4ᵀᴴ NATIONAL LIBRARY RESEARCH SYMPOSIUM

NatlibSYMPO 2021

**Libraries for a Better World :
Achieving Sustainable Development Goals**

PROCEEDINGS

29th October, 2021

National Library & Documentation Services Board

Ministry of Education

4TH NATIONAL LIBRARY RESEARCH SYMPOSIUM – 2021

"Libraries for a Better World : Achieving Sustainable Development Goals"

PROCEEDINGS

29th October 2021

National Library & Documentation Services Board
Ministry of Education

4TH NATIONAL LIBRARY RESEARCH SYMPOSIUM – 2021

"Libraries for a Better World : Achieving Sustainable Development Goals"

PROCEEDINGS

29th October 2021

In collaboration with

Cataloguing – in – Publication Data Approved by the National Library &
Documentation Services Board

Compilation Advice

Sonala Gunawardana
Chairman

W. Sunil
Director General

Padma Banadaranayake
Director (National Library & Documentation Centre)

Compilation Committee

Maithree Jayasundara
Assistant Director, Research Division

Anoma Wijesinghe
Assistant Director, Bibliographic Control Division

Uditha Gunasekara
Research Officer

Secretarial and Technical Support

Thanuja Rangika
Management Assistant

Lishvini Rajaratnam
Information Assistant

Published by

Cover Designed b*y*

Thanuja Rangika

Panel of Reviewers

Emeritus Professor Kusuma Karunaratne   Department of Sinhala
University of Colombo

Emeritus Professor Rohini Paranavitana   Department of Sinhala
University of Colombo

Emeritus Professor K. A. P. Siddhisena   Department of Demography
University of Colombo

Senior Professor M. K. Weerasinghe   Department of Library & Information
Science, University of Kelaniya

Professor Sandagomi Coperahewa   Department of Sinhala
University of Colombo

Professor M. Esham   Department of Agribusiness Management
University of Sabaragamuwa

Professor Chandani Liyanage   Department of Sociology
University of Colombo

Professor Kamal Waleboda   Journalism Unit
University of Colombo

Dr. L. M. Kapila Bandara   Dean, Faculty of Education
University of Colombo

Dr. (Mrs.) Pradeepa Wijetunge   Director, National Institute of
Library & Information Sciences,
University of Colombo

Dr. (Mrs.) Nayana Wijayasundara   Librarian
University of Sri Jayewardenepura

Dr. G. R. Padmasiri   Librarian, University of Visual
& Performing Arts

Dr. D. M. Karunaratne   Former Director General, National
Intellectual Property Office of Sri Lanka

Dr. (Mrs.) Saroja Wettasinghe   Former Director General
Department of National Archives

Dr. (Mrs.) Kumudini Maddumage   Head, Department of Mass Media,
University of Colombo,
Sri Palee Campus

Dr. (Mrs.) K. D. Manori K. Weeratunga   Head, Department of Demography
University of Colombo

Dr. G. D. Amarasiri   Former Director, National Library
& Documentation Services Board

Dr. Ananda Chandrasekara Senior Lecturer, Department of Applied Nutrition, Wayamba University

Dr. Ruvan Weerasinghe Senior Lecturer, University of Colombo, School of Computing

Dr. (Ms.) M. W. S. J. Saumya Senior Lecturer, Institute of Indigenous Medicine University of Colombo

Dr. (Mrs.) G. P. Gamage Senior Lecturer, Department of Psychology & Counselling, The Open University of Sri Lanka

Dr. Ruwan Gamage Senior Lecturer, National Institute of Library & Information Sciences, University of Colombo

Dr. (Ms.) F. Ruzaik Senior Lecturer, Department of Geography, University of Colombo

Dr. (Mrs). Namali Suraweera Senior Lecturer, Department of Library & Information Science University of Kelaniya

Dr. W. M. T. D. Ranasinghe Senior Assistant Librarian University of Kelaniya

Dr. Udaya Cabral Assistant Director, National Library & Documentation Services Board

Mr. Saman Wanasinghe Senior Lecturer, Department of English, University of Colombo

Mr. Uditha Alahakoon Senior Assistant Librarian, National Institute of Library & Information Sciences, University of Colombo

Mrs. T. Sritharan Senior Assistant Librarian, University of Colombo

Mr. N. Ravi Kumar Senior Assistant Librarian Eastern University of Sri Lanka

Organizing Committee

Padma Bandaranayake
Director, National Library & Documentation Centre

Maithree Jayasundara
Assistant Director, Research Division

Uditha Gunasekara
Research Officer

Chaminda Himesh de Silva
Assistant Director, Information Technology Division

Anoma Wijesinghe
Assistant Director, Bibliographic Control Division

Dr. Udaya Cabral
Assistant Director, Conservation & Preservation Division

Anuradha Dasanayake
Assistant Director, Acquisition Division

Nuwan Wijerathna
Assistant Director, Finance Division

Kamalangani Subasinghe
Library & Documentation Officer, Digital Unit

Samith Thanuja
Marketing Officer

Ruvini Dilrukshi
Information Technology Assistant

Thanuja Rangika
Management Assistant

MESSAGE FROM THE SECRETARY OF MINISTRY OF EDUCATION

It is with great privilege and pleasure I convey this message to the National Library and Documentation Services Board (NLDSB) on the occasion of its 4th National Library Research Symposium 2021 conducting in collaboration with International Federation of Library Associations & Institutions (IFLA). The theme "Libraries for a Better World: Achieving Sustainable Development Goals" is of timely and national importance to us.

Having overcome a three decade long terrorist conflict, Sri Lanka is poised towards a strategic way forward and has begun its "transformation towards a sustainable and resilient society". The Sri Lanka Strategy for Sustainable Development seeks to achieve this vision through eradication of poverty, ensuring competitiveness of the economy, improving social development, ensuring good governance, a clean and healthy environment and most importantly making an informed society through quality education. I believe that librarians and library and information sector play a crucial role in achieving Sustainable Development Goals (SDGs).

NLDSB as the apex body and the leader of the Library & Information Science filed in Sri Lanka contributes immensely in achieving these goals. This timely and globally significant conference will create a platform for a constructive dialogue among professionals engaged in different functions of the country's development.

While congratulating the NLDSB, I wish a successful and productive symposium and looking forward to the outcome of the discussion.

PROFESSOR K. KAPILA C. K. PERERA

Secretary of Ministry of Education

MESSAGE FROM THE CHAIRMAN, NLDSB

It gives me immense pleasure in sending this message to the "NatlibSYMPO 2021" the 4th National Library Research Symposium of the National Library and Documentation Services Board. The theme of this year's symposium is "Libraries for a Better World: Achieving Sustainable Development Goals". Due to the prevailing situation in the country the National Library has compelled to hold this year's symposium virtually.

