



**NATIONAL
LIBRARY
OF SRI LANKA**



ICNATLIB 2023

**2nd International Research Conference
of National Library of Sri Lanka**

PROCEEDINGS

"Transformation of Libraries in the Digital Era"



8th September, 2023

Colombo, Sri Lanka

**National Library & Documentation Services Board
Ministry of Education**

**2nd INTERNATIONAL RESEARCH CONFERENCE
OF NATIONAL LIBRARY OF SRI LANKA 2023**

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THE MESSAGE FROM THE MINISTER OF EDUCATION

I am pleased to send this felicitation message to the 2nd International Research Conference of the National Library and Documentation Services Board that goes with the theme “Transformation of Libraries in the Digital Era”.



The digitization of societies has come to the fore with the rapid increase in technological developments. As the effect of technology in every aspect of society is seen, the results of digitalization in working life and education have been unavoidable. Digitalization is considered to be an indispensable concept to prepare for the future of education processes in all aspects covering teaching, learning, critical thinking skills, automated assessment methods, and advanced data analytics.

The Ministry of Education is highly committed to ensuring equal access to quality education with the rapid revolution of the digitization process in the country. It has taken initiatives to introduce digital infrastructure in education while producing teachers of ICT and Technology who excel in teaching on digital platforms and providing ICT facilities to schools. E-Thaksalawa is one of the initiatives introduced to enhance E-Learning opportunities that were heavily used in online teaching during the spike of COVID-19 in the country. It is evident that the majority of school children are competent in using ICT devices for receiving quality education which is an important component in the digitization process.

I believe that this International Research Conference will provide an international-level opportunity to disseminate modern-day knowledge among academics, researchers, and professionals, and graduate and post-graduate students to share their research experience and also help to collaborate and strengthen partnerships among professionals.

I would like to extend my warm wishes to the National Library & Documentation Services Board, the organizing committee, and the participants of the event for their strong commitment to sharing new knowledge in this forum.

DR. SUSIL PREMAJAYANTHA

Hon. Minister of Education
Leader of House, Sri Lanka Parliament

MESSAGE FROM THE SECRETARY TO THE MINISTRY OF EDUCATION

I consider it a privilege to send this message to the 2nd International Research Conference (ICNATLIB 2023) organized by the National Library & Documentation Services Board. (NLDSB) on “Transformation of Libraries in the Digital Era” which I believe is a timely theme to hold such an academic forum. The NLDSB has established and emerged as the apex body and the leader in the field of the Library & Information Science sector in Sri Lanka.



Today everything is moving toward digital transformation. In this situation, the library should transform into a digital library to satisfy the information needs of the present-day user community. It is only possible through the proper utilization of emerging ICT technologies. These kinds of conferences are very helpful to improve cooperation among professionals, researchers, and students to share their research experiences in the relevant field that would be beneficial to the country as a whole.

I heartily congratulate the National Library & Documentation Services Board on its 2nd International Research Conference (ICNATLIB 2023) and look forward to the outcomes of this intellectual forum. I am confident that this forum would be an enriching experience for all paper presenters and participants.

M. N. RANASINGHE

Secretary

Ministry of Education

MESSAGE FROM THE CHIEF GUEST

Libraries, the timeless repositories of knowledge, have been our companions throughout history, preserving the wisdom of generations, and offering comfort to those seeking intellectual refuge. However, the advent of the digital age has not only challenged the conventional notions of libraries but has also breathed new life into these sacred sanctuaries of learning.



In this era of rapid technological advancement, libraries have emerged as dynamic hubs of information, seamlessly blending the tangible with the intangible, the traditional with the contemporary. The metamorphosis of libraries into digital realms has been breathtaking, offering a multitude of opportunities and challenges that have reshaped the roles they play in our societies.

Gone are the days when libraries were confined to dusty shelves and hushed corridors. Today, libraries have transcended their physical boundaries to exist in the boundless realm of cyberspace. The digitization of literary treasures, scholarly journals, and historical archives has not only made information accessible at the click of a button but has also ensured their preservation for generations to come. The democratization of knowledge has become a reality, breaking down barriers of geography and socio-economic status.

The transformation of libraries has extended beyond the mere digitization of content. Libraries have embraced cutting-edge technologies such as artificial intelligence, data analytics, and machine learning to enhance their services. These technologies have empowered libraries to provide personalized recommendations, improve search algorithms, and create immersive experiences that cater to the diverse needs of their patrons.

The digital era has also given birth to the concept of the "virtual library", a space where patrons can explore a universe of knowledge from the comfort of their homes. E-books, online databases, and virtual exhibitions have become integral components of this virtual landscape, transcending physical limitations and encouraging a new era of lifelong learning.

However, as we celebrate these remarkable advancements, we must also acknowledge the challenges that have accompanied this transformation. The digital divide, characterized by unequal access to technology and the Internet, poses a significant concern. Ensuring that this transformation is inclusive and

reaches every corner of our society is a responsibility we must collectively shoulder.

Moreover, amidst the sea of information, the role of librarians has evolved from being custodians of physical books to becoming curators of digital content. Librarians now navigate intricate digital ecosystems, guiding patrons through the vast expanse of online resources, ensuring authenticity, and imparting digital literacy skills.

The transformation of libraries in the digital era is a testament to human adaptability, innovation, and the unquenchable thirst for knowledge. As we move forward, let us ensure that this transformation is guided by principles of equity, accessibility, and a deep reverence for the role that libraries play in shaping informed and enlightened societies.

Let us celebrate the journey that libraries have embarked upon – a journey that bridges the past with the future, and the tangible with the digital. May this transformation inspire us to embrace change, uphold the values of lifelong learning, and continue to treasure the libraries that have been, and will always be, the cornerstones of our intellectual and cultural heritage.

I extend my gratitude to each one of you for extending the invitation to this event. Furthermore, I would like to seize this moment to express my genuine admiration for all the individuals who presented their papers, and I offer them my heartfelt best wishes as they embark on their academic journeys ahead. Lastly, I convey my sincere hopes for the successful conclusion of this conference.

DR. D. A. S. ATUKORALE

Director/UCSC & President/CSSL

MESSAGE FROM THE KEYNOTE SPEAKER

Libraries have been serving humanity for over 5000 years, but now face the challenge of transforming to meet the needs of the Digital era. Our young people no longer read physical books, or write on paper. The world of publishing has changed, and paper-based journals are no more. The transformation of collections from physical to digital has brought us both challenges and opportunities.



The library building is now a place of community – where people can interact, participate, and enjoy various programs and activities that enrich their lives.

The role of the librarian has changed – from becoming an acquirer of books and managing a collection – to becoming masters of digital and providing services to people, while following a strict budget.

I commend the National Library for organising this conference on a very timely topic. I am confident that participants will use this great opportunity to enrich their careers.

ENG. PROF. GIHAN DIAS

Department of Computer Science & Engineering
University of Moratuwa

MESSAGE FROM THE CHAIRMAN, NLDSB

I consider it as an honour, as the Chairman of the National Library & Documentation Services Board (NLDSB), to note that the 2nd International Research Conference (ICNATLIB 2023) will be held on 8th September 2023. Conducting and promoting research in the field of library and information science Sri Lanka is one of the main responsibilities of the NLDSB. To fulfill this responsibility, the Research Division of the NLDSB implements a number of projects every year. Conducting research and findings are some of the main activities. This conference is also an important milestone in contributing to the promoting research among library professionals in Sri Lanka.



The new developments in ICT, media, publishing, had an immense impact on the storage methods, information retrieval practices, etc. In the library and information services during the past decade. The continuous paradigm shift in libraries developed digital libraries and virtual libraries from traditional analog libraries and the transformation made an impact on library functions including library and information services.

I believe that the 2nd International Research Conference will provide an opportunity to disseminate modern-day knowledge among academics, researchers and professionals, graduates and postgraduate students to share their research experiences and also help to collaborate, to strengthen partnerships among professionals.

I would like to extend my gratitude to the Honorable Minister of Education, Secretary to the Ministry of Education, our Chief Guest, Guest of Honour, Keynote Speaker, chairpersons of the sessions, paper reviewers, paper presenters, and invitees for their highly valuable guidance and support for organizing this event. My unreserved thanks on behalf of NLDSB go to the Director General of the NLDSB, Director (NLDC), the staff of the Research Division, and the organizing committee of the conference for their commitment and untiring efforts for making this event a success.

PROF. NANDA DHARMARATHNA

Chairman

National Library and Documentation Services Board

MESSAGE FROM THE DIRECTOR GENERAL, NLDSB

It is with great pleasure I convey this message at the 2nd International Research Conference (ICNATLIB 2023) of the National Library of Sri Lanka. The main theme of the conference is “Transformation of Libraries in the Digital Era” which will be conducted under various sessions including Digital transformation, E-Resource management, Emerging technologies, and modern approaches in Library and Information services. The libraries should provide services based on user expectations. It is only possible through the proper utilization of emerging technologies or ICT. As such, there is a need to transform libraries into digital libraries to provide effective information services to the user community.



The objective of this conference is to provide an opportunity for library professionals to present their research findings and also to encourage them to conduct further research in the Library and Information Science and Social Sciences. I would like to extend my gratitude to Hon. Dr. Susil Premajayantha, Minister of Education for accepting our invitation. Also, I would like to extend my gratitude to our Keynote Speaker, Eng. Prof. Gihan Dias, Department of Computer Science and Engineering, University of Moratuwa, and their participation and valuable contributions.

Planning and organizing this annual conference was a long process for which many individuals have contributed, including Mrs. Padma Bandaranayake, Director, National Library & Documentation Center, Mrs. Nimmi Deshapriya, Head of the Library Research Division, Mr. Uditha Gunasekara, Research Officer, and members of the organizing committee and the staff of NLDSB. I would like to express my gratitude to all of them. I take this opportunity to thank the Chairpersons of the three sessions and all presenters of the conference. Last but not least I would like to express my gratitude to Prof. Nanda Dharmarathna, Chairman, NLDSB, for his guidance and support, without which it wouldn't be successful.

Lastly I wish ICNATLIB 2023 a great success.

W. SUNIL

Director General

National Library and Documentation Services Board

ABSTRACT OF KEYNOTE SPEECH

A library is a repository of knowledge, but even more importantly, a place for disseminating knowledge. Libraries have been serving humanity for over 5000 years, but now face the challenge of transforming to meet the needs of the digital era.

Books, too have changed from stone tablets to palm leaves, to paper, to digital. The concept of a book has changed, and it can take many digital forms. Our young people no longer read physical books or write on paper. The world of publishing has changed. Paper-based journals are no more. Methods of acquiring books and other materials have also changed.

A digital library is one in which collections are stored in electronic media. A digital collection is not in a particular place but may be stored locally, or remotely. The transformation of collections from physical to digital has brought us both challenges and opportunities.

The library building is now a place of community – where people can interact, participate, and enjoy various programs and activities that enrich their lives. How can we best serve our clientele who no longer need physical material?

The role of the librarian has changed – from becoming an acquirer of books and managing a collection – to becoming masters of digital collections and providing services to people, while following a strict budget. We now need to acquire new skills and provide more services.

Only then will libraries and librarians will secure their image in this digital world.

ENG. PROF. GIHAN DIAS

Department of Computer Science & Engineering
University of Moratuwa

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H. Sudesh Hasanga Mendis Abeynayaka

A Comparative Assessment of the Automation Status of University Libraries in Sri Lanka: Current Practices and New Trends

Sajeewanie D. Somaratna¹

ABSTRACT

Over the past three decades, the traditional university library system in Sri Lanka has undergone several changes as a result of technological advancement. This trend has become increasingly pronounced as university libraries in Sri Lanka have advanced in their automation status. This study intends to evaluate the status of library automation practices and assess the status of such applications in Sri Lankan university libraries. The total population sampling method was applied, and data was collected from 16 state university libraries in Sri Lanka, under the purview of the University Grants Commission, Sri Lanka. Currently, **Koha Open-Source Software** (OSS) has been adopted by all state university libraries in Sri Lanka. The most prominent reason for switching to **Koha** OSS from commercial software is the difficulty of customizing the commercial software according to each library's requirements. To secure the library collection, the majority of the university libraries in Sri Lanka use only manual security systems, and they have employed an outsourced security team or library staff for security purposes. The rest of the libraries use sophisticated security gates powered by RFID or electromagnet detectors. Among them, 18.2% use security gates compatible with electromagnet tapes, while 15.2% use RFID security systems with RFID-compatible gates. Results reveal all the university libraries in Sri Lanka have adopted partially or fully automated circulation systems. The circulation process in 97% of libraries is partially automated, and they use barcode readers and/or RFID workstations.

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Only the Science Faculty library of the University of Colombo has implemented a fully automated circulation system with self-check-in/out machines powered by RFID technology. Insufficient funds, interrupted power supplies, and poor infrastructure facilities are the most prominent difficulties for the automation process. Most of the libraries proposed increasing the library allocation as a solution to overcome the obstacles of the automation process. Frequent studies are recommended to identify updates in the automation process of libraries in Sri Lanka.

Keywords: Library automation, University libraries, *Koha OSS*, RFID, Sri Lanka

Introduction

The traditional library has been transformed into an automated, electronic, virtual, or digital library as a result of the quick development and adoption of contemporary technology. This revolution has completely changed the library scenario, especially in the university set-up. Several studies were conducted by university librarians in Sri Lanka beginning in the early 1990s to determine the automation status of university libraries. However, after the study carried out by Malkanthi in 2017, there have been no comparative studies done in Sri Lanka to explore the automation status of the university libraries in Sri Lanka. However, in recent years, it was evident that most university libraries that used commercial software switched to OSS for several reasons. There are a few pieces of evidence for exploring the status of the automated circulation processes and book theft control or collection security, but it was also observed that several university libraries in Sri Lanka introduced RFID or other technologies to create smart libraries. As there has been no comparative study done for seven years to explore the present automation status in university libraries in Sri Lanka, this study was planned to accomplish the task of exploring the status of the automation process in university libraries in Sri Lanka. Hence, this intends to measure the status of library automation techniques and assess the status of such applications in Sri Lankan university libraries. To achieve the main aim the following objectives were set.

1. To explore Library Management Software (LMS) used by the university libraries
2. To explore the book theft control mechanisms implemented by university libraries

3. To explore the automation status of the circulation process of the university libraries
4. To identify barriers faced by the university libraries when implementing the automation process and possible solutions to overcome the obstacles

Methodology

The total population sampling method was applied, and data was collected from all state university libraries under the purview of the University Grants Commission, Sri Lanka. A survey was conducted among 16 main libraries and 19 branch libraries attached to the universities in Sri Lanka. Self-administered questionnaires were distributed as Google Forms among the librarians of respective universities and the deputy/senior/assistant librarians who are in charge of branch libraries. Forty-two questionnaires were distributed, and 35 librarians, and the response rate is 83.3%. The questionnaire was designed under three main subcategories: the status of the library management software, the automation status of the circulation process, and book theft control or collection security. In addition to that, obstacles faced by libraries when automating were identified, and possible solutions to overcome the obstacles. Data were analyzed both qualitatively and quantitatively.

Results

Out of 16 state university libraries in Sri Lanka, 10 universities (University of Colombo, University of Peradeniya, University of Sri Jayewardenepura, University of Kelaniya, Open University of Sri Lanka (OUSL), University of Ruhuna, University of Jaffna, Sabaragamuwa University Sri Lanka and South Eastern University of Sri Lanka) commenced library automation before 2000.

Table 1 depicts how library management software usage has changed throughout the last three decades since it was first introduced in the 1990s. Most of the libraries that initiated the automation with CDS/ISIS, followed by WINISIS, moved to commercial software in early 2000. Four main universities in Sri Lanka, the University of Colombo, the University of Peradeniya, the University of Sri Jayewardenepura, and the Open University of Sri Lanka moved to Alice for Windows (AfW). The University of Moratuwa moved to another commercial software called LibSys, while the University of Kelaniya moved to LibSuit. Despite that, the University of Ruhuna moved to an open-source software program called Koha in 2004. However, currently, all the main libraries of the University of Sri Lanka have moved to Koha OSS,

while most of the branch libraries of the universities have done the same. As depicted in Table 1, the majority of the libraries have switched to Koha LMS, within the last five years, but the University of Ruhuna, the first university library in Sri Lanka to adopt Koha LMS, has been using it for more than 15 years.

Table 1: Evolution of LMS throughout the period (1990-2022)

Name of the University	Software 1	Software 2	Current Software (2022)	Duration of adopting the current LMS
UOC	CDS/ISIS to WinISIS	<i>AfW</i>	<i>Koha</i>	<5 years
UOP	CDS/ISIS to WinISIS	<i>AfW</i>	<i>Koha</i>	6 -10 years
UOK	CDS/ISIS to WinISIS	LibSuit	<i>Koha</i>	<5 years
UOM	CDS/ISIS to WinISIS	LibSys	<i>Koha</i>	6 -10 years
UOR	CDS/ISIS to WinISIS	<i>Koha</i>	<i>Koha</i>	>15years
USJP	CDS/ISIS to WinISIS	<i>AfW</i>	<i>Koha</i>	6 -10 years
OUSL	CDS/ISIS to WinISIS	<i>AfW</i>	<i>Koha</i>	6 -10 years
UOJ	PURNA	LibSys	<i>Koha</i>	<5 years
EUSL	<i>LibSys</i>	<i>Koha</i>	<i>Koha</i>	<5 years
RUSL	CDS/ISIS to WinISIS	<i>Koha</i>	<i>Koha</i>	11 - 15 years
SEUSL	CDS/ISIS to WinISIS	<i>Koha</i>	<i>Koha</i>	11 - 15 years
SUSL	CDS/ISIS to WinISIS	PURNA	<i>Koha</i>	<5 years
UWU	<i>Koha</i>	<i>Koha</i>	<i>Koha</i>	<5 years
WUSL	<i>Koha</i>	<i>Koha</i>	<i>Koha</i>	6 -10 years
UVPA	<i>CDS/ISIS to WinISIS</i>	<i>Koha</i>	<i>Koha</i>	6 -10 years
UOV	<i>Koha</i>	<i>Koha</i>	<i>Koha</i>	<5 years

Among the reasons for switching to the current OSS (Koha) from the previous system/s, 'difficulties when customizing according to each library requirement' is the most prominent with 67.6%. Followed by 'incompatibility with other automation-related accessories', 'high annual subscription cost' and 'mismatching with the current requirements of the library' scored more than 50%. Results reveal that cataloguing, circulation, OPAC, and patron modules are the most used modules by university libraries.

Book theft control/collection security

University libraries in Sri Lanka use different mechanisms to secure their collections. RFID technology, electromagnetic (EM) tapes with automated security gates, CCTV camera monitoring, and manually operating security systems are among them. The majority of the university libraries in Sri Lanka, including the branch libraries, use only manual security systems. The percentage is 60.6%, and they have employed an outsourced security team or library staff for security purposes. The rest (39.4%) of the libraries use sophisticated security gates, powered by RFID or EM detectors. Among them, 18.2% use security gates compatible with tattle or electromagnetic tapes, while 15.2% use RFID security systems with RFID-compatible gates. The libraries of the University of Moratuwa, South Eastern University, and the Science Library of the University of Colombo are examples of libraries that have used RFID technology to secure their collections by installing RFID security gates. The Library of the University of Ruhuna and the Medical Faculty Library of the University of Sri Jayewardenepura use hybrid security gates that detect both electromagnetic tapes and RFID tags, and their collections are secured by a dual method. Most of the libraries that installed EM gates between 2000-2010 are now facing issues with outdated hardware and the unavailability of accessories. Among the university libraries in Sri Lanka currently, 56.3% of the libraries use CCTV monitoring systems to secure their collection. Despite the fact that a CCTV operating system is available, most users have stated that their entire collection is not covered by the limited number of cameras. When checking the overall satisfaction of libraries with available security systems, slightly more than half of the librarians are satisfied with the available security systems, and the percentage is 51.7%.

Automated circulation process

Results reveal all the university libraries in Sri Lanka have partially or fully automated circulation systems. The circulation process in 97% of libraries is partially automated, and they use barcode readers or RFID workstations. The process is handled by the library staff who work at the counters. Only the Science Faculty library of the University of Colombo adopted a fully automated circulation system with self-check-in and self-check-out machines powered by RFID technology. Students manage their books using self-check-in and self-check-out machines when borrowing and returning books. According to the results, there is no evidence for the existence of a completely manually operated circulation system in any university library in Sri Lanka.

Difficulties faced when automation

Insufficient funds (76.5%), interrupted power supply (61.8%), and poor infrastructure facilities (52.9%) are the most prominent difficulties faced by university libraries when implementing the automation process. Universities in Sri Lanka have used different mechanisms to overcome the obstacles of automation.

The majority of the libraries proposed to increase the library allocation, and the percentage is 81.2%. They also have suggested having automatic backup systems, and the percentage is 75.8%. Installing UPSs (69.7%), continuous staff training (54.5%), and installing replication servers (45.5%) and generators (45.5%) are suggested solutions to overcome the obstacles of the automation process.

Discussion, Conclusions and Recommendations

Currently, all of the main libraries in state universities have been converted to Koha OSS, which has shed some light on the automation status of university libraries in Sri Lanka. Most libraries, in particular, have formed their own IT teams with expert and practical knowledge on Koha OSS, which will undoubtedly help to improve the automation status of Sri Lankan university libraries. The importance of the library automation process, how efficiently and effectively it helps to access the collection, and how it helps to improve the security of the library collection should be identified by all the university administrators, and this will help to convert university libraries into more sophisticated and user-friendly libraries. Due to the rapid changes in the technology field, university libraries in Sri Lanka would adopt novel innovation technologies from

time to time to upgrade their automation status. As a result, it is recommended that periodic studies be conducted in the future to investigate the status and innovations of the automation process of university libraries in Sri Lanka.

