</tr>
<tr>
<td>Obsolete hardware and software</td>
<td>12%</td>
</tr>
<tr>
<td>Non-existent hardware, software and network</td>
<td>41%</td>
</tr>
<tr>
<td>Poor quality of paper and ink</td>
<td>65%</td>
</tr>
<tr>
<td>Inadequacy of equipment</td>
<td>71%</td>
</tr>
<tr>
<td>Harsh environmental conditions</td>
<td>41%</td>
</tr>
<tr>
<td>Administrative bottlenecks</td>
<td>65%</td>
</tr>
<tr>
<td>Inadequate infrastructure</td>
<td>65%</td>
</tr>
<tr>
<td>Lack of preservation and conservation policy</td>
<td></td>
</tr>
<tr>
<td>Lack of competent manpower</td>
<td></td>
</tr>
<tr>
<td>Inadequate funding</td>
<td></td>
</tr>
</tbody>
</table>

### 4.8 CONCLUSION

Taking into consideration all the findings both from field work and literature review, it is concluded that most prevalent causes of deterioration of library materials in the selected libraries basically bordered on inadequate infrastructure, lack of good housekeeping, wear and tear due to excessive photocopying, and high temperature levels. Most importantly, these causes may be attributed to the constraints experienced such as lack of preservation and conservation policy, inadequate funding, inadequacy of equipment, and lack of digital preservation. It is further concluded that the level/degree of preservation and conservation of library materials in the Lusaka province academic libraries appear to be very low, and it requires an urgent aspect of retrospective analysis. It is worth bearing in mind that, when the protection of library resources is not taken as a serious business like in the case/findings of this research, it would lead to adverse repercussions, even loss of the already
acquired library resources. Academic libraries in Lusaka should be attuned to the dictates of the ‘Preventive Conservation theory’ which assumes that the best way of minimizing deterioration is by providing preventive measures.

REFERENCES


Library Management and Resource Mobilisation in Zambian Secondary Schools

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(University of Zambia, Department of library and Information Studies, P.O. Box 32379, Lusaka)

Abstract
There is increasing awareness that a library is the heart of any education system. The library is fundamental to the success of any school. However, most libraries in most cases have not performed and developed to the expectation. The overall aim of this study was to ascertain the library management and resource mobilisation practices in Zambian secondary school libraries. The study was largely quantitative in nature. Thirty-one (31) secondary schools purposively selected participated in the study. A self-administered questionnaire was used to gather primary data. In addition, observations were conducted for some schools. The results are reported and include the general standard of library infrastructure, management of collections, library security and maintenance; promotion of library services to patrons, methods of resources mobilisation, staffing levels and subject qualifications of staff in charge of secondary school libraries.

Keywords: Zambian Secondary Schools, Zambia, School Libraries, Libraries, Reading culture

1.0 INTRODUCTION
There is a growing awareness about the importance of having good libraries in schools in order to enable children acquire skills to access information contained in them at an early age. School libraries play a fundamental role in supporting the school curricula as it provides requisite information materials to both the learners and the teachers. Thus, it supports student-centred learning which is critical in producing learners with qualities of independent thought and inquiry. Another principal function of school libraries is inculcating a culture of reading in children at early stage thereby promoting literacy in society. Thus, school libraries are not only gateways of information (Kamosho & Kigongo-Bukenya, 2006) and knowledge but also second best connecting links between teaching and learning besides the class room (Mangla, 1995). School library services are integral to empowering students with skills that enable them to explore and develop their ideas beyond what they learn in class and develop critical thinking. They create not only educated but also informed communities through provision of opportunities for self-education, life-long learning, and self-improvement. A good learning environment consists of the
teacher, the student and the world of knowledge. The teacher is the source of inspiration. However, the success of the students is ultimately measured by the ability of the students to learn independently through exposure to the world of knowledge which can only be found in the library. Schools with good school libraries tend to have better scores than those with lower rated libraries. In addition, school libraries prepare students adequately for academic excellence in higher learning institutions.

Consequently, the school library must be well managed and equipped with financial and other material resources so that both teachers and students can rely on it to support teaching and learning respectively. Library management encompasses a number of things which include library accommodation and space; storage of materials; selection of materials; the acquisition; cataloguing and classification; preservation of library materials; borrowing of materials; book processing (selection, ordering, receiving) and promoting the use of the library. In order to manage these library functions effectively, resource mobilisation becomes a critical issue. This involves obtaining the resources needed in order to successfully carry out planned activities. Such resources include finances and human resources among others.

However, most school libraries in Zambian Secondary schools have not performed and developed to the expectation. Among the notable challenges school libraries face include inadequate financial and other library resources, poor staffing patterns and insufficient materials to mention but a few. It is against this background that investigating library management and resource mobilisation practices in Zambian secondary school libraries is paramount.

2.0 BACKGROUND

The origins of libraries in Zambia can be traced to the colonial period. The colonial period can be divided into three eras as follows: (i) The British South African Company (1890–1924), (ii) the British Colonial Office Administration (1924–52), and (iii) the Federation of Northern Rhodesia and Nyasaland (1953–63). The politics of providing education, and let alone library services for Africans closely followed these stages. First and foremost, it is imperative to note that before the advent of white men, preservation of cultural traditions and beliefs of various ethnic groups was through memory and repeated orally from one generation to the other (Wedgeworth, 1993). It is believed that very important historical facts were remembered and unimportant things where forgotten. When the white men came to Zambia, they greatly relied on oral tradition to compile written words. Thus, the white men not only introduced written word from oral traditions but also western education which emphasised on reading and writing skills. Way before Zambia became colonised, David Livingstone, the first missionary explorer to arrive in Zambia, introduced the first prototype library known as the “tin-truck” portable library which was carried along during his travels in the country between 1853 and 1873.
During the British South African Company rule from 1890 to 1924, the only remarkable development was the establishment of Livingstone subscription library in Livingstone about 1908 and in the 1920s. Later, a number of small subscription libraries were set up in the townships of Chipata, Kasama, Mongu, Mansa, Lusaka, Luanshya, Choma and Ndola (Wedgeworth, 1993). Most of these library services catered for the minority settlers and expatriate white community who lived along the line of rail (from Livingstone in Southern Province to Kitwe in the Copperbelt) (Hamakanda, 2006) and who could afford to pay membership and subscription fees (Wedgeworth, 1993).

The British Colonial Office Administration which ruled Zambia from 1924 to 1952 also did not do much to encourage the development of libraries in Zambia, despite Western institutions of education in Northern Rhodesia becoming more common and introducing more formal and professional control over schooling (Wedgeworth, 1993). Due to inadequate resources and the unwillingness of the white settlers to promote secondary education of Africans, education was limited to lower levels of schooling. Secondary schooling was mainly introduced in order to provide teachers for primary education (Luchembe, 2009). The few secondary schools that were opened did not have any libraries. However, it was during this period that some funds from its Colonial Development and Welfare Fund was used to establish the Northern Rhodesia Publications Bureau in 1947 which was later renamed the Joint Publications Bureau of Northern Rhodesia and Nyasaland in 1948 (Wedgeworth, 1993).

Education during the Federation of Northern Rhodesia and Nyasaland from 1953 to 1963 continued to be largely characterised by segregationist and inequitable patterns of provision for African and European children. However, the bureau introduced a country book-box library scheme in 1959 that provided the majority of Africans their first access to library services. In 1960, the Joint Publications Bureau received a grant-in-aid from the Ford Foundation towards the development of a nationwide public library service in the country. Thus, in 1962, the Northern Rhodesia Library Service was established to oversee the establishment and running of public libraries in the country. This was subsequently renamed Zambia Library Service in 1964. Thus, the newly independent nation inherited a legacy of a public library service which was only serving an urban minority.

At independence, the country embarked on massive investment in education. Finances were invested in the Ministry of Education for the expansion of education facilities which included secondary schools. Thus, different types of libraries each serving the needs of a particular clientele evolved. This included school libraries.
STATEMENT OF THE PROBLEM

The school library is established to support the educational activities of the school. This purpose is achieved by ensuring that children are provided with the means of finding whatever information they need; and encouraging them to develop the habit of using books both for information and for pleasure (Ray, 1990).

However, Zambian school libraries have somehow not measured up to the expectations. They are poorly managed and poorly equipped with financial and other material resources. Thus, they have by and large not succeeded in their objectives. In fact, Kamoshko & Kigongo-Bukenya, (2006) observed that libraries in general are not moving at the same pace of development. School library services are not only far from satisfactory but also not integrated into the curriculum. Library collections or information materials are lacking in most school libraries in Zambia, and where they exist, the materials are often inappropriate, outdated and not well organised. In most cases, the few books that may be available in these schools are kept in cupboards in head teachers’ offices, storerooms and/or classrooms. Most library buildings in most secondary schools have over the years been turned into classrooms or laboratories.

One contributing factor according to Hamakanda (2006) is the general lack of appreciation of the value of libraries and information at all levels of society. Hamakanda claims that this is evident from the teacher-centred curriculum that has existed in schools from the earliest times, where pupils regard the teacher and not the library as the only source of information, and learning is by rote; coupled with high level of literacy and poor reading culture. School libraries are not seen as an educational tool. In addition, Chopra (1995) identified the problems that libraries face and these include low funding, high cost and insufficient library materials and shortage of staff, furniture, equipment and physical facilities to mention but a few. Chitwamali (1983) claims that in Zambia, most secondary school libraries fail to satisfactorily perform their functions due to lack of clearly defined library objectives, negative attitude of school administrators towards the library and lack of qualified librarians to render a dynamic service to the school community and demonstrate the full value of the library to its funders and users. This is compounded by poor resource mobilisation practices.

The consequent lack of improved information services according to Zulu (1997) has serious effects on both trainers and trainees. As a result of serious shortage of suitable up-to-date reference materials, periodicals and other basic materials in various fields, teachers tend to be handicapped in terms of their professional duties (i.e. the preparation of adequate teaching notes and development of adequate materials for teaching. Students also face serious problems in preparing for lessons and assignments as many essential and basic text books and reference materials are not available or are in extreme short
supply. Considering the multiple challenges faced in most school libraries, it was imperative, in this study to investigate the management and resource mobilisation practices in school libraries in Zambia.

4.0 RESEARCH QUESTIONS

There were several objectives of this study which were investigated on library management and resource mobilisation in Zambian secondary school libraries. These included the general standard of library buildings; organisation of collections; security and maintenance of library collections and buildings; promotion of library services, methods of mobilising financial and other library resources and the staffing levels and qualifications of head librarians. Six research questions, which were addressed, are presented as follows:

1. What is the general standard of Zambian secondary school library infrastructure?
2. How are library collections managed in Zambian secondary school?
3. To what extent are secondary school libraries secure and properly maintained?
4. How do secondary school libraries promote their services to patrons?
5. How do secondary school libraries mobilise resources?
6. To what extent are secondary school libraries in Zambia adequately staffed and headed by full-time librarians?

5.0 METHODOLOGY

The research design was centred on a quantitative methodology, surveying library management and resource mobilisation practices in Zambian secondary school libraries. The main data collection instrument employed for primary data was a self-administered questionnaire. Observations to some of the secondary schools were also undertaken. Thirty-one (31) secondary schools participated in the study. These include: Kawambwa, Mpunde girls, Kafue boys, Chipembi girls, Mansa, Holy Cross girls, Highridge, Mwinilunga, St. Monica’s girls, Ndeke, Chambishi, Kitwe Girls, Mukuba, Chamboli, Nkana, Mutanto, Lubuto, Ndola Technical, Kansenshi, Ibenga girls, Fatima girls, Chikola, Kantanshi, Kalulushi, Dominican Convent, Lufwanyama, Mpongwe, Chizongwe Technical, Chadiza, Katete girls and Rusangu. Investigated schools covered all the nine provinces of Zambia.

6.0 FINDINGS AND DISCUSSION

The findings of this study are reported in the following main themes: the general standard of Zambian secondary school library infrastructure; management of library collections; security and maintenance of school libraries; promoting
library services to patrons; resource mobilisation in secondary school libraries and staffing levels and subject qualifications of staff in charge of secondary school libraries.

6.1 The general standard of Zambian secondary school library infrastructure

In this study, library infrastructure was taken to mean library buildings, furniture and ICT infrastructure.

6.1.1 General Standard of school library buildings

The study revealed that out of the 31 secondary schools covered, 6.5% have purpose built libraries and 90.3% indicated that their library is housed in a room or building originally built for some other purpose. 3.2% indicated that they have no library at all. The findings are depicted in Table 1 below.

<table>
<thead>
<tr>
<th>Standard of school library building</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose-built</td>
<td>2</td>
<td>6.5</td>
</tr>
<tr>
<td>Housed in a room or building originally built for some other purpose</td>
<td>28</td>
<td>90.3</td>
</tr>
<tr>
<td>No library</td>
<td>1</td>
<td>3.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>31</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

From the above table, it is clear that the majority of secondary school libraries are not purpose built. The findings concur with Chitwamali’s study which established that all schools in Zambia constructed before or after independence have no proper library buildings to meet the actual requirements of their libraries. A physical check by the researchers in some of these libraries revealed that the ordinary rooms where most libraries are housed have insufficient facilities for readers to sit and consult the books of their interest. In addition, it was revealed that some schools that previously had suitable accommodation had later used these rooms for other purposes e.g. as extra classroom, staff room or computer laboratory. As Kakoma (1991: 86) observed, “a school library should be more important than a science laboratory since the latter deals with two to three subjects while the former stocks materials which are of relevance to all subjects taught in the school including sciences”. There is an obvious need for more purpose built libraries or suitable rooms since it is fairly certain that those which have no such buildings have difficulties in trying to operate a school library and in
trying to accommodate readers. The design of the library plays a critical role in determining its use. It is widely recognised that secondary schools with good libraries have a high pupil rate. A School library is one of the investments that influence the quality of schooling to a great extent. It is therefore, important to have purpose built libraries in secondary schools so as to enable schools satisfactorily perform their functions and meet their set objectives.

### 6.1.2 Furniture
Generally, findings regarding furniture revealed that most secondary schools do not have adequate shelves, chairs and tables. As regards chairs, 80% of the secondary schools reported that they do not have adequate chairs to cater for a large number of readers. For those schools that had chairs (20%), the rooms were too small to accommodate extra chairs. For this reason, only a few pupils were allowed to use the library at any given time and in some cases, the library was used for lending purposes. The findings of the study further reveal that the situation regarding tables is pathetic. 90% of the secondary schools indicated that they do not have reading or working tables for students and library staff respectively. Only 10% reported to have tables for use by students and staff. Tables and chairs are needed so that students can work with books in the library. In addition, the library staffs need tables and chairs for their own work. 6.5% of the secondary schools reported that they had adequate shelves for their books while 3.2% indicated that they do not have shelves at all and their books are kept in carton boxes. 90.3% of the secondary schools indicated that they do not have sufficient shelves for their books. According to Baird (1994) the basic furnishing infrastructure for a library is book shelves. Books last longer and are easier to find if they are displayed on shelves. In addition, cupboards and carton boxes unlike shelves hinder access and self-sufficiency in the use of the library. It is conventional to store books upright on shelves because so many books have information on their spines and shelves serve as a display system tool.

### 6.1.3 ICT infrastructure
The study also sought to elicit information on the kinds of ICT facilities available in secondary schools. 18% of the schools reported that they have computers, 3% indicated that they have other ICT facilities such as televisions and decoders and 8% indicated that they do not have any ICT facilities. In fact, those that reported having computers explained that they use them mainly for word processing. The importance of ICTs
in meeting the information needs of teachers and students in secondary school cannot be overemphasised. ICTs would enable both teachers and students to create, use and access enormous amounts of information quickly to enrich their teaching and learning experiences respectively. For instance, students can use computers to type assignments and also entertain themselves.

**Table 2: ICT Facilities available in secondary school libraries**

<table>
<thead>
<tr>
<th>ICT Facility</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computers</td>
<td>18</td>
<td>58.1</td>
</tr>
<tr>
<td>Internet access</td>
<td>2</td>
<td>6.5</td>
</tr>
<tr>
<td>Digital cameras</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Local Area Network</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other(s)</td>
<td>3</td>
<td>9.7</td>
</tr>
<tr>
<td>No ICT facility</td>
<td>8</td>
<td>25.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>31</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

6.2 Management of library collections

The issues that were considered under this objective included collection development policy, Size of library collections, kinds of library collections, library catalogue and cataloguing and classification of library materials.