Conducting research and enhancing research culture in library and information science field in Sri Lanka is one of the main responsibilities of the National Library & Documentation Services Board (NLDSB). To fulfil this responsibility, NLDSB implements a number of projects every year. Conducting research and surveys, conducting research methodology workshops, maintaining research methodology book collection in the National Library and making aware the relevant authorities about the research findings are main activities. This symposium is also an important landmark of the contribution of the NLDSB for the development of research in library and information science field and other particular fields in Sri Lanka.

I congratulate all paper presenters and authors and wish them fruitful technical sessions.

SONALA GUNAWARDANA

Chairman

National Library and Documentation Services Board

MESSAGE FROM THE DIRECTOR GENERAL, NLDSB

It is with great honour to convey this message to the National Library of Sri Lanka in hosting its 4th National Library Symposium. The main theme of the symposium is "Libraries for a Better World: Achieving Sustainable Development Goals" which will be conducted under various scientific sessions including Education, Information Literacy, Digital World, Media and Literature.

The main objective of the NatlibSYMPO 2021 is to provide an opportunity to strengthen the cooperation among the libraries and providing a platform for emerging scholars to exchange and share their experiences and research on all aspects in the field of library and information science and social sciences.

This symposium would also be an ideal platform for networking and socializing for professionals, researchers, academics and students in the relevant field locally and internationally. And it will generate a new knowledge in the field of library and information science.

Research must always be of high quality in order to produce knowledge that is applicable outside of the research settings. As an action for the global promotion of our research activities, we have decided to host a series of symposia on library and information science.

Nevertheless, let me emphasize that the subjects discussed at this symposium are quite facinating topics and I expect a variety of highly academic discussions throughout this symposium.

I wish all the success in this endeavour.

W. SUNIL

Director General

National Library and Documentation Services Board

MESSAGE FROM THE CHIEF GUEST

The world embarked on the Sustainable Development Goals (SDGs) back in 2015, there was an air of optimism as nations committed to hitting 169 targets by 2030. But the COVID-19 pandemic has dealt that timetable a serious blow by reversing human progress for the first time in decades, pushing millions back into extreme poverty and deepening inequalities.

The 17 SDGs are integrated—they recognize that action in one area will affect outcomes in others, and that development must balance social, economic and environmental sustainability. Countries have committed to prioritize progress for those who're furthest behind. The SDGs are designed to end poverty, hunger, provide good health and education, and stand against the discrimination of women and girls.

The United Nations Development Programme (UNDP) as the SDG integrator and the technical lead on socio-economic recovery from the COVID-19 pandemic in the wider UN Development System, is focused on supporting decision makers in navigating these complex and uncertain times, with a special focus being placed on looking beyond recovery, towards 2030, and working towards green development. In Sri Lanka too working together with the Government of Sri Lanka, UNDP supports in the development of policies, leadership skills, partnering abilities, institutional capabilities, and build resilience to achieve the Sustainable Development Goals with a focus on areas of inclusive governance, environment and climate resilience, innovation, youth and gender.

The creativity, knowhow, technology and financial resources from all of society is necessary to achieve the SDGs in every context. The 4th National Library Research Symposium (NATLIB SYMPO 2021) under the theme "Libraries for a Better World: Achieving Sustainable Development Goals" provides an excellent opportunity to strengthen the co-operation among libraries and providing a platform for emerging scholars to exchange and share their experiences and research on relevant aspects.

While thanking the organizing committee of NATLIB SYMPO 2021 for bringing together this virtual conference and the invitation as Chief Guest, let me also take this opportunity to congratulate the hard work and dedication behind the research papers precented today. It is truly wonderful to be a part of a symposium such as this to share experience, knowledge and research across the different stakeholders present.

The SDGs remain as valid as ever, but the pace of progress has lost speed. But we have reasons not to be without hope. This is a moment of deep disruption but if you take a slightly more historical perspective, sometimes out of the darkest moments come some of the boldest responses. We all have a part to play, to make peace with our planet and be a part of a green recovery, so that we may come out of this with an accelerated approach to implementing the SDGs.

ROBERT JUHKAM

Resident Representative

UNDP, Sri Lanka

MESSAGE FROM THE KEYNOTE SPEAKER

Felicitations to the National Library of Sri Lanka on the occasion of such a great event as the conference about "Libraries for a Better World: Achieving Sustainable Development Goals." I commend the National Library of Sri Lanka, Chairman Sonala Gunawardana, Director General W. Sunil, Director Padma Bandaranayake, and the library workers team proudly hosting this event to support libraries helping Sri Lanka achieve the Sustainable Development Goals. The National Library of Sri Lanka is setting an example for the global library community showing that libraries can partner with organizations to move forward development. Libraries are a catalyst for change and are essential for development. Together united, the librarians of the world contribute to rebuild a just and equitable society. My heartfelt wishes for continued success to serve Sri Lanka and its beautiful communities.

LOIDA GARCIA -FEBO

International Library Consultant

Chair, ALA 2030 Sustainable Development Goals Task Force

MESSAGE FROM THE GUEST SPEAKER

It is with immense pleasure that I issue this felicitation message as the 4th National Library Research Symposium (NatlibSYMPO2021) convenes this year on the theme "Libraries for a Better World: Achieving Sustainable Development Goals" on 29th October, 2021.

As we recover from the COVID-19 pandemic and strive to build back towards a resilient and sustainable nation, this symposium would be an important catalyst for directing education and future research towards sustainable development pathways.

Education and research is central to facilitate the transformation envisaged in the 2030 Agenda for Sustainable Development Goals. This is explicit in the way in which education and research are foregrounded in the SDGs Framework. SDG Goal 4 is specifically dedicated towards uplifting the quality of education whilst research, innovation and capacity building is embedded in all the SDGs and Targets.

As the world and nations encounter new development challenges associated with increasing globalization, climate change and other natural and man-made hazards, research and innovation becomes crucial in finding innovative solutions. Libraries can play a critical role in providing the required knowledge infrastructure to direct research towards solution oriented outcomes. Libraries offer a wide range of products and services that promote literacy, access to information, and digital inclusion which aid the Sustainable Development transition.

At the Sustainable Development Council, we place significant emphasis on education, research and capacity building for SDGs and a major component of our functions is focused on strengthening the capacities of all stakeholders, both state and non-state sectors, in performing their role in Sri Lanka's progress towards SDGs. As such, the objectives of this Symposium align well with our core functions and the outcomes of the research would be of immense benefit to our future work.

I would like to take this opportunity to commend the National Library and Documentation Services Board (NLDSB) for this important initiative and wish them success in their future work.