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Expedition of “ENGINEER” E- Journal: Journal of Institute of Engineers Sri Lanka: A Performance analysis from 2005 to 2022

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ABSTRACT

This study aims to analyze the performance of the “ENGINEER” E – Journal in three aspects as Publications (Research Papers), Authorships and citations from 2005 to 2022. The data was obtained for this study from the “ENGINEER” E-version published in SLJOL online database during 2005 to 2022. During this study period there were 563 papers published in this journal and average number of papers published per year is 31. Eighty percent of the research papers published in this journal are joint authored and only 20% of research papers are single authored papers. During the study period Collaborative Index for authors carries an annual average of 0.79 and a highest collaborative index value can be seen 0.98 in 2021. Further, the journal has 1874 citations during the study period and citation analysis shows that the journal carries a h-index of 20. The journal has highest number of citations per paper in 2015 and it is 10.42. However, on average a research paper has 3.69 citations per paper. Therefore, when considering the results of citation analysis, it can be said that work included in this journal are cited by the researchers in this field and it is a good indication of the authoritativeness of the journal. In conclusion it can be said that the journal is publishing novel scholarly work in a progressive rate under the collaboration of many authors and shows a high citation index as well.

Keywords: Authorship, Bibliometrics, Collaborative Index, ENGINEER, SLJOL

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Introduction

Bibliometric analysis provides a powerful platform for evaluating the standard or performance of a journal of interest (Jain, et al., 2015). Further, contemporary research results on Bibliometric studies shows that bibliometric analyses of journals reveal valuable information about the journal concerned (Yu, Xu, & Antucheviciene, 2019). Journals reflect the development of literature in any discipline and are main sources of dissemination of knowledge (Abdi et al., 2018). “ENGINEER” the official journal of Institute of Engineers Sri Lanka can be considered as the main source of scholarly publication in the field of engineering in Sri Lanka and it continuously publishes research articles since 1973. The journal provides open access through Sri Lanka Journal Online (SLJOL) database since 2005 and is included in indexing and abstracting services of Emerging Sources Citation Index (ESCI) by Thomson Reuters and Clarivate Analytics services since 2017. This quarterly journal has published 56 volumes to date and it is the right time to carry out a performance analysis to reveal the underlined patterns of articles, authors and citations.

Objectives

The objectives of the research is to identify:

- the annual distribution of research papers.
- the authorship patterns.
- the citation patterns.

Methodology

As mentioned above the source journal was “ENGINEER” and the present study was based on all the volumes published in SLJOL platform during the period 2005 to 2022. All the articles published in the E-version during this period were considered for the study. Each article was downloaded, examined and all the metadata relevant to the study such as Title, Year of publication, Authors etc extracted and tabulated. Citation data were extracted from Google Scholar.

Results

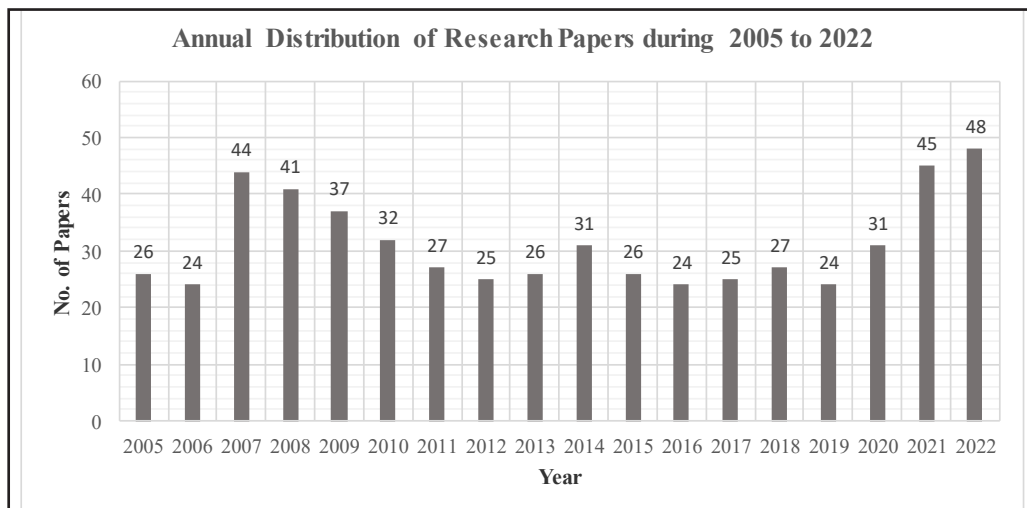


Figure 01: Annual Distribution of research papers

Annual distribution of research papers

According to the figure 01, 563 research papers were published during the study period. Further, average number of research papers published annually is 31.

Authorship patterns

Table 01: Distribution of Authorship

No. of Authors	TP*
1	115
2	205
3	151
4	57
5	23
6	8
7	3
8	1
TP	563
MA	448
DC	0.79

(* - TP, MA & DC are abbreviations of Total Papers, Multi Authored and Degree of Collaboration.)

According to the table 01 there are 115 single authored research papers and 448 multi authored research papers and it accounts to 20% and 80% of the total published papers respectively. Further, table 01 depicts that the overall degree of collaboration of the journal is 0.79.

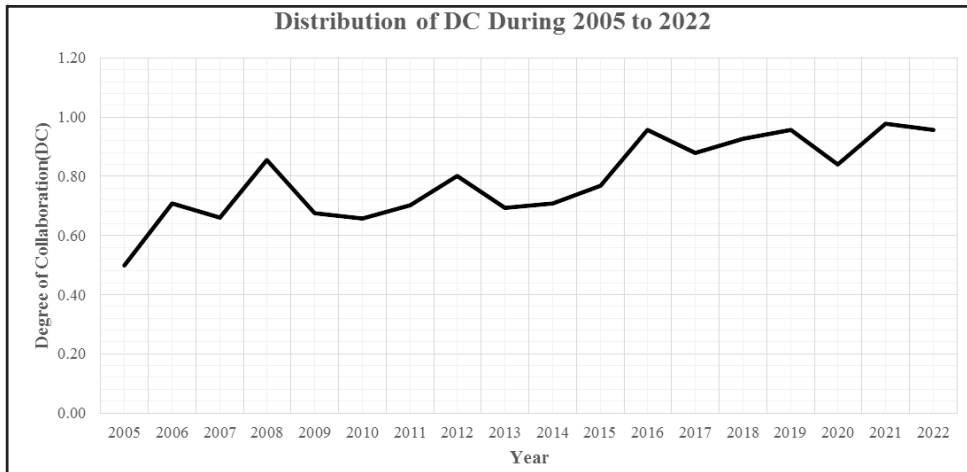


Figure 02: Distribution of Degree of Collaboration (DC) during 2005 to 2022

Figure 02 shows that the highest DC is in 2021 and it accounts for 0.98 and annual degree of collaboration is also showing an increasing trend.

Citation patterns

Table 02: Distribution of Citations during 2005 to 2022

Year	TP*	TC*	TC to TP
2005	26	28	1.08
2006	24	57	2.38
2007	44	146	3.32
2008	41	101	2.46
2009	37	42	1.14
2010	32	105	3.28
2011	27	63	2.33
2012	25	150	6.00
2013	26	210	8.08
2014	31	128	4.13
2015	26	271	10.42
2016	24	148	6.17
2017	25	159	6.36
2018	27	84	3.11
2019	24	76	3.17
2020	31	58	1.87
2021	45	46	1.02
2022	48	2	0.04
Total	563	1874	

(*- TP & TC are abbreviations of Total Papers and Total Citations.)

The journal has 1874 of total citations and average citations per research paper is 3.69. Maximum average number of citations per research paper is 10.42 in 2015. Further, considering the citations of each article the h-index for the journal is 20.

Discussion

Bibliometrics can expose inherent characteristics of the patterns and relationships among researchers or journals by quantitatively analysing publication data such as research papers, author or source (journal) level data (Carpenter, Cone, & Sarli, 2014). Thus, present study was able to identify the

underlined patterns of the journal. When considering the average annual rate in research papers published (31 papers) it can be said that the journal publishes research papers in a good constructive annual rate. In general scholars represent different research communities and they work collaboratively in order to generate new knowledge by means of research papers that can be used by new researchers (Jain, et al., 2015). During the study period Collaborative Index for authors shows a progressive development and it carries an annual average of 0.79. The highest collaborative index value is 0.98 in 2021 and this shows the collaborative relationship between authors will lead to successful research work.

Further, the journal includes a total of 1874 citations during the study period and citation analysis shows that the journal carries an h-index of 20. The journal has a highest number of citations per paper on average in 2015 and it is 10.42. However, on average a research paper has 3.69 citations per paper. Therefore, when considering the results of citation analysis, it can be said that work included in this journal cited by the researchers in the field is a good indication of the productivity of the journal. However, it is recommended to carry out detailed studies based on collaborative institutes, document level data, etc. to identify their patterns, which will be constructively helpful for the development of the journal.

Conclusion

Considering above results it can be concluded that the “ENGINEER” E-journal is in a stable condition and provides a good source of scholarly information in the engineering field in Sri Lanka with a high annual publication rate, a high author collaboration and high number of citations rates.

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Enhance the Access to Information for Prisoners through '*Mini libraries*' at Prison Wards

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ABSTRACT

Prison libraries are expected to cater to the information needs of prisoners as well as to educate those with difficulties in reading and writing. In Sri Lanka, the library system in prisons is not well-established and operates with limited resources and facilities for the prisoners to access information resources. This study is intended to formulate an operational mechanism for prison libraries to cater to the information needs of the prisoners. The project was carried out by the Main Library of the University of Jaffna at the ***Jaffna Remand Prison***, which comprises nearly 3,690 prisoners. The assessment of this prison library revealed that areas such as the organization of information resources, infrastructure facilities, and the operational mechanism need careful attention. The existing collection of information resources (n= 2,500) was added to the accession register, technical and physical processing completed, and placed at the ***Main Library*** premises located at the Administrative wing of the Jaffna Remand Prison. A small portion of this collection, comprising 75-80 information resources, is proposed to be transferred periodically to the ***Mini libraries*** situated in 13 prison wards for the use of prisoners. Further, the infrastructure facilities of the ***Main Library*** and ***Mini libraries*** were developed with the support of donations received. This Prison library commenced its operation with the ceremonial opening on April 8, 2023. In terms of sustainability, the Main Library of the University of Jaffna extends its assistance in maintaining the library system. Future plans for this prison library include promoting collaboration with adjacent surrounding libraries for resource sharing and building a children's collection to promote reading among children accompanied by the prisoners.

Keywords: Prison libraries, Prisoners, Information rights, Sri Lanka

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Introduction

During the period of incarceration, prisoners have a fundamental right to access information (UNODC, 2015). To enable this right to be upheld, prison library can play an important role as educational, informational, cultural, and recreational meeting and learning spaces. The prison library is also expected to provide the opportunity to develop literacy skills, pursue personal and cultural interests, as well as lifelong learning prospects for the prisoners (Garner and Krolak, 2023; Krolak, 2019). In order to facilitate this, the prison library should have information resources and services comparable to those of public and community libraries in the outside world. A prison library can also support the objectives of the prison administration by reducing idleness and encouraging constructive use of time, leading to a safer environment for prisoners.

The Sri Lankan prison system consists of closed prisons (n=4), remand prisons (n=18), correction centres for youthful offenders (n=2), a training centre for youthful offenders, work camps (n=9), open prison camps (n=2), prison lockups (n=23), and a prison school, all of which are administered by Superintendents of Prisons. According to *Prison Statistics of Sri Lanka – 2022*, the total number of prisoners in all prison institutions in Sri Lanka is about 76,973, out of which 62,426 are for prisoners not pronounced guilty and 14,547 are for prisoners pronounced guilty. Earlier studies related to prison libraries in Sri Lanka are limited (Bandaranayake, 2021; Bandaranayake and De Silva, 2019; Chandani, 2020; Chandani, 2021; Chandani and Weerasooriya, 2020).

The library system in prisons of Sri Lanka is not well-established. The existing libraries in certain prisons are functioning with limited resources and facilities and poor operational mechanisms which does not allow the prisoners to access the information resources. Further prisoners have barriers in accessing the information resources when they are in need or for leisure reading.

Objectives

The aim of this study was to assess the existing Prison library system at the *Jaffna Remand Prison* and to propose measures for better service delivery, by improving information resources, infrastructure facilities and operational mechanism. This study identified the research question, *“how the information resources can be made readily available for prisoners when they are seeking for information at their prison wards?”*. In order to address this research question, an attempt was made to introduce an operational mechanism for prison libraries to meet the information needs of the prisoners.

Methodology

The *Jaffna Remand Prison* was selected as a study location, which comprises nearly 3,690 prisoners, including un-convicted and convicted prisoners, according to '*Prison Statistics of Sri Lanka – 2022*'. This *Prison library* comprised of 700 reading materials in two steel cupboards, which were donated by philanthropists and well-wishers. The assessment of this library revealed that areas such as the organization of information resources, infrastructure facilities, and operational mechanisms need careful attention. The Library, University of Jaffna engaged via its '*Community engagement programme*' to re-organize the library collection, develop the library infrastructure, and set-up an operational mechanism to facilitate the reading among prisoners.

Results and Discussion

During the project period of August 2022 to March 2023, the printed materials comprising books, reference sources, serials, pamphlets and leaflets available in the existing *Prison library* and reading materials received through donations were organized and services to prisoners initiated as described below:

Step 1: Organization of information resources

- Existing manually maintained *Accession register* for printed materials was updated. In view of overcoming the lapses observed in the bibliographical details of information materials entered in the existing *Accession register*, measures were taken to re-enter the bibliographical details of the existing collection (app. 700 materials) in a new *Accession register*, and donated materials (app. 1,800) without accessioning were accessioned and bibliographical details of these materials also incorporated into this register.
- All the library materials are categorized according to different subject disciplines by using the *Dewey Decimal Classification scheme (23rd edition)*. A schedule with selected DDC classification numbers and authority file for classification are also prepared, for future reference.
- All the classified materials were physically processed and materials with physical damages also repaired.
- On completion of physical processing, materials were shelved in cupboards based on the *call numbers* assigned, which represents the subject content of the respective reading materials.

- Pamphlets and leaflets were kept in pamphlet boxes for easy handling and maintenance.

Step 2: Development of infrastructure facilities

The necessary furniture for the Main library and Mini libraries at prison wards (n=13) were procured with the support of philanthropists and well-wishes.

Step 3: Operational mechanism of library system

On discussion with Prison authorities, an operational mechanism for the Prison library was devised by the library professionals attached to the Library of the University of Jaffna. Accordingly, the entire collection (after accessioning, technical and physical processing) will be placed at the '*Main library*' premises located at the Administrative wing of the Jaffna Remand Prison. Periodically, a small collection comprising 75-80 information resources will be transferred to '*Mini libraries*' situated in 13 prison wards. Thereafter, the reading materials in the Mini libraries can be borrowed and read by the prisoners, whenever they have time and passion for reading. The collection in the Mini libraries will be changed in every two weeks, to introduce new reading materials to the prisoners in the respective prison wards. The Library of the University of Jaffna extends its support in maintaining this library system.

Conclusion

Literacy is indispensable and central for every individual, including prisoners. Facilitating and promoting reading among prisoners by providing access to a wide range of information resources would heighten their interest in reading and cultivate reading habits. Further, educating the prisoners during the imprisonment period would empower them to be successful in life after being released from prisons.

The study also recommended having a mechanism for sharing information resources with the adjacent libraries and developing a children's collection to promote reading among children, who are accompanied by the prisoners in the prison.

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A Sense-Making Approach for Engineering Undergraduates to Retrieve Environmental Management Information on Bolgoda Ecosystem

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ABSTRACT

The use of methodologies, practices, and activities are encouraged in engineering education to solve real-world problems for which knowledge generation and information transfer is vital. For this purpose, it is essential to have access to authoritative information as much as possible. Dervin's sense-making framework involves a process of seeking, encountering and using the information to address an information need with respect to ambiguous and complex real-world situations. Retrieving information on Bolgoda Ecosystem for the purpose of environmental management was an activity with engineering undergraduate library orientation during the pre-academic term. Accordingly, the students have engaged in a guided literature search to retrieve information from nine resources on a topic of interest from six categories of the Bolgoda Ecosystem. This individual exercise comprising 13 hands-on sessions was designed in line with the sense-making framework and created in MS Form. The results were manually analyzed and evaluated for information retrieval productivity with respect to relevance and document type. The results from 1169 search records revealed that 98.3% have selected a topic relevant to a complex situation and they were able to retrieve 89.5% of appropriate document categories that included 89.9% for books/reports, 90.3% for articles and 87.1% for conference papers. It was also observed that Google Books, ScienceDirect database and the Institutional Repository of Moratuwa University have been mostly accessed for document retrieval. The productive use of sense-making theory for information retrieval during a library orientation is evident from this study. Also, it can be recommended as a tool to educate library users on effective information systems and designing new information systems.

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This enabled the fresh engineering undergraduates to engage in evidence-based decision-making and rational thinking to develop environmental awareness on a sensitive ecosystem.

Keywords : Literature Search, Sense-Making Theory, Library Orientation, Ecosystem

Introduction

Education 4.0 - comprises the fourth industrial revolution, technologies, innovative pedagogical procedures and best practices - allows higher education institutes to combine new learning methods, management tools, and smart sustainable infrastructure to develop knowledge generation and transfer using novel information and communication technologies. Education 4.0 invites engineering undergraduates to develop technical, technological and analytical skills where knowledge can be applied to solve real-world problems (Miranda et al., 2021). Figure 1 depicts some components of Education 4.0. and the requirement of information from online sources where information technology tools and platforms are powered by the Internet of Things. Hence, skills in information retrieval will be mandatory.

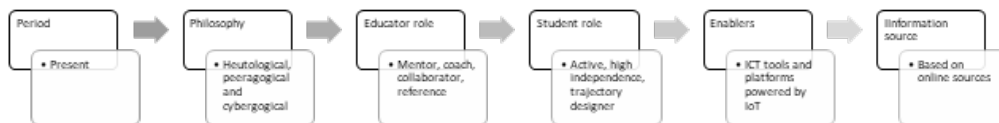


Figure 1: Some Components of Education 4.0 [source: Miranda et al. 2021]

Sense-making theories of information retrieval illustrate how individuals interact with information and make decisions regarding information retrieval. Dervin's sense-making framework involves a process of seeking, encountering and using information to address information needs with respect to ambiguous and complex situations (Dervin, 1998). It consists of five stages namely: pre-encounter; encounter; construing; comprehending and using. Later, this has been developed into a multi-faceted sense-making theory with nine components (Turner et al., 2023).

The protection and sustainability of sensitive environments such as Bolgoda require widespread awareness and knowledge, especially about the issues and remedial measures. Even though the information retrieval is crucial for

environmental management, it could be challenging due to the dynamic nature of information sources (Baylissa & Beyer, 2015). Among the handful of studies conducted to assess environmental awareness in particularly by Sri Lankan undergraduates (Sachitra & Kaluarachchi, 2018), only a limited attempts have been made to evaluate and reveal the effective use of library resources and facilities for the environmental awareness across the domains of undergraduate education (Seneviratne & Jayawardena 2022). Hence, a novel approach of sense-making approach for engineering undergraduates to retrieve environmental management information is a requirement to facilitate the future decision-makers while complimenting the sustainable development goals.

Objective

The main objective is to evaluate the performance of engineering undergraduates to retrieve information in terms of relevance and type of document, complying to the Dervin's sense-making framework.

Methodology

Environmental management information requirement on the largest freshwater body in Sri Lanka [Bolgoda ecosystem] was considered as a complex situation. The six specific topics of interest in which the information is required were: 1) Biodiversity of Bolgoda is in risk: Impact of water pollution; 2) Economic benefits of developing water sports in Bolgoda lake; 3) Environmental impact of waste dumping near Bolgoda lake; 4) Management of flood risk with special reference to Bolgoda wetland; 5) Ferry service for Bolgoda lake: cost-benefit analysis, and 6) Illegal encroachment and landfilling in Bolgoda environment protection area. The activity was facilitated with a lecture on "First steps in research" highlighting the importance of literature review in research followed by an introductory situational awareness of the Bolgoda ecosystem. There were 13 in-person hands-on sessions during March-April 2023 for the exercise, which was embedded to the library orientation, where 496 engineering undergraduates in pre-academic term participated.

The undergraduates had to perform a guided literature search created in Microsoft Form to retrieve information from nine information resources (Online catalogues of University of Moratuwa Library; National Library and Documentation Services Board; Google Books; ScienceDirect; Google Scholar; Directory of Open Access Journals; and the Institutional

Repositories of University of Moratuwa; University of Kelaniya; and University of Sri Jayewardenepura) for the selected topic of interest out of the given six specific areas. The three document categories were considered as Books/Reports, Articles, and Conference papers. The recorded results from the literature search were manually evaluated for terms of relevance and type of document.

Results and Discussion

The majority of the participants (38.1%) selected the research topic ‘Biodiversity of Bolgoda is in risk: Impact of water pollution’. The least preference (1.01%) was for the topic “Illegal encroachment and landfilling in Bolgoda environment protection area”. The topic selection count of the 469 participants and the corresponding percentages are indicated in Table 1.