6.1.1 Collection development policy

The study also sought to elicit information on whether secondary school libraries had Collection Development Policies (CDP). Surprisingly, only 3.2% indicated that they had a CDP while 96.8% had none. It can be concluded from the findings that most school libraries do not have a CDP. These findings agree with Chitwamali’s 1983 observations that practically, most libraries do not have collection building and development policy statements. Baird (1994) argues that a CDP is essential for effective building and development of library collection. It guides the librarian’s thinking in decision-making when deciding on what subject areas to consider in terms of resource acquisition as well as how much emphasis each area should receive (Evans, 1979).

The importance of a school library adopting a policy is surely one that cannot be overemphasised. According to Chitwamali (1983), collection development and building is a very complex and demanding activity especially in an academic environment where librarians need to: (1) decide the basis for fund allocation among various subjects or
departments (2) strike a balance between different subject areas (3) decide the types and forms of materials to acquire in different subject areas and (4) decide on the question of duplication of copies and purchasing of student textbooks. Bavakutty (1995) argues that a school library can only succeed in its defined aims if its library collection is balanced and selection is based on sound principles.

### 6.2.2 Size of library collections

With regard to the size of school library collection 6.5% of the schools reported that they had less than 1,000 volumes, 19.3% had between 1,000 and 1,500 volumes, 61% had between 1,500 and 2,000 volumes, 12.9% had between 2,000 and 3,000 volumes. It is clear from the findings that most school libraries have between 1,500 and 2,000 volumes of collection. This is contrary to Baird’s assertion that most secondary school libraries have fewer than 200 books (Baird, 1994). However, a physical check on some of these libraries revealed that most of these collections are mostly old and in many cases, the bulk of stock was irrelevant to the schools’ needs. In addition, most schools visited by the researchers had a shelf filled up with several copies on one subject. For a library to serve all its students, Ray (1990) contends that the library should possess enough books to enable (a) every student in the school to have a book out on loan (b) some additional books to be available on the shelves so that individuals can refer to them or borrow them, and (c) some books to be kept on the shelves for class or group work in the library. Obviously, there is need for secondary school libraries to expand their holdings with up-to-date and relevant materials.

### 6.2.3 Kinds of Library collections

Furthermore, the study sought to elicit information on the kinds of collections school libraries hold. The findings revealed that 83.8% of secondary school libraries have books only, 6.5% have books and journals, another 6.5% have collection comprising of books, journals, audio tapes and films and 3.2% have collections consisting of books, journals, audio tapes, films, CD-ROMs, DVDs, newspapers, maps, flipcharts, pamphlets, posters, audio visual equipment.

It is clear from the findings that the stocks in most secondary school libraries consist of books. These findings concur with Baird’s (1994) and Bavakutty’s (1995) observations that in most libraries the collection is mainly limited to books than any other type of stock. Non-book materials such as newspapers, clippings or press cuttings,
photographs, maps, flipcharts, pamphlets, posters, videotapes, audiotape cassettes, gramophone records, illustrations, wall charts and postcards of popular scenes are also useful for the library (Baird, 1994). In addition, modern media such as tapes, cassettes, films and slides should be available in school libraries (Bavakutty, 1995) as well as reference books such as encyclopaedias, dictionaries, thesaurus, atlases, fiction and non-fiction books that students can borrow. In fact, Ray (1990) claims that non-book materials are more effective for educational purposes than books.

6.2.4 Library catalogue

It was also established that most secondary school libraries’ stocks are recorded in a book or accession register (93.5%) while only 6.5% record their library stocks on cards or catalogue. As Rigg (1979) observed, the functions of an accessions register seems to be much better understood than that of the catalogue and that there is an urgent need for many libraries to catalogue their books. Secondary school librarians should be aware that a library catalogue enables an individual to find a book using whatever is known either by the author, title, subject or category. In addition, it shows what the library has by a given author, on a given subject and in a given kind of literature. It also assist in the choice of a book as to its edition (bibliographically) or as to its character (literary or topical). According to Singh (1995), non-existence of catalogue in the library may be termed as most unhelpful omen in the use of library materials by students. It is for this reason that school librarians should take keen interest to record their stocks on cards other than in accessions register. A library catalogue according to Baird (1994) tells you what books you have in your library and where to find them.

6.2.5 Cataloguing and classification of library materials

Pertaining to the issue of cataloguing and classification of library materials, the findings reveal that 70.9% of the secondary schools reported having their books catalogued and classified using Dewey Decimal Classification scheme. 29% indicated that they use Junior Colour Scheme to arrange their library stocks. These findings show that most school libraries use DDC to catalogue and classify library materials. In fact, Rigg (1979) claims that DDC is the only scheme suitable for most libraries. Therefore, DDC is arguably not only the most important bibliographic classification scheme used in knowledge organisation but also the widely used scheme in the world of library and information management because of its simplicity. The fact that
a library is perceived as a living organism that grows in quantity as more materials get added into the collection, DDC is the best tool to be employed in secondary school libraries because it provides number building which allows for more materials to be added on to the collection. So when new subjects are introduced, it is possible to add new materials to the collection using DDC.

6.3 Security and maintenance of school libraries

As noted by Ray (1990), for most school libraries, the biggest problem is security. This study, thus also elicited information on how school libraries secure and maintain their library buildings as well as the stocks. However, the findings of this study reveal that secondary school libraries have taken several measures to secure not only the library buildings but also the stocks of the library from theft, fire and water. 12.9% of the schools reported that their library was well ventilated, all the schools (100%) reported that they cleaned their libraries regularly, 58.1% and 38.7% reported having fixed grill doors and burglar bars to their library buildings, 45.2% indicated that their library roof was well maintained, 58.8% restrict entry to storage areas, 100% reported issuing identity cards, 93.5% indicated that they checked electrical appliances regularly, 87% indicated that they do not keep inflammable materials in the library, 9.7% reported having fire extinguishers in the library and 6.5% reported having put a ‘No Smoking’ sign in the library as well as appropriate library rules for users. The findings are depicted in table 3.

*Table 3: Measures to secure and maintain school libraries*

<table>
<thead>
<tr>
<th>Measure</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>The library is well ventilated</td>
<td>4</td>
<td>12.9</td>
</tr>
<tr>
<td>Clean the library regularly</td>
<td>31</td>
<td>100</td>
</tr>
<tr>
<td>The library has grill doors</td>
<td>18</td>
<td>58.1</td>
</tr>
<tr>
<td>The library has burglar bars</td>
<td>12</td>
<td>38.7</td>
</tr>
<tr>
<td>The roof is well maintained</td>
<td>14</td>
<td>45.2</td>
</tr>
<tr>
<td>Restrict entry to storage areas</td>
<td>17</td>
<td>58.8</td>
</tr>
<tr>
<td>Users produce identity cards</td>
<td>31</td>
<td>100</td>
</tr>
<tr>
<td>Check electrical appliances regularly</td>
<td>29</td>
<td>93.5</td>
</tr>
<tr>
<td>No inflammable materials are kept in the library</td>
<td>27</td>
<td>87</td>
</tr>
<tr>
<td>The library has fire extinguishers</td>
<td>3</td>
<td>9.7</td>
</tr>
<tr>
<td>Other (s)</td>
<td>2</td>
<td>6.5</td>
</tr>
</tbody>
</table>
It is important that the school library room is secure because if all important books are lost, students including teachers will never come to the library. According to Baird (1990), making it difficult for anyone to take books is the best way to protect books from theft. Ray however, cautions that the library is meant to be an inviting place for students to study in or visit, so do not make it look like a prison when thinking about security (Baird, 1990). Sharma (1978) also contends that a library should be neat and clean and also have a pleasant atmosphere with other amenities.

6.4 Promoting library services to patrons

The purposes of a school library according to Ray (1990) will not be achieved automatically. The school and the librarian must use different mechanisms to promote the use of the library to its patrons i.e. teachers and students. The findings of this study reveal that secondary school libraries in Zambia use different mechanisms to promote the use of their services (Table 4). 9.8% of the school libraries indicated that they conduct exhibitions. 32.3% indicated that they conduct reading competitions. 6.5% compile booklists while 28.8% teach study skills. 45.3% teach library skills and 83.9% provide assistance to locate materials in the library. Another 83.9% indicated that they exhibit good communication skills to library users and 6.5% use other mechanisms such as public relations activities e.g. putting in place a suggestion box, sensitisation talks. In addition, they also organise discussion forums or debate sessions which encourage pupils to research on motions they are given and wearing of an identity cards and this according to Neal (1975) indicate to readers that they are members of the library staff, and therefore available to offer advice. Special events such as sports day can be a fun way to publicize library services to your patrons.

Table 4: Mechanisms used to promote library use

<table>
<thead>
<tr>
<th>Mechanism</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exhibitions/displays</td>
<td>3</td>
<td>9.8</td>
</tr>
<tr>
<td>Conduct reading competitions</td>
<td>10</td>
<td>32.3</td>
</tr>
<tr>
<td>Compile booklists</td>
<td>2</td>
<td>6.5</td>
</tr>
<tr>
<td>Teach study skills</td>
<td>8</td>
<td>28.8</td>
</tr>
<tr>
<td>Teach library skills</td>
<td>14</td>
<td>45.3</td>
</tr>
<tr>
<td>Provide assistance to locate materials</td>
<td>26</td>
<td>83.9</td>
</tr>
<tr>
<td>Exhibit good communication skills</td>
<td>26</td>
<td>83.9</td>
</tr>
<tr>
<td>Other (s)</td>
<td>2</td>
<td>6.5</td>
</tr>
</tbody>
</table>
A school library may wish to display samples of valuable information to the general public through exhibitions. Exhibitions are often an effective way of arousing interest in library use and in creating favourable publicity. Interesting documents or attractive copies to look at as well as interesting in content and relevant to the chosen theme should be chosen for display during an exhibition. Thus, to ensure the success for an exhibition, materials displayed should contain strong visual images. Apart from exhibitions, school librarians can set regular competitions that will attract students to use the library. The use of books and other materials in the library can also be encouraged by preparation of booklists. The intention of a booklist according to Ray (1990) is to draw the attention of students to books and other materials they may not have come across or have thought not worth trying.

The acquisition of study skills will help students to make the best use of books. School librarians should teach students the importance of each part of the book e.g. Title page, the contents list, the index, illustrations (e.g. Diagrams), bibliographies. Further, training in library use is intended to make the students capable of using a well organised library for finding information. They will need to know (i) the purpose and nature of the library (ii) its general organisation (iii) the basic idea of the classified arrangement (iv) how to use the catalogue to trace items in the library, and (v) how to use bibliographic materials in order to find out what books and other items are in existence (Ray, 1990).

Every librarian according to Neal (1975) must develop good communications with its readers, so as to not only win their constant support in his/her endeavours to secure adequate resources for the library service but also to gain the understanding and approval of readers of library policy and practices. In addition, it gives the librarian some inkling as to what readers want from the library and what use they make of it. Finally, the school librarian should provide direct assistance to individual readers by locating specified publications and articles, finding simples facts and figures, and tracing some or all of the information on the topic (Neal, 1975).

Despite all these efforts to promote the use of school libraries, participants generally reported that the response is not good especially from students due to poor reading culture. It was also reported that most students preferred watching learning programmes on television than reading hard copies of such programmes.

6.5 Resource mobilisation in secondary school libraries

Limited financial and other library resources (e.g. human and material) are some of the challenges facing school libraries. In as far as resource mobilisation is concerned, the findings of the study shows that 3.2% of the school libraries engage in fundraising ventures or income generating activities, 12.3% engage in resource sharing and 83.9% rely on donor support or well-wishers. The
findings demonstrate that the majority of the school libraries cultivate donor support for financial and other library resources. From the findings, it can also be concluded that school libraries have not been active in utilising other mechanisms such as provision of fee-based services, corporate partnerships and alliances, individual pledges and also fundraising ventures.

Table 5: Methods used to mobilise resources in secondary school libraries

<table>
<thead>
<tr>
<th>Methods</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fundraising ventures/income generating activities</td>
<td>1</td>
<td>3.2</td>
</tr>
<tr>
<td>Provide fee-based services</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Resource sharing</td>
<td>4</td>
<td>12.9</td>
</tr>
<tr>
<td>Seek Donor support/well wishers</td>
<td>26</td>
<td>83.9</td>
</tr>
<tr>
<td>Corporate partnerships and alliances</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Individual pledges</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Use volunteers</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other (s)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>31</td>
<td>100.0</td>
</tr>
</tbody>
</table>

According to Sera and Beaudry (2007) developing a plan or strategy for resource mobilization can lead to creative efforts in using your own local assets to gain support for your organization. In addition, multiple sources of funding can increase your independence and flexibility to implement programs and reduce reliance for instance on library funding. With increased competition for scarce grant resources, thinking of, and creating options for new, diverse, and multiple funding streams would greatly help in managing library programs.

School librarians can engage in fundraising ventures such as walks, fun fair, library project fee, suggest library materials new students can come with at school, through Alumni, braii, etc. These could be valuable sources of financial and other library resources. In addition, school librarians could also include fee-based services such as photocopying, Internet and binding services. Further, a number of organisations secure funding from grant giving foundations, trusts, governments or quasi-government organisations civil society organisations, faith based organisations, etc. Partnerships and alliances can result in benefits to libraries. Corporations or local businesses may be interested in contributing more than just funds and they could also be asked for their expertise, volunteers, products, or services. Small businesses located in the community’s neighbourhood may have a personal interest in the school library’s work and may sponsor events or provide prizes for raffles. In many parts of the world, individual pledges also form one of the largest sources of support for libraries. School librarians can make a list of individuals that can
be included in their resource mobilisation portfolio. Volunteers according to Sera and Beaudry (2007) can provide great resources and benefits to your library. Volunteering is generally done by choice, without monetary reward. Librarians can recruit retirees, technical experts, young people or student interns to work as volunteers in the school library.

Other sources of donations include professional associations, such as the Rotary or Lions Clubs. These can provide excellent opportunities to network and connect to international sources of funding. Local associations or community clubs may also provide donations or be a partner to organize charity events. Expatriate associations or international schools may also be interested in donating goods, such as books, toys, or furniture.

6.6 Staffing levels and subject qualifications of staff in charge of secondary school libraries

The findings reveal that out of the 31 secondary school libraries that participated in the study only three had support staff. The rest are staffed by one staff. This means that in the event that the librarian is out of the workstation, the library could be hardly opened. As observed by Australian Library and Information Association (ALIA) Schools Victoria and the Victorian Catholic Teacher Librarians (VCTL) (2007), both professional and support staff are needed for the effective functioning of school libraries and the achievement of the desired teaching and learning outcomes.

Table 6 below shows the subject qualifications of staff in charge of secondary school libraries. The findings suggest that the majority (48.3%) of staff had Library and Information Science as their subject qualifications at certificate level. 32.2% had English as their subject major at diploma level and 19.5% had certificates in Records Management. These qualifications are low as compared to the level of qualification that someone running a library in a secondary school must have. The quality and effective delivery of school library services, according to the ALIA and VCTL (2007) depends critically on the quality of the staff that provides it. The person responsible for managing the school library resource facility should be a qualified teacher librarian (ALIA & VCTL, 2007). In fact, Singh (1995) claims that the existence of suitably qualified library personnel is the most important of all that constitute a library. A well knowledgeable and professionally competent librarian is a key to success of the library. Thus, these findings concur with those of Chitwamali (1983) that most Zambian secondary school libraries operate without qualified librarians.
<table>
<thead>
<tr>
<th>Subject qualifications</th>
<th>Qualification level</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library and Information Science</td>
<td>Certificate</td>
<td>15</td>
<td>48.3</td>
</tr>
<tr>
<td>English</td>
<td>Diploma</td>
<td>10</td>
<td>32.2</td>
</tr>
<tr>
<td>Records management</td>
<td>Certificate</td>
<td>6</td>
<td>19.5</td>
</tr>
<tr>
<td>Science</td>
<td></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mathematics</td>
<td></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other (s)</td>
<td></td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>31</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

**70 CONCLUSIONS AND RECOMMENDATIONS**

As presented in the paper, the major findings of the study revealed the following:

- In terms of the general standard of library infrastructure, the majority of secondary school libraries are not purpose-built. In addition, the ordinary rooms where most libraries are housed have insufficient facilities for readers. Some schools that previously had purpose built libraries have turned them into rooms for other purposes e.g. as extra classrooms, staff rooms or computer laboratories. Further, most secondary schools do not have adequate shelves, chairs and tables. The ICT facilities available in secondary school libraries include computers, televisions and decoders. Therefore, there is need for Zambian secondary school libraries to construct purpose built libraries, acquire more furniture and ICT facilities.