CHAMINDRY SAPARAMADU

Director General

Sustainable Development Council of Sri Lanka

KEYNOTE ADDRESS

"Libraries for a Better World: Achieving Sustainable Development Goals"

Our theme today is "Libraries for a Better World: Achieving Sustainable Development Goals (SDGs)" and this is all about working together to help our countries, and in this case, Sri Lanka, achieve the SDGs.

We are in what the UN has called the decade of action. This is a decisive decade for our world. What is happening today? Our world is impacted by COVID-19, climate change and technological transformation. This is a momentous time for the libraries and the communities we serve. Libraries have jumped into action, serving communities in academic, public, and school libraries.

What do we want tomorrow? We all want a better world! Libraries are helping to achieve Development for a Better World through programs and services that promote culture, equity, justice, and environmental resilience and also advocate for broadband for all!

Why are libraries important in delivering the SDGs?

Libraries play an important and unique role by providing access to information that can help eradicate hunger, improve people's education, increase equity in cities, and help the prospects of people in all areas of the world. In addition, the information supports the promotion of community awareness about resilience, climate change and a sustainable future. Libraries are also leading by example by taking steps to reduce their environmental footprint.

And Librarians are advocating for broadband for everyone! As we have seen during this pandemic, Internet access is a must. I invite you to continue advocating for broadband that allows all citizens to access the Internet for education, health, work, connect with government agencies and with their family and friends. Countries including Finland, Estonia, Spain, Greece, and Costa Rica have made basic Internet access part of their citizens' fundamental rights. We deserve this service. Let's continue advocating for broadband.

Now let's start by looking at general examples of how libraries can help their communities move towards Development. These are from the Los Angeles Public Library in California: Specifically, objectives 3, 5, 8, and goal 10.

In addition to these examples, libraries are running SDG book clubs with children and adolescents. They can also be presented with people of all ages.

I would like to pause and recommend the bookmarks prepared by the ALA 2030 SDG special task force which I chaired. Completely free and can be printed for your book clubs or library patrons.

You can also create a table like the one for the Los Angeles Public Library to show how your library is providing services that support the SDGs.

And you can download a table to which you can add your library's name, logo, address, and other information as needed.

Culture, equity, justice and environmental resilience

- Libraries are strengthening the central fiber of our societies and contributing to the social and cultural capital of our societies through the work they do daily providing information in different ways and formats. Today I will talk specifically about how libraries are contributing to the areas of culture, equity, justice and environmental resilience. My purpose is to motivate you to think about how your libraries can contribute to the Development of this country and its communities in these areas.

- Now, let's see an overview of how culture is included in the SDGs and how libraries are supporting communities in this area:

- Target 4.7 refers to the objective of ensuring that all learners acquire the knowledge and skills necessary to promote sustainable development, including but not limited to the work that libraries do in education - for global education, citizenship and the appreciation of cultural diversity and the contribution of culture to the sustainability of development.

- Target 8.3 addresses the promotion of development-oriented policies that support productive activities, as well as, among others, creativity and innovation that libraries support with, for example, computer classes for people of all ages.

- Goals 8.9 and 12.b refer to the need to design and implement policies to promote sustainable tourism, including through local culture and products, and to the need to develop monitoring tools in this area. Libraries can help small entrepreneurs to understand how to make their business plan, how to understand the market and do a study of needs to establish their businesses. This helps in the production of local products and to promote the local culture.

- Target 11.4 highlights the need to intensify efforts to protect and safeguard the world's cultural and natural heritage. As we know, libraries have preserved people's history for centuries. (ODS chart) -The work carried out by libraries, librarians and all those who work in libraries contributes directly to the success of societies and to the communities, cities and countries reaching levels of Development as is the purpose of the ODS.

Now let's look at the areas of equity, justice and environmental resilience.

Goal 10 - social inequality - calls us to reduce inequality within and between countries. Inequality had fallen in countries before Covid-19 and after this

pandemic that has not ended, the panorama is showing that there may be a worldwide recession. Which would mainly impact vulnerable communities: the elderly, people living in poverty, people with different abilities, children, women, migrants and refugees.

Libraries can help our communities through a library card that can be used by people in many cities to access books, databases, and other materials that help them access information that helps them prepare for have jobs and improve your education and your chances in life. On screen we have a card that can be used in Australia in more than 130 public libraries.

The Los Angeles Library provides more than 900 free online courses and classes to earn your high school diploma.

Many libraries partner with Girls Who Code to provide classes for girls to learn how to write code which increases their possibilities in the technological field.

Goal 16 is about Peace, Justice and strong institutions. How can we contribute to equal access and justice for all? Three arguments why libraries are unique in achieving SDG 16:

• 	Because democracy depends on informed societies

• 	Because open government is more than a website

• 	Because the best decisions are based on the best information

 During these times of pandemic, libraries are providing information to dispel misinformation about the virus. This is very important and libraries are impacting the entire world because libraries can save lives!

The next area for today is Environmental Resilience. This includes the SDGs, resilience and the biodiversity-land and water nexus. This area includes goals 1, 6, 7, 9, 12, 14 and 15. Poverty eradication, Clean water and sanitation, clean and accessible energy, industry, innovation and infrastructure, responsible consumption and production, life under water, and life on earth. As we know climate action is paramount for our world, the presidents of the world's powers are gathering about this and there is a worldwide clamor for action.

Environmental resilience, the UN has said, is the capacity of environmental systems to adapt to changes and conserve their services. How can this be achieved in the midst of so much pollution?

Libraries are contributing to Development in the area of Environmental resilience by helping villages obtain removable energy through solar panels. Placing clean water wells on library premises. Collaborating with scientists to study Librarians are hosting events where they talk about our role in providing information (by collections, guides) so that people understand their behavior and how we help preserve our planet. Also on how libraries can be leaders in

sustainable buildings, and in community gardens to teach sustainable planting practices.

In addition, library associations such as ALA help countries that have experienced destruction of their libraries by natural or man-made disasters through grants to rebuild libraries. On screen we have photos of when visited libraries destroyed by Hurricane Maria in Puerto Rico and we encouraged people to donate. The ALA was able to give grants to PR and the Virgin Islands to rebuild. And also to places in the Pacific, in Haiti and in Mexico.

For more information about this topic, you can also visit IFLA and ALA's groups on sustainability.

Strategy for library associations and libraries

The strategy of libraries and library associations to support the Development of our communities and country must be long-term for response and work. Leave no one behind. We must change paradigms.

Collaborate in all sectors. Show the value of our proposals: the value of libraries. We can all contribute from where we are.

Recommendations

My recommendation for you is to develop guides to help the country's librarians to provide information and programming that helps their communities in the areas of culture, equity, justice and environmental resilience. Mirroring these guides, you could develop guides for library patrons as well. We have many examples of what libraries are already doing and we can compile those examples into documents that librarians can download from the website and use for their strategic planning.

