THE IMPACT AND USE OF TEEAL (The Essential Electronic Agricultural Library) ON RESEARCHERS OF FACULTY OF AGRICULTURE, AHMADU BELLO UNIVERSITY SAMARU, ZARIA

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ABSTRACT
The primary target of TEEAL in Ahmadu Bello University(ABU) is the researcher at the faculty of Agriculture and the institute for Agriculture research. After years of its introduction, an evaluation of its impact has become necessary. Thus five research questions were drawn for that purpose. They are:
(1), Are you aware of the TEEAL cd Rom database in this institution?
(2), Is TEEAL solution to the problem of qualitative research in your field?
(3), Has TEEAL cd Rom database enabled you access to world’s scholarly publishing?
(4), What impact has the full text of TEEAL made on your research work?
(5), Is TEEAL cd Rom database user friendly?
(6), What is your assessment of TEEAL?
These questions were put in form of a questionnaire survey supplemented by one interview to find the required information. From the response some analyses were made, some recommendations were put forward, and conclusions drawn.

INTRODUCTION:
Talking about technology and libraries, what is obvious is that we have reached a great turning point in history. With the dawn of information technology, such as the internet, digital library, intricate databases and other electronic resources, there is no doubt that Librarians are at the forefront of the true information age. The world of the electronic databases, just like the evolution of the printing press in the past has changed information delivery.

The electronic revolution has brought about new ways of generating, retrieving and disseminating information to enrich projects, researches, assignments and so forth. The existence of electronic resources, has allowed users faster and easier access in their search for information, which are current, elaborate, and far-reaching. The electronic databases including the TEEAL collections have made some significant impact on researchers’ academic work and performance.

The TEEAL (The Essential Electronic Agricultural Library) collections is a self contained Library of the core journals in the field of agriculture. It is available to research institutions in the developing countries. It is a system being produced at Mann Library of Cornell University with the cooperation of many scientific publishers, database producers and the Rockefeller Foundation.

Ochs (2005) observed that TEEAL is the solution to a problem adding that in the last decade, there has been a huge investment in research and education programs in these countries. In spite of the monumental strides made in improving these programs, little has been accomplished in bringing these countries access to the world’s scholarly publishing. Without access to the scientific literature, researchers in the developing countries cannot know that others have already found solutions to the problems they are struggling with. She noted that many students from the developing countries come to the United States and Europe to
complete their graduate work. Upon returning to their own countries, they no longer have access to the literature that they have relied upon for their research programs in developing countries like Nigeria.

STATEMENT OF THE PROBLEM:
It is axiomatic to say that a properly utilized and synthesized research is part of the normal existence of any dynamic society, and a tool for development and management of change. The main stay of universities in Nigeria and indeed other countries is research Akobi (2001) noted that “in Nigerian universities, and other universities of the world, students and scholars are awarded degrees on the successful completion of an independent research work.” This underscores the value placed on research in universities.

Bearing in mind, that rather than being static, knowledge grows and develops. It is thus obvious that as new findings from research undertakings are constantly being published, existing theories become outdated. This situation poses the danger of a body of knowledge being overtaken by developments within it. This has far reaching implications for the cardinal functions of the Universities, especially the teaching and research functions. The information provider must keep pace with these developments. Providing access to rich scholarly literature is the key to the success of research programs in higher institutions in the developing countries.

Experience has shown that one of the greatest barriers to the improvement of agricultural research in Nigerian institutions is the absence of literature and Libraries to support the research. There is a dire need to make core literature available, but it has to be in a form that the libraries in Nigeria can afford, support technically, and maintain under less than an ideal environmental conditions.

TEEAL a cd Rom database system is the answer. It is in the light of the above, that this study has set out to access TEEAL: Its Impact on agricultural research in ABU, Zaria.

LITERATURE REVIEW
Several Scholars have written on the use of cd Rom database resources, but the same problem of availability earlier highlighted has restricted access to the works. All the same, since TEEAL is a cd Rom resource, studies on impact of cd Rom resources are examined.

Deagan (1995) in his topic entitled use of the internet by researchers of English academics, opined that English researchers, now have a primary sources, such as novels, poetry, and literary essays that have exceeded their copyright date, back runs of critical scholarly journals in electronic form for their research and teaching exercise.

Rockwell (1997) concluded that the use of the cd Rom resources could enhance the ability of research that an academic researcher is required to undertake. During their working life’s study of undergraduates by Valentine (1993) showed that they looked for the fastest way that would lead to satisfactory results when doing research.