- With regard to management of library collections, most school libraries do not have a CDP. Additionally, most school libraries have collections of between 1,500 and 2,000 volumes and these mainly consist of books. The majority of the school libraries record their library materials in a book or accession register. The DDC is the scheme used to organise library collections in the majority of the school libraries. There is need to expand library collections in secondary school libraries. In addition, librarians should create library catalogues.

- In terms of security and maintenance of library buildings and stocks, secondary school libraries in Zambia take several measures such as ventilation of libraries, regular cleaning of libraries and its surrounding, fixing grill doors and burglar bars to their library buildings, maintaining the library roof, restricting entry to storage areas for essential materials, issuing identity cards to library users, regularly checking of electrical appliances, avoiding keeping inflammable materials in the library, putting in place fire extinguishers in the library, putting up a ‘No
Smoking’ sign in the library and enforcing appropriate library rules for users. There is need for secondary school libraries to put up measures to secure and maintain library buildings and stocks at all times.

- In terms of promoting use of library services, different mechanisms are used and these include conducting exhibitions and reading competitions, compiling booklists, teaching study and library skills, providing assistance to readers, demonstrating good communication skills to library users, putting in place a suggestion box, conducting sensitisation talks and debate sessions and wearing identity cards. There is need for secondary school libraries to promote library services to their patrons using a variety of mechanisms.

- In as far as resource mobilisation is concerned, findings of the study demonstrate that school libraries engage more in resource sharing and cultivating donor support. There is need for secondary school librarians to engage in diverse income generating activities such as providing fee-based services, corporate partnerships, seeking individual pledges and use of volunteers in order to beef up their financial and material resources for the library.

- Moreover, the findings suggest that the majority of staffs in charge of secondary school libraries are not qualified. There is need to employ qualified personnel to run secondary school libraries in Zambia.

Overall, School libraries in Zambian Secondary Schools are poorly managed. Resource mobilisation activities are non-existence. Most school libraries largely rely on budgetary allocation which is normally far from meeting the library needs.

REFERENCES


Availability of Learning Materials for Students Studying Under Adult Education and Extension Studies: a Case Study of Diploma Students in Lusaka Province, Zambia

Brenda Mugala, Likukela Walusiku and Akakandelwa Akakandelwa

Abstract

The main objective of this study was to investigate the availability of study materials for students studying under Adult Education and Extension Studies (AEES) at the University of Zambia. The specific objectives of the study were to ascertain the extent to which AEES students were able to access adequate study material for their coursework and to investigate the challenges faced by AEES students in accessing adequate study material for their coursework. Exploratory descriptive methods were used to investigate the views and opinions of respondents concerning the availability and accessibility of study materials for diploma students under the AEES. The sample size was 42 respondents comprising 40 diploma students, and three key informants (two lecturers and a librarian). A questionnaire and interviews were used to collect primary data from the students. This study revealed that AEES students had very little access to study materials. The AEES department was not supplying adequate study materials to students. Students relied on University of Zambia Library for study materials. The challenges faced by the Department of AEES in providing the material were inadequate funds, bureaucratic inefficiencies in procurement, and lack of printing and multimedia equipment. Consequently, students resorted to alternative sources of study materials such as buying personal copies, obtaining from friends, accessing it from other libraries and the Internet. Although most respondents had access to the Internet, it was not fully utilized due to the high cost of access, unreliable connectivity and lack of Internet cafes. These challenges faced by students in securing adequate study material included lack of finances, the high cost of study material, lack of library facilities, and lack of bookshops. Ultimately the shortage of study material had a negative impact on academic performance of students as well as the quality at the institution. The study recommends that the Department of AEES must increase usage of ICTs to produce and make available study materials to students. Furthermore, the department must setup satellite libraries in the provinces to provide study materials to students.

1.0 Background of the Study

Distance education is not an option but an unavoidable imperative for many students, especially those in remote areas because residential institutions have limited space and are mainly located in cities. Shastree (2002:45) argues that distance education symbolizes the transformation of education by imbibing
it with high flexibility and vastly increased productivity, by transporting knowledge to people rather than transporting people to the place of knowledge.

Distance education is not a new phenomenon on the African continent. Open distance education (ODL) or extension studies is a set of teaching and learning strategies (or educational methods) that can be used to overcome spatial and/or temporal separation between educators and students (Kamau, 1997:5). It is a collection of methods for the provision of structured learning. It avoids the need for students to cover the curriculum by attending classes frequently and for long periods. Rather, it aims to create a quality learning environment using an appropriate combination of different media, tutorial support, peer group discussions, and practical sessions.

The achievement of a quality level of educational demands an enhanced availability and accessibility of study materials. In this research, study materials connote those resources prepared for use in teaching, fixed or unfixed, in any form including but not limited to digital, print, audio, video or any combination thereof. Study materials include but are not limited to lecture materials, syllabi, study guidelines bibliographies, visual aids, images, diagrams, multimedia presentations, web-ready content and educational software (Lowe, 2000:36).

These, instructional materials are of vital importance in the successful implementation of any curriculum. Without these materials, skills, concepts and content required by the curriculum cannot be taught. In the absence of any other widely available sources of information, the textbook becomes the most important and often the only source of content and pedagogic information for the teacher (Ruggles, 1982:108).

The provision of basic learning materials differs from one country to another, and various approaches are used. While some countries struggle to establish mechanisms for the production of relevant curriculum materials, others focus on issues of institutional sustainability and the role of the government. While some donors recommend the withdrawal of the public sector from the production of basic learning materials, others supply gifts of books or support the establishment or expansion of government presses (Lowe, 2000:41). Jekayinfa (2010:48) argues that availability of the right materials will result in adult education that is of practical use to the adults; education that creates radical ideas (such as education for empowerment, for liberation or for transformation). He further argues that for adult education to be integrated with economic, technical, vocational and occupational skills, both the teacher and the learners must freely access the most up-to-date study materials on diverse subjects.

Onohwakpor (2005:56) observes that in spite of the focus, attention and resources committed to adult education, there has remained a large divide between the ideal and the manifest. This is due to non-availability of sufficient materials in adult education. In most cases study materials in the teaching of
adult education remain inadequate. Therefore, there is need for provision of appropriate materials so that the teaching of adult education can be effective. The Department of Adult Education and Extension studies (AEES) is one of the departments in the School of Education at the University of Zambia. Its establishment can be traced to the Lockwood Report of 1963. The Report stipulated that the University of Zambia should make provision for both the extension of its degree and diploma studies to people outside the University (Alexander, 1975:67). To this end, the Department of Extra-Mural Studies was created. Subsequently, the Department became one of the components of the present day Department of Adult Education and Extension Studies in the School of Education. This department offers certificate and diploma programmes in various disciplines. Completion of the certificate course is a prerequisite for admission into the Diploma programme. The Extension Programmes, which are a requirement for the completion of the certificate and diploma programmes, are not run at the main campus but by tutors/lecturers in the university’s provincial centres (Ministry of Education, 2013:46). In this respect the courses can be said to be provided on a distance learning basis.

In a broad sense, the aim of the University of Zambia, through the Department of Adult Education and Extension Studies, more specifically the Extension Studies Unit, is to reach out to the community and offer courses of a university nature to those who are unable to go to the University on full-time, part-time or parallel basis. The different types of courses offered under Extension Studies in the provinces country-wide are intended to provide knowledge to participants’ cultural and civic responsibilities. Some of the knowledge gained is used to serve the community, business and professional needs (Ministry of Education, 2013:52).

2.0 STATEMENT OF THE PROBLEM

Many studies have demonstrated the importance of provision of adequate up-to-date learning and teaching materials in distance education. Lack of learning materials makes it difficult for students to effectively supplement their lecture notes with private study notes. Consequently, students fail to develop skill to carry out independent study as they made to solely rely on lecture notes. More over the students do not learn at the same pace because those with access to the few materials or those from well to do background (able to buy the expensive books and access computer facilities) will have an advantage over those from poorer background. Non-availability of quality instructional materials makes it difficult for lecturers to teach effectively. This study seeks to investigate the availability of adequate learning materials for studying under AAES at the University of Zambia.

This study investigates the availability of study material to students in the AEES department. It explores the different channels through which material is
made available, the degree of access that students have to this information, and the challenges faced in securing the information. It moreover ascertains the future plans the institution has to improve availability of study material. Most of the information in this study is based on the perceptions and experiences of participants on the issue at hand.

3.0 Research Objectives

The main objective of this study was to investigation the availability of study materials for students studying under Adult Education and Extension Studies using a case study of Diploma students in Lusaka Province. The specific objectives of this study were to:-

1. ascertain the extent to which AEES students are able to access adequate study material for their course work
2. investigate the challenges faced by AEES students in accessing adequate study material for their coursework
3. find out the challenges being faced by administration at the department of AEES in providing sufficient study materials for its students

4.0 SIGNIFICANCE OF THE STUDY

It is hoped that the findings of this study will increase the University of Zambia management’s awareness of the challenges regarding the provision of learning materials to Distance Education students and how these challenges affect students’ academic performance. It is also hoped that the findings of this study will lead to better provision of learning and teaching materials to students studying under distance education program. Lastly, it is hoped that this study will stimulate further research regarding availability of study materials to students in higher education institutions.

5.0 LITERATURE REVIEW

Open distance learning (OD) systems are designed to offer opportunities for part-time study for learning at a distance and for innovations in the curriculum (McKenzie et al., 2010:56). The defining features of an open learning system include maximization of the component of flexibility, deliberate planning of educational opportunities and increasing access of knowledge to individuals by using all modes of media, thus ignoring the geographic distance. Adult Education (AE), in some countries is used in a comprehensive manner to mean all facets of education for those who left primary and secondary schools. In some countries, AE is used in restricted manner to mean basic literacy education for adults (PAF, 2009:29). In this study the term will carry the former meaning—that involving all facets of education for those who have left primary and secondary school.
Except for few universities in Sub-Saharan Africa, distance education programmes usually have their audiences attracted within the country where the institution is located. In the same vein, very few distance education universities on the continent operate a single mode system. More often than not, most universities run evening classes and distance education programmes alongside the conventional one in what is known as a dual mode system. One thing that cannot be denied is that there has been continued growth and expansion of evening classes and distance education systems, particularly at higher levels in the recent past (Behrens & Grobler, 1997:28).

Generally, in most African countries, library support services to distance learners leaves so much to be desired. There exists a wide gap between the library support services and resources available due to traditional students and those available to extension and distance learning students. In theory, all students irrespective of the mode of learning are expected to enjoy the same library facilities. However, this is only possible to students who live are within the premises of the university (Shastree, 2002:29). The urban based extension and distance education students who live close to the location of their universities are usually at a great advantage of enjoying unrestricted access to library facilities of their institutions. On the other hand, students who live in remote areas from the university hardly have access to adequate library facilities. In most cases, library support services are non-existent to distance students.

Unfortunately most distance education students live in far away remote places and a rarely able to visit the university library for a long period of time. Telephone costs to contact the library are usually exorbitant, where available. Postal services to send materials to students are usually unreliable and costly. In most cases, students are encouraged to use library facilities nearest to them; but considerations are hardly given to whether such libraries have relevant stock or not. The situation is worsened in that the university or its agents hardly have a hand in negotiating the use of other libraries for and on behalf of the students (Lowe, 2000:47).

The arrangements to use such libraries are also left for students to undertake on a personal basis. In cases where other libraries allow students to use it facilities, such students are allowed reference access only; they are not given borrowing privileges. Indeed it is typical of most African university libraries not to allow a student of another university access to their facilities even in the same country. While some institutions may be willing to provide library support to students from other institutions of learning, the poor state of the economy makes this impracticable. To supply them needed materials that would be used by their students, some institutions depend on donors (John, 1997:59). For instance when the Open University of Tanzania (OUT) was established, Mmari reports that the stock of books and journals held by existing public and private libraries (which OUT relied upon for its students)
was limited in quantity and scope to support degree level programmes. OUT therefore decided to approach traditional donors to libraries especially those in developed countries for university-level materials to augment those already in existence (Tanzania Library Service, 2011:67).

Yet in some other places, distance education students are required to make some contribution when registering to purchase a book. Where two or more students have different books, it is expected that students would exchange books among themselves in order to broaden their exposure. In order to bridge the separation of time and space existing between distance learners and their institutions, providers of distance education occasionally organize residential programmes for their students for their students. It is during such residential programmes that some students have opportunities to access library services (Kamau, 1997:76). However, not all residential residential programmes are held within the campus of the distance learning institutions. Consequently, only those who have the opportunity to attend a residential programme on the campus of their institutions often have the benefit of enjoying library facilities (National Association of Distance Education Organization of South Africa, 2005:26). Lowe (2000:61) reports that being in the institutional library is no guarantee that students’ needs will be met. The obvious inadequacies of the libraries to meet students needs are sometimes exploited by some lecturers/ tutors who prepare ‘handouts’ and ask students to buy and note down the obedient ones that comply (Lowe, 2000:61).

The impact of electronic communications is seen as having influenced library provision in a positive way for the user. Nevertheless, while advanced countries of the world are progressing steadily in the development an utilization technologies, most African countries are not keeping pace with the development of the technological world (Agyemag and Dadzie, 2010:56). Many factors hinder the exploitation of information and communication technologies in the delivery of study materials to distance learners. Among these factors are erratic power supply, high cost of hardware and software, lack of expertise to install and maintain the technologies (Onohwakpor, 2005:28). John (1997:69) reports that in some institutions that have managed to have an email system, the facility is highly treasured and its use is jealously monitored in the office of the chancellor or vice chancellor while libraries that need it most hardly have access to it. Consequently, most parts of Sub-Saharan Africa, are not able to fully exploit the advantages of the modern technology for library users.

Jekayinfa (2010: 78) investigated the effects of instructional resources on the academic performance of students in history in Nigeria. For the purpose of the study, data were collected from five hundred and five (505) form IV history students, eleven (11) History teachers and seven (7) principals in eleven (11) selected secondary schools in Ogbomoso North and Central Local Government areas of Oyo State. Teachers and students in the sampled schools
were administered, an investigator – constructed questionnaire. History Achievement Test was also administered on the students in the selected schools. Results of the study indicated that adequate supply of instructional resources have significant effects on students’ performance in history. The outcome of the analyzed data showed that both adequate supply of teachers and material resources greatly influenced students’ academic performance in history. The investigation showed that both teacher quality and material resources were intimately related. Lack of teaching materials resulted into high levels of frustration among the teachers and students.

In 2011, the Tanzania Library Service (TLS) conducted a survey titled “Public Libraries and Distance Education in Tanzania: Issues and Dilemmas.” The survey carried out in Morogoro region showed that there were 950 volumes and a few outdated journals housed in the Open University of Tanzania (OUT) collection, in Morogoro Regional Library. These materials were meant to serve total of 107 students scattered all over the three districts of Morogoro, Kilosa, Ifakara, and Kilombero who were enrolled in eight programmes: Bachelor of Arts with Education (BAED), Bachelor of Law (LLB), Bachelor of Commerce (BCom), Bachelor of Commerce with Education (BCom Education), Bachelor of Science (BSc), Bachelor of Science with Education (BSc Education), Bachelor of Arts General (BA General), and Foundation Course. The survey established that many students did not use the library facilities due to lack of relevant materials. Where available, the materials were either inadequate or outdated. Consequently, most students heavily depended on borrowing study materials from their predecessors. The study concluded that the elementary level of the material, irrelevance, and out-datedness were the most important reasons for students’ failure to use the public library (TLS, 2011). It was moreover, found that unfamiliarity of the requirements of distance learning also played a role in the ability of distance students to secure and organize material. Distance education and conventional education are two different educational methods. While conventional education depends so much on a lecturer, distance education emphasizes separation of a lecturer and a student, and student independence. For most of the OUT students this was their first experience to study at a distance. This was major a shift from their previous conventional studies, at secondary school and tertiary levels. Although they were made aware of the heavy demands of the course, adjusting themselves to this new learning environment took time.