Table 1: Specific topics of interest in the complex situation – retrieving environmental management information related to Bolgoda ecosystem

Topic	No. Selected	%
1. Biodiversity of Bolgoda is in risk: Impact of water pollution	189	38.10
2. Economic benefits of developing water sports in Bolgoda lake	131	26.41
3. Environmental impact of waste dumping near Bolgoda lake	116	23.39
4. Management of flood risk with special reference to Bolgoda wetland	39	7.86
5. Ferry service for Bolgoda lake: cost-benefit analysis	16	3.23
6. Investigation of illegal encroachment and landfilling in Bolgoda environment protection area.	5	1.01
Total	496	100.00

From the total (1169) of search results recorded by the undergraduates, 98.3% selections were relevant to the complex situation, which means the search activity has been successful to obtain the required and most relevant information for the purpose of interest. In the context of type of the document, more than 99% records retrieved belonged to the Books/Reports category. The second highest selection, which was 93.6%, was for the conference

papers. The document type “articles” was the least selected, possibly due to the ambiguities on relevance and variety of its presentation methods. Nevertheless, the undergraduates were able to retrieve 89.5% of correct document category with an individual record percentage of 89.9 for Books/Reports, 90.3 for articles and 87.1 for conference papers. This result reflects that majority of the undergraduates have demonstrated a clear understanding of the document type and how to accurately identify their category out of the given options. This is a positive observation in the context of a literature search where accurate and valid information to be used for knowledge creation.

It was observed that the Google Books (71.5%) have been the mostly preferred online resource to find Books/Reports from the given resources, amidst the availability of online public access catalogues of University of Moratuwa (26.4%) and National Library and Documentation Services Board (2.1%). In the search for research articles, ScienceDirect (52%) and Google Scholar (45.3%) has been the choice over Directory of Open Access Journals (2.7%). The institutional Repository of the University of Moratuwa was accessed to retrieve 73.4% of Conference Papers when compared to the access of institutional repositories of the University of Sri Jayewardenepura and the University of Kelaniya which has recorded as 15.7% and 10.9% respectively. The Table 2 presents this information with the relevant percentages corresponding to the retrieved records.

Table 2: Search preferences with respect to the information resources

Document Category	Information Resource		
Book/Report	Google Books (308) (71.5%)	OPAC, UoM (114) (26.4%)	OPAC, NatLib (9) (2.1%)
Journal Article	ScienceDirect (194) (52%)	Google Scholar (169) (45.3%)	DOAJ (10) (2.7%)
Conference Paper	UoM DL (243) (73.4%)	USJP DL (52) (15.7%)	UoK DL (36) (10.9%)

Conclusion

Considering the results of the study it can be concluded that students have performed well in the given exercise of information retrieval regarding the Bolgoda Ecosystem. Hence, they have demonstrated sufficient skills to conduct a literature search using online resources within a guided environment and possess the capability of differentiating the document types. Since the deployed approach during the library orientation was user-centered, contextual and iterative facilitated by the Dervin's sense-making framework the developed skilled by the undergraduates through this exercise could be efficiently utilized to integrate and apply to retrieve information for real world instances that they would be facing in future. Furthermore, "Sense-making theory" could be effectively used by the libraries to educate their users on the availability of information systems and extracting the required information from them. Additionally, based on the student feedback the engineering undergraduates of the University of Moratuwa had an opportunity to develop awareness on a sensitive environment in the neighborhood and its knowledge domain with respect to the published literature.

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A Bibliometric Analysis of Disaster Management in Libraries: Focusing Google Scholar Articles Published from 2018 to 2022

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ABSTRACT

Any incident that threatens the library's resources, collection, equipment, systems, or people is considered a disaster. According to the International Federation of Library Associations (IFLA), disaster management can be used to successfully manage risks by reducing their influence. The main objective of this study was to identify the natural, man-made and hybrid disasters that the libraries experienced globally from 2018 to 2022. Other objectives were to analyze the content of the papers using the most relevant keywords, to examine the yearly distribution of papers; to study the pattern of authorship of the documents; to study the number of citations received by the published papers; and to examine which countries produced the largest number publications on disaster management in libraries. The search was conducted using articles published in the 2018–2022 period. The research data was obtained *Publish or Perish software* program through the Google Scholar database and Google Scholar advanced search tool. 985 articles were found of which 129 library-related disaster incidents and a review of library-related disaster literature were selected for data analysis. The keywords were used to select the most related articles anywhere in the article. VOSviewer software and Excel package was used to analyze and visualize data in the study. The results show that the most prevalent type of disasters faced by libraries were natural disasters. Floods 75 (24%), fire 57 (17%), earthquakes 42 (13%), hurricane 28 (9%), water through leaking 18 (6%), storms 11 (3%), infestations of mold or pests 11 (3%), tsunami 10 (3%), severe weather conditions 10 (3%), cyclones 10 (3%), tornado 8 (2%), volcano 8 (3%), thunder 8 (2%) and others 32 (10%).

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The most relevant term was library. Natural disasters occurred at a maximum rate during the last five years. The study recommends a scientific approach to disaster management in libraries utilizing relevant datasets and bibliometric tools.

Keywords: Bibliometric Analysis, Library Disasters, Disaster Management, Natural Disasters, Google Scholar, VOSviewer.

Introduction

Disaster management and preparedness are essential for all types of libraries. According to the literature, natural disasters, man-made disasters and hybrid disasters can occur at any library at any moment without warning and cause intolerable consequences. Therefore, libraries should pay attention to the disasters in order to minimize the damage of the library. Natural disasters include phenomena such as floods (Rasaki, 2019; Dharmasiri, 2014), hurricanes (Akussah & Fosu, 2001; Alegbeleye, 1993), tsunamis (Amarasiri, 2005), animal attacks (Disaster Management Centre, 2015) and fire (Rasaki, 2019; Nwokedi et al., 2017). The other category is disasters caused by humans (Morgan & Smith, 2014), (Rasaki, 2019), (Akussah & Fosu, 2001; Alegbeleye, 1993) and (Bansal, 2015). A bibliometric analysis of disaster management in libraries is important research which evaluates the impact of scholarly literature and networks of authors and journals in a specific field. Bibliometric analysis is a popular and rigorous method for exploring and analyzing large volumes of scientific data (Nandiyanto, 2022). Google Scholar (<http://scholar.google.com/>) is a database created by Google Inc. to provide access to global scholarly literature. One of the largest scientific bibliographic databases provided free of charge (Aguillo, 2011). Hence very important to identify published trends on disaster management in libraries, so that this study used the Google Scholar database.

The study only used the keywords listed below to search for information; “Disaster Management in libraries”, “Natural disasters”, “Man-made disasters”, “Hybrid disasters”, and “Disaster Preparedness”. Digital disasters were not considered in the study. All sources were in English. There were no sources based on scientific evidence on bibliometric analysis of disaster management in libraries found on Google Scholar study. Hence, the study examined Google Scholar literature sources and offers prospective directions for future scientific work on disaster management in libraries.

As a result, scientific evidence-based study will be crucial in closing a gap in the literature surveys.

Objectives

Main Objective

- To identify the natural, man-made and hybrid disasters that the libraries experienced globally, between from 2018 to 2022

Other Objectives are to

- Study the pattern of authorship of the documents
- Analyse the content of the papers using the most relevant terms
- Examine the yearly distribution of papers
- Study the number of citations received by the published papers
- Examine which countries produce the largest number of publications on disaster management in libraries

Methodology

The bibliometric methodology encompasses the use of quantitative techniques (i.e., bibliometric analysis - e.g., citation analysis) on bibliometric data (e.g., units of publication and citation). The Bibliometric analysis method is used in this study. The research data was obtained *Publish or Perish software* program through the Google Scholar database and Google Scholar advanced search tool. The keywords “Disaster Management in libraries”, “Natural disasters”, “Man-made disasters”, “Hybrid disasters”, and “Disaster Preparedness” were used in the data filtering procedure anywhere in the article. The search was conducted for articles published in the 2018–2022 range. From the search, the total of 985 articles were of which 129 library-related disaster incidents and a review of library-related disaster literature were selected for data analysis. VOSviewer and Excel packages were used to analyze and visualize data in the study. The results are presented in tables, graphs, and figures.

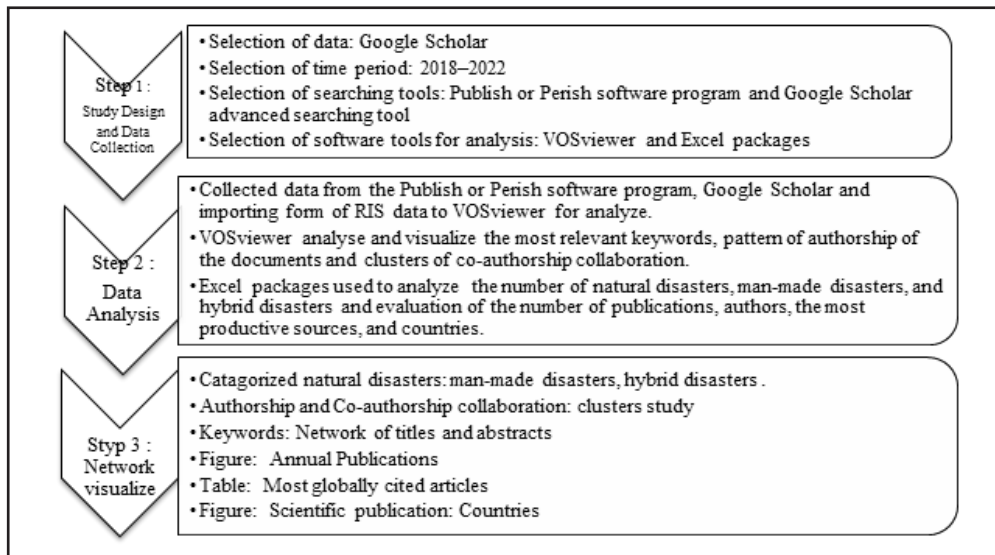


Figure 1 : The steps of Bibliometric analysis

Results and Discussion

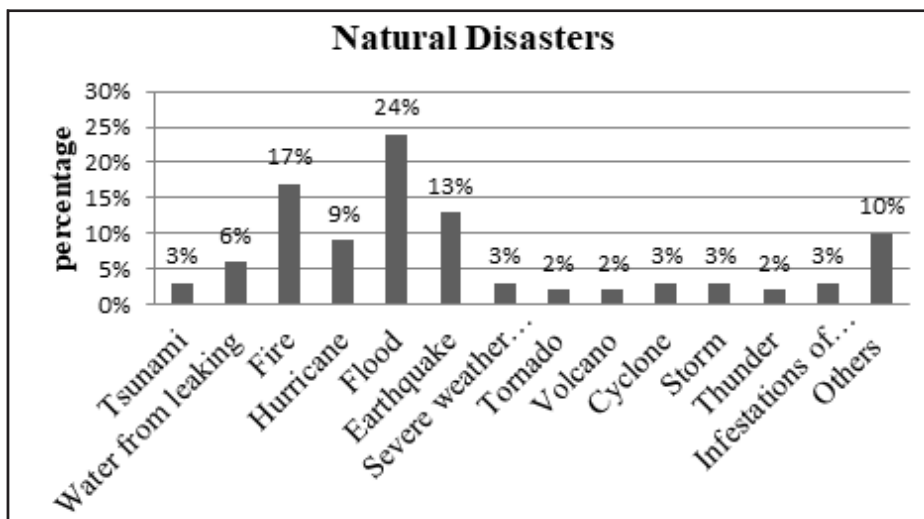


Figure 2 :Natural Disasters

Figure 2 illustrates the natural disasters that libraries experienced globally from 2018 to 2022. Flood disasters had the highest value of 75 (24%). The fire disaster had the second highest value of 57 (17%). The earthquake disaster had

the third highest value of 42 (13%). Others 32 (10%), hurricanes 28 (9%), water from leaking 18 (6%), storms 11 (3%), and infestations of mold or pests 11 (3%). Also tsunamis, severe weather conditions, and cyclones, were 10 (3%). Similarly, 8 (2%) libraries experienced tornado, volcano, and thunder disasters globally.

According to the results of man-made disasters, the highest value of 17 (21%) was vandalism and theft of library materials. warfare 16 (19%), terrorist attacks 15 (18%), library building disasters 10 (12%) and others 7 (9%). Hybrid disasters such as COVID-19 13 (87%) and transportation wreck 2 (13%).

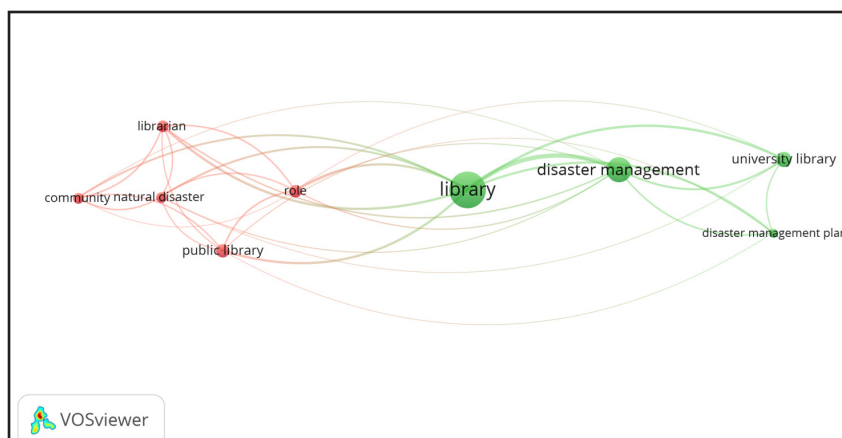


Figure 3 : Network visualization of titles and abstract terms

Figure 3 shows the relationship between the title and abstract terms described in a network and the grouping of each term associated with disaster management in libraries. Accordingly each cluster has one main term, namely cluster 1 term was librarian in red. The librarian term link with 6 terms. In general, the term librarian is connected to the terms community, natural disaster, public library and role. The cluster 2 term was library in green links with 30 terms. In general, the term library is connected to the terms disaster management, disaster management plan and university library. According to the network visualization results, the term library was the most prominent.

According to the results of the single-authored documents were 47 and the co-authored document were 82. The most relevant terms were library, disaster management and librarian. In the annual publication, there were 22 articles published in 2018, 21 in 2019, 25 in 2020, 33 in 2021, and 28 in 2022. The authors of M. Kosciejew (2021), Ilo, Promise Ifeoma; Izuagbe, Roland;

Mole, Austin JC; Ekwueme, Loveth (2018) and J. Feather (2018) had the most globally cited articles in the field of disaster management in libraries. The USA, Nigeria and India were the countries mostly producing scholarly literature, with 32 (25%), 30 (23%) and 22 (17%) publications.

Conclusion

The natural disasters have occurred at a maximum rate during the last five years. Over the past five years, the libraries has increasingly experienced natural, man-made, and hybrid disasters. Authorship collaboration was very high for five years. The most relevant term was library. Publications on disaster management in libraries and have gradually increased during the period 2018 – 2022. “The Coronavirus pandemic, libraries, and information: a thematic analysis of initial international responses to COVID-19,” written by M. Koscieljew in 2021, was one of the most globally cited article in the field of Disaster Management in libraries. The USA was at the uppermost place in the category of scholarly literature, with 32 (25%) publications. The study suggests that it could be carried out as a scientific study by using more pertinent datasets and utilizing additional bibliometric tools and programs.

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Library Services for the Visually Impaired Undergraduates : Challenges and Success

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ABSTRACT

The 4th goal of the Sustainable Development Goals (SDG), expected to be achieved by 2030, is to “provide quality education for all”. There are various methods available for normal people to get the knowledge, very limited options are available for the visually impaired people. This study investigated the use of libraries by visually impaired university students. The primary objective was to identify the challenges encountered when using the library by these students and to identify the successes when using libraries. This study selected 5 major universities in Sri Lanka. The sample consisted of 74 visually impaired students and the purposive random sampling method was used to select the sample. Primary data was collected using questionnaires and interview method. IBM SPSS (version 26) and Microsoft excel software were used for data analysis. Out of the 74 students, only 53 students were identified as library users. This study identified the challenges faced by visually impaired students when accessing library resources. It was recognized that the books available for the use of visually impaired students were limited. It was noted that the subject related books required by these students are not available in the braille media. Although at some of the libraries limited number of audio books are available, their selection is limited for the undergraduates to fulfil their academic requirements. Also, the students indicated that the lack of assistive technologies in the libraries required for the visually impaired students is the reason for the decline of library use. Regarding successful library usage, students praised several universities for introducing audio books. Furthermore, partially sighted students appreciated the support given by the library staff in selecting required books and other necessary facilities provided at the libraries.

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Therefore, the administrators of the universities should take necessary actions to address the aforementioned issues.

Keywords : Library services, Library users, Undergraduates, Visually impaired, Visually impaired students

Introduction

The United Nations presented the Sustainable Development Goals to be achieved by 2030, targeting the development of the world. Their 4th goal is to “provide quality education for all”. There are many tasks to be performed as a country to provide quality education. Among them, it is important to expand the opportunities to explore new knowledge in order to get a quality education. While there are many ways to acquire knowledge for normal people, there are only a limited number of options for visually impaired people. The exploration of knowledge using new technologies is a challenge for them. As a result, libraries need to act as the primary source of new knowledge for the visually impaired. Nowadays, libraries open a new door for e-learning with enormous potential (Kumah, 2015). Public libraries have an important and critical role in imparting knowledge, education and literacy to the community (Abumandour, 2019). Accordingly, universities are working specially to provide facilities for visually impaired students. According to Mahawariya & Yadav (2021), braille books, braille software, audio or talking books, recorded reading material and assistive technologies should be provided to libraries to expand the knowledge exploration opportunities of visually impaired students. Likewise, it is important that the library should be accessible to visually impaired students without any barriers (Chandrakanth & Reddy, 2019). Accordingly, this study identified the library use of visually impaired students and the challenges they face and how they accomplish them. But in general, it is important to recognize the library use of all students with different needs and what problems and successes they face in doing so. But due to limitation of time and scope of study, this study was limited to visually impaired students only.

Objectives

Main objective was to identify the challenges faced by visually impaired students in library usage and to uncover successes in library access.

Specific objectives were to Investigate the specific needs and requirements of visually impaired students regarding library services, to examine the existing

library services available for visually impaired undergraduates and evaluate their effectiveness and to identify best practices and strategies for improving library services for visually impaired students.

Methodology

This research aimed to gain insights into the library usage among visually impaired undergraduate students. The following methodology was used to carry out the research. A sample from five government universities in Sri Lanka was selected for this study, namely the University of Sri Jayewardenepura, University of Colombo, University of Kelaniya, University of Jaffna and Eastern University. The sample consisted of 74 visually impaired students from these five universities. Purposive random sampling method was used to select the sample.

Both primary data and secondary data were used for this research. Accordingly, primary data was collected through the use of questionnaire and interviews. The questionnaire comprised two parts: the first section collected information on students' socioeconomic background and the second section gathered information on library usage. Questionnaires were administered in person to the students who could be physically met, while those who couldn't be met in person were provided with questionnaires through Google Forms. Additionally, interviews were conducted with 10 students. Data analysis was done using IBM SPSS (version 26) and Microsoft excel software tools.

Results and discussion

The accessibility and inclusive design were used as a perspective on creating environments and services that are accessible to all individuals, including those with visual impairments. The findings derived from the data collected through the above methods can be summarized as follows.

Out of the 74 students, only 53 students were actively utilizing the library services. Other students reported abstaining from library usage primarily due to the accessing problems to the resources due to their visual impairment. The research further revealed that visually impaired students use different methods to gather information while using the library. Among those methods, a special preference for audio books (48%) was evident from the visually impaired students, and 44% of the sample preferred the use of braille books (Figure 1).

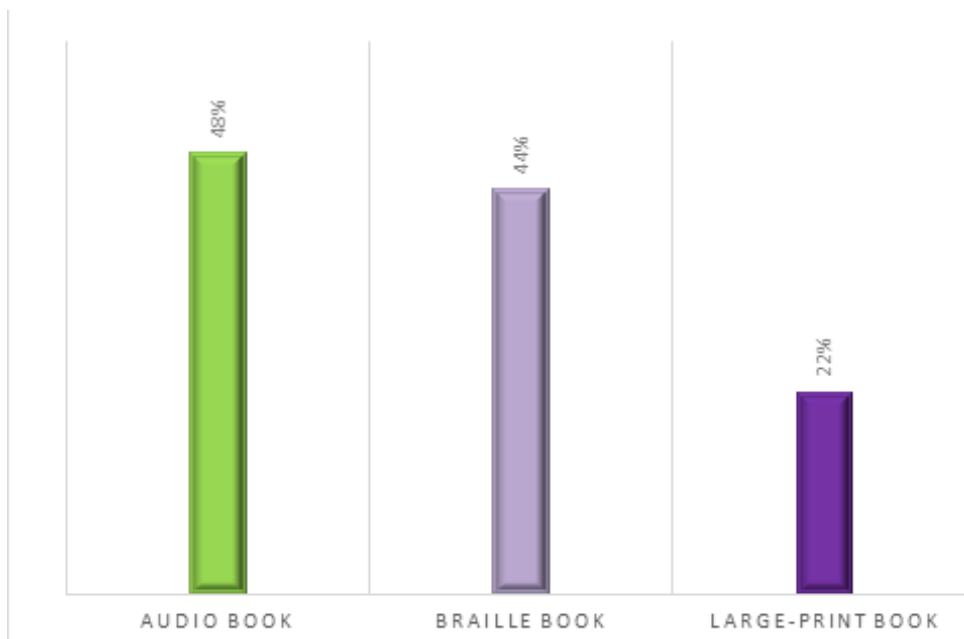


Figure 1: Methods used by students to explore knowledge

Source: Field survey, 2022

This study identified the challenges faced by visually impaired students when accessing library resources. It was recognized that the books available for the use of visually impaired students were limited. As these students cannot read normal books, they need the books in accessible format suitable for them. It was noted that the subject related books required by these students are not available in the braille media. The students expressed that only school textbooks are available in braille format. Although limited number of audio books are available in some of the libraries, their selection is limited for the undergraduates to fulfil their academic works. Most of these audio books primarily consist of novels and short stories, not the academic books. Also, the students indicated that the lack of assistive technologies in the libraries cause for the further decrease of library use. Students stated that there are not enough books with larger font sizes and DAISY technology format for them to access easily. It was also found that most of the university libraries do not have a separate section for visually impaired students, resulting in difficulties accessing library materials. According to Kumah (2015) this is cited as a reason why visually impaired students use the library less.