Studies carried out by Ochs (2005) entitled TEEAL (The Essential Electronic Agricultural Library): A User Study, A Report to the Rockefeller Foundation, came out with the following findings and results: -
- TEEAL is useful in the Researchers work, and has improved productivity. The study reported that most users find TEEAL resources both relevant and adequate for their research needs.
- The articles in TEEAL are very much trusted for research work.
- TEEAL is found to be very useful in teaching.

Based on the above revelations, it can be concluded that TEEAL is meeting its objective.
RESULTS AND DISCUSSIONS:

TABLE 1: AWARENESS OF TEEAL

<table>
<thead>
<tr>
<th>AWARENESS OF TEEAL</th>
<th>AGRONYOMY</th>
<th>SOIL SCIENCE</th>
<th>ANIMAL SCIENCE</th>
<th>PLANT SCIENCE</th>
<th>AGRIC. ECONS</th>
<th>CROP PROTECTION</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>fq %</td>
<td>fq %</td>
<td>fq %</td>
<td>fq %</td>
<td>fq %</td>
<td>fq %</td>
<td>fq %</td>
<td></td>
</tr>
<tr>
<td>Aware</td>
<td>9 8.2</td>
<td>19 17.3</td>
<td>13 11.1</td>
<td>18 16.4</td>
<td>17 15.4</td>
<td>18 16.4</td>
<td>100</td>
</tr>
<tr>
<td>Not aware</td>
<td>2 1.1</td>
<td>2 1.1</td>
<td>1 0.5</td>
<td>2 1.1</td>
<td>2 1.1</td>
<td>1 0.5</td>
<td>10</td>
</tr>
</tbody>
</table>

no = number, fq = frequency

The Table 1 shows the fact that 94.6% (100) out of the 110 respondents are aware of the collections, while 5.4% (10) an insignificant number indicated unawareness. All the same, the 94.6% respondents who indicated the publicity and use of this database collections is very excellent, while the insignificant number (5.4%) who portrayed not aware could be inferred that such ones scarcely make use of the Library for their research work, or that they are not even careful enough to find out from fellow researchers what current information are available. Or it can be inferred that these category of researchers prefer to make use of research assistances in collecting data for their research.

TABLE 2: Is TEEAL solution to problems of quality to your research work?

<table>
<thead>
<tr>
<th>Solutions</th>
<th>Agronomy</th>
<th>Soil Science</th>
<th>Animal Science</th>
<th>Plant Science</th>
<th>Agric. Econs</th>
<th>Crop Protection</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>fq %</td>
<td>fq %</td>
<td>fq %</td>
<td>fq %</td>
<td>fq %</td>
<td>fq %</td>
<td></td>
</tr>
<tr>
<td>Strongly agreed</td>
<td>9 8.2</td>
<td>15 14.2</td>
<td>14 12.8</td>
<td>17 15.3</td>
<td>18 16.4</td>
<td>18 16.4</td>
<td>91</td>
</tr>
<tr>
<td>Agreed</td>
<td>2 1.9</td>
<td>6 5.5</td>
<td>2 1.9</td>
<td>3 2.8</td>
<td>4 4</td>
<td>2 1.9</td>
<td>19</td>
</tr>
</tbody>
</table>

no = number, fq = frequency

Table 2 above, shows 83% (91) of the respondents indicated strongly agreed to TEEAL as a solution to the problem of quality research. The findings are in line with the report by Ochs (2005). Who noted that 80% of respondents strongly agreed that TEEAL has really simplified research for institutions, while 17% (19) simply indicated agreed. All these response indicated that TEEAL has removed the frustration of research among researchers, particularly agricultural researchers.

TABLE 3: TEEAL cd Rom database has enabled you access to world’s scholarly publishing.

<table>
<thead>
<tr>
<th>Access to Worlds scholarly lit</th>
<th>Agronomy</th>
<th>Agric Econs</th>
<th>Plant science</th>
<th>Animal science</th>
<th>Crop protection</th>
<th>Soil science</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fq %</td>
<td></td>
<td>fq %</td>
<td>fq %</td>
<td>fq %</td>
<td>fq %</td>
<td>fq %</td>
<td></td>
</tr>
<tr>
<td>Faster and easier access</td>
<td>16 15.6</td>
<td>18 16.4</td>
<td>15 14.6</td>
<td>13 12.6</td>
<td>14 13.6</td>
<td>16 15.6</td>
<td>92</td>
</tr>
<tr>
<td>Fast and easy access</td>
<td>2 1.09</td>
<td>2 1.09</td>
<td>-</td>
<td>-</td>
<td>3 2.6</td>
<td>3 2.6</td>
<td>3 2.6</td>
</tr>
<tr>
<td>Not fast and easy access</td>
<td>1 0.5</td>
<td>-</td>
<td>2 1.9</td>
<td>-</td>
<td>2 1.9</td>
<td>-</td>
<td>5</td>
</tr>
</tbody>
</table>

no = number, fq = frequency
Table 3 above reveals that 80% (92) of the total respondents are of the view that TEEAL granted them faster and easier access to worlds scholarly publishing literature. This confirms Ochs report. While an insignificant number of 0.5% said TEEAL has not granted them fast and easy access. The poor response from this set of people signifies the fact that they must have been making use of research assistance, instead of coming to the library to do things themselves.