6.0 METHODOLOGY

Exploratory descriptive methods were used to investigate the views and opinions of respondents concerning the availability and accessibility of study materials for diploma students under the AEES. The study only involved students doing diploma programmes in Infection Prevention and Control,
Journal of Library and Information Science

The target population was all diploma students doing Infection Prevention and Control, Journalism and Public Relations at the University of Zambia department of AEES in the 2013/2014 academic year. The UNZA year book of 2013/2014 academic year was used as a sampling frame. The sample size was 42 respondents comprising 40 diploma students, and three key informants (two lecturers and a librarian). A combination of convenience and purposive sampling techniques were used in selecting participants. Convenience sampling was applied to select students while purposive sampling was used to select key informants. The researchers used their own personal judgment in deciding who to include in the sample. They only targeted individuals they believed were able to provide the necessary information. The total size of the sample was 42 respondents because a small sample size was cost effective and time saving considering the financial and time limitations imposed on the research. As this was a qualitative research, it is believed that with this number the point of saturation would be attained when all the possible views in the subject matter were exhausted. Additionally, data from a small sample was easier to analyze and interpret.

A questionnaire was used to collect primary data from the students. The questionnaire consisted of both close-ended and open-ended questions. Close-ended questions were used to capture information that could be processed and expressed quantitatively while open-ended questions were used to obtain respondents’ views on the topic. A semi-structured interview was used to collect data from key informants. Data collected from close-ended questions was analyzed using SPSS version 20 while data collected from open-ended questions and interviews was analyzed using content analysis techniques (similar responses were grouped together under a common theme in order to get the general view of the respondents in a particular matter).

This study adopted several ethical standards of social research. To maintain confidentiality, the respondents’ names were not written on the questionnaires; the information obtained was treated with strict confidentiality and was only used for academic purposes; informed consent was sought from each participant and participation in the study was voluntary.

7.0 RESEARCH FINDINGS

7.1 Characteristics of the Sample

Table 1 below presents the characteristics of the respondents. In this study, 53.3% of the respondents were male while 46.7% were female. Regarding age, 53.3% were aged 18-25 years, 26.7% were aged 26-30, and 19.9% were aged above 30 years. The participants were drawn from three main programmes namely: Infection, Prevention and Control (30%), Journalism (43.3%), and Public Relations (26.7%). Furthermore, 33.3% of the respondents were in
availability of learning materials for students studying under adult education and extension studies

their first year, 43.3% in their second, and 23.3% in their third year of study. About 87.7% of the participants were resident in Lusaka, while 13.3% were from outside Lusaka.

Table 1: Demographic characteristic of the respondents

<table>
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<th>Variables</th>
<th>Values</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Female</td>
<td>14</td>
<td>46.7</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>16</td>
<td>53.3</td>
</tr>
<tr>
<td>Age</td>
<td>18 – 25</td>
<td>16</td>
<td>53.3</td>
</tr>
<tr>
<td></td>
<td>26 – 30</td>
<td>8</td>
<td>26.7</td>
</tr>
<tr>
<td></td>
<td>31 &amp; above</td>
<td>6</td>
<td>19.9</td>
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<td>Study Program</td>
<td>Infection, Prevention and Control</td>
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<td></td>
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</tr>
<tr>
<td></td>
<td>Public Relations</td>
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<td>26.7</td>
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<tr>
<td></td>
<td>2nd year</td>
<td>13</td>
<td>43.3</td>
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<tr>
<td></td>
<td>3rd year</td>
<td>7</td>
<td>23.3</td>
</tr>
<tr>
<td>Residential Location</td>
<td>Lusaka based</td>
<td>26</td>
<td>86.7</td>
</tr>
<tr>
<td></td>
<td>Outside Lusaka</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td>Employment Status</td>
<td>Employed</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td></td>
<td>Not employed</td>
<td>26</td>
<td>86.7</td>
</tr>
<tr>
<td>Regular Income</td>
<td>Have regular income</td>
<td>24</td>
<td>80.0</td>
</tr>
<tr>
<td></td>
<td>No regular income</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td></td>
<td>No response</td>
<td>2</td>
<td>6.7</td>
</tr>
<tr>
<td>Monthly Income</td>
<td>Below K500</td>
<td>22</td>
<td>73.3</td>
</tr>
<tr>
<td></td>
<td>K500 – K1000</td>
<td>3</td>
<td>10.0</td>
</tr>
<tr>
<td></td>
<td>K1001 – K5000</td>
<td>5</td>
<td>16.7</td>
</tr>
<tr>
<td>Occupation</td>
<td>Student only</td>
<td>25</td>
<td>83.3</td>
</tr>
<tr>
<td></td>
<td>Business</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td></td>
<td>Professional</td>
<td>4</td>
<td>13.3</td>
</tr>
</tbody>
</table>

In terms of occupation, 83.3% were unemployed, 3.3% were also self-employed whereas 13.3% were in formal employment. About 80% of the subjects reported that they had a regular source of income every month while 13.3% did not receive an income regularly on a monthly basis; 6.7% did not respond. The levels of income for the sample were varied with 73.3% declaring a monthly income below K500, 10% earned K500-1000 and 16.7% earned K1001-5000 per month.

7.2 Extent of AEES Students’ Access to Study Material

Respondents were asked whether the Department of AEES was providing study material to them. Only 6 (20%) out of 30 respondents reported that the Department was providing study material to them; one was from Infection and
Disease Control, two from Journalism, and three from Public Relations. All respondents who replied in the affirmative reported that the study materials were made available through the University of Zambia Main Library. Further analysis showed that five out of the six who accessed study materials through UNZA Main Library were Lusaka residents. However, four out of the six respondents were of the view that though the study materials they received were up-to-date, they were inadequate.

Respondents were asked to mention other alternative means they used to secure their study materials. The most common means of obtaining material was by purchasing study materials from bookshops (36.7%) and from the Internet (36.7%). Other alternative channels used were through other libraries (16.7%) such as the Lusaka City Council Library, Evelyn Hone College Library, and the National Institute of Public Administration (NIPA) Library. One respondent also obtained study materials from friends while another mainly depended on his/her own personal notebooks (Table 2).

**Table 2: alternative sources of study materials**

<table>
<thead>
<tr>
<th>Alternative sources of study materials</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buying</td>
<td>9</td>
<td>30.0</td>
<td>39.1</td>
</tr>
<tr>
<td>Internet</td>
<td>7</td>
<td>23.3</td>
<td>30.4</td>
</tr>
<tr>
<td>Libraries from other institutions of learning</td>
<td>5</td>
<td>16.7</td>
<td>21.7</td>
</tr>
<tr>
<td>From friends</td>
<td>1</td>
<td>3.3</td>
<td>4.3</td>
</tr>
<tr>
<td>Old notebooks</td>
<td>1</td>
<td>3.3</td>
<td>4.3</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>76.7</td>
<td>100.0</td>
</tr>
<tr>
<td>No response</td>
<td>7</td>
<td>33.3</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>30</strong></td>
<td><strong>100.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

Respondents were asked whether they had access to Internet. Twenty (76.7%) respondents indicated that they had access to the Internet and depended on it as their main source of research materials. One respondent was of the view that the Internet reduced the cost of securing study materials. There were nevertheless concerns about the high expense of downloading data from the Internet, the unreliability of Internet connectivity, and non-availability of Internet cafes/computer laboratories in some parts of the country.

### 7.3 Challenges Faced by AEES Students in Accessing Study Material

Table 3 below presents a summary of the major challenges which students were facing in securing study materials. These included inadequate finances (36.7%), non-availability of relevant study materials (36.7%), high cost of Internet services (10.0%), and long distance to the nearest bookshops (3.3%).
Further results revealed that 93% of respondents found the cost of study material too high; 87% of the students stated that they could not afford to buy their study materials; 86.7% (26) could not afford the cost of the Internet; 50% of the respondents reported that there was no library near their area of residence; 27% of the respondents who had access to a library near their residence reported that the libraries were not adequately stocked with relevant study materials.

The respondents were furthermore asked to indicate other study material they deemed necessary, apart from text books. The other materials needed were handouts (printouts produced by lecturers on specific topics), past examination papers and modules. Journalism students requested for books on forensic, investigative and photo journalism which is a specialist fields in their program.

The above findings were augmented by findings from the interviews with key informants. Findings from the key informants indicated that the Department of AEES was facing several challenges in providing sufficient study material to students. One of the main challenges was that the number of students enrolling for courses under AEES was continuously increasing whereas the budgetary allocation to the department had remained static for a number of years; and in some years had been decreasing. This has resulted into a critical shortage of resources for production of modules and the purchase of new books. Furthermore there was a challenge of lack of information and communication technologies (ICTs) such as computers, scanners, printers and other related equipment. Where available, ICTs were often inadequate, poor and unreliable.

An additional challenge that was pointed out was the inefficient procurement system existing the University of Zambia. It was reported that it took a long time to procure study materials such as books mainly due to bureaucratic hurdles. The other challenge reported was a lack of a system for replacement, and maintenance of existing study materials, particularly books, such that most of them tended to be damaged within a short time with little prospect of replacing them. Inadequate security measures also increases the chances of the books being stolen.

### Table 3: **Challenges in securing study materials**

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Books were too expensive</td>
<td>28</td>
<td>93.3</td>
</tr>
<tr>
<td>Non-availability of relevant study materials (books)</td>
<td>15</td>
<td>50.0</td>
</tr>
<tr>
<td>Inadequate finances</td>
<td>11</td>
<td>36.7</td>
</tr>
<tr>
<td>Books not available in the local libraries</td>
<td>8</td>
<td>26.7</td>
</tr>
<tr>
<td>Expensive Internet</td>
<td>3</td>
<td>10.0</td>
</tr>
<tr>
<td>Long distance to nearest bookshops</td>
<td>1</td>
<td>3.3</td>
</tr>
</tbody>
</table>
7.4 Students Opinions on how the Shortage of Study Material has Affected Academic Performance

Respondents were asked to assess their academic performance. Twenty-six (76.7%) respondents assessed their academic performance as average; six (20.0%) assessed their academic performance as above average; and one respondents assessed his/her academic performance below average. Respondents were further asked to indicate how the lack of study materials had affected their academic performance. About 70% of students felt that the shortage of study material had prevented them from performing to their best; 17% of the respondents were of the view that lack of study materials had caused them to fail some courses; while 13% of the respondents were of the view that lack of study materials had not affected their academic performance at all (Table 4). One respondent reported that he/she only managed to secure some study material a week before the examination period. Another respondent reported that the lack of study material made it difficult to adequately cover the major topics in his/her courses. Furthermore, the shortage of study materials also made it difficult for them to conduct quality research for their assignments and this further led to poor performance in the assignments.

Table 4: How shortage of study materials affect academic performance

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevented better performance</td>
<td>21</td>
<td>70.0</td>
</tr>
<tr>
<td>Failure to have information on time</td>
<td>11</td>
<td>36.7</td>
</tr>
<tr>
<td>Impaired assignments</td>
<td>7</td>
<td>23.3</td>
</tr>
<tr>
<td>Unable to understand vital topics</td>
<td>6</td>
<td>20.0</td>
</tr>
<tr>
<td>Caused failure</td>
<td>5</td>
<td>16.7</td>
</tr>
<tr>
<td>No negative effect</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td>Available books irrelevant and expensive</td>
<td>1</td>
<td>3.3</td>
</tr>
</tbody>
</table>

Respondents were furthermore asked whether relying on modules alone was sufficient in ensuring good academic performance. Seventeen (56.7%) respondents indicated that relying on the course modules was sufficient; while twelve (40.0%) respondents were of the view that relying on the modules was not sufficient. Those who believed that the modules were reliable were further asked to give reasons: eight (26.7%) were of the view that the modules had all the necessary information; another eight (26.7%) were of the view that the modules served as a useful guide when preparing for examinations; while two respondents were of the view that the modules were a useful supplement in situations where lecturers were absent (Table 5). Respondents who were of the view that the modules were unreliable gave the following reasons: the modules were not detailed enough to provide all the relevant information
(30.0%); there were not enough copies of the modules to cater for the large number of students (3.3%); and the modules were not regularly updated to include the latest information (3.3%). One respondent further observed that that some modules contained irrelevant and at times complicated material, making it difficult for them to understand.

Table 5: Adequacy of the modules

<table>
<thead>
<tr>
<th>Variable</th>
<th>Values</th>
<th>Frequency (n=30)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you rely on modules?</td>
<td>Yes</td>
<td>17</td>
<td>56.7</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>12</td>
<td>40.0</td>
</tr>
<tr>
<td>Why modules are adequate</td>
<td>Have all necessary information</td>
<td>8</td>
<td>26.7</td>
</tr>
<tr>
<td></td>
<td>Gives guidance on what to study</td>
<td>8</td>
<td>26.7</td>
</tr>
<tr>
<td></td>
<td>Supplement lecturer absence</td>
<td>2</td>
<td>6.7</td>
</tr>
<tr>
<td>Why modules are not adequate</td>
<td>Does not provide sufficient information</td>
<td>9</td>
<td>30.0</td>
</tr>
<tr>
<td></td>
<td>Not enough modules for all</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td></td>
<td>Modules not updated</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td></td>
<td>Does not provide sufficient information</td>
<td>9</td>
<td>30.0</td>
</tr>
<tr>
<td></td>
<td>Not enough modules for all</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td></td>
<td>Modules not updated</td>
<td>1</td>
<td>3.3</td>
</tr>
</tbody>
</table>

These findings were also corroborated by the two key informants who acknowledged that there was a critical shortage of modules and study materials. They were also of the view that the shortage of study materials had impaired their ability to adequately prepare lessons and teach effectively. Findings from the interviews also revealed that some lecturers were trying to mitigate the shortage of study material by downloading materials from the Internet. However, they reported that they had doubts about the Internet as not all the information obtained from it was reliable. Ultimately, the key informants were of the view that the shortage of study materials had negatively affected the performance of their students.

7.5 Respondents’ suggestions on how to improve availability of study materials

Respondents made recommendations on how the department of AEES can improve access to study material. The recommendation included the need for the University administration to purchase more books, produce adequate modules, establish libraries and computer laboratories with Internet access in the regional offices, provide printing and photocopying services (Table 6).
Table 6: **Suggestions on how to improve students’ access to study materials**

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procure more books</td>
<td>16</td>
<td>53.3</td>
</tr>
<tr>
<td>Establish libraries for AEES</td>
<td>8</td>
<td>26.7</td>
</tr>
<tr>
<td>Establish computer rooms for AEES</td>
<td>2</td>
<td>6.7</td>
</tr>
<tr>
<td>Produce more modules</td>
<td>2</td>
<td>6.7</td>
</tr>
<tr>
<td>Consult students</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td>Partner with donors</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>30</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

### 8.0 Discussion and Recommendations

The aim of this study was to investigate into the availability of study materials for students studying under Adult Education and Extension Studies. The views of the respondents and information obtained from the observations and other relevant documents constitute the focal point of this discussion.

The sample had near gender parity and as such the views of both males and females were obtained. However there was no significant difference in the challenges faced by males or females in accessing study materials. Therefore, gender did not have a significant influence in how shortage of study material could affect academic performance. Also all students faced similar problems in accessing study material and were similarly affected by shortage of material regardless of which program they belonged to. Therefore, program of study did not have a significant effect. Thus the constraints in accessing of study material and the effect of this shortage on academic performance was the same for all students regardless of their program of study.

The research findings indicated that students’ access to relevant study materials was low. One reason for this was that the department of AEES did not provide adequate study materials for its students. This failure was due to lack of finances, lack of ICT equipment, poor ICT network, and lack of library facilities. This has resulted into students’ have reliance on purchasing personal study materials, sourcing from friends and seeking the material from other institutions of learning. Nevertheless these alternative measures were not very effective in ensuring adequate access to study materials. It was difficult for students to buy adequate study materials because the books were too expensive and thus unaffordable to most students who were largely unemployed and therefore had low income levels. Furthermore, most bookshops did not stock the required books. Sourcing study materials from other libraries was ineffectual because most of these libraries did not have the required books or had outdated copies. Furthermore, the majority of the students did not have library facilities near their area of residence, especially if they were resident outside Lusaka. These findings are similar to what was reported by the Tanzania Library Service (2011).
Although Internet provided an alternative source of study materials, most students had no access to the Internet while those who had access found the Internet expensive and unreliable due to poor connectivity. The study has also revealed that, although the Internet can be used as an efficient means of delivering study material to students under AEES, the department of AEES has not used this channel effectively. A similar situation was observed by Agyemang and Dadzie (2010:56) in Ghana. The reason for underutilization of ICT is mainly due lack of funding, high cost of Internet access and the poor Internet connectivity especially in remote areas.