Regarding successful library usage, students praised several universities for introducing audio books. More than 600 academic books have been prepared as audio books for the use of students through the audio book project carried out by the University of Sri Jayewardenepura. Visually impaired students studying in other universities and educational institutions also have free access for these books. This initiative encouraged students to use libraries. Furthermore, partially sighted students appreciated the support given by the library staff in selecting required books and other necessary facilities provided them at the libraries.

Conclusion

The strategies, technologies, and best practices for designing library services that would accommodate the needs of visually impaired students were explored according to the accessibility and inclusive design. Analyzing the data collected by the research, it was clear that some universities are paying particular attention to visually impaired students. It could be recognized that the necessary facilities are provided to increase the use of their libraries. But it was found that a significant number of students are not satisfied with the services provided through the library and it is clear that they have to face problems in using the library. Accordingly, proper practical solutions should be presented for these problems of the students through the administrative department of the university. It can be stated that it is very important to provide the academic books needed by the students for their educational activities through audio and braille medium. It is also important to implement programs to familiarize students with new technology. It is important to prepare the environment necessary for students to use e-libraries. This perspective examines how individuals seek, use, and interact with information in specific contexts.

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Use of Primary Sources for Historical Studies with Special Reference to the Historical Account of *Mahāvamsa* : The Great Chronicle of Sri Lanka

Udaya Cabral¹

ABSTRACT

The palm-leaf manuscripts, the native writing medium of Sri Lanka, are considered primary sources. The traditional knowledge transmitted orally was written on palm-leaf manuscripts from the beginning of the Anuradhapura period. Later, ancient and damaged palm-leaf manuscripts were copied voluntarily into new folios by educated people in the society to continue the traditional palm-leaf writing practice until the introduction of paper materials in Sri Lanka during the colonial period. The great chronicle *Mahāvamsa*, one of the world's longest continuous historical accounts and an epic poem written in Pali language using Sinhala script as a palm-leaf manuscript, is a very useful primary source in historical studies. The major objective of this study was to find out where the *Mahāvamsa* palm-leaf manuscripts are available for reference as a primary source for researchers. The other objective was to find out the obstacles faced by researchers when using palm-leaf manuscripts as sources for their studies. A literature survey was conducted to seek *Mahāvamsa* transcripts published with translations in English and Sinhala. A survey was conducted in temple libraries seeking *Mahāvamsa* palm leaf manuscripts based on Somadasa's catalogue published in 1959 and 1964. The structured interviews were conducted with ten randomly selected researchers who were members of the Intangible Cultural Heritage Committee of the National Library and Documentation Services Board. Two volumes of the catalogue composed by Somadasa revealed 57 copies of *Mahāvamsa* palm-leaf manuscripts were available in 1964. However, the study revealed 6 incomplete and 1 complete set of *Mahāvamsa* palm-leaf manuscripts are available at present. Only one palm-leaf manuscript of both parts of *Mahāvamsa* with continuous text included from the 6th century BCE to 1815 was found at the main library of the University of Peradeniya (AC no. 277587).

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A structured interview revealed eight researchers were not satisfied with the George Turnour's *Mahāvamsa* version, and nine researches agreed with the Batuwanthudawe Sri Devarakkhita and Ven. Hikkaduwe Sri Sumangala Thero's *Mahāvamsa* versions. Access difficulties and access restrictions to the palm-leaf collections in temples were identified as major obstacles to the use of palm leaf manuscripts for the studies. According to the findings, researchers have different views on printed transcriptions by single authors, launching a transcript compilation programme with a team of scholar editors is recommended.

Keywords: Palm-leaf manuscripts, Mahāvamsa, Great Chronicle of Sri Lanka, Pali language, Primary source

Introduction

Information sources are well organised and stored in libraries for the use of readers and researchers and the primary sources play a prominent and important role in research. The palm-leaf manuscripts, the native writing medium of Sri Lanka, are considered primary sources as the traditional knowledge transmitted orally was written on palm-leaf manuscripts at the beginning of the Anuradhapura period. Later, old and damaged palm-leaf manuscripts were copied voluntarily into new folios by educated people in the society to continue the traditional palm-leaf writing practice until the introduction of paper materials in Sri Lanka during the colonial period. Thousands of palm-leaf manuscripts are still available in some libraries, especially temple libraries, which serve as primary sources in some studies. The great chronicle *Mahāvamsa*, one of the world's longest continuous historical accounts and an epic poem written in Pali language using Sinhala script as a palm-leaf manuscript, is a very useful source in historical studies. Also *Mahāvamsa* palm-leaf manuscripts can be found in two parts, where the second part is called *Cūlavamsa*. The first part of the *Mahāvamsa*, composed by Mahanama Thero, contains 2,915 verses in 37 chapters. Its narration begins with the visit of Gauthama Buddha to Sri Lanka in the 6th century BCE and continues up to the reign of King Mahasena (277–304 CE). It is also called *Pajjapadoruvamsa*, and a commentary named *Vamsatthappakasini* is written for the first part. In the second part of the *Mahāvamsa*, which begins from the 5th or 6th century CE to the year 1815, several scholars have contributed as authors. Also these two parts can be found as one palm-leaf manuscript. The *Mahāvamsa* Secretariat under the Department of Cultural Affairs still continues the compilations of history by adding more volumes to *Mahāvamsa* from the end of

the second part. In this study, the palm leaf manuscripts, which contained both parts, were considered. The major objective of this study was to find out where the *Mahvasa* palm-leaf manuscripts are available for reference as a primary source for researchers. The other objective was to find out the obstacles faced by researchers when using palm-leaf manuscripts as sources for their studies.

Methodology

A literature survey was conducted to seek *Mahāvamsa* transcripts published with translations in English and Sinhala. A survey was conducted in temple libraries seeking *Mahāvamsa* palm leaf manuscripts based on Somadasa's catalogue published in 1959 and 1964. The structured interviews were conducted with twenty randomly selected researchers who were members of the Intangible Cultural Heritage Committee of the National Library and Documentation Services Board.

Results and Discussion

The literature survey confirmed that modern scholarly interests in the *Mahāvamsa* were aroused during the British colonial period when it first came to the attention of Western scholars and readers at the beginning of the 19th century. George Turnour, a historian and officer of the Ceylon Civil Service under British Colonial rule, discovered a palm leaf manuscript of the *Mahāvamsa* (the first part) at a Buddhist temple at Mulgirigala in Southern Sri Lanka. Sir Alexander Johnston, the then Chief Justice of Sri Lanka's British Colonial Administration, sent this manuscript to Europe for publication. Eugène Burnouf initially produced a Romanized transliteration and then translated it into Latin in 1826, but this garnered relatively little attention. Using the original manuscripts, Edward Upham published an English translation in 1833, but it consisted of a number of errors in translation and interpretation. The first printed edition and widely read English translation was published in 1837 by George Turnour. A German translation of the *Mahāvamsa* was completed by Wilhelm Geiger in 1912. This was later translated into English by Mabel Haynes Bode and revised by Geiger himself. The first notable translation of the *Mahāvamsa* from the Pali language manuscript to Sinhala was in 1877 by Pandith Batuwanthudawe Sri Devarakkhita and Ven. Hikkaduwe Sri Sumangala Thero. Another Sinhala translation was published by National Museums Department in 1912 in two volumes, and later, several Sinhala translations were done by some scholars. National Library Services Board published an edited translation in 1986 based on various manuscripts with the support of a panel of experts.

Two volumes of the catalogue composed by Somadasa revealed 57 copies of *Mahāvamsa* palm-leaf manuscripts were available in the country, and out of them, 9 recorded as incomplete, and 2 in Burmese. However, the study revealed 6 incomplete and 1 complete set of *Mahāvamsa* palm-leaf manuscripts are available at present. This is a sign of the disappearance of primary sources unless proper mechanisms are established to preserve palm-leaf manuscripts in the country. An incomplete set of two parts of *Mahāvamsa* found at the Royal Library of Sri Dalada Maligawa, one from Pothgul Viharaya Haguranketha, three from the main library of the University of Peradeniya, and one from the National Museum Colombo. Only one palm-leaf manuscript of both parts of *Mahāvamsa* with continuous text included from the 6th century BCE to 1815 was found at the main library of the University of Peradeniya (AC no. 277587).

A structured interview revealed eight researchers were not satisfied with the George Turnour *Mahāvamsa* version, and nine researchers agreed with the Ven. Batuwanthudawe Sri Devarakkhita and Ven. Hikkaduwe Sri Sumangala Thero's *Mahāvamsa* versions. Access difficulties and access restrictions to the palm-leaf collections in temples were identified as major obstacles to the use of palm leaf manuscripts for the studies. Other issues summarised were: time-consuming, fragile conditions, reading or handling difficulties, and integrity issues.

Conclusion

Preservation of the palm-leaf's physical and readily available digital versions within the limitations of intellectual property rights may enhance the use of the palm-leaf manuscripts by researchers. Since, according to the findings, researchers have different views on printed transcriptions by single authors, launching a transcript compilation programme with a team of scholarly editors is recommended. It is suggested that if the National Library could promote and play leading role in starting a project to transcript compilation would be a great service to the nation.

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A Study on the Difference between AI-Generated and Human-Expert-Generated Default Cataloging Frameworks

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ABSTRACT

This research distinguishes Artificial Intelligence (AI) and human expert-generated default cataloging frameworks used in metadata entry into library catalogs. The National Library of Sri Lanka has initiated to build a series of human-generated frameworks. The experts have so far selected MARC21 tags to represent books & monographs, serials, theses and dissertations in catalogs. In the current study, authors utilized ChatGPT to pick MARC21 tags for the above three formats and compared them with human-selected ones. The *Jaccard similarity index* revealed significant similarity in tag selection across resource types, with coefficients of 0.33, 0.38, and 0.36 for books & monographs, serials, and theses & dissertations respectively. While AI showed competence in identifying standard fields, it displayed occasional geographical bias. Human experts considered situational needs and displayed a profound understanding of compliance rules. However, AI's suggestions for additional fields highlighted its grasp of cataloging principles. In conclusion, ChatGPT presented a robust foundation for default cataloging frameworks. The study posits that AI, in collaboration with human expertise, can enhance cataloging practices. Moreover, AI's suggestions to include additional fields should be considered for future improvements.

Keywords: Cataloging frameworks, Library cataloging, MARC21, AI, ChatGPT

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Introduction

This research examines the correspondence between AI-crafted and human expert-designed default cataloging frameworks in library cataloging, a fundamental aspect of librarianship (Bowman, 2002). Default cataloging frameworks are specified sets of MARC21 tags or metadata entry fields ensuring consistency in cataloging practices throughout library systems (Biswas, 2020).

The National Library of Sri Lanka (NLSL) spearheaded the creation of these frameworks for diverse library material formats in November 2019, aiming to establish a standard guideline for metadata entry. The NLSL's Bibliographic Control Division (BCD) assembled a committee of subject experts who, by December 2022, had developed frameworks for books & monographs, serials, and theses & dissertations. Only the monograph framework (Gamage et al., 2020) is so far available to the public. This special committee is named the Descriptive Bibliographic Framework (DBIB) Committee. It includes the relevant staff from the NLSL and outside experts¹. The authors of this paper are also members of this expert panel.

Delphi method was employed for framework creation, incorporating a validation verification step involving practitioners outside the committee. The goal was to design straightforward frameworks applicable to all library types and adhering to widely used cataloging standards and Resource Description and Access (RDA) rules as far as possible.

With the advent of ChatGPT in November 2022, AI is being explored in numerous practical contexts, including AI-expert collaboration in clinical decision-making. As the construction of DBIB frameworks for Ola Leaf Manuscripts, audio-visual materials, etc., is still ongoing, the findings of this study will be useful for future DBIB Committee endeavors.

Objectives

The primary objective of this study was to analyze and compare the similarities between AI-generated and human-generated frameworks in terms of appropriate MARC21 tag selection, specifically tailored for different resource formats.

¹ See Gamage et al. (2020) for details.

Methods

In this study, the authors utilized both ChatGPT Model 3.5 and 4 (version 2023.05.12) to propose default cataloging frameworks. Both models yielded encouraging results, yet GPT-4 delivered a more structured and comprehensive output. As a result, the conversation was continued on the GPT-4 platform, and to produce tabulated frameworks for books and monographs (B), serial publications (S), and theses and dissertations (T). Following this, ChatGPT was tasked with suggesting enhancements for RDA compliance in these frameworks. A comparison was made between the AI-constructed and human-constructed frameworks to identify the degree of similarity, considering only the main MARC21 fields and disregarding subfields to facilitate a simplified analysis.

In this study, researchers utilized the deviation from average number of tags to see overall deviation of the two methods. The Jaccard index, also known as the Jaccard Similarity Coefficient (JSC), was used to quantify the similarity between AI and human-created frameworks. The index, calculated as the size of the intersection of the two sample sets divided by the size of their union ($J(A, B) = |A \cap B| / |A \cup B|$), provides a value between 0 and 1, with a value closer to 1 denoting a higher similarity.

Although these techniques are useful, they have limitations; the deviation only considers the tag count and the JSC takes into account only the tag numbers, neither considering the relevance of tags. As a result, a qualitative analysis of the importance of selected and non-selected tags was performed.

Results

Table 1 shows the total number of tags selected in each case, with averages for comparison.

Table 1: Total number of selected MARC 21 tags for different formats by humans and AI, with the average number of tags selected and the deviation from the average.

Total number of tags	AI	DBIB	Average	Deviation
Books	17	31	24.0	7
Serial	19	22	20.5	1.5
Theses and dissertations	15	20	17.5	2.5

Table 2 shows the similarity of AI selected and human selected MARC21 tags for the three DBIB frameworks.

Table 2. Jaccard Similarity Coefficient of AI selected and human selected MARC21 tags for different types of materials

Type of Material	Jaccard Similarity Coefficient
Books	0.33
Serials	0.38
Theses and Dissertations	0.36

Discussion and Conclusion

Table 1 offers a comparative look at the total tags used across different frameworks for each resource type. A higher deviation is evident in the books & monographs framework, while lower deviations, 1.5 and 2.5, are found in the serials and theses & dissertations frameworks respectively. These findings emphasize the variability in tag selection across different frameworks, illuminating the need for diverse approaches when designing default frameworks.

JSC calculations yielded interesting results, as summarized in Table 2. All three formats demonstrated a similarity of over a third, pointing to a significant concurrence between AI and human-generated frameworks in selecting tags for different resource categories. The AI framework's alignment with the human-selected ones underscores its reliability and efficacy in this regard. Furthermore, AI suggested several additional fields for each category, including 336-338 (content, media, and carrier types), 700-710 (relator terms), and 264 (imprint and copyright notice) tags, in response to the request for RDA compliance.

While the AI successfully identified the commonly used fields in library catalogs, it occasionally exhibited geographical bias, such as the selection of tag 050. The human experts, on the other hand, considered more contextual requirements. For instance, they opted for the Main Entry Uniform Title – 130 over the Added Entry Uniform Title – 830. The AI successfully proposed RDA fields suggesting its comprehension over the new cataloging standard.

In conclusion, ChatGPT effectively lays a robust foundation for the construction of default cataloging frameworks, proposing tags in a reasonable manner. Its additional suggestions also provide valuable insight into future framework revisions.

Acknowledgment

The DBIB framework committee includes specialized staff from the NLSL and is advised by the Senior Administration of the NLSL. It also comprises researchers and practitioners engaged in cataloging and automating catalogues. The authors recognize their contribution to building the default cataloging frameworks recommended by the NLSL.

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A Bibliometric Study of Post-graduate Theses Collection at the National Library of Sri Lanka

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ABSTRACT

Having an effective and efficient information management system is very helpful for the development of a country. The national library can be called the center of the information system of a country. The National Library of Sri Lanka is primarily a research and reference library. Several important collections have been established in the National Library for the information needs of readers from all over the country. Among them, the collection of postgraduate theses, which was started in the year 1999, has a special place because local and foreign readers use this collection to complete their educational and research information needs. To provide more effective and efficient service to the users, it is essential to examine the adequacy of the collection of postgraduate theses. The purpose of this study is to identify the bibliometric characteristics of undergraduate theses contained in the collection of postgraduate theses. The bibliometric methodology was used for this study. For this research, only quantitative data were collected and analyzed using 680 postgraduate theses obtained by the National Library during the years 1999 to December 2022 including degree theses submitted to local and foreign universities. Also, it is important to consider where the theses have been submitted and the thesis language of composition and year of publication of the thesis. According to the data analysis, the number of two-year post-graduate theses in the collection is 391 (57.5%) and 288 (42.4%) doctoral theses. There are 516 theses submitted to local universities and 164 theses submitted to foreign universities among the existing graduate theses in the postgraduate theses collection. The local university with the highest number of theses submitted is the University of Colombo with 166 (32.8%) and out of foreign universities that have presented the highest number of theses are the University of London and the University of Reading with eight (4.8%) each.

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The collection contains the highest number of theses, 218 (32%) related to the field of technology. 558 theses (82%) are written in English medium. According to the statistical data reports of the University Grants Commission, it is concluded that there is a minimum level of receiving theses to the national library compared to the number of students who left with the post-graduate qualification from local universities in a year. This paper suggest that it is appropriate to develop a system to increase the number of theses in the collection, and to include the abstracts of the postgraduate theses in the national library digital repository, to set up an access path to the post-graduate collection through the National Union Catalogue. This will also set up a search path to the digital repository of local universities through the National Library of Sri Lanka.

Keywords: National library of Sri Lanka, Postgraduate theses, Bibliometric analysis, Information sources, Local & Foreign Universities

ශ්‍රී ලංකා ජාතික පුස්තකාල එකතුවෙහි අන්තර්ගත පශ්චාත් උපාධි නිබන්ධන පිළිබඳ ග්‍රන්ථමිටික අධ්‍යයනය

හැඳින්වීම

යුනෙස්කෝ නිර්වචනයට අනුව ජාතික පුස්තකාලයක් යනු, "යම් පුස්තකාලයක් නිත්‍යානුකූලව හෝ වෙනත් ආකාරයකින් තැන්පතු පුස්තකාලයක් බවට පත් වී යම් දේශයක් තුළ පළ කරනු ලබන වැදගත් ප්‍රකාශන සියල්ලක් ම අත්පත් කරගෙන සංරක්ෂණය කිරීමේ වගකීම දරන පුස්තකාල, ජාතික පුස්තකාල ගණයට අයත් වේ (සිල්වා, 2015). 1970 අංක 17 දරන පනතින් පිහිටුවන ලද ලංකා ජාතික පුස්තකාල සේවා මණ්ඩලය යටතේ 1990 අප්‍රේල් මස 27 දින ආරම්භ කරන ලද ශ්‍රී ලංකා ජාතික පුස්තකාලය ප්‍රධාන වශයෙන්ම පර්යේෂණ හා විමර්ශන පුස්තකාලයකි. ඊට තුළ ප්‍රකාශයට පත්වන විද්‍යාත්මක, සන්නිවේදන ප්‍රකාශනවල පිටපත් ලබා ගැනීමේ වගකීම හා තැන්පතු පුස්තකාලය ලෙස කටයුතු කිරීමේ වගකීම පැවරෙන්නේ ද ජාතික පුස්තකාලයටය. දැනුවත් සමාජයක් බිහිකිරීම උදෙසා ජාතියේ බුද්ධිමය උරුමය සුරැකීම, ජාතික පුස්තකාල හා විද්‍යාපන සේවා පද්ධතිය සංවර්ධනය, පුස්තකාල සේවා කාර්යක්ෂමතාව පිණිස තොරතුරු සහ සන්නිවේදන තාක්ෂණය භාවිතයට දිරිදීම, ග්‍රන්ථ විද්‍යාපන පහසුකම් සැපයීම සහ ග්‍රන්ථ ප්‍රකාශනය සඳහා අනුග්‍රහ දැක්වීම ශ්‍රී ලංකා ජාතික පුස්තකාලයේ මුඛ්‍ය වගකීම වේ.