We are the ones we were waiting for! Librarians, we, can position libraries as key players at the national and global level to generate change! We need a united world, not divided. Everyone deserves basic needs, dignity, and a fair shot at success. TOGETHER united, regional and national library associations, we help rebuild a just and equitable society.

LOIDA GARCIA -FEBO

International Library Consultant

Chair, ALA 2030 Sustainable Development Goals Task Force

CONTENTS

Abstracts

Bibliometric Analysis of the e-Journal of Information Literacy (JIL) from 2009-2020

Upeksha Kodithuwakku[1]

ABSTRACT

Bibliometric studies help to identify the depth of the presented information source. This study examined the Journal of Information Literacy (JIL) which is the professional journal of Chartered institute of Library and Information Professionals in the United Kingdom from 2007. This open access peer reviewed articles contribute to the disciplines of information literacy related subjects and library and information science as well. The study is focused on the bibliometric features and aimed to fill the research gap from previous studies conducted. Observing the contents of the e-journal; peer reviewed articles, research articles and student views are taken into account considering the timely importance. The book reviews, conference updates editorial, project reports are not included focusing on the relevancy to the present time period. The selected 138 articles from 24 volumes were entered and analyzed in SPSS. Majority of the articles are published in year 2017 (11.6%) and in year 2014 and 2020, less amount of articles (5.8%) have been published. Authorship pattern indicated that eight is the largest number of authors contributed to a paper and single authorship is highly visible (47.8%). Regarding the length of articles, 43 (31.2%) articles are in the ranges of 11-15 and 16-20 pages respectively. From the selection, research articles are prominent (71%) and student views are very less (2.9%). The 5342 citations of the journal articles will pave the way to future research focusing on the sources of information resources used by the scholars. The freely available quality information is quite important in this pandemic era and JIL serves both students and researchers as well. The author suggests that researchers from Asian region should present their research in this open access platform as none of the authors represented Asia.

Keywords: Bibliometric Studies, Electronic Journals, Information Literacy, Open Access, Peer-review Journal of Information Literacy

[1]Reader Services/Outreach Services, Library, University of Moratuwa
Email : upekshak@uom.lk

Introduction

The term "Bibliometric" was coined by Alan Pritchard who defined it as, "the application of mathematics and statistical methods to books and other media of communication" (Pritchard, 1969). During the past decade, where the research nature and dissemination of information have gone through tremendous changes, there were many trends in the field of bibliometric. According to Wang (2021), it has become a responsive research evaluation movement and ethical and appropriate use of traditional citation-methods metrics. At present bibliometric analyses are used to demonstrate and increase visibility of research impact of numerous disciplines (Mani et al, 2021). Several quantitative methods have been developed in the field of Library and information science in order to study the various aspects of subjects. Investigation of the topic of information literacy and its changes can be informative for researchers and provide a better understanding of the corresponding domains. Information literacy research in the fields of library and information science (LIS) and education still plays a leading role and is expanding the research territory for diverse populations in communities, workplaces, and other contexts (Li, Chen & Wang, 2021).

Nearly a half century ago in 1974, Paul G. Zurkowski has laid the foundation for the term "Information Literacy" where the discipline enriched with theories, methods time to time. In year 2018, CILIP definition "Information literacy is the ability to think critically and make balanced judgements about any information we find and use. It empowers us as citizens to reach and express informed views and to engage fully with society (CILIP, 2018)."

As a vital source of information, primary journals are considered as the main vehicle for disseminating research results and information about new ideas in a discipline which help for in-depth study in its totality and are the indicators of literature growth in any field (Garg, Lamba& Singh, 2020). In this kind of studies, data is gathered from a single primary, secondary or tertiary journal covering a particular period and analysed from various angles to find out year-wise distribution of articles, authorship pattern, citation pattern, length of articles, institution-wise distribution of articles, and subject-wise break-up of articles and many other bibliographic attributes (Panda, Maharana&Chhatar, 2013).\

Journal of Information Literacy (JIL) is an international, peer-reviewed, journal that aims to investigate all forms of information literacy. it publishes articles from both established and new authors where internationally renowned authors and library professionals who teach or undertake research into information literacy. The journal is published under the Diamond/Platinum Open Access model. It doesn't require subscription and authors are not required to pay a fee to be publish. JIL is indexed in DOAJ, ERIC, LISA, LISTA and SCOPUS (https://ojs.lboro.ac.uk/JIL/).

Through the literature presented it is observed that the bibliometric studies are prominent and popular among local and foreign research studies. In this study few studies are elaborated to trace the findings of research and to present analytical view point of related literature of the discipline. Using a range of bibliometric tools, a study on the International Journal of Information Management *(IJIM)* revealed that the journal has grown impressively in terms of publication and citation. IJLM has mostly published empirical articles, with its authors dominantly using quantitative methodology where conceptual and review articles had positive association with citations (Donthu et al, 2021). The 127 articles authored by 182 library professionals published from 2005-2019 of Journal of University Librarians' Association (JULA) of Sri Lanka were analyzed. This study intended to find out the areas of improvements needed in library science research in Sri Lanka and on improving the existing open access journals in light of installing altmetric tools. (Norman Ravikumar, & Ramanan, 2020).

In reviewing literature to identify the previous research studies, bibliometric analyses based on Journal of Information Literacy were scanned to identify the research gap. A study on publication and citation patterns in the Journal of Information Literacy (JIL) from 2007-2012. The results showed that the number of research articles (51.9%) is highest among other types of publications. A majority of contributions (71.75%) emanated from UK and other countries had very meager contribution. Majority of the papers (94.65%) were from academic institutions and a very few papers (5.35) from non-academic institutions. The citations demonstrated that individual research (68.7%) is much higher than collaborative research (Panda, Maharana & Chhattar, 2013).

Tallolli and Mulla (2016) examined the bibliometric analysis of JIL from 2011-2015 where 155 articles have been revealed from five volumes. The typical range (15.52%) of citations per article has been found and 22.58 % of articles contained author's self-citation and similarly 20% of citations were received by the journals. The contribution of articles of the study was single author approach and 0.26 was the degree of co-authors collaboration. The highest number (56.36%) of authors contributed from UK and the foremost productive establishment was London College of Political Economy and Social Science. This study indicated that library and information science researchers have made significant contributions to information literacy study.

Another bibliometric analysis of JIL was done by Singh and Verma (2019) covering the period of 2007-2017. The study showed that 234 authors from 134 institutions were involved to contribute the articles in this journal using mostly online resources as a source of information. This study is helpful for librarians, researchers, readers to choose information for their study.