The study has revealed that Department of AEES is facing a diverse array of problems in producing sufficient study material and also in making it available to students. The challenges highlighted indicate a low level of investment on the part of the government, and subsequently the University management, in improving facilities at the institution, particularly in securing study materials for students in the department. There has been a low level of investment in ensuring that the institution has adequate level of ICT connectivity. The AEES lacks both a wireless Internet link which could connect it to its branch centers and thus enable clients to access it from different parts of the country. AEES does not even have an ICT policy to guide its ICT development. It also appears that the University of Zambia has not taken advantage of the national fibre optic network recently commissioned and administered by ZESCO. This network is nationwide and could be used to connect the institution to provincial centers through-out the country. AEES department does not have a dedicated web-based portal through which it can deliver study material.

The study has revealed that the shortage of study material had a negative impact on their academic performance. Members of the academic staff also held the same view. This perception was in conformity with findings by other researchers such as Momoh (1980:127), Morofola (1982:113), Popoola (1990:78) and Jekayinfa (2010:78). These studies have revealed that inadequacy of study material impairs the ability of lecturers to teach. In this respect even though lecturers and tutors may be adequately qualified and competent, the shortage of study material prevents them from teaching effectively. A poor standard of teaching in turn contributes to poor academic performance of students. Alternatively as explained by most respondents the lack of adequate material leads to them under performing and even failing. The observations above are similar to observations by Jekayinfa (2010), in that a combination of poor teaching standard and low access to study material leads to poor academic performance.

Findings from both students and key informants were in agreement that it was not sufficient to rely on modules as a sole source of knowledge. Instead students must have diverse forms of study materials if they are to improve their performance. Students need to have accesses to wide range of study materials including past examination papers, journals, reference materials and
textbooks. Inspirational books were also seen as necessary. This is because real education is not just about academic development but also the spiritual, moral and motivational aspects of the students. Reading diverse material both academic and non-academic generates students who are well-informed on diverse issues and who are critical in their thinking. It moreover induces students to be broad-minded, capable of considering issues from different points of view. This is vital especially for students in Journalism and Public Relations. However, it must be noted that it is not adequate to merely rely on hard copy sources. Instead must be exposed to multiple media forms including graphic, audio, and video. This will improve the quality of both teaching and studying and can only be achieved with improvement in ICT facilities.

9.0 CONCLUSION

This study concludes that the extent of AEES students’ access to study material is very low. The Department of AEES does not supply adequate study materials to students. The challenges faced by the department in providing the material include inadequate funds, bureaucratic inefficiencies in procurement, lack of printing and multimedia equipment as well as deficiencies in its use of ICT. Students are as such forced to resort to alternative measures such as buying personal copies, obtaining from friends, accessing it from other libraries and the internet. Although most respondents have access to Internet and used it as the main source of research material, they do not fully utilize it due to high cost of access, unreliable connectivity and lack of Internet cafes. Access to other alternative sources of study materials is hampered by lack of finances, the high cost of study materials, lack of library facilities (where available these libraries lack of relevant materials), and lack of book shops. The shortage of study material has a negative impact on the quality of teaching and the performance of students.

10.0 RECOMMENDATIONS

In order to improve availability and access to study materials to students, this study recommends that the Department of AEES must:

1. Increase its usage of ICT in producing material and making it available to its students. It may also set up its own Internet portal through which students can access material from any part of the country;

2. Setup library facilities in the provincial centers dedicated to AEES students. It should also partner with selected college libraries and public libraries to provide study materials to its students; and

3. Procure multimedia equipment to generate print, audio, video and graphic study materials. This will enable the institution to supply material in soft copy through the internet and also enhance the quality of teaching as well as the quality of the material produced.
REFERENCES

Agyemag, B. & Dadzie, P. (2010). Providing Information Communication Technology Support to Distance Education Students: A Case of The University of Ghana, Legon. *Turkish Online Journal of Distance Education-TOJDE*, July 2010


Behrens, S.J. & Grobler, L.M. (1997). The University of South Africa’s Library Services to Distance learners. In Watson, E. A. *Library Services to Distance Learners in the Commonwealth: A Reader*. Vancouver: The Commonwealth


National Association of Distance Education Organisation of South Africa. (2005). *Designing and Delivering Distance Education: Quality Criteria and Case Studies from South Africa*. Johannesburg: NADEOSA.


Using Indigenous Knowledge as a tool for development: role of rural libraries in Zambia

*Henry Panganani Zulu*

**Abstract**

This conceptual paper argues for the establishment of indigenous knowledge resources centres through the already existing infrastructure of the provincial and branch libraries under the Zambia Library Service. Their sole mandate will be to collect, catalogue, manage, preserve, repackage and make available to the Zambians living in those areas access the indigenous knowledge in solving their daily problems. It is my belief that by using indigenous knowledge our people will be making a major contribution towards the economic development of our country.

In the argument this paper endeavors to highlight on the value, characteristics and the significance of indigenous knowledge in light of enhancing economic development especially among the young generation of Africa who seem not to appreciate the value of indigenous knowledge as they have completely abandon its application. Furthermore, the paper in its discussion appreciates the critical factors that indigenous knowledge plays in sustainable development as it can be used to solve the daily immediate problems and better the lives of our people in their communities.

Finally, the paper argues that the establishment of indigenous knowledge resource centres would not only benefit the locals by making available the needed indigenous knowledge in solving their daily problems. This action would also add value to the library and information professional. Thus as librarians working in those centres would have to employ new ways of how to collect, preserve, catalogue, manage and disseminate indigenous knowledge which is available in many different formats. This is a challenge that as professionals we have no any other way other than overcoming it.

**Keywords:** Indigenous knowledge, Local knowledge, Zambia Library Service, Libraries, Knowledge, Information, Zambia.

**1.0 INTRODUCTION**

Of late people have come to realize that the breakdowns in the indigenous knowledge transfer are impacting negatively on both the physical and social environment. And out of this realization many people have already started working towards raising awareness and pooling their forces together to capture, store and disseminate indigenous knowledge.

This paper attempts to introduce indigenous knowledge that it is an important resource which should be harnessed and managed in such a manner that it contributes to the efficiency, effectiveness and sustainability of the
development process of local communities in rural Zambia. In the discussion, the paper also demonstrate how provincial libraries could be used as centres to manage, preserve, repackage and provide access to Zambia’s indigenous knowledge.

The paper concludes by suggesting that through the establishment of indigenous knowledge centres in rural Zambia under the supervision of the Zambia Library Service would empower the local communities in decision making and could help in improving their livelihood. Lastly, with all such efforts put together would result into the establishment of our own indigenous knowledge centre to be called Zambia Indigenous Knowledge Resource Centre (ZAMBIKRC).

2.0 CONCEPTUAL FRAMEWORK

The conceptual framework of this paper is based on the understanding that the current existing infrastructure of the Zambia Library Service is well placed to accommodate the establishment of indigenous knowledge resource centre and be able to catalogue, manage, preserve, and make available of that vital information resource to all the citizens who would use it in their everyday lives in communities. Currently, major efforts towards capturing and documenting indigenous knowledge in Africa are a part of larger global projects for the documentation, preservation and sharing of indigenous knowledge being conducted by both national and international organizations and Zambia should not be left out.

3.0 WHAT IS INDIGENOUS KNOWLEDGE?

Burtis (2009) reports that since the 1980s, indigenous knowledge has been a hot topic of discussion among scholars of anthropology and other disciplines related to development studies and yet today, there is broadening interest from a variety of fields; ecology, soil science, health, medicine, botany, water resource management and many more. And not to be left out the Library and Information Science field has only recently joined the other disciplines and has taken note of this important topic of concern. Much as indigenous knowledge is represented in most library and archival collections often times these information professionals do not make attempt to put such information into cultural context. Yet when it comes to support its intellectual freedom, it them the librarians who can skillfully catalogue, digitize, manage, repackage, preserve, and disseminate indigenous knowledge to the public.

Although in Zambia we do not yet have an indigenous knowledge resource centre, Zambia like any other country has a rich body of such indigenous knowledge which developed over many centuries. This body of accumulated knowledge has for a long time played a very important role in agriculture, animal and human health, natural resource management, education, and other
activities. (Camble & Aliyu, 2008) There are several terms that are often used interchangeably to refer to indigenous knowledge, like for example traditional knowledge, local knowledge, indigenous skill, indigenous technical knowledge, folk knowledge, peoples’ science, rural peoples’ knowledge, ethno science and cultural knowledge. In this paper, the World Bank (1998) defines indigenous knowledge as local knowledge that is unique to every culture and society. It is the basis for local decision making in agriculture, health, natural resource management and other activities. Indigenous knowledge is embedded in community practices, institutions, relationships and rituals. It is also part of the everyday life, such as herbal medicines and acupuncture. Indigenous knowledge comprises of many parts ranging from culture, religion, mythologies, economy, governance, medicine, and agriculture to taboos, poetry, art and crafts and many more. It is often related to oral history, archives and oral tradition. The above mentioned definition encompasses technologies, know-how, skills, practices, and beliefs that enable communities to achieve a stable livelihood.

Indigenous knowledge is collectively owned and exists as stories, songs, folklore, proverbs, cultural values, norms, beliefs, rituals, local languages, and agricultural practices. (Nakata & Langton, 2005). Recently there has been a growing appreciation of the value of indigenous knowledge. Thus it has become valuable not only to those who depend on it in their daily lives, but also to the modern industry and agriculture as well. Warren (1991) notes that IK has made a tremendous contribution to crop production by the poor farmers. (Okuneye & Ayinde, 2004) add that small scale resource farmers have good reasons for sticking with their local knowledge and farming practices, because modern technologies can only be successful and sustainable if indigenous knowledge is taken into consideration.

Apart from what has been mentioned above there is so much that the Library and Information Science professionals can do in the overall management of indigenous knowledge. Mabawonku (2002) remarks that information professionals as development agents have definite roles to play in understanding, locating, collecting, interpreting, disseminating and preserving indigenous knowledge. The public library for instance has been an appropriate anchor and partner in indigenous knowledge system related programmes because of its stable position both within the community and within the government structure through which it is established (Greyling & Zulu, 2009). Apart from providing social services, this type of a library it is well positioned such that it could to ensure free and equal access to information and knowledge. In fact Adam (2007) reports that, community and public libraries have shown strong tendency in preserving local culture in digital and paper formats and promoting exchange of information in many countries. In addition to the above mentioned the International Federation of Library Association (2003) asserts that in the discipline of indigenous knowledge libraries could help greatly in:
1. Collecting, preserving and disseminate indigenous and local traditional knowledge
2. Publicizing the value, contribution, and importance of indigenous knowledge to both non-indigenous and indigenous peoples
3. That library should diffuse its traditional role of collecting, preserving and providing access not only to materials of scientific origin but to indigenous knowledge resources so as to make all information available

The above reasons could help policy makers and implementers on why and how libraries could be brought on board and provide access to indigenous knowledge not only in Zambia but the world at large.

4.0 WHY IS INDIGENOUS KNOWLEDGE IMPORTANT?

In the emerging global knowledge economy a country’s ability to build and mobilize knowledge capital, is equally essential for sustainable development as the availability of physical and financial capital World Bank, (1997). The basic component of any country’s knowledge system is its indigenous knowledge. Indigenous knowledge encompasses the skill, experience and insights of people which they apply to maintain or improve their livelihood. In medicine and veterinary medicine with their intimate understanding of their environments, indigenous knowledge is developed and adapted continuously to gradually changing environments and passed down from generation to generation and closely interwoven with people’s cultural values. Indigenous knowledge is also a social capital of the poor, their main asset to invest in the struggle for survival, to produce food, to provide for shelter or to achieve control of their own lives.

Despite all this, indigenous knowledge is not always understood because it is an ingrained part of a culture’s life ways. Indigenous knowledge is part of experience, part of custom, religion, community laws, and the attitudes of a society that concerns their lives and the lives of other living things in their local surroundings. Although local knowledge has been ignored because of the ideas being passed on from the 19th century to colonialism to date and in social sciences it is regarded as being primitive, simple and static, development professionals began to recognizing the value of this knowledge within the last ten years. In his article, “A Mail-order Catalog of Indigenous Knowledge,” John Herbert (1993) discusses the recent explosion of indigenous knowledge resources and lists several of the 19 indigenous knowledge centres that have gone into operation worldwide in the last years. For example, the catalogued library at the Centre for Indigenous Knowledge for Agriculture and Rural Development (CIKARD) contains over 4,000 titles concerning indigenous knowledge and the collection has been growing since then as new materials for the library keep coming every day.
Furthermore, indigenous knowledge is important for several reasons. Among those reasons is that indigenous knowledge can help find the best solution to a development solution. Familiarity with it can help extension officers and researchers understand and communicate better with local people. Indigenous knowledge represents the successful ways in which people have dealt with their environments. In fact the theme of utilizing the existing indigenous knowledge to create appropriate solutions occurs repeatedly throughout the development literature. Thus indigenous knowledge can help find the best solutions for a culture. In fact solutions created with the appreciation of indigenous knowledge turns out to be economically and culturally acceptable to the society that is being helped.

Another way to demonstrate the importance of indigenous knowledge is by taking a look at McCorkle’s Farmer Innovation in Niger where he illustrates this idea of the Niger farmers who often had uncomplimentary things to say about the extension service in their area because it would not extend credit for agricultural inputs, yet the service would order the farmers to pay for and plant experimental seed that was unknown and not requested. This passage from McCorkle’s and other experiences sums up the feelings many developing cultures have towards extension workers and scientists. In fact majority of the population in the developing world think that “the extension service is not ‘honest’ because it refuses to work with the realities of our village.” McCorkle, (1994) on the other hand, when an innovation has parallels with indigenous practices, there is often widespread acceptance of the innovation. Thus earlier, McCorkle writes about the successful adaptation of seed dressings in Zarma villages. The story is that the sarkinoma—or traditional chief of agriculture in these villages often sold powdered seed dressings along with powerful of incantations to ensure a good crop. This innovation worked because West Africans consider powders to be an ancient and ubiquitous form of magical and medicinal treatment throughout West Africa.

In this story, possibly the most basic answer to the question of why indigenous knowledge is important is that the extension workers should possess a clear understanding of the peoples’ present situation and allows for better communication between scientists and local people. On the other hand, the extension worker should have a familiarity of cultural customs; also have a rapport that can be built between the scientist and the local people which should include respect. It is this mutual respect that fosters a relationship as partners who are seen to be looking for a common solution to a problem together and encourages participation of everyone at a local level. Another important aspect to take into account is that solutions that are not acceptable locally can lead to the waste of millions of developmental resources.
5.0 THE PRESERVATION OF INDIGENOUS KNOWLEDGE THROUGH THE ZAMBIA LIBRARY SERVICE SYSTEM

Today, many indigenous knowledge systems are at risk of becoming extinct because of the rapidly changing natural environments and fast pacing economic, political and cultural changes on a global scale. Indigenous knowledge practices vanish, as they become inappropriate for new challenges or because they adapt too slowly. However, many practices disappear only because of the intrusion of foreign technologies or development concepts that promise short-term gains or solutions to problems without being capable of sustaining them. The tragedy of the pending disappearance of indigenous knowledge is most obvious to those who have developed it and make a living out of it. This pending disaster can be detrimental to us all we should by all means try to avoid it from happening. Imagine how a community would survive with lost skills, technologies, artifacts, problem solving strategies and expertise are lost.

The same reasons as to why indigenous knowledge should be preserved and make a contribution to the economic development of a country are the reasons this paper is suggesting for the establishment of indigenous knowledge resource centres throughout the country by using the already existing infrastructure of the Zambia Library Service system of provincial, branch and centre libraries. After the establishment of these centres the paper suggests that attempts should be made to identify a national indigenous knowledge resource centre among them. The National Knowledge Resource Centre would have the mandate to coordinate and network all the activities of the provincial and branch centres.

In this way, we think that Zambia would have gained a mileage in the African Resource Centre for Indigenous Knowledge (ARCIK) and join countries like Burkina Faso, Cameroon, Ghana, Kenya, Nigeria, South Africa and Madagascar, African countries that already have national knowledge resource centres. In the end in our country we would have a Zambia Indigenous Knowledge Centre (ZAMBIKC).