ගුණසේන මහා සිංහල ශබ්දකෝෂයට අනුව නිබන්ධ යනු, “බැඳී පවත්නා බව, සාහිත්‍ය කෘති, පර්යේෂණ කෘති යනාදියයි. ශාස්ත්‍රපති, විද්‍යාපති, දර්ශනපති, දර්ශන ශූරී ආදී උපාධි අවශ්‍යතා මත ඉදිරිපත් කළ යුතු නිබන්ධන පශ්චාත් උපාධි නිබන්ධන ලෙස හැඳින්විය හැකිය (විජේතුංග, 2005). පශ්චාත් උපාධි අධ්‍යාපන සුදුසුකම් ලබා ගැනීම සඳහා එම උපාධි පාඨමාලාව සම්පූර්ණ කිරීමට නම් විද්‍යාර්ථීන් තමන් විසින් සකස් කරන ලද නිබන්ධනයක් තම විශ්වවිද්‍යාලය වෙත භාර දීම එක් අධ්‍යයන අවශ්‍යතාවයකි. විවිධ වූ පර්යේෂණ කාර්යයන්හි නියැලෙන පර්යේෂකයින්ට පශ්චාත් උපාධි නිබන්ධන පරිශීලනය කිරීමෙන් ඕනෑම විෂය ක්ෂේත්‍රයක් නව දැනුම්, න්‍යායන් හා භාවිතයන් පිළිබඳ අවබෝධයක් ලබා ගැනීමට හැකියාව ලැබේ. ශ්‍රී ලාංකික විද්‍යාර්ථීන් විසින් සිය පශ්චාත් උපාධි අධ්‍යයන අවශ්‍යතා සඳහා ශ්‍රී ලංකාවේ විශ්වවිද්‍යාල සහ විදේශීය විශ්වවිද්‍යාල වෙත ඉදිරිපත් කරන ලද නිබන්ධනයන්ගෙන් සමන්විත උපාධි නිබන්ධන එකතුවක් ශ්‍රී ලංකා ජාතික පුස්තකාලයේ “පශ්චාත් උපාධි නිබන්ධන එකතුව” නමින් ස්ථාපිත කර ඇත. මෙය ශ්‍රී ලංකාවේ පශ්චාත් උපාධි නිබන්ධන පිළිබඳ තොරතුරු සොයනු ලබන පර්යේෂකයින්ට, විද්වතුන්ට, විද්‍යාර්ථීන්ට මෙන්ම අනෙකුත් පරිශීලකයින්ට ද වැදගත් තොරතුරු මූලාශ්‍රයකි. ශ්‍රී ලාංකික විද්‍යාර්ථීන් විසින් ඉදිරිපත් කරනු ලබන නව දැනුම අඩංගු මෙම උපාධි නිබන්ධන ජාතියේ බුද්ධිමය උරුමයට අදාළ ලේඛනයන් ලෙස ද හැඳින්විය හැකි ය. ජාතික පුස්තකාලයක ප්‍රධාන වගකීම් අතර ජාතියේ බුද්ධිමය උරුමයට අදාළ මුද්‍රිත ලේඛන හා විද්‍යුත් ලේඛන එක් රැස් කිරීම, ඒවායේ ග්‍රන්ථ විඥාපන පාලනය හා පාඨක සේවා සැපයීම මෙන්ම ජාතික උරුමය අනාගත පරපුර සඳහා ආරක්ෂා කර ගැනීම මුඛ්‍ය කාර්යය වේ. එකී අරමුණු ඉටු කිරීම සඳහා 1999 වර්ෂයේ සිට වර්තමානය දක්වා ශ්‍රී ලංකා ජාතික පුස්තකාලය මගින් පශ්චාත් උපාධි නිබන්ධන එකතුව පවත්වා ගෙන යනු ලබයි. ශ්‍රී ලංකා ජාතික පුස්තකාලය වෙත පශ්චාත් උපාධි නිබන්ධන අත්පත් කර ගැනීම පරිත්‍යාග සහ මිල දී ගැනීම් යටතේ සිදුවේ.

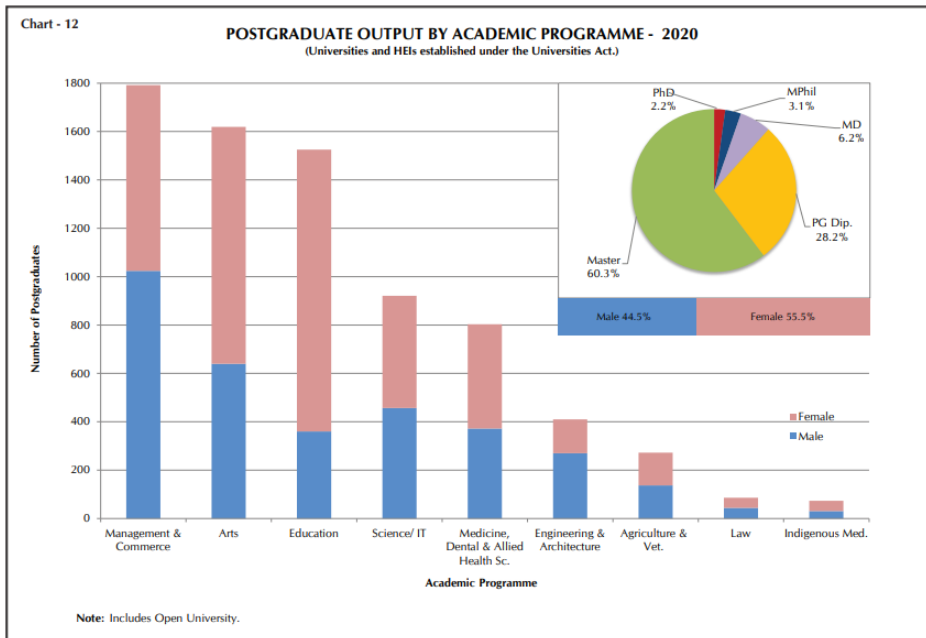
අධ්‍යයනයේ අරමුණු

ශ්‍රී ලංකා ජාතික පුස්තකාලයේ පශ්චාත් උපාධි නිබන්ධන එකතුවෙහි අන්තර්ගත පශ්චාත් උපාධි නිබන්ධනයන්හි ග්‍රන්ථමිතික ලක්ෂණ හඳුනා ගැනීම මෙම අධ්‍යයනයේ මූලික අරමුණ වේ.

පර්යේෂණ ගැටලුව

ජාතියේ බුද්ධිමය උරුම සුරැකීම තුළින් දැනුවත් සමාජයක් නිර්මාණය කිරීම ශ්‍රී ලංකා ජාතික පුස්තකාලයේ එක් අරමුණක් වේ. පර්යේෂකයින්ට සහ විමර්ශකයින්ට වැදගත් වන විවිධ එකතු රාශියක් ශ්‍රී ලංකා ජාතික පුස්තකාලයේ ස්ථාපිත කර ඇත. ඒ අතරින් පශ්චාත් උපාධි නිබන්ධන එකතුව සඳහා හිමිවන්නේ සුවිශේෂී ස්ථානයකි. දේශීය හා විදේශීය පාඨකයින් තම අධ්‍යාපනික හා පර්යේෂණ තොරතුරු අවශ්‍යතාවන් සම්පූර්ණ කර ගැනීම සඳහා පශ්චාත් උපාධි නිබන්ධන එකතුව පරිශීලනය කරනු

ලබයි. වඩාත් ඵලදායී හා කාර්යක්ෂම විමර්ශන සේවාවක් පරිශීලකයින්ට ලබා දීම සඳහා ශ්‍රී ලංකා ජාතික පුස්තකාලයේ අන්තර්ගත පශ්චාත් උපාධි නිබන්ධන එකතුවේ ඇති ප්‍රමාණාත්මක බව විමසා බැලීම අත්‍යාවශ්‍ය කරුණකි. විශ්වවිද්‍යාල ප්‍රතිපාදන කොමිෂන් සභාවේ සංඛ්‍යා දත්ත වාර්තා සලකා බැලීමේ දී 2020 වර්ෂයේ දී දේශීය විශ්වවිද්‍යාලවලින් පශ්චාත් උපාධි සුදුසුකම ලැබූ විද්‍යාර්ථීන් සංඛ්‍යාව 7501කි. (U. G. C. of SL, 2020) මෙම සංඛ්‍යා දත්ත වාර්තා පිළිබඳ සලකා බැලීමේ දී පෙනී යන කරුණක් වන්නේ පශ්චාත් උපාධිය සම්පූර්ණ කළ ද විද්‍යාර්ථීන් එයට අදාළව ඉදිරිපත් කරන ලද පශ්චාත් උපාධි නිබන්ධනය ජාතික පුස්තකාලය වෙත ලබා දී තිබේ ද යන්න විමසා බැලිය යුතු කරුණක් බවය. මෙම අධ්‍යයනයේ ගැටලුව වන්නේ 1999 වර්ෂයේ සිට 2022 වර්ෂයේ දෙසැම්බර් මාසය දක්වා ශ්‍රී ලංකා ජාතික පුස්තකාලය වෙත අත්පත් කරගෙන ඇති පශ්චාත් උපාධි නිබන්ධන ප්‍රමාණය, එම නිබන්ධන ඉදිරිපත් කර ඇති දේශීය හා විදේශීය විශ්වවිද්‍යාල කවරේද, නිබන්ධන රචනා කර ඇති භාෂා මාධ්‍යය සහ නිබන්ධන ප්‍රකාශිත වර්ෂයන් පිළිබඳ හඳුනා ගැනීමයි.



රූප සටහන 01 : 2020 වර්ෂයේ දේශීය විශ්වවිද්‍යාලවලින් පශ්චාත් උපාධි සුදුසුකම් ලැබූ විද්‍යාර්ථීන් සංඛ්‍යාව

Table 1 : Total Postgraduate Output - 2020

Faculty/Academic Programme	Female	Total
Arts	979	1,619
Education	1,165	1,525
Management & Commerce	768	1,792
Law	42	86
Medicine, Dental & Allied Health Sc.	431	803
Vet. Science	5	5
Agriculture	130	267
Engineering	109	353
Architecture	31	57
Science/IT	464	921
Indigenous Medicine	42	73
Total	4,166	7,501

මූලාශ්‍රය: https://www.ugc.ac.lk/downloads/statistics/stat_2020/Chapter%204.pdf

අධ්‍යයන ක්‍රමවේදය

මෙම අධ්‍යයනය සඳහා ග්‍රන්ථමිථික අධ්‍යයන ක්‍රමවේදය භාවිත කරන ලදී. කිසියම් විෂයක ප්‍රකාශන රටාව පිළිබඳ සියලුම තොරතුරු විමසා බැලීම ග්‍රන්ථමිථික අධ්‍යයනයේ ලක්ෂණ වේ. පුස්තකාලයක ග්‍රන්ථ හා සේවාවන්වල තත්වය පිළිබඳ සියලුම ආකාරයේ දැනුම ලබා ගැනීමේ දී ග්‍රන්ථමිථික ක්‍රමය ප්‍රයෝජනවත් වේ. විශේෂ විෂයක් සම්බන්ධ සාහිත්‍ය ක්ෂේත්‍රයක ප්‍රකාශනවල ස්වාභාවය, කර්තෘත්වය, මාතෘකා, ප්‍රකාශක, ප්‍රකාශන ස්ථානය පිළිබඳ තොරතුරු විමසා බැලීම ග්‍රන්ථමිථික ක්‍රමය මගින් සිදුවේ. මෙම පර්යේෂණය සඳහා එකතුවෙහි අන්තර්ගත උපාධි නිබන්ධන 680ක ප්‍රමාණය උපයෝගී කර ගනිමින් පශ්චාත් උපාධි නිබන්ධනයන් ඉදිරිපත් කර ඇත්තේ කිනම් පශ්චාත් උපාධි අධ්‍යයන අවශ්‍යතාව සඳහා ද, එම නිබන්ධන ඉදිරිපත් කර ඇති දේශීය හා විදේශීය විශ්වවිද්‍යාල කවරේද, නිබන්ධනය රචනා කර ඇති භාෂාව සහ නිබන්ධනය ප්‍රකාශිත වර්ෂය යන කරුණු යටතේ ප්‍රමාණාත්මක දත්ත පමණක් එක්රැස් කර විශ්ලේෂණය කර ඇත. ද්විතියික දත්ත ඇසුරින් කරනු ලබන මෙම අධ්‍යයනය සඳහා සුදුසුම පර්යේෂණ ක්‍රමවේදය ග්‍රන්ථමිථික අධ්‍යයන ක්‍රමවේදය වන බැවින් එම ක්‍රමවේදය මේ සඳහා භාවිත කරන ලදී.

දත්ත විශ්ලේෂණය

ශ්‍රී ලංකා ජාතික පුස්තකාලය වෙත 1999 වර්ෂයේ සිට 2022 වර්ෂයේ දෙසැම්බර් 31 දක්වා අත්පත් කර ගෙන ඇති සම්පූර්ණ පශ්චාත් උපාධි නිබන්ධන සංඛ්‍යාව 680ක් බව නිරීක්ෂණය විය. මෙහිදී පශ්චාත් උපාධි නිබන්ධන එකතුවෙහි අන්තර්ගත පශ්චාත් උපාධි නිබන්ධන ඉදිරිපත් කර ඇත්තේ කිනම් උපාධි අධ්‍යයන අවශ්‍යතාව සඳහා ද, එම නිබන්ධන ඉදිරිපත් කර ඇති දේශීය හා විදේශීය විශ්වවිද්‍යාල කවරේද, නිබන්ධනය රචනා කර ඇති භාෂාව සහ නිබන්ධනය ප්‍රකාශිත වර්ෂය යන කරුණු යටතේ දත්ත එක්රැස් කර ග්‍රන්ථමිථික අධ්‍යයන ක්‍රමවේදයට අනුව වගු, දත්ත සටහන් Ms-Excel භාවිතයෙන් ප්‍රමාණාත්මක දත්ත විශ්ලේෂණයක් ලෙස සිදු කරන ලදී.

01. පශ්චාත් උපාධි නිබන්ධන ඉදිරිපත් කර ඇති උපාධි අධ්‍යයන අවශ්‍යතාව

එකතුවෙහි අන්තර්ගත පශ්චාත් උපාධි නිබන්ධන 680 අතරින් විද්‍යාර්ථීන් විසින් ඉදිරිපත් කර ඇති දෑ අවුරුදු පශ්චාත් උපාධි නිබන්ධන සංඛ්‍යාව 391කි. එය ප්‍රතිශතයක් 57.5%ක අගයකි. එකතුවට අත්පත් කර ගෙන ඇති මුළු ආචාර්ය උපාධි නිබන්ධන සංඛ්‍යාව 288කි. එය ප්‍රතිශතයක් 42.4%කි. වෙනත් අධ්‍යයන අවශ්‍යතාවයක් සඳහා ඉදිරිපත් කරන ලද එක් නිබන්ධනයක් ද එකතුවෙහි අන්තර්ගත වන අතර එය ප්‍රතිශතයක් 0.1 % කි.

වගු අංක 02 : පශ්චාත් උපාධි නිබන්ධන ඉදිරිපත් කර ඇති උපාධි අධ්‍යයන අවශ්‍යතාව

අනු අංකය	අධ්‍යයන අවශ්‍යතාව	නිබන්ධන සංඛ්‍යාව	ප්‍රතිශතය
01	දෑ අවුරුදු පශ්චාත් උපාධි නිබන්ධන	391	57.5%
02	ආචාර්ය උපාධි නිබන්ධන	288	42.4%
03	වෙනත් නිබන්ධන	01	0.1%
	එකතුව	680	100%

මූලාශ්‍රය : සමීක්ෂණ දත්ත

02. පශ්චාත් උපාධි නිබන්ධන අතරින් වැඩිම ප්‍රමාණයක් හිමි දේශීය විශ්වවිද්‍යාලය

පශ්චාත් උපාධි නිබන්ධන එකතුවෙහි අන්තර්ගත උපාධි නිබන්ධන අතරින් විද්‍යාර්ථීන් විසින් දේශීය විශ්වවිද්‍යාල වෙත ඉදිරිපත් කර ඇති උපාධි නිබන්ධන සංඛ්‍යාව 516කි. ඉන් වැඩිම පශ්චාත් උපාධි නිබන්ධන ප්‍රමාණයක් හිමි දේශීය විශ්වවිද්‍යාලය කොළඹ විශ්වවිද්‍යාලය බව දත්ත විශ්ලේෂණයේ දී ගම්‍ය විය. එය ගණනින් 166ක් සහ ප්‍රතිශතයෙන් 32.1% ක අගයකි. ප්‍රමාණාත්මකව නිබන්ධන 111ක් සහ ප්‍රතිශතයෙන් 21.5%ක අගයක් සහිතව දෙවනුවට වැඩිම පශ්චාත් උපාධි නිබන්ධන ප්‍රමාණයක් හිමි විශ්වවිද්‍යාලය වනුයේ පේරාදෙණිය විශ්වවිද්‍යාලයයි. පශ්චාත් උපාධි නිබන්ධන 106 ක් හා ප්‍රතිශතයෙන් 20.5%ක අගයක් සහිත වන්නේ විවෘත විශ්වවිද්‍යාලයයි.

වගු අංක 03 : පශ්චාත් උපාධි නිබන්ධන ඉදිරිපත් කිරීම - විශ්වවිද්‍යාලය මට්ටමින්

අනු අංක	විශ්වවිද්‍යාලයේ නම	නිබන්ධන ගණන	ප්‍රතිශතය
01	කොළඹ විශ්වවිද්‍යාලය	166	32.1%
02	පේරාදෙණිය විශ්වවිද්‍යාලය	111	21.5%
03	විවෘත විශ්වවිද්‍යාලය	106	20.5%
04	කැලණිය විශ්වවිද්‍යාලය	68	13.2%
05	ශ්‍රී ජයවර්ධනපුර විශ්වවිද්‍යාලය	30	5.8%
06	රුහුණු විශ්වවිද්‍යාලය	11	2.1%
07	යාපනය විශ්වවිද්‍යාලය	06	1.2%
08	සබරගමුව විශ්වවිද්‍යාලය	03	0.6%
09	මොරටුව විශ්වවිද්‍යාලය	02	0.4%
10	වයඹ විශ්වවිද්‍යාලය	01	0.3%
11	වෙනත් විශ්වවිද්‍යාල සහ ආයතන	12	2.3%
	මුළු එකතුව	516	100%

මූලාශ්‍රය : සමීක්ෂණ දත්ත

03. විදේශීය විශ්වවිද්‍යාල වෙත ඉදිරිපත් කර ඇති පශ්චාත් උපාධි නිබන්ධන

පශ්චාත් උපාධි නිබන්ධන එකතුවෙහි ඇති සම්පූර්ණ නිබන්ධන සංඛ්‍යාව අතරින් පශ්චාත් උපාධි නිබන්ධන 164ක් මෙරට විද්‍යාර්ථීන් විසින් පශ්චාත් අධ්‍යයන සුදුසුකම ලබා ගැනීම සඳහා විදේශීය විශ්වවිද්‍යාල වෙත ඉදිරිපත් කරන ලද නිබන්ධන වේ. එම නිබන්ධන අතරින් පශ්චාත් උපාධි නිබන්ධන 08 බැගින් හා ප්‍රතිශතාත්මකව 4.8ක අගයකින් යුතුව වැඩිම පශ්චාත් උපාධි නිබන්ධන ප්‍රමාණයක් ඉදිරිපත් කර ඇති විදේශීය විශ්වවිද්‍යාල වන්නේ University of London සහ University of Reading ය. University of Philippines, University of Aberdeen සහ University of Wales යන විශ්වවිද්‍යාල සඳහා සමානව පශ්චාත් උපාධි නිබන්ධන 06 බැගින් ඉදිරිපත් කර ඇති අතර එය ප්‍රතිශතාත්මකව 3.7%ක අගයකි.

වගු අංක 04 : විදේශීය විශ්වවිද්‍යාල වෙත ඉදිරිපත් කර ඇති පශ්චාත් උපාධි නිබන්ධන

අනු අංක	විදේශීය විශ්වවිද්‍යාලයේ නම	නිබන්ධන ගණන	ප්‍රතිශතය
01	University of London	8	4.8%
02	University of Philippines	6	3.7%
03	University of Reading	8	4.8%
04	University of Aberdeen	6	3.7%
05	University of Wales	6	3.7%
06	University of Wollongong	4	2.4%
07	Loughborough University of Tec.	7	4.3%
08	වෙනත් විදේශීය විශ්වවිද්‍යාල හා ආයතන	119	72.6%
	මුළු විදේශීය විශ්වවිද්‍යාල ගණන	164	100%

මූලාශ්‍රය : සමීක්ෂණ දත්ත

04. පශ්චාත් උපාධි නිබන්ධන අතරින් වැඩිම නිබන්ධන ප්‍රමාණයක් රචනාවී ඇති විෂය ක්ෂේත්‍රය

ප්‍රකාශිත විෂයන් අනුව පශ්චාත් උපාධි නිබන්ධන එකතුවෙහි දත්ත විශ්ලේෂණය කිරීම සඳහා නිර්ණායකයක් වශයෙන් ඩීවී දශම වර්ගීකරණයෙහි පළමු සාරාංශය හෙවත් ප්‍රධාන වර්ග පංති දහය යොදා ගන්නා ලදී. එහිදී එකතුවෙහි අන්තර්ගත පශ්චාත් උපාධි නිබන්ධනයන් රචනා කර ඇති ප්‍රධාන විෂය හඳුනාගෙන එම විෂය ඩීවී දශම වර්ගීකරණයෙහි විෂය බෙදීම අනුව වර්ග කිරීම සිදු කරන ලදී. සමීක්ෂණ දත්ත අනුව වැඩිම පශ්චාත් උපාධි නිබන්ධන ප්‍රමාණයක් රචනා වී ඇති විෂය, තාක්ෂණ විද්‍යා විෂය බව නිරීක්ෂණය විය. තාක්ෂණ විද්‍යාව විෂය ක්ෂේත්‍රයට අදාළව උපාධි නිබන්ධන 218ක් රචනා වී ඇති අතර එය ප්‍රතිශතාත්මකව 32%කි. දෙවනුව ට වැඩිම නිබන්ධන ප්‍රමාණයක් රචනා කර ඇති විෂය ක්ෂේත්‍රය වන්නේ සමාජ ශාස්ත්‍රයයි. එය නිබන්ධන ගණනින් 211ක් සහ ප්‍රතිශතාත්මකව 31%ක අගයකින් යුක්තය. ස්වාභාවික විද්‍යාව සහ ගණිතය යන විෂය ක්ෂේත්‍රයට අදාළ පශ්චාත් උපාධි නිබන්ධන 109 ක් රචනා වී ඇති අතර එය ප්‍රතිශතාත්මකව 16.1%ක අගයකි.

