

Evaluation of Library Application Software for the Enhancement of Teaching and Learning in Selected Federal Colleges of Education in Nigeria

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Abstract

This study examines the Evaluation of Library Application software for the enhancement of teaching and learning in some selected Federal Colleges of Education in Nigeria. The design of the study was descriptive survey method. The population of the study consisted lecturers and library staff of the selected Federal College of Education in Nigeria totaling 989 as at 2022/2023 academic session. The sample size stood 280 based on the Research Advisors' table for sample size selection. The study used frequency counts, arithmetic mean score and standard deviation for data analysis. It was discovered that most of Federal Colleges of Education in Nigeria do not have good sustainable strategies for library application software to enhance teaching and learning. The findings ascertained that inadequate funding and poor staff training are challenge that mitigates the use Library Application Software Packages for teaching and learning. The study recommended that Library staff should be ready to provide support for users when using the Library Application Software.

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Introduction

The improvement of compelling information conveyance is vital to institutional teaching-learning and modern technology. As a centre for acquiring information, the library is engaged with data creation, handling, sorting out, putting away, scattering, and use. In this manner, it becomes important for the library to create apparatuses and organized systems for movements of every activity to give successful information to the mother

organization. The possibility of computerization of the library brought forth the advancement of library application programming bundles.

Library Application Programming most likely offers data supervisors numerous valuable chances to further develop Library administrations for their clients. It makes data assets simpler to find and recover. Likewise, it empowers library staff to serve library benefactors better by working with the execution of a large number of

functional undertakings, for example, inventorying, securing, flow, OPAC, the board of e-assets, and reference administrations among others with less pressure. Borgman (2017) commented that library application programming previously thrived in a time of 1960s development in being advanced education and expanding assets for library assortments. As the pace of distribution expanded, libraries understood that they couldn't gain and handle materials quickly enough with customary manual frameworks and that computerization could assist with controlling costs on escalated work activities. He added that the objectives for library application programming include the effectiveness of inside tasks, admittance to neighbourhood library assets, and admittance to assets outside the library, to accomplish the interoperability between data frameworks important to construct a worldwide data foundation. In his commitment to library programming, Gbaje (2007) expressed that the utilization of library application programming in college libraries has developed from overseeing interior library tasks to giving admittance to data and data assets in different configurations in numerous areas through a blend of Data and Correspondence Advances (ICT). Following this turn of events, there is a change in perspective from neighborhood assortments to worldwide data access, consequently making it feasible to expel geographic imperatives to library administrations.

Library Application programming has been characterized by various researchers in light of their experience, insight, and direction. Bierman (2010) avowed that the utilization of PCs and

related advances to do precisely exact things has been finished in the library with the legitimization of diminished cost or expanded execution. That is, it is the utilization of PCs to perform library tasks most particularly benefits that are standard and redundant. In any case, Dhanavandan (2012) characterized library application programming as the utilization of programmed and self-loader information handling machines to carry out roles like securing, flow, listing, reference administration, and sequential control. Thompson (2012) characterized library application programming as PC programs that are composed separately to work explicitly, custom techniques and frameworks, for example, library housekeeping, word handling, information base administration, text recovery, and master frameworks.

There are by and large two classes of library application programming: Restrictive and Open source. Exclusive Programming alludes to any PC programming that has limitations on any mix of the product's utilization, change, duplicating, or circulating adjusted renditions. Exclusive programming may likewise be called shut-source programming. Open Source Programming (OSS) is PC programming with its source code made accessible and authorized with a permit wherein the copyright holder gives the option to study, change, and convey the product to anybody and for any reason. Open Source Programming development sped up the improvement of viable open-source library programming, incompletely giving an option in contrast to the occasionally profoundly restrictive expense of Exclusive Programming. Instances of Library application programming are Alice for

Windows, GLASS, Compact discs/ISIS, Key Library Computerization and The board (Hammer), Freedom, Tin-Lib, X-Lib, Libsys, Virtua, E-Lib, Libra, Greenstone, Evergreen, Dspace, fedora, KOHA, Thousand years mi, Alexandria among others.