The researchers recommended that the area of further research should focus on subject and country wise distribution of articles, rank list of most prominent contributor and cited journals.After observing the literature, the present study focused on the uncovered areas of pertaining research to JIL

Objectives

This study has been conducted to achieve following objectives;

- To study the quantitative growth and type of publications

- To analyze the authorship pattern of contributors.

- To ascertain most prolific contributor.

- To analyze the distribution of citations.

- To identify the papers by the types,institutional wise and country represent.

- To summarize the subjects through keywords.

Methodology

This bibliometric analysis is a quantitative study which attempt to analyze the collected data from Journal of Information Literacy for the study to achieve desired objectives. The 138 articles as data has been extracted from the official website of the journal for the period of 2009-2020. Editorial, book reviews, conference updates and project reports were excluded from the study depending on the timely importance. Research articles from practice, peer reviewed articles, articles from LILAC (Librarian's Information Literacy Annual Conference) and student views were only selected for the study. Though the journal has been published since 2007, both volumes 1 and 2 published in 2007 and 2008 has not been taken to study as selected articles were not published in the mentioned volumes. An attempt has been made to do the comparative study of all the 12 volumes of the Journal. The bibliographic details were recorded and data was analyzed by using SPSS and Excel.

Results

Quantitative growth of articles by year and volume

Table 1 depicts the year-wise and volume-wise distribution of papers in the journal. The number of papers published varied from 8 to 16 during the period. The highest number of papers 16 (11.6%) was published in 2017 and the lowest number 8 (5.8%) in 2014 and 2020. A total of 138 papers were published during the period spread over 12 issues of the journals.

Table 1: Frequency distribution of selected articles by year and volumes

Year	Volume	Frequency	Valid Percent	Cumulative Percent
2009	3	12	8.7	8.7
2010	4	12	8.7	17.4
2011	5	10	7.2	24.6
2012	6	15	10.9	35.5
2013	7	13	9.4	44.9
2014	8	8	5.8	50.7
2015	9	13	9.4	60.1
2016	10	10	7.2	67.4
2017	11	16	11.6	79.0
2018	12	9	6.5	85.5
2019	13	12	8.7	94.2
2020	14	8	5.8	100.0
Total		138	100.0	

Table 2 indicates that the average number of articles per volume was11.5 and the average number of articles per issue was 5.75

Table 2: Average number of articles per volume and issue

		Total No. of Articles	Average
No. of Volumes	12	138	11.5
No. of issues	24	138	5.75

Length of articles (year-wise)

Table 3 indicates the range of pages covered by articles year wise. Highest number of articles 43(31.16%) covered 11-16 and16-20 pages and lowest number of articles 2 (1.45%) covered 1-5 pages.

Table 3: Length of articles year wise.

Year	Length of papers								Percentage%)
	1-5	6-10	11-15	16-20	21-25	26-30	31-35	Total	
2009	0	5	5	2	0	0	0	12	8.70
2010	1	2	5	4	0	0	0	12	8.70
2011	0	3	3	2	2	0	0	10	7.25
2012	1	1	7	4	2	0	0	15	10.87
2013	0	1	5	3	2	2	0	13	9.42
2014	0	0	2	4	1	1	0	8	5.80
2015	0	2	4	4	3	0	0	13	9.42
2016	0	0	4	2	3	1	0	10	7.25
2017	0	1	5	4	2	3	1	16	11.59
2018	0	0	1	6	2	0	0	9	6.52
2019	0	1	1	5	3	1	1	12	8.70
2020	0	0	1	3	1	2	1	8	5.80
Total	2	16	43	43	21	10	3	138	
Percentage %	1.45	11.59	31.16	31.16	15.22	7.25	2.17	100	

Author distribution

Table 4 indicates that the single authorship (47.8%) was prominent during 2009-2020. Eight is the highest number of authors contributed to one paper.

Table 4: Author distribution

No. of Authors	Frequency	Percent	Valid Percent	Cumulative Percent
Single	66	47.8	47.8	47.8
Double	38	27.5	27.5	75.4
Three	20	14.5	14.5	89.9
Four	9	6.5	6.5	96.4
Five	1	.7	.7	97.1
Six	2	1.4	1.4	98.6
Seven	1	.7	.7	99.3
Eight	1	.7	.7	100.0
Total	138	100.0	100.0	

Authorship pattern of articles year-wise

Analysis of authorship pattern of the articles reveals that the articles of the single authors were more than those with two to eight authors. Table 5 shows that out of the 138 articles, 47.83% have been contributed by single author 27.54% by 2 authors; 14.49% by 3 authors; 6.53% by 4 authors; 0.72% by 5, 7, and 8 authors and 1.45% by 6 authors; Overall trend indicates that thesingle and joint authorship dominated over multiple authorship.

Table 5: Authorship pattern of articles year-wise

Year	Contribution of Authors								Total
	Single	Double	Three	Four	Five	Six	Seven	Eight	
2009	4	6	1	0	0	1	0	0	12
2010	5	4	3	0	0	0	0	0	12
2011	6	0	3	1	0	0	0	0	10
2012	7	5	1	1	0	0	1	0	15
2013	9	2	1	1	0	0	0	0	13
2014	4	3	0	1	0	0	0	0	8
2015	6	5	1	1	0	0	0	0	13
2016	5	1	1	2	1	0	0	0	10
2017	10	3	2	0	0	0	0	1	16
2018	4	2	3	0	0	0	0	0	9
2019	5	2	3	2	0	0	0	0	12
2020	1	5	1	0	0	1	0	0	8
Total	66	38	20	9	1	2	1	1	138
Percentage (%)	47.83	27.54	14.49	6.53	0.72	1.45	0.72	0.72	100

Authorship pattern of articles volume-wise

Table 6 indicates the authorship pattern of articles volume wise. Out of 66 articles of single author, vol.11 had the highest number 10(15.15%) and vol.14 has the lowest number 1 (1.52%). Out of the 38 articles by double authors, vol.3 had the highest number 6 (15.79%) and vol.10 has the lowest number 1(2.63%).Vol.8 had no articles by three authors and out of 20 articles by three, vol.4,5,12,13 had the highest number 3 (15.00%) and vol.3,6,7,9 and 10 have the lowest number 1(5.00%).

Vol. 3,4, 11, 12 and 14 had no articles by four authors and out of the 9 articles by four authors, vol.10,13 had the highest number 2(22.22%) and rest of the volumes had the lowest number 1(11.11%). Vol.3 and 14 had articles by six

authors. Only vol.10 had one article by five authors, vol.6 one article by seven authors andvol.11 had one article by eight authors.