වගු අංක 05 : පශ්චාත් උපාධි නිබන්ධන රචනා කර ඇති විෂය ක්ෂේත්‍ර

DDC ප්‍රධාන වර්ග පන්තිය අනුව විෂය බෙදීම	අනු විෂයන් යටතේ නිබන්ධන ප්‍රමාණය	මුළු ගණන	ප්‍රතිශතය
000 පරිගණක විද්‍යාව, තොරතුරු සහ සාමාන්‍ය කෘති	සන්නිවේ. - 03, පරිගණක වි. - 09, තො.තා.- 04, පුස්තකාල වි. - 66	82	12%
100 දර්ශනය හා මනෝවිද්‍යාව	මනෝ වි. - 02	2	0.3%
200 ආගම	බයිබලය- 01, බුද්ධාගම - 21, ශුභාරංචිය - 01	23	3.3%
300 සමාජ ශාස්ත්‍ර	ජීව වි. - 18, පරිසර වි. - 15, ආර්ථිකය හා දේශ. - 26, අධ්‍යාපනය - 91, මුදල් -04, මත්ස්‍ය කර්. - 06, මානව හිමිකම්- 02, ජාත්‍ය. සබ. - 02, ඉඩම් - 01, නීතිය - 02, ජනමාධ්‍ය- 01, පොලීසිය 01, රාජ්‍ය පරි. - 03, නැව්ගත කිරීම- 02, සමාජ වි. - 35	211	31%
400 භාෂාව	සිංහල භාෂාව-16, දෙමළ භාෂාව- 02	18	3%

500	ස්වාභාවික විද්‍යාව සහ ගණිතය	උද්භිද වි. - 26, රසායන වි. - 29, ජීව රසායන වි. - 07, භූ වි. - 08, ප්‍රතිශක්ති වි. - 02, භෞතික වි. - 20, ද. ආසියාකාලගු. - 01, සත්ව වි. - 16	109	16%
600	තාක්ෂණ විද්‍යාව	කෘෂිකර්මය - 103, මානව වි. -01, සිවිල් ඉංජි. 01, රෝග 19, විදුලිය 02, ඉංජි. 06, විලාසිතානිර්.- 01, ජලවි.- 01, වාරිමාර්.- 03, රැකියා පිළිබඳ තෘප්.- 06, කළමනා රණ.- 03, ගණිතය.- 05, සාගර සම්පත්.- 01, වෛද්‍ය වි.- 25, ආයුර්. ඖෂධ.- 08, වාහන.-01, පස.-14, තාක්ෂණය.- 15, රෙදිපිළි වර්ග .-01	218	32%
700	කලා ශිල්ප. සෞන්දර්ය හා සැරසිලි කලාව	කලා - 02, ජයාරූපකරණය - 06, ක්‍රීඩා -01	9	1.3%
800	සාහිත්‍ය හා විචාරය	ඉංග්‍රීසි 02, පාලි සාහිත්‍ය - 01	3	0.4%
900	ඉතිහාසය හා භූගෝල විද්‍යාව	භූගෝල වි. 05	5	0.7%
			680	100%

මූලාශ්‍රය : සමීක්ෂණ දත්ත

05. ප්‍රකාශිත භාෂාව අනුව පශ්චාත් උපාධි නිබන්ධන එකතුව විශ්ලේෂණය

පශ්චාත් උපාධි නිබන්ධන එකතුවෙහි අන්තර්ගත උපාධි නිබන්ධන අතරින් වැඩිම පශ්චාත් උපාධි නිබන්ධන ප්‍රමාණයක් ඉංග්‍රීසි භාෂාවෙන් රචනා කර ඇති අතර එය ගණනින් 558ක් සහ ප්‍රතිශතයෙන් 82%කි. ගණනින් 118ක් වන සහ ප්‍රතිශතයෙන් 17.4%ක් වන දෙවනුව ට වැඩිම උපාධි නිබන්ධන ප්‍රමාණයක් රචනා කර ඇති භාෂාව වන්නේ සිංහල භාෂාවයි. දෙමළ භාෂාවෙන් පශ්චාත් උපාධි නිබන්ධන 04 ක් රචනා වී ඇති අතර එය ප්‍රතිශතයෙන් 0.6%කි.

වගු අංක 06 : ප්‍රකාශිත භාෂාව අනුව පශ්චාත් උපාධි නිබන්ධන එකතුව විශ්ලේෂණය

අනු අංකය	ප්‍රකාශිත භාෂාව	නිබන්ධන ගණන	ප්‍රතිශතය
01	ඉංග්‍රීසි	558	82%
02	සිංහල	118	17.4%
03	දෙමළ	04	0.6%
	එකතුව	680	100%

මූලාශ්‍රය : සමීක්ෂණ දත්ත

06. ප්‍රකාශිත වර්ෂය අනුව පශ්චාත් උපාධි නිබන්ධන එකතුව විශ්ලේෂණය

පශ්චාත් උපාධි නිබන්ධන අතරින් වැඩිම උපාධි නිබන්ධන ප්‍රමාණයක් ප්‍රකාශයට පත් කර ඇත්තේ 1991-2000 යන වර්ෂ පරාසය තුළ දී ය. එය ගණනින් 239ක් වන අතර ප්‍රතිශතයක් 35%කි. එකතුවෙහි අන්තර්ගත නිබන්ධන අතරින් දෙවනුවට වැඩිම පශ්චාත් උපාධි නිබන්ධන ප්‍රමාණයක් ප්‍රකාශයට පත් කර ඇති වර්ෂ පරාසය වන්නේ 2001-2010 කාලය වන අතර එය ගණනින් 222ක් වන අතර ප්‍රතිශතයක් 33% කි. 2011-2020 වර්ෂ පරාසය තුළ පශ්චාත් උපාධි නිබන්ධන 123 ක ප්‍රකාශයට පත් කර ඇති අතර එය ප්‍රතිශතයක් 18%කි. වර්ෂය සඳහන් නොකරන ලද උපාධි නිබන්ධන 20ක් එකතුවෙහි අන්තර්ගත අතර එය ප්‍රතිශතයක් 3%ක අගයකි.

වගු අංක 07 : ප්‍රකාශිත වර්ෂය අනුව පශ්චාත් උපාධි නිබන්ධන එකතුව විශ්ලේෂණය

අනු අංකය	වර්ෂ පරාසය	නිබන්ධන ගණන	ප්‍රතිශතය
01	1950 - 1960	01	0.1%
02	1961 - 1970	00	0%
03	1971-1980	06	0.9%
04	1981-1990	62	9%
05	1991-2000	239	35%
06	2001-2010	222	33%
07	2011-2020	123	18%
08	2021-2030	07	1%
09	වර්ෂය සඳහන් නොවූ	20	3%
		680	100%

මූලාශ්‍රය : සමීක්ෂණ දත්ත

නිගමන

2022.12.31 දිනට මෙම පශ්චාත් උපාධි නිබන්ධන එකතුවෙහි ඇති උපාධි නිබන්ධන 680ක් මෙම අධ්‍යයනයේදී විමර්ශනය කරන ලදී. මෙම එකතුවෙහි අන්තර්ගත උපාධි නිබන්ධන වැඩිම ප්‍රමාණයක් විද්‍යාර්ථීන් විසින් පශ්චාත් උපාධි අධ්‍යාපන සුදුසුකම සපුරා ගැනීම සඳහා දේශීය විශ්වවිද්‍යාල වෙත ඉදිරිපත් කරන ලද උපාධි නිබන්ධන වේ. සියලු නිබන්ධන ගණන සැලකිල්ලට ගැනීමේ දී එම නිබන්ධන ගණන ශ්‍රී ලංකාවේ රාජ්‍ය හා පෞද්ගලික විශ්වවිද්‍යාලයන් මගින් වර්ෂයකට පශ්චාත් උපාධි සුදුසුකම් ලබන විද්‍යාර්ථීන්ගේ ප්‍රමාණය හා සසඳන කල සාපේක්ෂව ඉතා අඩු සංඛ්‍යාවකි. විශ්වවිද්‍යාල ප්‍රතිපාදන කොමිෂන් සභාවේ සංඛ්‍යා දත්ත වාර්තාවලට අනුව 2020 වර්ෂයේදී දේශීය විශ්වවිද්‍යාලවලින් පශ්චාත් උපාධි අධ්‍යාපන සුදුසුකම ලබා පිටවූ විද්‍යාර්ථීන් සංඛ්‍යාව 7501 කි. ශ්‍රී ලංකා ජාතික පුස්තකාලය වෙත 1999 වර්ෂයේ සිට 2022 වර්ෂයේ දෙසැම්බර් 31 දක්වා අත්පත් කර ගෙන ඇති මුළු පශ්චාත් උපාධි නිබන්ධන සංඛ්‍යාව 680කි. ආසන්න වශයෙන් 2020 වර්ෂයට අදාළව පශ්චාත් උපාධි නිබන්ධන 3750 (50%) ක ප්‍රමාණයක් එකතුව වෙත අත්පත් කරගත යුතු වුව ද 2011-2020 වර්ෂ පරාසයටම අදාළව අත්පත් කර ගෙන ඇති උපාධි නිබන්ධන සංඛ්‍යාව 123 කි (වගු අංක: 06). ඒ අනුව බොහෝ විද්‍යාර්ථීන් තම පශ්චාත් උපාධි නිබන්ධනය ජාතික පුස්තකාල එකතුවට ලබා දී නොමැති බව මෙයින් අනාවරණය වේ. ආසන්නතම වර්ෂ දහයක කාල පරාසය තුළ ප්‍රකාශිත, එකතුවට අත්පත් කර ගෙන ඇති පශ්චාත් උපාධි නිබන්ධන ගණන 239 කි. ඒ අනුව පැහැදිලි වනුයේ වර්ෂයක් තුළ ප්‍රකාශිත නිබන්ධන අතරින් සුලු ප්‍රමාණයක් පමණක් ශ්‍රී ලංකා ජාතික පුස්තකාලය සතු වන බවයි.

2019-2020 කාල පරාසය තුළ ඒ ඒ රටවල ආගමන විගමන දෙපාර්තමේන්තු දත්තවලට අනුව ශ්‍රී ලංකීය සිසුන් 800 ක් නවසීලන්තයට ද, සිසුන් 7000 ක් සඳහා ජපානයට ද, සිසුන් 1000ක් සඳහා කැනඩාවට ද , වීසා පහසුකම් ලබා දී ඇත (වීරරත්න,2022). ශ්‍රී ලංකාවේ බොහෝ විද්‍යාර්ථීන් තම පශ්චාත් උපාධිය සම්පූර්ණ කිරීම සඳහා විදේශීය විශ්වවිද්‍යාල තෝරා ගැනීම වර්තමානයේ දී සුලබව දක්නට ලැබේ. එලෙස ශිෂ්‍ය වීසා ලබා විදේස්ගත වන සිසුන් අතරින් 50% ක ප්‍රතිශතයක් හෝ පශ්චාත් උපාධි අධ්‍යාපන අවශ්‍යතාව සඳහා විදේස් ගත වන බව උපකල්පනය කළහොත් විදේශීය විශ්වවිද්‍යාල වෙත ඉදිරිපත් කරනු ලැබූ පශ්චාත් උපාධි නිබන්ධන ශ්‍රී ලංකා ජාතික පුස්තකාල එකතුවට ලබාදීම සාපේක්ෂව අවම මට්ටමක පවතින බව නිරීක්ෂණය විය. 1999 වර්ෂයේ සිට 2022 වර්ෂය දක්වා එකතුවෙහි අන්තර්ගත විදේශීය විශ්වවිද්‍යාල වෙත ඉදිරිපත් කරන ලද මුළු පශ්චාත් උපාධි නිබන්ධන සංඛ්‍යාව 164 කි.

පර්යේෂණ විෂය ක්ෂේත්‍රය තුළ බහුලව භාවිත කරනු ලබන ජාත්‍යන්තර භාෂාව ඉංග්‍රීසි භාෂාව බැවින් එම භාෂාවෙන් රචනා කරන ලද පශ්චාත් උපාධි නිබන්ධන වැඩි ප්‍රමාණයක් ශ්‍රී ලංකා ජාතික පුස්තකාලය සතු වීම මගින් පර්යේෂකයින්ට පරිශීලනය පහසු කරවයි. වෙනත් භාෂාවලින් එනම් සිංහල හා දෙමල භාෂාවෙන් රචනා කරන ලද පශ්චාත් උපාධි නිබන්ධන ශ්‍රී ලංකා ජාතික පුස්තකාල එකතුවට අන්තර්ගත කිරීමේ දී ඒවායෙහි සාරාංශය ඉංග්‍රීසි භාෂාවෙන් ඉදිරිපත් කර තිබීම තුළින් එම උපාධි

නිබන්ධනයන්හි තොරතුරු බෙදා හැරීමටත් ඒවා ඵලදායීව හා කාර්යක්ෂමව පරිශීලනය කිරීමටත් පහසුවක් වේ.

යෝජනා

- ශ්‍රී ලංකා ජාතික පුස්තකාල පශ්චාත් උපාධි නිබන්ධන එකතුවේ අන්තර්ගත සියලු ම පශ්චාත් උපාධි නිබන්ධනයන්හි සාරසංක්ෂේපය (abstract) සංඛ්‍යාංකයකරණ පුස්තකාලය (National Library Digital Repository) වෙත අන්තර්ගත කිරීම.
- රාජ්‍ය සහ පෞද්ගලික විශ්වවිද්‍යාලයන්හි සංඛ්‍යාංකයකරණ පුස්තකාල තුළ අන්තර්ගත කර ඇති එම විශ්වවිද්‍යාලවල විද්‍යාර්ථීන්ගේ පශ්චාත් උපාධි නිබන්ධනයන්හි සාරසංක්ෂේපයන් ජාතික පුස්තකාල වෙබ් අඩවිය හරහා “ජාතික ඒකාබද්ධ සුවිය” තුළින් පිවිසුම් පහසුකම් ලබාදීමට කටයුතු කිරීම.
- රාජ්‍ය සහ පෞද්ගලික විශ්වවිද්‍යාලයන්හි විද්‍යාර්ථීන්ගේ පශ්චාත් උපාධි නිබන්ධනයන් ජාතික පුස්තකාල පශ්චාත් උපාධි නිබන්ධන එකතුවට අත්පත් කර ගැනීමට අවශ්‍ය කටයුතු සම්පාදනය කිරීම සහ ඒ සම්බන්ධව විද්‍යාර්ථීන් දැනුවත් කිරීම සඳහා අවශ්‍ය ප්‍රචාරණ කටයුතු සිදු කිරීම.
- ශ්‍රී ලංකා ජාතික පුස්තකාලය මගින් සම්පාදනය කරනු ලබන “පශ්චාත් උපාධි නිබන්ධන අනුක්‍රමණිකාව” විද්‍යුත් ප්‍රකාශනයක් ලෙස එළි දැක්වීමට කටයුතු කිරීම.
- දෑ අවුරුදු පශ්චාත් උපාධි නිබන්ධනයන් සහ ආචාර්ය උපාධි නිබන්ධනයන් මිල දී ගැනීමේ දී දැනට ඒ සඳහා ගෙවනු ලබන මුදල සංශෝධනය කිරීමට කටයුතු කිරීම.

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An Analysis of User Satisfaction on Resources and Services of the Reader Services Division in the National Library of Sri Lanka

P. N. Herath¹

ABSTRACT

The study was conducted to evaluate user satisfaction with the resources and services of the Reader Services Division in the National Library of Sri Lanka (NLSL) while adapting to new conditions of the country resulting from the COVID-19 pandemic and economic crisis. A self-administered questionnaire was distributed to the users (n=150) who physically visited the library. A non-probability sampling technique was employed and the response rate was 72%. The findings revealed that most of the users were females and postgraduates or undergraduates between the ages 20-29 years and, employed in the private sector and, hold either 3-month or 1-year membership. Respondents visited the library for more than one purpose and finding information for their assignments/projects was the priority. User satisfaction was evaluated under 05 segments of the Library (a) collection; (b) facilities; (c) services; (d) customer care attributes of reader services staff and (e) new services introduced during the pandemic season. The findings revealed that the majority of respondents were either very satisfied or satisfied with the above factors as a whole. Areas that received the highest satisfactory scores were the book and newspaper collection, calmness of the interior environment, the process of issuing membership, quick understanding and response to user needs, and social media programmes. Further, the study identified some dissatisfactory areas to be further improved in the library such as opening hours, internet, security, awareness programmes, staff availability of counters, etc. Therefore, as one of the main information provider of the country, NLSL need to plan and proceed accordingly in order to maintain the maximum level of user satisfaction through its resources and services.

Keywords: National Library of Sri Lanka, Reader Services Division, User Satisfaction, Resources and Services

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Introduction

Education is crucial for success and mitigating challenges in life. Libraries serve as a key source for personal development aiming to fulfill future expectations and the user community is the most important component of a library. The main purpose of any information service is to satisfy user needs. How well this purpose is served is a measure of the effectiveness of that information service. Libraries should identify their different user communities and provide efficient services at different levels to ensure users receive the best possible service. Bowen and Chen (2001), stated that satisfied customers are not enough, there have to be extremely satisfied customers as satisfaction leads to customer loyalty. A library also has a vital role in the social, cultural, and educational progress of the country and intellectual development of the nation.

National Library of Sri Lanka is established by the government and it is supposed to hold the parent-ship to all the other libraries in all over the country. Therefore, it is important to analyze user satisfaction in using resources and services and a user survey is the best method to analyze the level of user satisfaction towards library functions. Two Recent studies have assessed information needs, reader behavior, user perception, and satisfaction by Subasinghe (2018) and Dasanayake (2019) at the NLSL, while Shabi et al (2016) and Afzal and Ahmad (2022) conducted user surveys in Pakistan and Nigerian National Libraries respectively.

During the period of re-opening the country after the peak of the COVID-19 pandemic and economic crisis situation, the National Library also had to limit its services with staff shortages. Accordingly, The Reader Services Division which is mostly used by outside users, introduced online services, to continuously meet customer information needs. The research findings will aid NLSL authorities in identifying gaps in user information needs and expectations, can be used to provide optimal services.

The study identified some limitations such as not returning total questionnaires, readers failing to answer some questions, and not following instruction guides.

Objectives

The main objective of the study was to investigate user satisfaction regarding resources and services of the Reader Services Division (RSD) in the National Library of Sri Lanka (NLSL) while adapting to the new conditions of the country resulting from the COVID-19 pandemic and economic crisis.

Specific objectives were to:

- find out the purpose of visiting the RSD-NLSL
- determine user satisfaction towards General facilities, Resources (eg: collection), General services provided by RSD and new services introduced during the pandemic, and customer care service offered at RSD counters
- determine the overall user satisfaction towards the resources and services at RSD-NLSL

Methodology

A quantitative research method was adopted with the use of a self-administered questionnaire to collect primary data. Users who visited the RSD of the library during the survey period were considered as the population of the study. The study population consisted of registered library members of both genders in different age groups, and educational & professional levels.

The population of the study was too large to examine as a whole. Therefore, a non-probability sampling method was used. A total of 150 users were considered as the sample.

The data collection was conducted from the end of July to mid of September 2022. Registered members were approached by two means, physically and via online communication. Visitors who comply to fill out the questionnaire on-site were given the facility to do so, while those who preferred to fill it out later were contacted through email. A total of 50 questionnaires were distributed by hand out of which 44 were duly filled and returned. The Google form was sent to 100 users by email of which 64 users responded. Accordingly, a total number of 150 questionnaires were distributed and only 108 responses received showing 72% response rate.

The five-point Likert scale method was adopted to evaluate user satisfaction with the library collection, facilities, services, and customer care attributes of the reader services counter's staff. The primary data were analyzed by MS- Excel and the results were represented as percentage values.

Results and Discussion

Table 01: Gender Representation

Gender	No of Respondents	Percentage (%)
Male	49	45
Female	59	55
Total	108	100

Source: Survey Data

Table 01 revealed that the majority of the respondents in the study were females (55%) while 45% were male.

Table 02: Age group

Age group	Below 20	20-29	30-39	40-49	50-59	Above 60
No of Respondents	2	44	32	12	10	8
Percentage (%)	2	41	30	11	9	7

Source: Survey Data

According to Table 2, most respondents were between 20 and 29 years old, with a higher percentage of young users (41%). The study found a lower library visit rate (2%) among school pupils, but 7% of senior citizens also visited.