TABLE 4: Impact TEEAL’S full text has made on your Research work.

<table>
<thead>
<tr>
<th>Impact</th>
<th>Agronomy</th>
<th>Soil science</th>
<th>Animal science</th>
<th>Plant science</th>
<th>Agric Econ/RS</th>
<th>Crops protect.</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rich, Timely &amp; Balanced information</td>
<td>fq</td>
<td>%</td>
<td>fq</td>
<td>%</td>
<td>fq</td>
<td>%</td>
<td>fq %</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>10</td>
<td>20</td>
<td>18.5</td>
<td>20</td>
<td>18.5</td>
<td>92</td>
</tr>
<tr>
<td>Voluminous text</td>
<td>1</td>
<td>0.5</td>
<td>1</td>
<td>0.5</td>
<td>2</td>
<td>1.9</td>
<td>8</td>
</tr>
</tbody>
</table>

no = number, fq = frequency

Table 4 above reveals that 92% (101) of the respondents indicated that TEEAL has made that impact of rich, timely and balanced information for their research work, while an insignificant number of 8% (9) indicated the voluminous nature of TEEAL, posing that problem of knowing exact related work for their research work.

Table 5: TEEAL CD ROM database user friendly

<table>
<thead>
<tr>
<th>User Friendly</th>
<th>Agronomy</th>
<th>Soil Science</th>
<th>Agric Econ/RS</th>
<th>Plant Science</th>
<th>Animal Science</th>
<th>Crop Protection</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>fq</td>
<td>%</td>
<td>fq</td>
<td>%</td>
<td>fq</td>
<td>%</td>
<td>fq %</td>
</tr>
<tr>
<td>Very user friendly</td>
<td>9</td>
<td>8.2</td>
<td>15</td>
<td>17.3</td>
<td>14</td>
<td>12.8</td>
<td>17</td>
</tr>
<tr>
<td>Not user friendly</td>
<td>2</td>
<td>1.9</td>
<td>2</td>
<td>1.9</td>
<td>1</td>
<td>0.5</td>
<td>1</td>
</tr>
</tbody>
</table>

no = number
fq = frequency

TEEAL cd Rom database users in table 5 above revealed 89.5% (99) respondents who find TEEAL to be very user friendly. This is in line with Bawdeen (1990; 14) who noted with interest that the use of electronic resources, CD ROM in particular has been positive. Schultz and Salmon (1990) revealed also in their study that users would prefer to wait, even if the cd Rom is busy. While an insignificant number 10.5% (11) indicated not user friendly.

Interview question no 6: Sample comments of some of the TEEAL CD ROM database users.

“TEEAL has provided me with the most current, up to date and balanced information for my research work.”

Researcher from Department

“Thanks to almighty TEEAL that has helped to simplify research work for me. Formerly research has been a terrifying exercise for me.”

Researcher from Department of Agronomy.
“I can confidently tell you that this database has done me well. TEEAL has given me that research excellence”.

Researcher from Animal science

CONCLUSIONS:
The conclusions that can be drawn from this study are thus:
- Most of these researchers are very much aware of the existence of these CD ROM database collections. Only handful researchers who probably employ the services of research assistant do not acknowledge this fact.
- Majority of the researchers also found the TEEAL collections to be solutions to the problem of quality research work.
- Most of the researchers in this faculty, agreed that the use of TEEAL collections, has afforded them faster and easier access to the worlds scholarly publishing literature.
- Researchers also attested to the user-friendly nature of the database.
- It is thus concluded that TEEAL is meeting its objectives.

RECOMMENDATIONS
- The full text of TEEAL, particularly the ones on the Acrobat Reader should be made darker so that the print can be read easily. Most researchers complain about the faint print.
- There should be immediate provision for the LAN BASED TEEAL
- Also, more hardwares are needed

FURTHER STUDY:
The suggestion for further study is that the scope of this study should be expanded to cover at least the six- first-generation universities in Nigeria that are into the TEEAL databases research.

REFERENCES


Received for Publication:
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