Table 6: Authorship pattern of articles volume - wise

Vol.	Number of Authors															
	1	%	2	%	3	%	4	%	5	%	6	%	7	%	8	%
3	4	6.06	6	15.79	1	5.00	-	-	-	-	1	50	-	-	-	-
4	5	7.58	4	10.54	3	15.00	-	-	-	-	-	-	-	-	-	-
5	6	9.09	-	-	3	15.00	1	11.11	-	-	-	-	-	-	-	-
6	7	10.61	5	13.16	1	5.00	1	11.11	-	-	-	-	1	100	-	-
7	9	13.62	2	5.26	1	5.00	1	11.11	-	-	-	-	-	-	-	-
8	4	6.06	3	7.89	-	0.00	1	11.11	-	-	-	-	-	-	-	-
9	6	9.09	5	13.16	1	5.00	1	11.11	-	-	-	-	-	-	-	-
10	5	7.58	1	2.63	1	5.00	2	22.22	1	100	-	-	-	-	-	-
11	10	15.15	3	7.89	2	10.00	-	-	-	-	-	-	-	-	1	100
12	4	6.06	2	5.26	3	15.00	-	-	-	-	-	-	-	-	-	-
13	5	7.58	2	5.26	3	15.00	2	22.22	-	-	-	-	-	-	-	-
14	1	1.52	5	13.16	1	5.00	-	-	-	-	1	50	-	-	-	-
Total	66	100	38	100	20	100	9	99.99	1	100	2	100	1	100	1	100

Authorship pattern with degree of collaboration (DC)

Subramanyam (1982) suggested a formula to calculate the degree of collaboration among authors as follows: DC: NM/Nm+Ns

Nm=Number of multiple authors publications
Ns=Single authors Publications

The analysis revealed that author's degree of collaboration in Journal of information Literacy ranged from 0.87 to 0.31 during the year 2009 as depicted in table 7. The average degree of collaboration for this journal is 0.53.

Table 7 : Author's degree of collaboration

Year	NS	NM	C(NM/NM+NS)
2009	4	8	0.67
2010	5	7	0.58
2011	6	4	0.40
2012	7	8	0.53
2013	9	4	0.31
2014	4	4	0.50
2015	6	7	0.54
2016	5	5	0.50
2017	10	6	0.37
2018	4	5	0.55
2019	5	7	0.58
2020	1	7	0.87

Most prolific contributors

Considering the first author of the article, there were prolific contributors who had contributed with two articles each as presented in Table 8.

Table 8 : Most prolific contributors

Rank	Author	No. of contributions
1	Boger, T.S.	2
1	Bury, S.	2
1	Dalton, M.	2
1	Forster, M.	2
1	Funnell, P.	2
1	Hicks, A.	2
1	Pashia, A.	2
1	Walsh, A.	2
1	Webster, L.	2
2	129 Authors	1

Citation Pattern

The division of citations for the study period is shown in Table 9.It reveals that a total of 5342 citations are appended to 138 papers. The number of citations per year speckled from a minimum of 223 citations in 2010 to a maximum of 771 citations in 2017. The average number of citations per paper varied from 19 in 2010 to 69 in 2020. On the whole it is 39 per paper.

Table 9: Citation Pattern

Year	No. of papers	No. of citations	*Av. No. of citation/ paper	Percent-age %
2009	12	297	25	5.56
2010	12	223	19	4.17
2011	10	287	29	5.37
2012	15	480	32	8.99
2013	13	473	36	8.85
2014	8	368	46	6.89
2015	13	497	38	9.30
2016	10	389	39	7.28
2017	16	771	48	14.43
2018	9	334	37	6.25
2019	12	671	56	12.56
2020	8	552	69	10.33
Total	138	5342	39	100.00

* Rounded off to the nearest figure

Distribution of papers according to types

Among the types of articles published in JIL, following three types have been used for study as indicated in Table 10. Peer reviewed research articles (71%) constitute highest number of papers which have selected for the study.

Table 10 : Distribution of papers according to type of the article.

Year	Peer-reviewed articles from LI-LAC	Research articles (Peer-reviewed articles)	Student Views	Total
2009	4	8		12
2010	5	6	1	12
2011	5	5		10
2012	7	7	1	15
2013	6	6	1	13
2014	2	6		8
2015	2	11		13
2016	1	9		10
2017	1	14	1	16
2018	3	6		9
2019		12		12
2020		8		8
Total	36	98	4	138
%	26	71	3	100

Subject identification through keywords

Table 11 shows that the majority of researchers have used the term "information literacy" as the main keyword. As the journal is based on information literacy, the future researchers can identify the scope of the journal and submit their work on related disciplines as well.

Table 11: Subject identification through keywords given.

Keyword	No. of times used
Information Literacy	55
Academic Libraries	6
Information Literacy Assessment	3
Information Literacy Models/ Strategies	3
Advocacy	2
Critical Information Literacy	2
Higher Education	2
Research Support	2

Article distribution (Institutional- wise)

Table 12 indicates the Institutional wise distribution of articles of this journal. Institutional wise distribution of papers has been calculated on the basis of the affiliation of the first author. Out of 138 articles, the highest number 3 (2.17%) has been contributed by Nanyang Technological University, Singapore and University of Worcester, United Kingdom.

Table 12: Institutional Wise article distribution

Rank	Name of Institution	Number of Articles	Percentage (%)
1	Nanyang Technological University	3	2.17
1	University of Worcester	3	2.17
2	Brigham Young University	2	1.45
2	Imperial College Library	2	1.45
2	Kent State University	2	1.45
2	Loughborough University	2	1.45
2	Manchester Metropolitan University	2	1.45
2	Mount Royal University	2	1.45
2	Ostfold University College	2	1.45
2	Queen Mary University of London	2	1.45
2	Queensland University of Technology	2	1.45
2	Robert Gordon University	2	1.45
2	Sheffield Hallam University	2	1.45
2	The State University of New Jersey	2	1.45
2	Ulster University	2	1.45
2	University College Dublin	2	1.45
2	University College London	2	1.45
2	University of Colorado	2	1.45
2	University of Huddersfield	2	1.45
2	University of Leeds	2	1.45
2	University of Manchester	2	1.45
2	University of Sheffield	2	1.45
2	University of Strathclyde	2	1.45
2	University of West Georgia	2	1.45
2	University of West London	2	1.45
2	York University Libraries	2	1.45
3	Other	84	60.87
	Total	138	100.00

Geographical distribution of papers

Table 13 reveals that the papers have emanated from 15 countries. The geographical distribution of papers has been decided on the basis of the affiliation and address of the first author. From the analysis it is observed that the highest number of publications were from United Kingdom with 52 (37.68%) papers. Secondly United States with 45 (32.61%) papers followed by Canada with 12 (8.7%) papers. Majority number of papers has been contributed from United Kingdom which is the publication country of JIL.