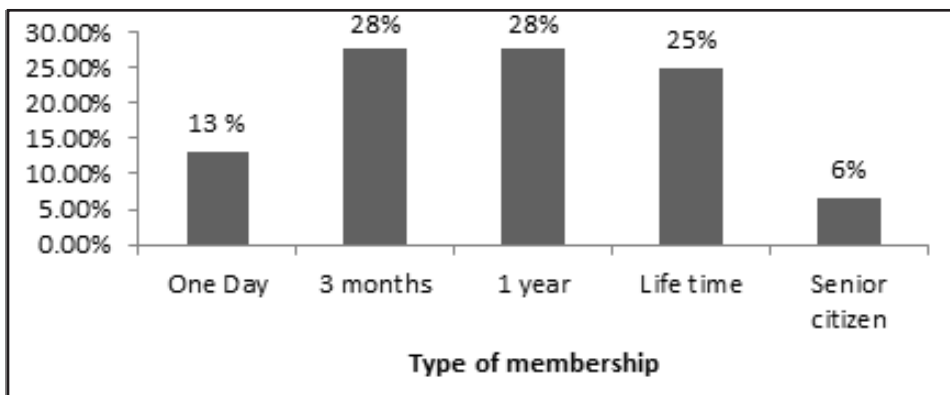


Figure 01: Type of Membership

Source: Survey Data

Figure 01 shows that most of the respondents (28%) hold 03 months or 01 year membership, 25% hold lifetime membership while small number (6%) holds senior citizen membership.

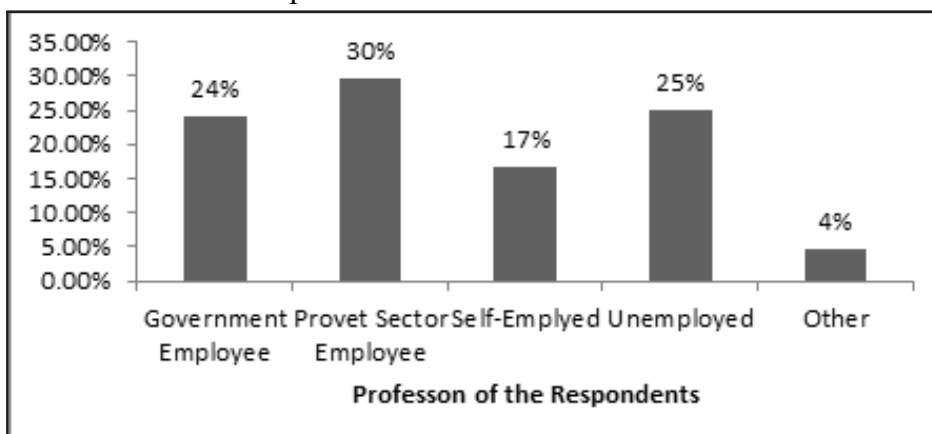


Figure 02: Profession of the respondents

Source: Survey Data

According to Figure 02, most of the participants in the study were private sector employees (30%).

Table 03: Purpose of library visit

Purpose	Frequency			
	Very Frequently (%)	Frequently (%)	Sometimes (%)	Rarely (%)
Study for exams in a quiet place	34	28	21	17
To find information for assignment/project	39	33	17	11
To refer Thesis	32	40	12	16
To find additional information for research	36	34	20	10
Leisure reading	23	28	27	22
Request documents for personal needs	25	19	37	19
Ask for information	27	30	30	13
Use computers and online facilities	17	23	12	48

Source: Survey Data

Table 03 shows that most users visit Reader Services Division for assignments (39%) and research information (36%), which may be due to postgraduates and undergraduates being the most frequent users. However, using computers and online facilities is less popular (17%).

Table 04: User satisfaction with different library collections

Library collection	Level of Satisfaction		
	Satisfied (%)	Neutral (%)	Dissatisfied (%)
Newspapers	89	10	1
Gazettes & Govt. Publications	79	20	1
Journals	73	23	4
Books	90	10	-
Thesis	71	25	4
Ola leaves collection	49	51	-
Online academic databases	60	36	4
Overall satisfaction	26	53	21

Source: Survey Data

Over 70% were satisfied with newspapers (89%), Gazettes & Govt. publications (79%), journals (73%), books(90%), and thesis collections (71%), of which book and newspaper collections being the mostly satisfied. Over 50% satisfied with the online academic database. However, over half the respondents were neutral about Ola leaves collection.

Table 05: User satisfaction with general facilities

Library Facilities	Level of Satisfaction		
	Satisfied (%)	Neutral (%)	Dissatisfied (%)
Opening hours	75	15	10
Arrangement of the collection	74	24	2
Use of sign boards and instruction guides	73	21	6
Seating capacity	81	15	4
Comfortability of furniture and space	81	14	5
Cleanliness	86	12	2
Lighting & Ventilation	83	11	6
Calmness of the environment	92	8	-
Security and protection	83	13	4
Internet facility	62	28	10
Overall satisfaction	89	8	3

Source: Survey Data

The majority (89%) were overall satisfied with the facilities while a small proportion (3%) was dissatisfied. The highest proportion (10%) was dissatisfied with opening hours and suggested extending them. The calmness of RSD premises was the most satisfied attribute (92%), while internet facilities were the least satisfied (62%).

Table 06: User satisfaction towards general services

Library Services	Level of Satisfaction		
	Satisfied (%)	Neutral (%)	Dissatisfied (%)
Membership issuing process	91	8	1
Handling user inquiries	83	16	1
Scanning & Photocopying Service	79	16	5
Assistance to use databases	71	24	5
Providing information via Email & Postal Service	64	30	6
Disseminating notices via SMS alert service	54	41	5
Providing user awareness programmes	59	35	6
Overall satisfaction	83	13	4

Source: Survey Data

The majority of respondents (83%) were overall satisfied with services mentioned in Table 06, with 91% and 83% satisfied with membership issuing and handling user inquiries respectively. Scanning and photocopying services were satisfactory, with 79% and 5% dissatisfied with the same. However, 6% of respondents were dissatisfied with user awareness programs, indicating some users were unaware during the pandemic.

Table 07 : User satisfactions on staff customer care attributes of RSD counters

Library Services	Level of Satisfaction		
	Satisfied (%)	Neutral (%)	Dissatisfied (%)
Availability of staff at counters	84	15	1
Friendliness of staff	83	14	3
Polite and well-mannered behavior	85	12	3
Neat & Decent appearance	86	12	2
Quickly Understand & Respond to user needs	88	12	-
Knowledgeable about questions	78	21	1
Provide correct guidance to fulfill user needs	82	17	1
Accuracy of information received	82	17	1
Coordinates well with other sections of the library	78	20	2
Overall satisfaction	86	13	1

Source: Survey Data

Reader services counters are crucial interfaces for users to meet library staff. The majority of respondents (86%) are overall satisfied with the customer care attributes of reader services counter staff, while 1% is dissatisfied. The highest satisfaction (88%) showed quick understanding & response to user needs.

Table 08: User satisfaction towards new services introduced by RSD-NLSL during Pandemic and economic crisis

New services	Level of Usefulness		
	Useful (%)	Somewhat useful (%)	Not useful (%)
User awareness through social media eg: Facebook, WhatsApp, messenger, Telegram	86	12	2
Provide information via Email and Postal services	74	24	2
Literature/ Education discussion via Zoom App	77	21	2

Source : Survey Data

Sri Lanka faced the COVID-19 pandemic and economic crisis, leading NLSL to introduce new services under online platforms and postal services. Over 70% of respondents found these services useful, while a small proportion found them somewhat useful, and a very lower proportion said not useful.

Conclusion

Most of the users in the study were females between 20-29 years and were postgraduate or undergraduates, employed in the private sector holding membership for either 03 months or 01 year. Users visit RSD for more than one purpose and finding information for assignments or projects is a priority. Over 70% were satisfied with newspapers, journals, books, thesis, except Ola leaves collection. Respondents were mostly satisfied with RSD facilities, with calmness being the most satisfied and internet facilities being least satisfied and highest dissatisfaction being opening hours. The majority of users are overall satisfied with the different services and the customer care attributes of RSD counter staff. Accordingly, most users are satisfied with the membership issuing process and quick understanding and response to user needs and dissatisfied with user awareness programs. Further, the majority of respondents also found newly introduced services useful. Accordingly, it is recommended to promote and design more efficient awareness and publicity programs, improve RSD premises' physical attributes, including lighting, ventilation, cleanliness, and luggage security, allocate sufficient staff for reader services counters, and conduct staff training sessions.

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Introducing Digital Comics for Learning and Promoting Device Reading Activities in Sri Lanka

M. S. M. Shiham¹

ABSTRACT

Device reading has become an essential reading method and has made obvious impact in the learning and reading practices in the contemporary digital world. Digital Comic, is a one of device reading tools and used for learning as well reading activities, has replaced the reading gap of young people like device readers, slow sighted people and motor-impaired people. Although digital comics have become day to day practice in many countries, at present in Sri Lanka neither students nor adult readers are aware of using it. So this concept paper intends to try to fill the above gap in Sri Lanka and to introduce digital comics as e-reading material for learning and device reading in Sri Lanka. This study refers to provide a cross view of Digital Comics and its face and expansion from the face of world community. Through this study, it is expected to introduce digital comic and digital comic making technologies. This study aimed to make aware of this practice in Sri Lanka to use particularly for device reading purposes, especially in leisure reading and reading while travelling. Here online sources, such as research works from various research based online platforms, digital comics reading web pages, digital comic making pages and Applications are used as data collection tools. This is a tri-partial national work. First party is related professionals and researches they need to research further, create concepts and make a path. Second party is relevant institutions they need to make policies and plans for relevant to Sri Lanka, promote and provide trainings for related people. Third party is book writers, content creators, illustrative artists, book publishers, journalists, cartoonists, librarians, educationalists, IT professionals etc., they need to involve in Digital Comic production practices and provide materials to readers and beneficiaries.

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This effort may cultivate productive device-based reading relevant to modern world and substitute the misuse of social media reading habits among the society in future.

Keywords: Digital Comics, Printed Comics, Device Reader, Reading Promotion , E-learning, Sri Lanka

Introduction

The rapid developments in ICT have greatly contributed in enhancing human living standards worldwide. Once device usage is high, we need to enrich and transform the existing learning spaces through an integrated approach and enable learning in the perspective of lifelong learning. A learning place can be Classrooms, Community Centers, and a place of worship, a private home or even a medium such as Television. People are reading books and articles on their tablets, smartphones and e-readers (such as the Kindle). When the device usage become high, people intend to use device-oriented services for their reading, learning, leisure and other day to day works. In Sri Lanka, this is a vast area to address positively conducting researches, making policies and introducing technology in education system, culture and publishing industry.

Scope of the study

According to Annual Bulletin 2022 of the Department of Census and Statistics in Sri Lanka, Computer Literacy Rate is 36.0%, Digital Literacy Rate 60.0%. 21.9% of households own desktop or laptop computer and smart phone usage according to several age groups is more than 80% and Cellular Mobile usage in Sri Lanka in 2021 is 30,824,128. According to <https://datareportal.com>. there were 14.58 million internet users in Sri Lanka at the start of 2023, when internet penetration stood at 66.7%, 7.2 million social media users in January 2023, which is 32.9% of the total population. Even though Sri Lanka indicates a progress in ICT and using digital devices, So far “Why Digital Comic had never drawn attention by any party to enhance reading in Sri Lanka” is an issue we need to address. Hence this concept paper intends to introduce digital comics to Sri Lankan to create awareness on using it to enhance reading and learning in Sri Lanka.

What are Comics?

Comics are called in Japanese “Manga”, in French, Belgium and France “Drawing Strips” or BDs (Bandes Dessinees), in America “Comics” or “Comic Books”. Comics are available in different types of genres. According to jackdavisfoundation.org, comics can be categorized under different themes such as, Action/Adventure, Superhero, Fantasy, Science Fiction, Historical, Romance, Comedy, Horror and Mystery. Manga includes in broad range of genres, action, adventure, business and commerce comedy, detective, drama, historical, horror, mystery, romance, science fiction and fantasy, sports and games. “The global comic book market size is projected to grow from \$16.05 billion in 2023 to \$22.37 billion by 2030.



Image 1 – Comic, Manga, BDs

In Sri Lanka, the first political cartoon was illustrated by the G. S. Fernando for the 'SwadeshaMithraya' newspaper in 1931 criticizing Donoughmour Commission Report. The first comic was published in 'Irida Lankadeepa', weekend newspaper under the title 'Neela' in 1951 by G. S. Fernando and get peak during the 50-60-70 decades. Sri Lanka's comic has developed in three categories, as comics published in newspapers, comic books, separate newspaper comics from 1972.



Image 2 – Printed Comic in Sri Lanka

Digital Comic

Definition of digital comics put forward by Shafiyati (2018) was that “digital comics are an arrangement of pictures that tell stories and give messages to their readers”. According to Wikipedia, Digital comics (also known as electronic comics, e-comics) are comics released digitally, as opposed to in print. Digital comics commonly take the form of mobile comics; Webcomics. In China they call as Web Manhua while Koreans call Manhwa, and Koran created their own comic toll called Webtoon. ComiXology is a cloud based web comic community platform consisting 75 digital comics for free. According to a survey conducted by www.statista.com among South Korean comic readers in 2022, around 24 percent read digital comics almost daily.

Creating Digital Comics & Related Software

Digital comic can be readable by “PDF, E-PUB, DRM-free and CBR or CBZ Comic Book Archive” file formats through various devices like “E-book stores: Amazon Kindle Store, iBook store and Nook Store” and www.readcentertainment.com and through [comiXology](http://comixology.com) and also iOS and Android devices. Related to digital comic making some free software can be found at these websites: [Canva](https://www.canva.com/) ; [Pixton](https://www.pixton.com/) ; [Storyboard Creator](https://www.storyboardcreator.com/); [Doodle](https://www.doodle.com/); [Makebeliefscomix](https://www.makebeliefscomix.com/).

Learning Process using Digital Comic

Learning through digital comics can enhance positive thinking of students, hence creating a more meaningful learning atmosphere. In addition to this, learning through digital comics makes it easy for the teachers to convey the target content and motivate the students to learn and think so that teachers find it easier to guide and instruct the students (Amorim et al., 2017; Spirchagova et al. 2021).

A scientific study based on turkey students during social study subject teaching via online (Ilhan, G. O., Kaba, G., & Sin, M., 2021), has found how to prepare a leaning session using Digital Comics as given below:

1. An 80-minute-Social Studies Course on the Zoom application was conducted with the study group for one day a week for three weeks.
2. An experimental study was carried out for one group while teaching through digital comic material in addition to the textbook.
3. The digital comic material prepared was sent to the students by email before the course started. The aim of sending the comic book material before the course is for students to have the opportunity to examine the material previously. Researchers (Teachers) received training about the nature and components of the comic book from comic book experts.

The scripting started with the creation of the main character. There are 7 supporting characters to assist the main character named Bilge in the prepared digital comic.

The comic book material created with this method transferred the information taught to students, not directly, but by enabling them to read critically, giving the reader the opportunity to think about humorous elements in silent panels. The digital comic material prepared for the research was created through the digital comic and cartoon design program called Pixton (<https://www.pixton.com/login>). The main character Bilge goes to the place where each management style is applied using a time machine called "gırgır".





Image 3 – Usage of Comics in Learning

In the panels above, the information about transferring ruling power is presented. While presenting the necessary information here, supplementary information about good use of language and spelling rules are also demonstrated implicitly. This way, additional learning could be supported.

Enhancing Reading and Learning in Sri Lanka using Digital Comic

This is a tri-party national work. First party is related to professionals and researchers. they need to research further, create concepts and make a path. Second party is relevant institutions who need to make policies and plans relevant to Sri Lanka, and promote and provide training for related people.

Third party is comic book writers, content creators, illustrative artists, book publishers, journalists, cartoonists, librarians, educationalists, IT professionals etc. They need to involve in Digital Comic production practices and provide materials to readers and beneficiaries. This effort may cultivate productive device based and substitute the misuse of and promote effective usage social media reading habits among the society in future.

These are some suggestions to enhance reading culture through using digital comics among Sri Lankans. The conceptual framework presented here outlines the interconnected elements that demonstrate how the integration of digital

comics and digital comics making technology can effectively enhance reading development habit in Sri Lanka.

- a) Curating Effective Digital Comics - digital comics that are carefully curated, age-appropriate, culturally relevant, and aligned with educational goals.
- b) Interactivity and engagement of readers - animations, sound effects, and clickable elements could encourage readers to explore the content, interact with characters that lead to enhancing comprehension and critical thinking skills.
- c) Introducing Digital Comics Making Technology – this empowers educators, students, and content creators to design, develop, and customize user-friendly tools and platforms of digital comics. They can craft personalized digital comics that depicts cultural and linguistic nature of Sri Lanka
- d) Educational Integration – integration of digital comics into reading development programs within educational institutions and aligning digital comics into the curriculum with learning objectives. This will allow educators to create dynamic lesson plans that encourage discussions, collaborative activities, and deeper analysis.
- e) Cultivating Reading Culture - well-designed digital comics, exploring various genres, will help to discover new narratives, and develop reading habits. This process contributes to the cultivation of a reading culture.
- f) Skill Enhancement and Lifelong Learning - as readers interact with digital comics, they not only improve reading skills but also develop digital literacy, critical thinking, and visual literacy skills. These skills encourage readers to pursue reading as a lifelong learning journey, extending well beyond formal education.

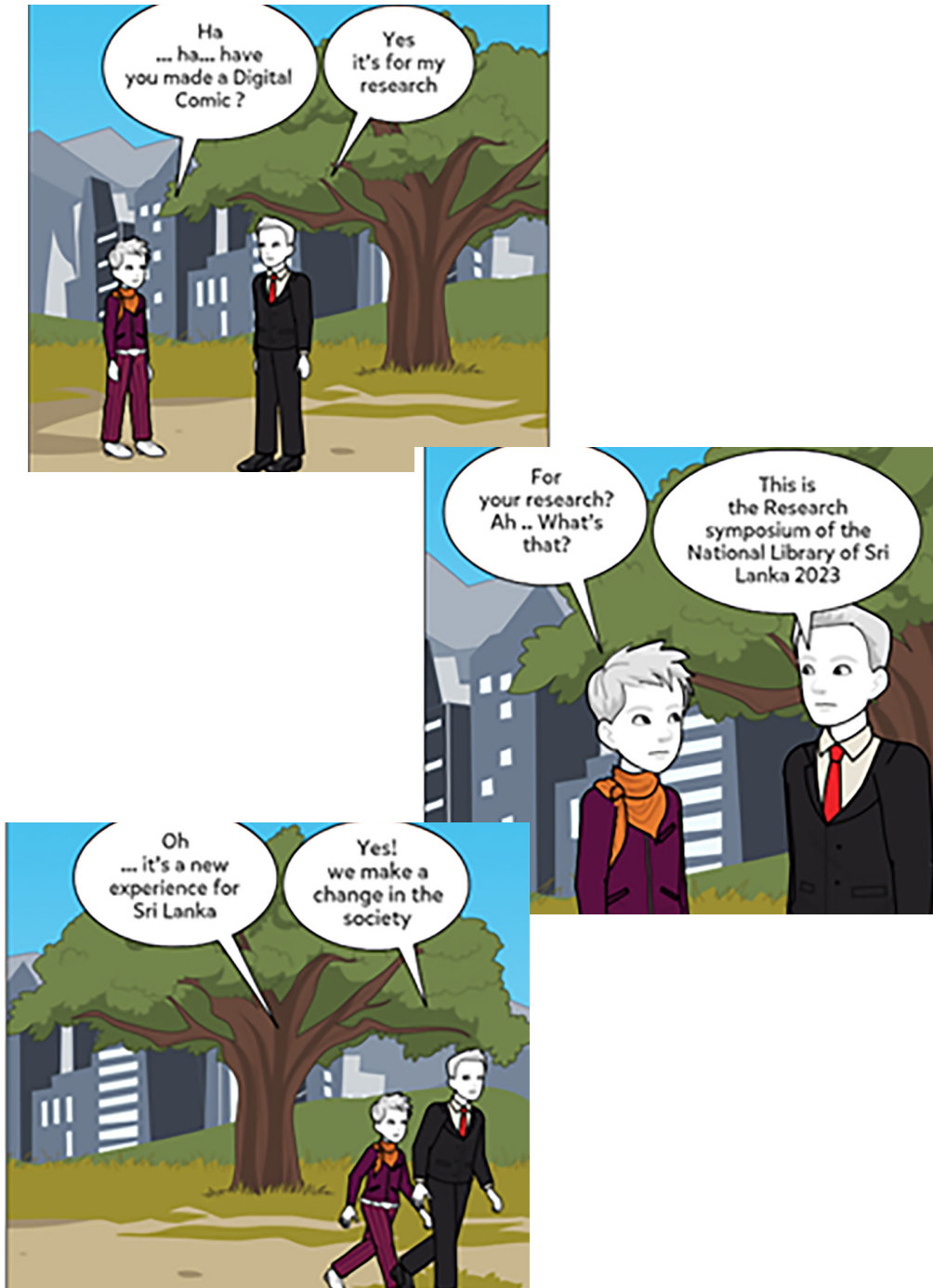


Image 4 – A Digital Comic made by the author

Challenges during the implementation

These challenges mentioned below could be addressed and mitigated with relevance to the availability of resources, cultural and communal relationships and the policies of the authorities.

- a) Technological Accessibility -Limited access to digital devices and the internet in some areas of Sri Lanka
- b) Digital Divide - Socioeconomic disparities leading to unequal access to technology and digital resources
- c) Language and Cultural Relevance: Ensuring that digital comics are available in local languages which is culturally relevant to Sri Lankan readers.
- d) Educator Training: Lack of familiarity with digital comics making technology and its integration into teaching practices, among educators, comics makers, journalists and other related people.
- e) Digital Literacy: Some students and educators may have limited digital literacy skills required to effectively engage in using digital comics.

Digital comic is an essential tool in reading and learning activities while people are especially young generation and students, much involved in their day-to-day activities using digital devices. It is very essential to make familiar digital comic in their life substituting other unwanted usage of social media and other tools. Digital comic-based education is being developed in many countries to increase students' interest and fun of their studies. It is high time for educators to consider practicing this technology in the education system in Sri Lanka.