6.0 THE ROLE OF ZAMBIA LIBRARY SERVICE (ZLS) IN THE ENHANCEMENT OF INDIGENOUS KNOWLEDGE

Zambia Library Service (ZLS) came into existence in 1962 as a department of the Ministry of Education (MOE). Currently it is under the Ministry’s Directorate of Teacher Education and Specialized Services (TESS). Zambia Library Service is a public library system, which provides library and information services all over Zambia through provincial, branch libraries and library centres. As at the moment there are six (6) provincial libraries in Chipata, Choma, Kasama, Mansa, Mongu, and Solwezi. Each one of them has a collection of over 10,000 books of all kinds for use by the residents of the town and surrounding area. Apart from that there are nineteen (19) existing branch libraries and these are in Chadiza, Chama, Chinsali, kabompo,
Kalabo, Kalomo, Kaoma, Kawambwa, Lundazi, Luwingu, Maamba, Mwense, Mumbwa, Mwinilunga, Samfya, Pemba, Petauke, Senanga and Zambezi. These have collections of 2,000 to 5,000 books. In addition, there are hundreds of library centres all over the country.

Since there is an argument already advanced that indigenous communities face a threat to the survival of their indigenous knowledge. In this regard, our paper supports Stevens (2008) who states that, while libraries have not traditionally focused on indigenous knowledge, librarians can help the threatened indigenous communities to manage and preserve the local community indigenous knowledge, by providing the necessary resources and their expertise in the collection, organization, storage, and retrieval of indigenous knowledge. Already it has been observed that libraries have made much progress in the preservation of some local culture in paper and digital format, and have promoted the exchange of information, librarians as information professionals should still help in:

1. Collecting, preserving, and dissemination of indigenous knowledge;
2. Publicizing the value, contribution, and importance of indigenous knowledge to both non-indigenous and indigenous people;
3. Involving elders and communities in the production of indigenous knowledge; and
4. Encouraging the recognition of intellectual property laws to ensure the proper protection and use of indigenous knowledge.

Although there is so much indigenous knowledge in different indigenous communities of developing world, the availability of such knowledge does not mean its accessibility or use. Zambia Library Service through its libraries should promote access to indigenous knowledge by creating an environment which permits face-to-face forums and network formation to discuss and debate on issues that might be useful to members of the communities. For example, these libraries can organize talk shows involving traditional rulers, elderly people and professional to gather and record information on various local vacations from different subject areas ranging from agriculture, ecosystem, medical care and conflict resolution. Furthermore, these libraries should work in partnership with school libraries to create indigenous knowledge collections, which can be repackaged and made accessible to local communities in the areas they exist. On the other hand, information professionals should work with family members from the older generation to the younger and the indigenous communities in looking at the broad issues involved in the preservation of indigenous knowledge.

It is because of the foregoing that this paper strongly suggests that through the existing infrastructure let all Zambia Library Service libraries establish an indigenous knowledge collection within their collections. Scholars have widely reported that the collection of indigenous knowledge would ensure
its preservation and thus enhance its eventual use (Mabawonku, 2002: Ranasinghe, 2008). A lot has been done to create access to indigenous knowledge. Today, there are many programmes that have been initiated at local, national and international levels (Magga, 2005). The United Nation Education, Social and Cultural Organisation (UNESCO) created the Local and Indigenous Knowledge System (LINKS) in 2002. LINKS works with local knowledge holders to promote the recognition of their expertise about local environment and reinforce their role in biodiversity governance. Magga, reports that LINKS also recognizes the importance of keeping indigenous knowledge alive within local communities by reinforcing its transmission from elders to youth. Many libraries recognize indigenous knowledge as an important source of developmental information. Nakata and Langton (2005) observe that the library and information profession has a lot to learn if they are to meet the information needs of indigenous people and appropriately manage indigenous knowledge. To meet such a challenge, it is obvious that Library and Information professionals and their libraries for that matter would have to move outside their comfort zone. In other words what we are saying here is that the development and service delivery of an indigenous knowledge resource centre is demanding. It requires acquisition of new skills and disciplines, new technologies, networks, collaborations and so on and so forth. Indigenous people have always been willing and continued to be generous in sharing their knowledge with libraries, and so libraries must maintain the momentum.

As demonstrate above it is clear that there many roles that the Zambia Library Service would play once they establish or incorporate indigenous knowledge resource centres in the existing provincial and branch libraries.

7.0 CONCLUSION

In conclusion this paper has demonstrated that the management of indigenous knowledge through the establishment of indigenous knowledge centres is possible and a welcome idea. And the library and information science professionals through their long experience in preserving and organizing human knowledge and serving as an effective mediators between the information and its user have a unique part to play by becoming active partners in the whole process of management of indigenous knowledge. Thus these professionals in our countries have a critical role to play by ensuring that indigenous knowledge is preserved, managed, processed, stored, and disseminated to rural people in a manner that it helps them in solving their daily challenges thereby making a contribution towards national development.
REFERENCES


The Use of Information and Communications Technologies to Bridge the Digital Divide and Reduce the Cost of Education in Sub-Saharan Africa: A Case of University of Zambia

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Abstract
The objective of this paper was to investigate the use of ICTs in open distance learning at University of Zambia. Data was collected through self-administered questionnaires as well as face to face interviews designed for staff. Data was analysed using the Statistical Package for Social Sciences (SPSS). The study established that there was a steady increase in enrolments for students in the rural areas. The findings revealed that although the University of Zambia was using ICTS such as television, and the Web-based course management systems, such as MOODLE, to deliver learning materials these ICTs have not been fully utilized by lecturers, mainly due to inertia, lack of commitment and lack of policy to guide their usage. Despite this, students have continued to use the University of Zambia website to access some research information to help them in their research work. In addition, they use email and mobile phones to communicate with their lecturers.

Key words: Information and communication technologies, open distance learning, University of Zambia

1.0 INTRODUCTION
The unprecedented rapid growth in ICTs and globally based messaging and networking technologies have brought about opportunities for open distance learning (ODL) in African countries to widen access to education for rural communities and disadvantaged groups. These technologies are rapidly removing traditional barriers of time and distance that have for a long time hindered the transfer of information, skills and expertise from one location to another. The emerging computer-mediated communications and multi-media education technologies are making educational programmes easier to design, develop and deliver than before. With these technologies, it is now possible that, irrespective of location, students can use these technologies to access educational resources from anywhere in the world.

Distance and Open Learning (ODL) in Zambia has a long history dating as far back as the 1940s, when many Zambians were studying for post primary
qualifications through commercial colleges in South Africa and Britain. When Zambia got its independence from the British colonial rule in 1964, there was a shortage of indigenous educated and trained personnel in both the public and the private sector. This prompted the government of Zambia to adopt distance and open learning (ODL) as viable strategies to enhance access to education. These strategies were particularly important because the government did not have enough money to build sufficient schools. For this reason, a number of programmes offering education by distance and non-formal ways were introduced. These included: National Correspondence College, and University of Zambia, which also started offering small-scale distance learning programmes and technical education and vocational training. To date, distance and non-formal programmes continue to grow. Evidence of this can be seen by more than 15 tertiary education institutions offering distance learning in Zambia. Statistics show that University of Zambia alone has enrolled about 8000 distance learning students. The increasing number of enrollments has been attributed to its affordability.

2.0 LITERATURE REVIEW

Saint (2003), state that the need for lifelong learning facilities and programmes that enable adults to upgrade their skills and maintain competiveness within rapidly developing economies is creating a worldwide demand for distance learning. He further maintains that as a result of the e-learning facilities made available via internet and World Wide Web, tertiary and adult education is becoming an internationally tradable commodity. Pieter and Chisenga (2003), argue that distance learning is not the ultimate solution to the African problems but with the help of ICTs, it can make a much greater impact in solving at least some of the education problems. Darkwa and Mazibuko argue that there are various advantages of distance learning offered through the use of ICTs and these include:

- Possibility of enrolling from any global distance institution. A student can now select applicable courses from across the borders of a particular country.
- New online, hands-on learning techniques can be implemented with emphasis on research which can enhance lifelong learning skills
- Resources of many international virtual institutions and links can be shared by current tertiary institutes thereby simplifying the delivery of material at remote sites.

Pieter and Chisenga (2003), again observe that the confederation of Open Learning institutions in South Africa (COLISA), a partner of RSA’s three main tertiary distance learning universities, is developing, inter alia, a web-based student teacher interaction system as well as a series of local internet access points for students who do not have similar facilities at home.
The African Virtue University (AVU) website indicates that the objective of the AVU is to build capacity and support economic development by leveraging the power of modern telecommunication technology to provide world class quality education and training to students and professionals in Africa. Dzidonu (2010), in his article the role of ICTs to achieving the MDGs in education observes that in case of Ghana, the Government sees the deployment of ICTs with the educational system as means for facilitating the transformation of the educational system to provide the requisite educational and training services and environment capable of producing the right types of skills and human resources required for developing and driving Ghana’s information and knowledge based economy and society.

3.0 STATEMENT OF THE PROBLEM

While quite a number of researches have been carried out on the use of ICTs in ODL, there has been very little written on the link between the use of ICTs in distance education and the cost of education for students in the rural areas of Zambia. Moreover, there has been no study to particularly look at how University of Zambia as an ODL institution uses ICTs to bridge the digital gap between its urban and rural students let alone positive benefits ICTs bring to rural population that have studied at UNZA through open and distance learning.

4.0 AIMS AND OBJECTIVES

The objective of this paper was to carry out an analysis on how the University of Zambia has used ICTs in ODL to bridge the gap between students living in the rural areas and those living in urban areas especially in terms of cost of access to education. The paper is however not about evaluating the actual role played by UNZA’s ICTs but rather examine a possible link between the exploitation of ICTs at UNZA in delivering ODLs and how this has ensured that educational costs can drastically come down for the rural students attending ODL programmes. In an attempt to establish this link between the use of ICTs in delivering ODL programmes at UNZA and the reduction in the cost of education of the disadvantaged people.

5.0 Specific Objectives

1. To investigate the extent to which UNZA as an ODL institution uses ICTs to reach its rural enrolled distance learners.
2. To identify the type of ICTs UNZA has been using to deliver lectures to its rural and other disadvantaged learners.
3. To establish the extent to which the use of ICT in ODL has lessened the cost of education for students based in rural areas.
6.0 Research Questions

1. Does University of Zambia enrol rural based and other ICT disadvantaged distance learning students?
2. How does University of Zambia reach rural based distance learner?
3. What type of ICT systems/platforms does the University of Zambia use to teach its distance learners including the ICT disadvantaged?
4. To what extent has the use of ICTs by University of Zambia in delivering distance education lessened the cost of education for disadvantaged rural students and eventually improved their quality of life?

7.0 RESEARCH DESIGN AND METHODOLOGY

Apart from relying on the secondary data in terms of policy documents and other government documents relating to ODL and ICTs in Zambia and UNZA in particular, extra data for this research was collected through self-administered questionnaires designed for students studying at UNZA through ODL as well as face to face interviews designed for lecturers based at IDE. A sample of 800 students was selected out of a total population of 8,000 ODL students, out of which 500 were answered giving a response rate of 62.5%. Data collected was analysed both quantitatively and qualitatively using statistical package for social sciences (SPSS) software.

8.0 LIMITATIONS

The survey did not cover lecturers based in other faculties who are involved in teaching distance education programmes. The sample size of 800 out of 8000 enrolled distance education was not representative enough.

9.0 FINDINGS

This study established, from the 500 student respondents, that UNZA through IDE has been enrolling rural students in ODL programmes, the majority (68%) of whom were living in rural areas. The figure below shows that those who resided in Eastern, Northern, North Western, Southern and Western Provinces added together, were more than those who resided or lived in urban areas where internet facilities were readily available.

Figure 1: respondents per province

Given the rise in the numbers of students enrolments in ODL programmes at UNZA as depicted in Figure 2 below, University of Zambia’s need to adopt ways in which to reach these large numbers of students while maintain quality of the education delivered cannot be doubted.
This upswing in the number of distance education student enrolments means that UNZA had been left with no option but to try and adopt quicker methods of teaching and delivering education materials to students in all parts of the country. This method was meant to involve some form of ICTs. One of the most notable ICT method that was adopted by the Institute of Distance Education was to deliver lectures to students was through television where recorded lectures were broadcast for students. The University therefore went into a partnership with a private TV station called Muvi TV. It was assumed that the majority of the students even in rural areas had TV sets.

**Table 1:** ICT tool used to deliver lectures

<table>
<thead>
<tr>
<th>ICT Tool</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>TV</td>
<td>490</td>
<td>98.0</td>
</tr>
<tr>
<td>Internet</td>
<td>10</td>
<td>2.0</td>
</tr>
<tr>
<td>Total</td>
<td>500</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Asked whether UNZA had used any ICTs to deliver lectures or disseminate information to Open and Distance learners, all the respondents except 10 of them indicated that they had at one point or another attended recorded lectures on Muvi TV while only one indicated that much of the information he or she received was through internet. According to Chifwepa’s study (2006), points out that about 66% of the students did not have access to Internet due to distances to possible access points, making TV the most affordable mode of receiving lecture materials.

According to records available at the University’s Institute of Distance Education, the University signed an agreement with a local television station called Muvi TV in 2012 with a view to airing recorded lectures to distance education students. The television undoubtedly has a countrywide coverage.
When asked further what other tool they had used and how often they had used it to obtain any information to help them in their studies, majority indicated that they used UNZA website often as indicated on the table below.

**Table 2: How often UNZA website used by students**

<table>
<thead>
<tr>
<th>How often UNZA website was used</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Often</td>
<td>450</td>
<td>90.0</td>
</tr>
<tr>
<td>Sometimes</td>
<td>20</td>
<td>4.0</td>
</tr>
<tr>
<td>Rarely</td>
<td>20</td>
<td>4.0</td>
</tr>
<tr>
<td>Never</td>
<td>10</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>500</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

The other notable form of ICT method UNZA had used in its ODL programmes is MOODLE, a course management system installed by IDE in the University in 2009. However this platform was not adopted by lecturers and was dormant until university management decided to adopt it as the official platform to support e-learning in the university. It was installed in 2010 and the School of Medicine has been using it to deliver lecture materials to distance learners in the BSc Nursing program. Apart from MOODLE, the university library provides electronic resources and the digital repository to all its users even those in distant places. All these tools are viewed by students as tools that help them access education materials despite the geographical barriers.

### 9.1 Cost of receiving education

Distance learners, unlike their counterparts in the urban centre incur extra costs in form of travel costs and time when accessing education. A student has to travel to the provincial centre to receive lecture materials or submit his/her assignments for marking. It takes so much time for feedback to be received from the lecturer making it longer than for them to complete a course as compared to their colleagues who are on full time. ICT however cuts all these costs of travel and time as the students can access the materials in the comfort of their home or nearer to their home thereby enabling them access the lecture materials as soon as they are uploaded on the Moodle servers.

### 9.2 Access to library materials for course work

The distance learners, unlike their colleagues are not able to access library materials whenever they need them because the library is centrally located at the main campus. This makes it difficult for them to complete their assignments as they do not have quality information to support their academic needs. Most of the libraries in the rural areas, which are run by Zambia library services and councils are poorly stocked and do not have appropriate materials they
need as they work on their assignments. However, through the use of ICTs, the library is able to provide electronically research information to its users across the country. In addition, the Institutional Repository provides access to digitized research content and past examination papers through the web to all its students from anywhere in the country as long as there is Internet.

Asked whether they think their lives will improve once they graduated, all the 500 indicated that they expected their lives to improve because they education that they were accessing through ODL had brought an opportunity for them to access to improve their education levels and literacy levels for them to contribute effectively to the development of their areas.

10.0 DISCUSSION

According to Dzidonu C.K, Mulvey M. and S.B Mangena (1997), educational delivery technologies and platforms which usually are referred to as ICTs can be defined to include both the various types of delivery media and the delivery/transmission systems, mechanisms or platforms for facilitating the teaching and learning process within either a face-to-face campus based environment or a distance education and learning environment. CT brings to education the capacity to reach massive audiences with consistent quality of content. The use of the ICTs in developing countries like Zambia have the potential to solving traditional learning gaps, reducing the educational lag of the disadvantaged population, and consolidating a national education system that offers quality services to all sectors of society, including those in rural areas.

Information communication technologies are rapidly removing the traditional barriers of time and distance that until now hinders the transfer of information, skill and expertise from one place to another. With these modern technologies, it is now possible that, irrespective of location, students in rural areas where there only basic facilities can use these technologies to access educational resources from anywhere in the world. There is no doubt that the relevance of ICTs for supporting education and training at all levels of the educational system has acquired new dimensions and greater urgency in ODL institutions including UNZA so that educational costs can drastically come down for the rural students attending ODL programmes.