Table 13: Geographical Wise article distribution

Country	Total number of papers	Percentage (%)
United Kingdom	52	37.68
United States	45	32.61
Canada	12	8.70
Ireland	8	5.80
Australia	5	3.62
Norway	4	2.90
Singapore	3	2.17
Germany	2	1.45
Belgium	1	0.72
Netherlands	1	0.72
New Zealand	1	0.72
Qatar	1	0.72
Spain	1	0.72
Sweden	1	0.72
Tanzania	1	0.72
Total	138	100

Discussion

Considering the average number of articles per volume (11.5%) it is visible that the journal of Information Literacy (JIL) has maintained the quantitative growth of articles during 2009-2020 Highest number of articles 16 (11.6%) has been published in year 2017 where in 2014 and 2020 the lowest amount of articles 8 (5.8%) have been published.

Highest number of articles 43 (31.16%) covered 11-16 and 16-20 pages and lowest number of articles 2 (1.45%) covered 1-5 pages regarding the range of pages covered by articles. The authorship range covered from one to eight and single authorship (47.8) was prominent. Out of 66 articles of single author, vol.11 had the highest number (15.15%) and vol.14 has the lowest number (1.52%) of articles. Vol.3 and 14 had articles by six authors. Only vol.10 had one article by five authors, vol.6 one article by seven authors and vol.11 had one article by eight authors. The average degree of collaboration for Journal of Information Literacy 0.53.

Depending on the first authors, nine authors have been considered as most prolific contributors who had contributed with two articles each Institutional wise and geographical distribution of articles have been calculated on the basis of the affiliation and address of the first author. Out of 138 articles, the highest number 3 (2.17%) has been contributed by Nanyang Technological University, Singapore and University of Worcester, United Kingdom. From the analysis it is observed that the articles have been covered 15 countries where highest number of publications were from United Kingdom with 52 (37.68%) papers. Secondly United States with 45 (32.61%) papers followed by Canada with 12 (8.7%) papers.

The authors have mentioned the keyword 'information literacy' mostly in their articles. Among the types of articles published in JIL, peer reviewed research articles (71%) constitute highest number of papers which have selected for the study.The 138 articles which focused on the study had 5342 citations. The maximum average citations per paper was 69 and minimum average citations per paper was 19. The average number of 39 citations per article indicates that the literature review process was considerably undertaken by authors to produce scholarly writing.

The online Journal of Information Literacy has been focused by various researchers in different aspects in studies. Inspecting several studies, certain similarities were identified.As JIL is published in United Kingdom, the contribution from the country is highly visible whereother countries had very meager contribution. Majority of the papers were scholarly output from academic institutions and a very few papers were from non-academic institutions. Individual researchis much higher than collaborative research andlibrary and information science researchers have made significant contributions to studies conducted in the discipline of information literacy.

Conclusion

The purpose of this study was to measure bibliometric features of the journal of information literacy (JIL) to actives prescribed objectives through quantitative analysis. The bibliometric analysis of information resources available on online platform is very useful to conduct more studies and to contribute more on specific themes. The freely distributed articles consists of academic scholarly literature which can be used for academic purposes of upcoming researchers as well. The articles are undergoing through peer review process and the journal is indexed in many scholarly databases are signs of reliable literature. The structure of each article explicit the framework of standard measurements accepted worldwide. These kind of studies are much important for information seekers as people are struggling to find information during pandemic era. The Sri Lankan authors should present their findings on the Journal of information literacy in order to awaken the Asian context of research to world. This study is helpful for librarians, researchers, readers to identify the research pattern and new perspectives on the discipline of information literacy. The area of further research should focus on job titles of authors, rank list of most cited journals and distribution pattern of cited sources. A detail study of cited sources will help librarians to construct the collection development policy according to the needs of future researchers.

References

Donthu, N., Kumar, S., Pandey, N., & Gupta, P. (2021). Forty years of the International Journal of Information Management: a bibliometric analysis. *International Journal of Information Management, 57*, Retrieved from https://doi.org/10.1016/j.ijinformgt.2020.102307.

Garg, K. C., Lamba, M., & Singh, R. K. (2020). Bibliometric Analysis of Papers Published During 1992-2019 in DESIDOC Journal of Library and Information Technology. *DESIDOC Journal of Library & Information Technology*, *40(6)*, Retrieved from https://doi.org/10.14429/djlit.40.06.15741

Groos, O.V. and Pritchard, A. (1969). Documentation Notes. *Journal of Documentation, 25(4),* 344-349. Retrieved from https://doi.org/10.1108/eb026482. https://infolit.org.uk/

Li, Y., Chen, Y., & Wang, Q. (2021). Evolution and diffusion of information literacy topics. *Scientometrics, 126*, 4195-4224. Retrieved from https://doi.org/10.1007/s11192-021-03925-y

Mani, N.S, Hayes, B.E., Dodd, A., Yu, Fei & Cawley, M.A. (2021). New data related roles for libraries: Using bibliometric analysis and visualization to increase visibility of research impact. In B.J. Holland (Eds.) *Handbook of research knowledge and organization systems in Library and Information Science* (pp 317-345). IGI Global

Norman R, M. & Ramanan, T. (2020). Application of mixed metrics of bibliometric analysis on the journal of the University Librarians' Association of Sri Lanka (2005 to 2019): with special reference to VOS viewer visualization. *Journal of the University Librarians Association of Sri Lanka. 23*. 157-184. 10.4038/jula.v23i2.8012.

Panda, I., Maharana. B., & Chhatar, C. (2013). The journal of Information Literacy: A bibliometric study. *International Journal of scientific and research publications.3(3)*

Singh, P., and Verma, N. (2019). Bibliometric analysis of Journal of Information Literacy (JIL). *Research journal of Library Sciences, 7(1)*, 1-9

Subramanym, K. (1983). Bibliometric studies of research collaboration: A review. *Journal of Information Science, 6*, 33-38

Tallolli, S.B., & Mulla, K. R. (2016). A bibliometric analysis of Journal of Information Literacy (2011-2015). *ISST Journal of Advances in Librarianship, 7(2)*, 44-51

Wang, Y. (2021). Overview of development and recent in bibliometrics and research evaluation. *International Journal of Librarianship, 6(1),*104-108. Retrieved from https://doi.org/10.23974/ijol.2021

Zurkowski, P. G. (1974). *The information service environment relationships and priorities*. National Commission on Libraries and Information Science. Retrieved from https://files.eric.ed.gov/fulltext/ED100391.pdf

Impact of Diabetes Mellitus on Life-Threatening Complications of COVID-19 : A Scoping Review