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Factors Associated with the Privacy Disclosure on Social Media by State University Students in Sri Lanka

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ABSTRACT

The use of social media has become an integral part of young people's daily lives in Sri Lanka, with a majority of those aged 16-25 actively using platforms like Facebook. Despite its popularity, the disclosure of personal information on social media has been associated with significant drawbacks, including cyberbullying, identity theft, and physical harm. This research aims to investigate the factors influencing privacy disclosures on social media among state university students in Sri Lanka. The study population comprises undergraduate students from all 16 state universities, totaling 327,216 individuals. It was employed convenience sampling to select a sample of 385 undergraduates from the 16 universities, achieving a 95% confidence level with a 5% error rate. Data was collected using a structured questionnaire and analyzed through statistical procedures such as correlation and multiple regression analysis using Statistical Package for Social Sciences (SPSS) software. The findings reveal that age, gender, social media literacy, perceived benefits, and privacy concerns significantly influence the privacy disclosure behavior of state university students in Sri Lanka. Privacy concerns showed a negative correlation with privacy disclosure, indicating that heightened concerns led to less personal information disclosure on social media. Conversely, perceived benefits exhibited a positive correlation with privacy disclosure, suggesting that students were more likely to share personal information when they perceived benefits from doing so. These findings emphasize the importance of increasing awareness among students about the potential risks associated with sharing personal information online, which could be an effective measure to prevent privacy disclosures.

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Moreover, this study paves the way for future research to build upon its findings and further our understanding of the complex nature of privacy disclosure behavior on social media.

Keywords: Privacy disclosure, State universities, Social media, Undergraduates, Sri Lanka

Introduction

The revolution of social media has fundamentally transformed the way people communicate, becoming an indispensable part of modern life (Sathya & Indradevi, 2017). Over the past two decades, social media sites have permeated daily routines, particularly among undergraduates who avidly embrace platforms like Facebook, making it an integral aspect of their existence (Buzzetto-More, 2012). These platforms have become repositories of personal information, encompassing details such as photos, locations, relationship statuses, educational backgrounds, contact information, birth dates, interests, and other personal particulars (Henson et al., 2011). However, as the use of social media has grown, so have concerns about privacy. Instances of theft and misuse of personal information have made users more cautious about revealing private details online (F. Xu et al., 2013). With the growing sustainability of social networking sites, the number of university students who prefer to use social media has been increasing in the last two decades highly. Therefore, it was possible for anyone to find about the personal information of all social media users (Athukorala, 2021). As a Result of the unauthorized procurement and exploitation of personal information, social media users have been discouraged to support their real, correct information or encouraged to submit their fake, incorrect information to social media (Beigi & Liu, 2020). Annual Activity Report of Sri Lanka Computer Emergency Readiness Team (SLCERT) mentioned that the majority of reported incidents were in the category of social media-related occurrences and that there were 15895 of these incidents in 2020 (CERT|CC, 2020). This study was initiated with the goal of presenting a thorough evaluation and analysis of the most recent studies on privacy and disclosure on social media sites. This research will provide an overview of the locations and key findings current studies', which will aid future researchers in developing new models based on the existing ones. The main objective of this study was to find the factors associated with privacy disclosure on Social Media Sites by state university students in Sri Lanka. After reviewing prior literature, it was discovered that several factors have an

impact on privacy disclosure. Perceived benefits and privacy concerns are two of those factors. The findings imply that privacy disclosures on social media decrease as privacy concerns increase. On the other hand, privacy disclosures on social media rise as perceived benefits.

Objectives

This study aims to investigate privacy disclosure behavior among state university students in Sri Lanka on social media. Objectives include identifying factors influencing disclosure, exploring the relationship between privacy concerns and disclosure, and examining the impact of perceived benefits on disclosure.

Methodology

The following conceptual framework was provided based on the relationship between research variables.

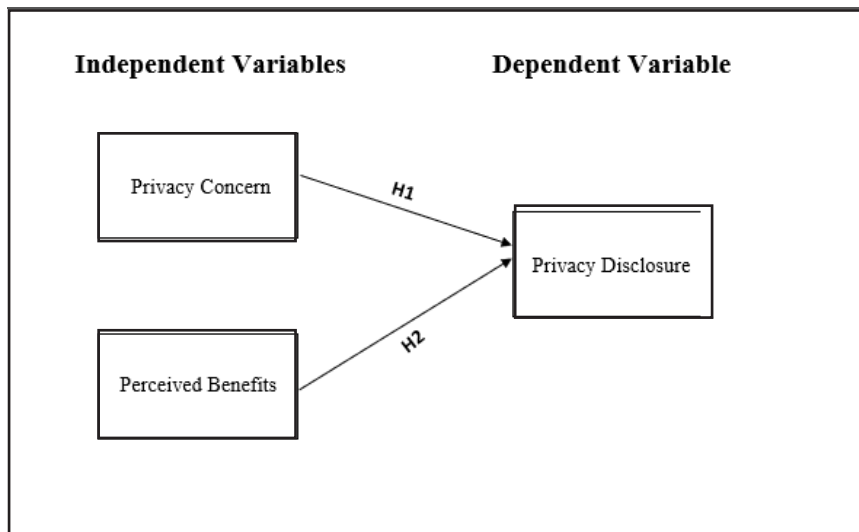


Figure 1: Relationship Between Independent and Dependent Variables

Population and Sampling

The research population was undergraduates from all 16 state universities in Sri Lanka. There are 327216 students in all these 16 state universities (University Grants Commission, 2021). The sample was selected by using the convenience sampling technique. 385 undergraduates with a 95% Confident level and a 5% error rate were selected as the sample from the population.

Results and Discussion

The values range from -1 to 1, with -1 indicating a perfect negative correlation, 0 indicating no correlation, and 1 indicating a perfect positive correlation.

Table 1: Results of correlation matrix analysis

		Privacy Disclosure	Privacy Concerns	Perceived Benefits
Privacy Disclosure	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	385		
Privacy Concerns	Pearson Correlation	-.165**	1	
	Sig. (2-tailed)	.001		
	N	385	385	
Perceived Benefits	Pearson Correlation	.178**	-.189**	1
	Sig. (2-tailed)	.000	.000	
	N	385	385	385

The first independent variable, Privacy concern, had a Pearson correlation value of -0.165 with the dependent variable, Privacy Disclosure. The significant value was 0.001, indicating a statistically significant negative correlation between privacy concerns and privacy disclosure. This means that as privacy concern increases, the tendency for privacy disclosure decreases. In other words, students who are more concerned about their privacy are less likely to disclose personal information on social media. The second independent variable, Perceived Benefits, had a Pearson correlation value of 0.178 with the dependent variable, Privacy Disclosure. The significant value was 0.000, indicating a statistically significant positive correlation between perceived benefits and privacy disclosure. This means that as perceived benefits increase, the tendency for privacy disclosure also increases. In other words, students who perceive social media to be more beneficial are more likely to disclose personal information on social media.

Table 2: Results of regression Analysis (Coefficient Table)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	Std. Error	Beta			
(Constant)	3.737	.254		14.735	.000
Privacy Concerns	-.152	.057	-.136	-2.684	.008
Perceived Benefits	.152	.050	.153	3.005	.003

The coefficient B value for Privacy Concern is -0.152, which indicates that as Privacy Concern increases by one unit, the Privacy Disclosure decreases by 0.152 units. The significance value for Privacy Concern is 0.008, which is less than 0.05, indicating that the relationship between Privacy Concern and Privacy Disclosure is statistically significant. The coefficient B value for Perceived Benefits is 0.152, which indicates that as Perceived Benefits increase by one unit, the Privacy Disclosure increases by 0.152 units. The significance value for Perceived Benefits is 0.003, which is also less than 0.05, indicating that the relationship between Perceived Benefits and Privacy Disclosure is statistically significant.

Discussion & Conclusion

Overall, these results indicate that privacy concerns and perceived benefits are significant predictors of privacy disclosure on social media among state university students in Sri Lanka. Particularly, the findings imply that privacy disclosure on social media declines as privacy concern rises. On the other hand, privacy disclosure on social media rises as perceived benefits. Increasing awareness among students about the potential risks associated with sharing personal information online can be an effective measure to prevent privacy disclosure.

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Behavioral Impact of Social Media Usage on the Academic Performance of State University Students in Sri Lanka

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ABSTRACT

Facebook, WhatsApp, Instagram like social media has become a vital feature of human lives, providing people with easy access to information and entertainment. Due to its widespread use among undergraduate students, study aims to identify the behavioral impact of social media usage on the academic performance of state university students in Sri Lanka. In this study, 392 undergraduates from 16 state universities were selected using voluntary sampling method. The study used Pearson's correlation coefficient to measure the correlation between social media use and undergraduate academic performance, and regression analysis was used to examine the relationship between variables. The results showed that all respondents used at least one social media platform, and the majority of them spent more than an hour on social media platforms per day. WhatsApp was the mostly used social media platform among undergraduates. The study found that undergraduates mostly used social media for entertainment during lectures and that revealed a substantial negative correlation between social media use and academic performance among undergraduates. To mitigate this negative impact, the study implies students should control their social media usage and prioritize their academic tasks. In conclusion, social media has become an integral part of humans' day-to-day lives, particularly among undergraduate students. However, excessive usage of social media can have negative effects on academic performance. Therefore, students should be mindful of their social media usage and prioritize their academic work to avoid compromising their performance.

Keywords : Academic performances, Social media, State universities, Undergraduates, Sri Lanka

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Introduction

The rapid evolution of Internet applications has fueled the growth of social media. Social media is used for various reasons, such as promoting and disseminating news worldwide. Social media platforms such as Facebook, Instagram, Twitter, WhatsApp, YouTube, TikTok, Snapchat, and Linked In have become increasingly significant elements of young adult life (Mingle & Adams, 2015). The Internet revolution transformed the information world regarding information sharing, speed, storage, and retrieval in any form, irrespective of a person's location. The growth of social media has had an influence on many aspects of society, both positive and negative (Adzharuddin, 2014).

Communication, learning, research, and education have all been revolutionized and influenced by social media. Social media usage has grown with the development of the smartphone, allowing users to access different social networking sites with a few clicks (Alalwan et al., 2019). This has led to the widespread use of social media among many people, particularly among the younger generation globally.

Table 1: Social media usage by Age in the United States

Age	Percentage
18 – 29 yrs.	88%
30 – 49 yrs.	78%
50 – 65 yrs.	64%
65+ yrs.	37%

Source : Survey of U.S. adults conducted Jan. 25-Feb.8, 2021

According to the US Digital Year report (2022), online time spent on social media accounted for 14.4% of time spent. Additionally, many instructors are beginning to utilize Social Networking Services (SNSs) to better communicate with and among students in their classrooms, have class debates, and project cooperation to improve learning outcomes (Maqableh et al., 2015).

However, recent studies have found that students' addiction to social media usage might have a detrimental impact on their academic performance. Nuskiya (2017) showed that frequent texting, particularly on social networking sites, has been linked with harmful effects on the younger generation, including greater stress levels, poor academic performance, bad sleeping patterns, and parental permissiveness. The technology acceptance model shows that social

media usage and the academic performance of university students have a direct correlation.

Correlation analysis from the study by Larson (2015) indicates that social media usage had strong and significant negative correlation with overall students' academic performance. This study has several important practical implications for lecturers, instructors, parents, and students. There is not much research in Sri Lanka to identify the influence of these factors on using social media (Liyanaige, 2019). Therefore, this research mainly investigated behavioral impact of social media usage on the academic performance of state university students in Sri Lanka.

Objective

Main objective is to identify the Behavioral Impact of Social Media Usage on the Academic Performance of State University Students in Sri Lanka.

Methodology

A conceptual framework is a structure that explains the natural course of the topic under investigation (Adom et al., 2001). The following conceptual framework was provided based on the relationship between research variables.

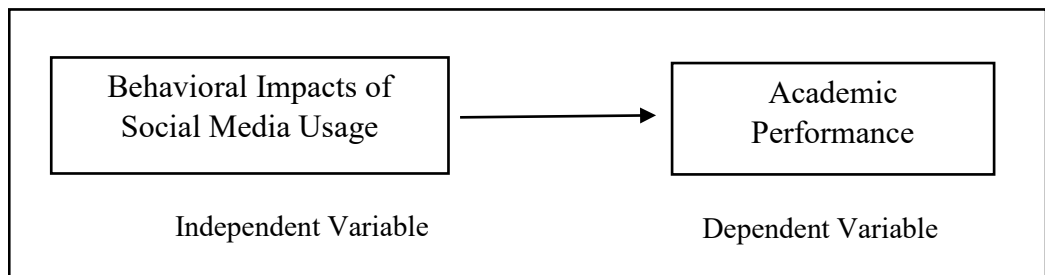


Figure 1: Conceptual Framework

Population and Sampling

The population of this study consists of 327216 state university students who study in the 16 state universities in Sri Lanka according to the Sri Lankan University Statistics 2021. On the basis of volunteer sampling, a sample size of 392 male and female state university undergraduates were selected for data collection.

Results

Results demonstrate that undergraduate students at state universities have access to social media and that their frequency of usage during lectures is high. 82% of those who responded to the pilot survey agreed with that statement confirmed this to be the fact. And also, the majority of them were logged in for entertainment purposes. The effect of this is that students at state universities have access to use social media and used it for a variety of reasons during lectures. According to the gratification theory, viewers utilize the media to achieve a variety of purposes, this is in line with what was stated.

Table 2: Result of correlation analysis

		Social Media Usage	Academic Performance
Social Media Usage	Person Correlation	1	
	Sig. (2-tailed)		
	N	392	
Academic Performance	Person Correlation	-.663**	1
	Sig. (2-tailed)	.000	
	N	392	392

** . Correlation is significant at the 0.001 level (2-tailed).

Source : Survey Data

Table 02 shows the correlation value between social media usage and academic performance. Accordingly, the Pearson correlation value was -0.663^{**} . The nature of the strength of the relationship between social media usage and academic performance correlation is significant at the 0.01 level. So, there was a strong negative (-0.663) relationship between social media usage and academic performance. Because the significant value is less than 0.01 or 0.05 as well.

Table 3: Result of regression analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.663 ^a	0.439	0.438	0.29854

Source : Survey Data

Table 3 shows a model summary of the independent and dependent variables. According to the table R square value is 0.439. It described 43% of academic performance can be explained by social media using this model. So, 26% of other factors can affect academic performance with 0.298 estimation error.

Discussion & Conclusion

According to the study, respondents mainly used WhatsApp as their social media. The reliability of the dimensions of independent variable was 0.920 and the reliability of the dimensions of dependent variable was 0.820, which is satisfactory. Disruptive statistical procedures are used for data analysis once the reliability has been checked. Then identified the strong negative relationship between the dimensions of independent and the dimensions of dependent variable by using correlation analysis. Finally, regression analysis was used to test the hypothesis.

While the majority of the respondents agreed that using these social media does not help to well prepare them for their ongoing evaluations and exams and also, they believed that the habit of using those sites discouraged them to concentrate on their studies and extra curricular activities.

And also, students acknowledged that it was their routine habit to use social media sites during lectures and sometimes it was a kind of addiction. They also agreed, that usage of social media sites affects their academic performance negatively and decreased their quality of academic performance.

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The Role of Libraries in Achieving SDGs : Integrating an Awareness into LIS Curricula at NILIS

Pradeepa Wijetunge¹

ABSTRACT

Seventeen Sustainable Development Goals (SDGs) were adopted by the United Nations in 2015, as a universal initiative to eradicate poverty and protect the planet, so that people enjoy peace and prosperity by 2030. All Member States of the UN have committed to undertake efforts to achieve these goals. The libraries and international organisations such as IFLA are actively participating to make a positive contribution through libraries towards achieving the SDGs. Also many educational institutions including universities are integrating SDGs into their curricula. This integration is justified because a holistic awareness of the critical global issues and the measures to overcome them within the education system would be more supportive in achieving them. NILIS has identified in the five-year strategic plan how our activities are related to the SDGs. But the students' awareness of their role as librarians in achieving the SDGs is yet to be incorporated into the LIS education programs as a component in the curriculum. Therefore, the purpose of this study is to plan a suitable component on SDGs to be incorporated into all education programs to fill the identified void.

The study has two objectives - 1) to verify the level of awareness of SDGs and the role the libraries can play in achieving them, among the LIS students of NILIS and 2) based on the findings, to plan an awareness session including the relevant knowledge, skills and attitudes to be integrated into the curricula of LIS education programs offered by NILIS.

A short Google Form was used to determine the awareness of SDGs among the students of NILIS, and the supporting activities carried out by their libraries and the demographic characteristics of the respondents. An extensive review of literature was undertaken to find out the contribution of libraries towards achieving Sustainable Development Goals (SDGs) in the global context and to ascertain the instances of integrating SDGs into LIS curricula.

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The total number of students (495) in 2021/2022 and 2022/2023 academic years were surveyed with 55% (270) of responses. Of the respondents, the majority (72.2%) were females. The ethnic composition was Sinhala (71.5%), Tamil (17.8%) and Muslim (10.7%) and the majority (44.8%) were 26-35 years, followed by 36-45 years (31.5%), less than 26 years (16.3%) and 46-55 years (7.4%). However, the majority (61%) were not employed in a library. The Majority (75.6%) indicated that they were somewhat aware of the SDGs while 8% were not aware and only 16.7 % were well aware of the SDGs while 21% were well aware of the library's role in achieving the SDGs, 66% were somewhat aware and 13% were not aware. Of the respondents, 62% have mentioned that the libraries they work for carry out activities related to achieving the SDGs and 52% have mentioned various activities they carry out. However, analysis of them proved that the majority of the mentioned activities are for the development of reading promotion and the routine activities of the library while one school library has planned an essay competition and art exhibition on SDGs for the Grades 6-13 students. These findings establish that most of the LIS students are not well aware of the SDGs and the role libraries can play in achieving them in the community. Therefore, integrating an awareness session into the LIS curricula of NILIS is highly justified.

The study concluded that, considering the need to integrate an awareness of SDGs into the curricula, without much disturbance to the existing content, current length of the modules and the fund allocations for each course, a three-hour teaching module could be designed. This module increases the SDG-awareness of the students, and they will be exposed to the global contribution of libraries through reading and audio-visual material. To augment classroom teaching, and to encourage the students to engage in learning actively and critically, a formative assessment is also used. This assessment will provide them with an opportunity to think in their local contexts.

Keywords: Sustainable Development Goals, SDGs, Libraries, LIS students, Curricula, Sri Lanka

Utilization of Computer Assisted Language Learning as a Current Trend of Pedagogy among School English Language Teachers in Colombo District

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ABSTRACT

Computer Assisted Language Learning (CALL) which was conceived in the 1950s and implemented in the 1960s and '70s, was based on the dominant behaviorist theories of learning. In a nutshell, it is a form of computer-based language teaching and learning which seeks all the possibilities to use accessories and technologies associated with computers to teach and learn a language. The ideology behind CALL is that the lessons should allow the learners to learn a language on their own with minimum or without teacher instructions using structured and/or unstructured interactive lessons. Hence, the main objective of this research was to discern the application of CALL as a current trend in the teaching-learning process in the English Language Teaching (ELT) classroom. The data was collected from 156 English language teachers by using the snowball sampling method and analyzed through SPSS 21 analytical software. The methodology consisted of a quantitative analysis where the respondents were provided a self-administered questionnaire that included multiple choice questions and assessed based on Likert scales. Based on the data collected by the remote survey, it could be concluded that there is a positive relationship between perceived usefulness, perceived ease of use, attitude towards use to increase students' motivation and engagement in learning, to practice the language creatively. Also, to develop communicative skills of the students in the classroom premises., and intention to use IT and the utilization of CALL. Nevertheless, there was a trivial number of challenges that were acquired when implementing CALL while it has had prolific merits.

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Correspondingly, the insights drawn from analyzing the gathered data can be used in proving the effectiveness of current trends of learning and how it aids both students and teachers in the pedagogical process in an ELT classroom. In addition, further research could explore the efficiency and utilization of CALL in tertiary-level education.

Keywords: Computer Assisted Language Learning (CALL), English Language Teaching (ELT), Current Trend, Pedagogy, English Language Teachers

A Study on Digital Reading Culture among University Undergraduates in Sri Lanka: With Special Reference to University of Kelaniya

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ABSTRACT

University students in Sri Lanka were often accustomed to using libraries and printed books. However nowadays, digital reading is a new trend in global education. With the COVID-19 pandemic, university education in Sri Lanka was blended with digital technology. Educational work is done virtually. There, the researchers often used internet information sources. It is essential to find out the trend among current students for digital reading. Digital reading is reading a book or an article using an electronic device like a smartphone, tablet, or eBook reader. The research problem is what modes of digital reading culture is common among university students in Sri Lanka. The primary purpose of this research is to study the digital reading culture among university students in Sri Lanka. This research is limited for the University of Kelaniya and the questionnaire method was used under the survey method to collect data. While undergraduate students at the University of Kelaniya are taken as the population, a sample of 108 undergraduates selected using random sampling method representing all the faculties of the university. Although, this research helps to identify the issues of digital reading among the undergraduate students of the University of Kelaniya, some key findings proved that students' preference for digital/PDF reading over print books/physical library use. A special preference is shown by the students for using the e-library facility available in the university. The research suggests developing digital reading methods for students, providing internet facilities, and improving access to resources. Further research is needed for thorough understanding of issues associated in the culture of digital reading and for proposing suitable solutions to them.

Keywords : Digital Reading, Digital Reading Culture, E-Library, Digital Education, Undergraduate Students

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