It is a well-known fact that the introduction of ICTs to support teaching, learning and administration of the educational delivery processes and systems is fundamentally changing the educational delivery and support landscape in a number of ODL institutions to cater for different categories of students including the disadvantaged ones. There is no doubt that ICTs are making it possible to improve access to limited educational resources to a larger population. Dzidonu (2010), in his article titled ‘The role of ICTs to achieving the MDGs in education’, argues, that it is now possible through the use of these emerging technologies to provide high quality education at an affordable cost to a wider population in these countries.
Therefore UNZA as an ODL institution is aware of the cardinal role of technology for supporting modern education and training and cannot be over-emphasized. In any case, the explosive growth in network technologies and products and the rapid spread of the Internet, as well as the advances in multimedia and collaborative software environment is has brought a new wave of better teaching, training and learning tools. This generation of Educational delivery technologies is promising more than just an improvement in educational productivity but also delivering a qualitative change in the nature of learning itself.

Institute of Distance Education has not only bridged the gap between students in rural areas and those in urban areas by using television, email, website, phoning etc but have also been training teachers in mathematics and science in partnership with African Virtue University (AVU) through Open and Distance e-Learning (ODeL) project. The project is named ‘fast track’ and aimed at training and offering degrees to 6,000 teachers who are junior secondary teachers and are currently teaching at high schools due to poor staffing levels in these schools. The project is in partnership with the Ministry of Education. The project has been providing an innovative and practical way of extending access to University education to people around the country. For this project, the African Development Bank has provided UNZA with 30 computers, internet connectivity, power generator and other equipment that is be needed in carrying out the project.

UNZA has further taken a step in encouraging the use of ICTs in at IDE and other faculties by including it in Strategic Plan 2012-2017. The strategic plan states and affirms the importance of ICT in improving the quality and accessibility of education. The plan also stresses the importance of and need for improvement of the management and information system. It is however, regrettable that despite having a draft ICT policy, this has not yet been implemented in order to guide ICT development and use within the University of Zambia in various faculties and IDE itself.

The National Policy on Education, Educating Our Future, which sets the principles for the development of education in Zambia, states that education in Zambia is intended to serve individual, social, and economic well-being, and to enhance the quality of life for all (Ministry of Education, 1996). The policy also provides for the expansion of high school education, and pays special attention to establishing additional facilities for girls (Ministry of Education, 1996). In addition, the policy document proposes strategies for strengthening and expanding higher education and that “the Ministry will promote open learning, lifelong education, and a wide variety of mechanisms for continuing and distance education” (Ministry of Education, 1996, p. 80). In addition, The Poverty Reduction Strategy Paper (2002 – 2004) provided for the expansion of educational provision at all levels of the Zambian education system. One of its strategies was to promote and integrate the use of Information and
Communication Technologies (ICT) at all levels and in all modes of the education delivery systems. It emphasizes the need to use distance learning strategies and other modes of delivery, such as ICT, to increase access for out-of-school youths and adults, and for improving quality and increasing access to high school education.

11.0 CONCLUSION

Despite the fact that ICT has great potential to help UNZA significantly to increase delivery and coverage of educational services to the different segments of society, the great challenge is to harness the advantages of those technologies, in order to improve the delivery and quality of distance education services, as well as to accelerate the rate at which knowledge is distributed and learning chances and outcomes are equalised throughout society. This survey shows that UNZA as an ODL institution, has made effort to use ICT to deliver lectures but the use of ICTs have not been successful either due to lecturers’ inertia to use them or lack of policy to guide its usage.

12.0 RECOMMENDATIONS

1. IDE should take the adoption of ICTs very seriously in order to cut the cost of delivering education to distance learners
2. The ICT policy and other related policies such as e-learning policy need to be implemented in order to provide guidance on how to use these technologies in teaching and learning.
3. UNZA should learn for other public intuitions in the region such as UNISA on how they are running their programmes using technology.
4. IDE should take full advantage of the availability of MOODLE its great potential in order to upload lecture and other educational materials as well as communicate with the learners

REFERENCES


Women Ceremonies and Rites as a Communication Tool for HIV/AIDS Information: A Zambian Perspective

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Abstract
Traditional initiation ceremonies and rites are powerful tools that can be used to communicate HIV/AIDS information to women. While a number of studies have examined the relationship between HIV/AIDS and communication, few have investigated the link between women ceremonies and rites and HIV/AIDS information. Women comprise half of the world’s population but are generally excluded from active participation in development plans and policies. In order for women to actively participate in development decisions, they need to be free from diseases such as HIV/AIDS. Traditional women’s ceremonies and rites can be used as a valuable tool to communicate HIV/AIDS information to women. The purpose of this study was to investigate whether women ceremonies and rites are used to communicate HIV/AIDS information in Zambia. The study, largely quantitative in nature was conducted in Lusaka, Zambia. Over 100 women participated in the study. A self-administered questionnaire was used to gather primary data. The results are reported and include the kinds of puberty rites and ceremonies women are introduced to; kinds of information women receive during puberty rites and ceremonies; the HIV/AIDS information needs of women; and provision of HIV/AIDS information by elderly women to those who under-go puberty rites and women ceremonies.

Keywords: HIV/AIDS, Women; Zambia, Health, Communication, Development, Information Needs, Gender, Developing countries, Puberty rites, Women Ceremonies, Traditional Channels, Information.
1.0 INTRODUCTION

Human Immune Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) have continued to be one of the most challenging developmental issues in human history. HIV/AIDS prevalence among women has been quite high over the past decades. For instance, the International Council of AIDS Source Organization (2006) reported that the number of women living with HIV/AIDS accounted for nearly 39.5 million people living with HIV/AIDS worldwide. The council went further to argue that of the 3.8 million new infections that occurred among adults in 2006, 50% were among women. In sub-Saharan Africa where HIV transmission is predominantly heterosexual, almost 60% of those infected were women. Some scholars argue that dramatic rise in HIV prevalence among women is due to gender inequality and blatant human rights violation (Wilson and Heeks, 2002). According to Saasa (2002), in Zambia unlike some countries in the world, AIDS is not primarily a disease of the most underprivileged. Infection rates are very high even among wealthier people and better educated. However, it is the women especially the poorest that are least able to protect themselves from HIV or to cope with the impact of AIDS. HIV has spread throughout Zambia, to all parts of society; some groups are especially vulnerable most notably young women and girls. At the end of 2006, 17% of the people aged between 15 and 49 years were living with HIV/AIDS. Among these 57%, of the adults were females. Not only that, women are also affected by HIV/AIDS in that they tend to be the majority caring for those suffering from the disease. HIV/AIDS has worst hit women in their productive years and families have disintegrated and thousands have been left destitute (Wilson and Heeks, 2002). Thus women who are the majority and important contributors in all aspects of development are affected most by HIV/AIDS. Therefore, they are unable to effectively contribute to the development process.

According to Pillai (1993), political declaration on HIV/AIDS reaffirmed that; prevention of HIV/AIDS infection must be the mainstay of national, regional and international responses to the pandemic and commitment was to intensify efforts to ensure that a wide range of preventive programmes that take account of local circumstances, ethics and cultural values are available in all countries, particularly the most affected countries including information education and communication in languages most understood by communities and respectful of cultures, aimed at reducing risk taking behavior and encouraging responsible sex behavior. This is only possible through supplying such information in avenues responsible for cultural practices (Pillai, 1993).

Another important issue concern human rights which are critical in the prevention of HIV/AIDS. Women have the right to comprehensive evidence, informed and appropriate information on HIV/AIDS. Such information should empower women to make decisions that can help them avoid the
infection (Kengo, 2005). Considering the role information can play in HIV/AIDS prevention, it is necessary that women have access to HIV related information. Such information can be communicated using women ceremonies and puberty rites. Women ceremonies and puberty rites are important traditional communication tools, especially for women who are illiterate and cannot access other facilities such as the libraries and Internet. Thus, these channels are vital because they communicate information to women in local languages which are easily understood. Further, women are able to receive firsthand information verbally accompanied with demonstrations. Therefore, traditional channels are key instruments that should empower women to access HIV/AIDS information. However, there are many unknown issues about women ceremonies and rites and their roles in the fight against the disease. That is why this study sought to investigate women ceremonies and puberty rites as a communication tool for HIV and AIDS information.

2.0 BACKGROUND

Cases of HIV/AIDS became known in Zambia in the early 1980s and the pandemic was known only to infect the elite, the rich residing in towns. Additionally, HIV/AIDS was seen as a disease striking mainly men. Women were initially spared (Zambia Demographic Health Survey, 2007). However, with time, they were affected too and the trend took a different direction because the number of both women and men who were infected began to increase. Because of the high incidences of HIV/AIDS, the Zambian government joined international organizations in taking an entirely new level determination to confront the epidemic. Thus in 2004, HIV/AIDS was declared a national emergency by the then president Levy Mwanawasa (ZDHS, 2007). The perception that HIV/AIDS threaten only sex workers, heroin addicts and gay men has been replaced by the urgent consensus that this is a universal problem (Wilkinson, 2003). Anyone can contract the disease. In fact, as the saying goes, ‘if you are not infected then you are affected.’

At present there is no cure for the disease but only preventive measures. Communication can be used as a measure to reduce HIV/AIDS infection rates. This opinion was based on popular considerations of sexual hygiene, (ZDHS, 2007). HIV/AIDS preventive measures have been in place for a number of years. These include abstinence (not having sex) which is the best way to prevent HIV/AIDS; mutual monogamy (having sex with only one uninfected partner), and use of condoms. However, sensitization messages on these preventive measures have largely remained conventional and exclude some sections of women especially the illiterates and those without access to modern ways of communication. Women ceremonies and puberty rites must be given the necessary accord as information provided in such avenues influences individual behavior, actions and conduct. As with all HIV related
public health interventions, traditional channels of communicating HIV/AIDS information like women ceremonies and puberty rites must be promoted in culturally appropriate, right based and gender sensitive ways.

Another important aspect in terms of utilizing women ceremonies and rites and other traditional channels of communicating HIV/AIDS information is in the area of motivational behavior. This is applicable in the sense that, information that is directly relevant to the practices is fundamental in influencing the way people behave. Most people at high risk of contracting the deadly HIV/AIDS epidemic are those with inadequate information about it. This is where traditional initiation ceremonies can play a very important role because they centre on motivation and behavioral skills as critical factors that target for change and intervention efforts to promote preventive behavior.

3.0 STATEMENT OF THE PROBLEM

Zambia is one of the countries in Sub- Sahara Africa worst affected by the HIV/AIDS pandemic. Just like in most parts of the world, women in Zambia are more vulnerable to HIV/AIDS than men. The estimated HIV prevalence rate among women (aged 15-49) is 16.1 percent, compared to a rate of 12.3 percent among men. Out of the 285,000 people living with HIV in Zambia 56 % are women and 44 % are men. For every two people on treatment, five more are newly infected, of whom three are women. Approximately 39.5% of babies born to HIV positive mothers are infected with the virus. In addition, about 8% of boys and 17% of girls aged 15-24 are living with HIV (United Nations Development Programme, 2011).

It is argued that the highest rates of HIV infection in Africa occur in regions of the continent where the predominant tribal or religious cultures do not practice initiation ceremonies (Kalaba, 2000) and that above 30% female HIV/AIDS infection rates are found in Zimbabwe, Botswana, Swaziland and Eastern South Africa, where such ceremonies are not practiced. Infection rates remain below 5% in West Africa and other parts of the continent where initiation ceremonies for instance occupy a common place (Kalaba, 2000). However, in Zambia incidences of HIV/AIDS are high though these ceremonies are widely practiced in various parts of the country. Very little is known whether women ceremonies and rites are used to communicate HIV/AIDS information in Zambia.

In the same vein, two divergent views remain unresolved. In the first place, Saasa (2002) claims that traditional channels such as puberty rites and women ceremonies can reduce the spread of HIV/AIDS. This is supported by Kalunde (1992) who asserts that the majority of women consider initiation ceremonies important in the fight against HIV/AIDS and that their significance should not be overlooked. On the other hand, Kapungwe (1993) argues that in fact traditional channels of communicating information on HIV/AIDS can enhance the spread of HIV/AIDS.
To curb the disease therefore, there is need to recognize the importance of communicating HIV/AIDS information to women both curative and preventive using channels which are embedded in the cultural practices of various ethnic groupings in the nation. This is so because it seems that the anti-HIV/AIDS information, activities and programmes currently in place have so far predominantly confined to modern ways of communicating information. Although something may have been achieved through this approach, a lot more could be realized if traditional channels of transmitting sex information that involve women were identified and utilized to augment those currently in use (Kapungwe, 1993). Such avenues in Zambia include the different puberty rites of passage, matebeto (feast in honour of), kitchen parties, chilanga mulilo, (literally showing the fire) traditional weddings and other female ceremonies which could be effectively used in communicating information about HIV/AIDS. In fact, Elson (1992) argues that this time, affluent women across various demographic groups seem to popularize in kitchen parties in the modern setting where a woman is taught certain values of conduct in marriage before the wedding day. It is through information that women can be aware of how they are supposed to conduct themselves in and outside marriage to avoid contracting the disease. During such ceremonies, elderly women such as Bana Chimbusas (counselors/initiators) in Bemba and Alangizi (counselors/initiators) in Ngoni from within or outside the community are hired to conduct the ceremony (Saasa, 2002). These women command so much respect and admiration in the communities in which they live that their role in the fight against HIV/AIDS cannot and should not be over looked. It is against this background that investigating women ceremonies and rites as a communication tool for HIV/AIDS information in Zambia is significant. This is because people undergoing rites or such ceremonies greatly need to be provided with information more especially on HIV/AIDS so as to curb the spread of the disease.

Very little is known especially in Zambia on whether or not puberty rites and women ceremonies are used to communicate HIV/AIDS and also whether such practices enhance or inhibit the spread of HIV/AIDS. In the absence of research and empirical data, it is difficult to promote this practice through which HIV/AIDS information can be communicated. It was therefore, imperative to investigate if women ceremonies and puberty rites are used as communication tools for HIV/AIDS information.

4.0 RESEARCH QUESTIONS

The main objective of the study was to establish if puberty rites and women ceremonies are used to communicate HIV/AIDS information to women in Zambia. Specifically, the study wished to establish the kinds of puberty rites and ceremonies women are introduced to; kinds of information women receive
during puberty rites and ceremonies; the HIV/AIDS information needs of women; and provision of HIV/AIDS information by elderly women to those who under-go puberty rites and women ceremonies. Four research questions, which were addressed are presented as follows;

1. What kinds of puberty rites and women ceremonies are women exposed to?
2. What kinds of information do women receive during puberty rites and women ceremonies?
3. What are the HIV/AIDS information needs of women?
4. Do the initiators (so called Bana Chimbusa or Alangizi) use puberty rites and women ceremonies to communicate HIV/AIDS?

5.0 METHODOLOGY

The study was both quantitative and qualitative in nature. The main data collection tools employed for primary data was a self-administered questionnaire for quantitative data and a semi-structured interview guide for qualitative data. One hundred and twenty (120) respondents conveniently and purposively selected participated in the study. These were drawn from Kalingalinga, Mtendere and Kaunda Square compounds of Lusaka, Zambia. In addition, there were three different initiation associations dealing with women ceremonies and rites related issues that also participated in the study and these include Basunga Mukoshi (keep the neck), NgomaYamano (drum of wisdom) and Alangizi (counselors/initiators).

6.0 DEFINITION OF KEY TERMS

Information: This means data, signals, facts, views, opinions, ideas, events and news, to mention just a few, which are of significance to influence persons, actions, behavior and decisions a person makes when interrelating with others in any given environment (Lundu, 1998; 45).

Human Immune Virus (HIV): This is a virus that causes AIDS (UNAIDS, 2008).

Acquired Immune Deficiency Syndrome (AIDS): This refers to the weakening of the immune system making it vulnerable to diseases (UNAIDS, 2008).

Traditional channels: In this study, traditional channels are taken to mean cultural specific ways through which information is passed on from elderly people in society to the young ones in readiness for future roles like marriage. These may include initiation ceremonies and weddings among others (Kapungwe, 1993).
Communication: This refers to the passing on of various kinds of information among different people in society through the use of symbols or language (Leach, 1998).

Puberty: This is a period when a young girl becomes of age (Mukuka and Tembo, 2000).