It has been seen that mechanization endeavors in Nigeria Libraries have been tenaciously disappointed by the absence of labor supply, reserves, registering offices, unfortunate upkeep culture horrendous interference of electric power, and other infrastructural factors (Menou, 1983, Thomps 1984, Eres, 1985, Ehikamenor, 1990, Idowu and Mabawonku, 1999, Faniran and Oyemakinde, 2010).

Explanation of the Issue

Library Application Software is a succession of directions that instructs the PC on controlling information and connecting with clients. It regularly addresses one part of figuring need or the other. Library application programming bundles aim to improve and change the tasks and administrations of the Nigerian School of Training Libraries to upgrade education, learning, and examination. Generally normal of these are; Online Free Inventory (OPAC), Client Administrations, Reference Administrations, Bibliographic Administrations, Current Mindfulness Administrations, Between library Credit Administrations, and Media Administrations among others. Notwithstanding, taking into account the gigantic advantages that are knowledgeable about the effect of library application programming bundles, Nigerian schools of training libraries actually experience a few blocks to incorporate the specialized skills of

bookkeepers dealing with the ventures, lacking financing, old business programming, labor issues, epileptic power supply, and the accessible programming to them in the successful and proficient utilization of these product bundles in the library. The previously mentioned snags came about to visit library mechanization projects disappointment, project surrender, or new beginning when new programming is picked causing precariousness of the utilization of programming for compelling instructing and learning. This troubling request is for the pressing need to assess library application programming for the improvement of education and learning in a few chosen government universities of schools in Nigeria.

Research Questions

1. What strategies are applied to ensure the sustainability of the Library Application Software Packages for teaching and learning in some selected federal colleges of Education in Nigeria?
2. What challenges mitigate the use of Library Application Software Packages for teaching and learning in some selected federal colleges of Education in Nigeria?

Literature review

Integrated Library Systems (ILS) is the ongoing wave in the field of library computerization. An ILS consolidates a few library exercises into one coordinated framework, permitting the library staff to complete their roles on the web. These exercises incorporate basic housekeeping exercises like securing and listing client benefits and between library advance exercises. Coordinated library frameworks (ILS) are multifunction, versatile

programming applications that permit libraries to make due, index, and course their materials to benefactors. Muller (2011) noticed that in picking ILS programming, libraries should put together their choice not just with respect to the exhibition and productivity of the framework, but additionally on its principal adaptability to adjust to what's in store requests and needs of their benefactors promptly.

With the Web, the Internet, and open source advances, engineers, givers, and open source programming clients have increasingly turned to free and open source programming (FOSS) library arrangements. Since the rise of such innovation a decade prior, designers have constantly expanded the contributions of quick, uninhibitedly accessible ILS programming. Open-source ILSs incorporate Avanti MicroLCS, Emilda, Evergreen, Gnuteca, Koha, OpenBiblio, PhpMyLibrary, and PhpMyBibli (Corrado, 2014). Nonetheless, most libraries utilize restrictive ILSs like Imaginative Connection points Thousand Years and Sirsi Dynix Skyline (Reproducing, 2007a; Speed, 2005). In any case, Sharma (2007) likewise illustrated the different sort of ILS library programming to incorporate the accompanying Compact discs/ISIS, WINISIS, Programming for Colleges Library (SOUL), Alice for Windows (AFW) LibInfo, MIDAS Library The executive's Framework (MIDAS LMS), Library The board Framework (LMS), Library Framework (LIS), LibSys, Koha: The Principal Open Source Coordinated Library Framework, PhpMyLibrary, OpenBiblio, GNU Library The board Framework (GLIBMS), Avanti: An Open Source Library Registering Framework, PhpMyBibli: A Free Answer for the

Media Library, OpenBook, Learning Access ILS, NewGenLib, Evergreen, SENAYAN, ABCD, BiblioteQ, Virtua (VtIs), Tin Lib, X-Lib, Millenium mi, Alexandrian, Hammer, Library Suit among others.