Alangizi: These are traditional initiators or counselors.
Basunga Mukoshi: This means keeping the neck. The neck can be decorated with beads but the question is ‘what should be treasured most between the neck and the beads? This also applies in marriage that the marriage is what should be treasured and not the beads or not material things.
Ngoma Yamano: This implies a drum of wisdom. Once the drum is beaten, it means there is important information that is being communicated. This is also accompanied by words of wisdom.

Chilanga-mulilo: This is a ceremony in which a variety of food stuffs mostly cooked are displayed to show the in-law to be what meals he should expect to be served when he visits the in-law’s family. This is also a demonstration of a woman’s culinary skills and the message being passed on is that the woman the man intends to marry is able to prepare such dishes. This ceremony portrays economic scenarios that a family may pass through. For instance, plain salt, roasted pumpkin seeds, traditional peanut butter (Icimpondwa), roasted nuts are included among the food stuffs to convey the message that sometimes these may be the only accompaniment to the nshima available in the family and the man should eat without complaints.

Matebeto: This ceremony held in honour of the man in appreciation for the way he has looked after the woman. This takes place some considerable time after the marriage for. It could be 5 or even 10 years after the marriage depending on how well the man has impressed the woman’s family.

7.0 FINDINGS AND DISCUSSIONS

7.1 Age of the respondents
The analysis from the study indicates that 8.3% of the respondents were aged between 15 and 20 while 12.5% of the respondents were aged between 20 and 24. The study further revealed that 10.8% of the respondents were aged between 25 and 29 years, 31.7% were aged between 30 and 34 years, 20% were aged between 35 and 39 years, 4.2% were aged between 40 and 44 and 12.5% were aged between 45 and 49 years. The findings show that most of the respondents were between the age of 30 and 34 years. The findings are depicted in table one below.
Table 1: Age of the respondents

<table>
<thead>
<tr>
<th>Age of respondents</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-20</td>
<td>10</td>
<td>8.3</td>
</tr>
<tr>
<td>20-24</td>
<td>15</td>
<td>12.5</td>
</tr>
<tr>
<td>25-29</td>
<td>13</td>
<td>10.8</td>
</tr>
<tr>
<td>30-34</td>
<td>38</td>
<td>31.7</td>
</tr>
<tr>
<td>35-39</td>
<td>24</td>
<td>20</td>
</tr>
<tr>
<td>40-44</td>
<td>5</td>
<td>4.2</td>
</tr>
<tr>
<td>45-49</td>
<td>15</td>
<td>12.5</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

7.2 Education levels of respondents

An analysis of the respondents’ level of education as shown in the table 2 below reveals that 25% of the respondents went up to primary level. While 20% were educated up to secondary level, 15% of the respondents were educated up to college level. Only 2.5% of the respondents were educated up to university level. 36.7% of the respondents indicated that they have never been to school. Thus, it is clear from the findings that the majority of the respondents are not educated.

Table 2: Education levels of respondents

<table>
<thead>
<tr>
<th>Education levels</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>31</td>
<td>25.8</td>
</tr>
<tr>
<td>Secondary</td>
<td>24</td>
<td>20</td>
</tr>
<tr>
<td>College</td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td>University</td>
<td>3</td>
<td>2.5</td>
</tr>
<tr>
<td>None</td>
<td>44</td>
<td>36.7</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

7.3 The kinds of puberty rites and ceremonies women are introduced to

Table 3 reports the findings on the kinds of puberty rites and ceremonies women are exposed to. The findings show that women are exposed to a wide range of puberty rites and ceremonies and these include puberty rites such as Chisungu (30.8%), Nkolola (15%), Mwasikenge (21.7%) and Wali (30%). Further, the study reveals that women are also exposed to such ceremonies as Matebeto (44.1%), Chilanga Mulilo (29.1%), Kitchen Parties (81.7%),
Traditional Weddings (17.5%) and other puberty rites and ceremonies (19.2%) such as Chinamwali.

Table 3: **Kinds of puberty rites and ceremonies women are introduced to**

<table>
<thead>
<tr>
<th>Kinds of puberty rites and ceremonies</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chisungu</td>
<td>37</td>
<td>30.8</td>
</tr>
<tr>
<td>Nkolola</td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td>Mwasikenge</td>
<td>26</td>
<td>21.7</td>
</tr>
<tr>
<td>Wali</td>
<td>36</td>
<td>30</td>
</tr>
<tr>
<td>Matebeto</td>
<td>53</td>
<td>44.1</td>
</tr>
<tr>
<td>Chilanga Mulilo</td>
<td>35</td>
<td>29.1</td>
</tr>
<tr>
<td>Kitchen Party</td>
<td>98</td>
<td>81.7</td>
</tr>
<tr>
<td>Traditional Wedding</td>
<td>21</td>
<td>17.5</td>
</tr>
<tr>
<td>Other (s)</td>
<td>23</td>
<td>19.2</td>
</tr>
</tbody>
</table>

Multiple response question

Initiation ceremonies like puberty rites are found in most parts of Zambia and are conducted nearly in every ethnic group in the country. Its continued presence in rural areas and its penetration into urban areas is a clear testimony of its tenacity. Lemba, Chishimba and Wotela (1996), observed that majority of the Zambian women undergo the initiation ceremonies either at puberty or just before marriage. They further claim that, a considerable proportion of young people, particularly those under 20 years of age have to undergo the initiation ceremony.

Women ceremonies are popular in the Zambian culture. Each ceremony serves a different purpose. For instance, *matebeto* is a Bemba word which means a time when a married man is treated to a variety of traditional foods that are prepared by a selected group of women. These women are chosen by the wife to the man who is supposed to taste the varieties of food. Basically the reason for staging *matebeto* and preparing these foods is to thank the man for taking care of the wife. In fact, this ceremony can take place as many times as possible in a married man’s life, even a 60 year old man can still be treated to *matebeto*. However, nowadays, *matebeto* is misunderstood to mean a ceremony conducted before a woman gets married. The traditional dishes that are prepared include indigenous foodstuffs such as finkubala (caterpillars), Katapa (cassava leaves), Kalembula (sweet potatoes leaves), dry fish, village chicken, okra (there is a variety including hibiscus leaves and wild leaves) bondwe and many others. These are prepared in a traditional way. *Chilanga Mulilo* is another ceremony similar to *matebeto*. The only difference is that the former takes place before the woman is married.

Further, there is another popular ceremony called *Kitchen party*. According to Kapungwe (1993), a kitchen party is ceremony held for a young lady who is
about to get married. Presents mainly kitchen utensils are brought by different women who are invited to the occasion. In most African societies, traditional weddings are a common feature of everyday life. Young men and women get married with the help of the community especially older women. The cerebration is organized on traditional basis without following the western method of conducting marriages. Beer and other beverages are prepared before the actual cerebration day.

7.4 The kinds of information women receive during puberty rites and women ceremonies

During initiation ceremonies, the young woman is introduced for the first time in her life to a number of issues relating to sexual conduct which includes women therapeutically techniques for sexual enchantment, reproduction and ailments. In addition, young women are given instructions not only on how to enjoy sexual encounters and sexual intercourse but also how to keep their virginity, how to take care of their families once married and good behavior.

Mukuka and Tembo (2000) point out that during the preparation of the food at matebeto, the older and experienced married women pass vital information to the woman whose husband is going to taste the food. This information includes, among other things need for personal hygiene, respect for the husband, and how to prepare food and all this should take place in the presence of the mother to the lady in question so that the former sees to it that the daughter is given correct information.

During Chilanga Mulilo ceremony, a young lady is taught a number of things pertaining to the institution of marriage she is about to enter. Again the elderly women pass on vital information to the same girl about how to take care of herself in terms of hygiene, how to look after the family and her husband. But the most basic reason for the ceremony follows the interpretation of the term, which in English is an expression which signifies the importance of being able to prepare food for the family. Therefore, the lady is taught a variety of cooking methods and traditional recipe preparation. It is believed that with all this information, a marriage is able to survive for a long time, which is the desire of the relatives and community at large given the lady.

In as far as Kitchen Party ceremony is concerned, the wife to be is talked to in a secluded place before the actual cerebration day, say a month before. The type of information communicated to this young woman includes good manners such as respect for the husband, for instance, kneeling down when giving him food or water and remaining quiet when he is talking. The woman is advised never to answer back. The other information is about proper and decent dressing as well as the need to satisfy the husband sexually. On the actual day of the cerebration, the woman receives kitchen utensils from different
people and basically receives information on how to use those utensils. The information is transmitted mostly through song and dance.

In the case of a *Traditional Wedding* ceremony, elderly women take the bride through a process of teaching her the norms of marriage. And a lot of information is dispensed to the young woman including respect for the husband, proper conduct of a wife, how to take care of the children and basically how to satisfy a man in bed. All this is passed on before the actual wedding day.

### 7.5 HIV/AIDS Information needs of women

The findings of this study reveal that women in Zambia have a wide range of HIV/AIDS information needs (Table 4). 78.3% of the respondents indicated that they require information on HIV/AIDS prevention. 82.5% indicated that they need information on transmission of HIV/AIDS. 65% require information on safe motherhood while 42.5% require information particularly on discrimination and stigmatization. 35% require information on hygiene and 72.5% require information on nutrition for those infected by HIV/AIDS. 84.2% of the respondents indicated that they require information on Anti-Retroviral Therapy while 66.7% require information on access to care, treatment and support. 92.5% of the respondents indicated that they require information on symptoms of HIV/AIDS and 10% require other HIV/AIDS information such as information on behavior change and Voluntary Counseling and Testing (VCT).

<table>
<thead>
<tr>
<th>HIV/AIDS Information Need</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV/AIDS prevention</td>
<td>94</td>
<td>78.3</td>
</tr>
<tr>
<td>Transmission of HIV/AIDS</td>
<td>99</td>
<td>82.5</td>
</tr>
<tr>
<td>Safe motherhood</td>
<td>78</td>
<td>65</td>
</tr>
<tr>
<td>Discrimination and Stigmatization</td>
<td>51</td>
<td>42.5</td>
</tr>
<tr>
<td>Hygiene</td>
<td>42</td>
<td>35</td>
</tr>
<tr>
<td>Nutrition for the infected</td>
<td>87</td>
<td>72.5</td>
</tr>
<tr>
<td>Anti-Retroviral Therapy</td>
<td>101</td>
<td>84.2</td>
</tr>
<tr>
<td>Access to care, treatment and support</td>
<td>80</td>
<td>66.7</td>
</tr>
<tr>
<td>Symptoms of HIV/AIDS</td>
<td>111</td>
<td>92.5</td>
</tr>
<tr>
<td>Other (s)</td>
<td>12</td>
<td>10</td>
</tr>
</tbody>
</table>

Multiple response question

Indeed, women require much more information on HIV/AIDS. They are the majority and important contributors in all aspects of development. Yet, they
are affected most by HIV/AIDS as compared to their male counterparts. In fact, women are not only the majority of the people infected with HIV/AIDS but also tend to be the majority caring for those suffering from the disease.

According to the Ministry of Works and Supply (2008), HIV/AIDS is preventable through access to information. The findings above reveal that women require information on HIV/AIDS transmission or contraction. Thus, it is important for women to be informed on ways through which HIV/AIDS can be contracted. These methods include sexual intercourse, receiving infected blood, kissing, pregnancy and birth, breastfeeding and traditional practices such as sexual cleansing, sharing needles, drug abuse and being unfaithful to one sexual partner. In addition, women need information on HIV/AIDS prevention. Such information include abstinence; sticking to one sexual partner; using condoms; avoiding infected blood transfusion, kissing, alcohol and drugs, traditional practices such as sexual cleansing and avoiding sharing needles and syringes.

Women in Zambia also need information on safe motherhood. This kind of information is particularly important for pregnant women infected with HIV/AIDS. It is important for such women to have information on medicines that can stop babies from becoming infected during birth. Considering the high levels of discrimination and stigma against those infected with HIV/AIDS, women need more information on combating discriminations and stigmatization. Discrimination and stigmatization according to the Ministry of Works and Supply (2008) hinder disclosure and inhibit efforts for prevention, care, treatment and support. Discrimination and stigmatization can also lead to isolation, aggression, depression and self-denial among the infected or affected women.

A healthy and safe environment free from the risk of communicable diseases and HIV/AIDS transmission is of paramount importance. Thus, women, both infected and affected with HIV/AIDS require information on hygiene. In addition, they need information on how to not only access nutritional support but also provide good diet to those infected with the disease. Further, the findings reveal that women need information on Anti-Retroviral drugs which according to Ministry of Works and Supply (2008) is a class of medicines that inhibit the growth and Multiplication of retroviruses like HIV and AIDS. This information is paramount to ensure prolonged life for infected women. Furthermore, women living with HIV/AIDS need empathy, care, treatment and support from their peers and society at large (Ministry of Works and Supply, 2008). Women require this information so as to provide psycho-social support and access treatment and care for themselves of infected family members through existing health facilities without discrimination. The findings of the study have further revealed that women require information on symptoms of HIV/AIDS. Major symptoms of HIV/AIDS that women should be aware of include persistent diarrhea, weight loss, lack of energy or fatigue,
frequent low grade fevers and night sweats, skin rashes or flaky skin hard to heal, frequent yeast infections in the mouth or vaginal and short term memory loss to mention but a few.

7.6 Using puberty rites and women ceremonies to communicate HIV/AIDS

The study further sort to elicit information on whether or not initiators use puberty rites and women ceremonies to communicate HIV/AIDS information. The findings of the study reveal that puberty rites and ceremonies are not used to communicate HIV/AIDS information. Emphasis is not only on sexual conduct, instructions on how to enjoy sexual intercourse especially on how to please a man in bed and sexual dances, respect for the husband, managing a home and other household chores and how to prepare meals. Little emphasis on issues of HIV/AIDS information that the women receive from the providers of initiation as revealed from this study justifies the argument by (Kalunde, 1992) that in traditional initiation ceremonies, there is a lot of emphasis that is placed on issues relating to sexual performance and satisfaction.

In the wake of the HIV/AIDS pandemic, there is need for initiators to use puberty rites and women ceremonies to communicate HIV/AIDS information. It is important to intensify efforts to fight the pandemic through local circumstances, ethics and cultural practices and values using languages most understood by communities. According to Morna and Khan (2000), the World Health Organization alleges that 40% of health is exchanging information. Many of the health problems especially in developing countries are particularly due to lack of access to (up to date) information, (World Bank, 2000, Fors and Moreno, 2001) and communication, (Morna and Khan, 2000). Thus, traditional channels of sex information and the fight against HIV/AIDS must not be overlooked and should be treated with absolute dignity and their inception in Zambia is to a greater extent. These channels are important especially when it comes to motivational behavior. They can be used to communicate HIV/AIDS information which is directly relevant to the practices so as to influence the way people behave. In fact, the UNFPA (2001) argue that traditional initiation ceremonies play a very important role because they centre on motivation and behavioral skills that target for change and intervention efforts to promote preventive behavior.

8.0 CONCLUSIONS AND RECOMMENDATIONS

As presented in the paper, the major findings of the study revealed the following:

- In terms of the kinds of puberty rites and ceremonies women are introduced to, the findings of the study has revealed that women are introduced to a wide range of puberty rites and ceremonies. Puberty rites
women are exposed to include Chisungu, Nkolola, Mwasikenge, Wali and Chinamwali. Further, ceremonies women are introduced to include Matebeto, Chilanga Mulilo, Kitchen Parties and Traditional Weddings.

- With regard to the kinds of information women receive during puberty rites and women ceremonies, these include women therapeutically techniques for sexual enchantment, reproduction, ailments, enjoying sexual intercourse, keeping their virginity, taking care of their families once married, good behavior, personal hygiene, respect for the husband, preparation of food, sexual dances, decent dressing and using kitchen utensils.

- In terms of HIV/AIDS information needs, women require a wide range of HIV/AIDS information needs including information on HIV/AIDS prevention, transmission, safe motherhood, discrimination and stigmatization, hygiene, nutrition for those infected, Anti-Retroviral Therapy, access to care, treatment and support, symptoms, behavior change and Voluntary Counseling and Testing (VCT).

- In as far as use of puberty rites and women ceremonies to communicate HIV/AIDS information, findings of the study demonstrate that that puberty rites and women ceremonies are not used to communicate HIV/AIDS information. The information mostly emphasized information is sexual conduct, instructions on how to enjoy sexual intercourse, satisfying a man sexually in bed, sexual dances, respect for the husband, managing a home and other household chores and preparation of food. The initiators should use puberty rites and women ceremonies to communicate HIV/AIDS information and other opportunistic infections.

REFERENCES


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