Digital Library Management System

Digital Library Management System have significantly developed during the most recent couple of years. They are as of now not just the advanced partner of actual libraries (or actual galleries, video accomplishes, and so forth) rather they are unpredictable arranged frameworks equipped for supporting correspondence and cooperation among various, overall circulated client networks. The computerized library board framework was developed with the initiation of the Advanced Library. Prasad (2017) recognized that the computerized library the board framework gives a fitting structure both to the creation and organization of the Advanced Library Framework by consolidating usefulness basically crucial to Computerized Libraries and furthermore gives arrangement to the incorporation of extra programming that gives more refined and high-level usefulness.

DSpace

The DSpace is an undertaking of the MIT Libraries and HP labs working together. A computerized resource, the board framework permits establishments, for example, libraries, to gather, document, file, and disperse a local area's insightful and scholarly endeavors. Composed of a blend of innovations by MIT, it is used to catch bibliographic data portraying articles, papers, propositions, and theses. DSpace is versatile to various local area needs. Interoperability between

frameworks is implicit and sticks to global metadata design norms. Being an open-source innovation stage, DSpace can be modified to broaden its capacities.

Greenstone

Greenstone is a programming set-up for building and circulating computerized library assortments. It gives a better approach for sorting out data and distributing it on the Web or on Cd ROM.

Fedora

Adaptable Extensible Computerized Item and Storehouse Design (Fedora) is a tool stash to construct an advanced article vault the board framework. The framework, intended to be an establishment where interoperable electronic computerized libraries, institutional storehouses, and other data the board frameworks can be fabricated, shows how disseminated computerized library design can be sent utilizing online innovations, including XML and Web administrations.

E-prints

The main role of the E-Prints programming is to assist with making open admittance to the friend checked on research results of all academic and logical exploration foundations. The default design makes an examination paper document, yet could be utilized for different purposes.

CDSWare

CERN Record Server Programming (CDSware) permits one to run one's own electronic preprint server, online library inventory, or a reporting framework on the web. It consents to the Open Documents Drive metadata collecting convention (OAI-PMH) and involves MARC 21 as its fundamental bibliographic norm.

Reference management software

Reference management software empowers an entering the subtleties of each reference in an organized

configuration. Enrico (2012) contended that they for the most part support components for putting together arrangements of re will produce references, references, or catalogs in a scope of referring to styles. Large numbers of these bundles are open-source programming. EndNote, EndNote Web, BibDesk, JabRef, ZoteroPapers, Mendeley, Bookends, Citavi, Qiqqa, RefWorks, CiteULike, Connotea, ProCite, BibSonomy, BibTeX, Reference Chief CiteULike, BibSonomy, and Connotea are not RMS stringently talking, yet their part in the Social Bookmarking applied to the scholastic writing is amazing (see for instance Giglia, 2010; Hammond, Hannay, Lund, and Scott, 2005; Blush, 2010).

Methodology

Survey research design was embraced for the study as the review looked at the Evaluation of Library Application software for the enhancement of teaching and learning in some selected Federal Colleges of Education in Nigeria The regions of the study were F.C.E Zaria, F.C.E Kano, and F.C.E Gusau. The number of inhabitants in the review comprised speakers and library staff of FCE, Kano (263), FCE, Gusau (171), FCE, and Zaria (555) adding up to 989 as at 2022/2023 Academic session. The sample size stood at 280 in view of the Exploration Guides' table for test size determination. Proportionate and basic irregular examining strategies were utilized. The instrument for the review was an organized poll created by the scientist on a 4-point reaction size of unequivocally concur (SA) 4, (A) 3, Dissent (D) 2, (SD) 1. The instrument was approved by two specialists from LIS. Information gathered for the review was dissected utilizing means and standard deviations to address research questions.

Results

Research Question 1: What are the strategies applied to ensure the sustainability of the Library Application Software Packages for teaching and learning in some selected Federal Colleges Of Education in Nigeria?

s/n	Statement item	Strongly agree	Agree	Disagree	Strongly Disagree	Mean score	SD
1	Involvement of library staff in the procurement and management of Software	23	46	74	117	1.9038	1.6808
2	Purchase after study and assessment of software	19	48	68	125	1.8500	1.5836
3	Provision of adequate care support for the installed	32	36	65	127	1.8962	1.6756
4	Appropriate training at the introduction of the software	34	48	74	104	2.0462	1.8017
5	Collaborating with ICT bodies and experts	12	58	80	110	1.8923	1.5836
6	Interaction with vendors	26	44	62	128	1.8769	1.6408
	Cumulative mean					1.9109	

Criterion Mean: 2.50

Table 1 reveals the strategies applied to ensure the sustainability of the Library Application Software Packages for teaching and learning in the selected federal colleges of Education in Nigeria. The highest mean and standard deviation response of 2.046 and 1.8017 respectively is that “appropriate training at the introduction of the software” which could be the strategies applied to ensure the sustainability of the Library Application Software Packages for teaching and learning. Details of response on this opinion showed that 34 of the respondents strongly agree, while 48 others agree as against 74 that disagree and the rest 104 of them strongly disagree with this opinion. In the same vein, “Involvement of library staff in the

acquisition and management of Software” which could be the strategies applied to ensure the sustainability of the Library Application Software Packages for teaching and learning. This opinion attracted the respondent’s second highest mean and standard deviation response of 1.9038 and 1.6808 respectively with details showing that 23 strongly agree, 46 others agree while 74 disagree and the rest 117 strongly disagree. As revealed in the table, the calculated mean score is 1.910 which is less than the criterion mean score of 2.50. Hence, Federal Colleges of Education in Nigeria do not have good sustainable strategies for library application software to enhance teaching and learning.

Research Question 2: What are the challenges that mitigate the use Library Application Software Packages for teaching and learning in some selected federal colleges of Education in Nigeria?

s/no	Statement item	Strongly agree	Agree	Disagree	Strongly disagree	Mean score	SD
1.	Unfortunate library automation policy	116	72	44	28	3.0615	2.7118
2.	Insufficient technical know-how by the librarians anchoring the software	138	55	42	25	3.1769	2.8217
3.	Speedy software obsolescence	130	60	38	32	3.1076	2.7708
4.	Insufficient funding	124	74	48	24	3.2231	2.7929
5.	Limited staff training	133	67	32	28	3.1731	2.8162
6.	Unreliable power supply	118	88	32	12	3.1231	2.7791
	Cumulative mean					3.1442	

Criterion Mean: 2.50

Analysis of table 2 reveals the challenges that mitigate the use Library Application Software Packages for teaching and learning. The highest mean response of 3.2231 is that “Inadequate funding” is the challenge that mitigates the use Library Application Software Packages for teaching and learning. Details of response on this opinion showed that 124 of the respondents strongly agree, while 74 others agree as against 48 that disagree and the rest 24 of them strongly disagree with this opinion. In the same vein, “Poor staff training” could be the challenge that mitigates the use Library Application Software Packages for teaching and learning. This opinion attracted the respondents second highest mean response of 3.1731 with details showing that 133 strongly agree, 67 others agree while 32 disagree and the rest 28 strongly disagree. As revealed in the table, the calculated mean score is 3.1442 which is greater than the criterion mean score of 2.50. Hence, it is agreed that Inadequate funding, Poor

staff training and others are challenge that mitigates the use Library Application Software Packages for teaching and learning.

Conclusion

Based on the findings of this study, it can be concluded that, most of the Federal Colleges of Education in Nigeria do not have good ICT infrastructure and sustainable strategies for library application software to enhance teaching and learning. There is need for federal colleges of education libraries to adopt and incorporate all types of Library Application software package such as Digital management system, inter library loan, Serial management, Reference management into their systems.

Recommendations

Based on the findings of this study, the following recommendations were made to ensure effective use of Library Application software for the enhancement of teaching and learning:

1. The management of Federal Colleges of Education libraries faced with the challenge of erratic power supply should provide alternative means of power to avoid breakdown of systems when there is no power in the library.
2. Library staff should be ready to provide support for users when using the Library Application software. This will help the users to be satisfied from the use of the software.
3. The library management should organize a sensitization program like library orientation for the users to put them through on how to use the library application software.
4. Management of Federal Colleges of Education libraries should improve on creating awareness among the library users for them to understand the importance of using the Library Application software.
5. The library management should increase the internet bandwidth to improve the reliability of the internet network to students on the campuses.

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