P. T. A. Thilakarathna[1]

ABSTRACT

Coronavirus disease - 19 (COVID-19) is the 5th documented pandemic that causes more than 4 million reported deaths since July 2020. It has spread to nearly 200 countries around the world, affecting the social lives of the population. The burden of mortality increases with pre-existing comorbidities such as diabetes and hypertension. A literature review was conducted using the database PubMed. The articles of case reports, case series and single-centered or multi-centered clinical trials available in the English were selected to evaluate the impact of diabetes mellitus on COVID-19 related deaths. Data extraction and assessment were conducted according to the PRISMA checklist for scoping review. 46 papers met the inclusion criteria of the review. The selected 46 studies were conducted to assess the severity of clinical symptoms and death rate. The inflammatory marker levels in the clinical profile of COVID-19 patients with diabetes showed higher levels of interleukin (IL), C-reactive protein (CRP), erythrocyte sedimentation rate (ESR), white cell and neutrophil counts and abnormal chest x-ray findings compared to non-diabetes COVID-19 patients. The abnormalities of these parameters emphasized the increased degree of severity and inflammatory condition which ultimately progressed into Acute Respiratory Distress Syndrome (ARDS). The result of this literature review suggests that the patients with pre-existing diabetes mellitus demonstrated a significantly higher risk of death compared to non-diabetes.

Keywords: Diabetes Mellitus, COVID-19, Comorbidities, Mortality, Acute Respiratory Distress Syndrome (ARDS).

[1]Department of Medical Laboratory Science, Faculty of Allied Health Sciences, University of Ruhuna, Sri Lanka
Email : thilakarathnaamandi@gmail.com

Introduction

Coronavirus disease-19 (COVID-19) is the 5th documented pandemic that makes an outbreak spread over a large geographical area in the world. The COVID-19 spread to more than 200 countries in the globe with a significant relapse. The first COVID-19 case had reported in December 2019 in Wuhan city, China. The causative agent for the disease was Severe Acute Respiratory Syndrome Corona Virus 2 (SARS-CoV-2), causing fetal pneumonia. As the causative agent is highly contagious, the cluster of reported pneumonia cases spread rapidly by human to human transmission (Shang et al., 2021).

Though the origin of SARS-CoV-2 is not confirmed, it believes that the causative agent might transmit from animals (bats) to human beings. Therefore, the novel coronavirus causes for COVID-19 is considered the 3rd zoonotic coronavirus. Meanwhile, it became a human-to-human transmitting causative factor. In China, the disease spread quickly, raising fatality rates. As a result, on January 30, 2020, the World Health Organization (WHO) declared this situation a Public Health Emergency of International Concern. When the disease spread in numerous nations, the World Health Organization (WHO) proclaimed the current world condition as a global pandemic on March 11, 2020, and world concern has taken towards the COVID-19 (Chauhan, 2020).

As of 6th September 2021, the World Health Organization's "Weekly Epidemiological Update" reported 220,563,227 COVID-19 cases and 4,565,483 deaths. The majority of cases and reported deaths have been reported in America, Europe, Southeast Asia, Africa, and the Western Pacific region. The reported COVID-19 cases presented several variants (variants of Concern -VOCs) of SARS-CoV-2 as Alpha, Beta, Gamma and Delta.

The COVID infected human can primarily exhibit systematic respiratory disorders. The severity of systemic and respiratory disorders plays a key role in the prognosis. The common exhibited respiratory symptoms include sneezing, cough, dyspnoea, pneumonia, and severe respiratory distress. The systemic symptoms as diarrhea, fever, headache, and fatigue are common in COVID infected males and females. The exhibiting unique symptoms, disorders, and their severities vary in newly identified strains of the COVID-19 virus. (Fadl, Ali, & Salem, 2021)

The several comorbidities including hypertension, diabetes mellitus, heart and cardiovascular diseases, chronic kidney diseases (CKD), dementia-like neurological diseases, Human Immunodeficiency Virus (HIV) infection, chronic respiratory diseases as asthma and chronic pulmonary obstructive disease (CPOD) increase the prevalence and severity of COVID-19 infection (Shaikh et al., 2021). The COVID-19 infected persons with comorbidities and other immuno-compromised, health-related factors are more prone to get severely ill. Meanwhile, they will require hospitalization, ventilation, and intensive care.

A poor prognosis and even death could be resulted (Chang, Park, Kim, & Park, 2020). Even though the strain of the virus with specific genomic sequences determines the severity and disease prognosis, also comorbidities play a significant contribution to the severity and the disease prognosis and sudden death of the infected person. (Chang et al., 2020; Fadl et al., 2021)

Diabetes mellitus is a common metabolic disorder caused by the reduction of insulin hormone production by the pancreatic cells or due to the resistance of receptors to insulin, exhibiting an increased level of blood glucose or hyperglycaemic condition (Zhu et al., 2020).Insulin is a hormone that mainly regulates the blood glucose level in the body. Diabetes considers as a global pandemic due to the high morbidity and mortality rates which are in the increasing trend (Zhu et al., 2020).

According to the statistics of the World Health Organization (WHO), over 420 million people in the world (6% of the world population) suffer from diabetes mellitus (World Health Organization, 2021). But the majority of diabetes patients live in low and middle-income countries (World Health Organization, 2021). In 2019, 1.5 million diabetes-related deaths had reported worldwide (World Health Organization, 2021).

The pathophysiology impacting the critical outcome of COVID-19 patients with diabetes mellitus had been described in previous studies. The common receptor for the entry of SARS- CoV-2 is the Angiotensin-converting enzyme 2 (ACE2). ACE2 plays a part in the renin-angiotensin-aldosterone system (RAAS) (Lim, Bae, Kwon, &Nauck, 2021). Due to the low immunity of survivals with pre-existing diabetes, they are more prone to infect with COVID-19. The hyperglycaemic condition of the diabetics could modulate immune and inflammatory responses causing patients to severe COVID-19 leading to critical outcomes. The COVID-related low-grade chronic inflammatory response can ultimately cause Acute Respiratory Distress Syndrome (ARDS). SARS-CoV-2 may attack the pancreas. Thereby the glycaemic control is also interrupted. Therefore, pre-existing diabetes and COVID-19 have a bi-directional association (Marcos, Boada, Marin, & Contreras, 2021)

The prognosis of COVID-19 patients detects by physical appearances, laboratory findings, the requirement of mechanical ventilation, and imaging. In regular management schedule the COVID symptoms like fever, cough, lethargy, and fatigue are checked. The body oxygen levels are monitored regularly. If the body oxygen level goes down, mechanical ventilation is to be provided. The full blood count parameters, inflammatory parameters (C - reactive protein and procalcitonin), tests related to kidney function (serum Creatinine), liver function (serum liver enzymes), and tests related to coagulation status (D-dimer test and coagulation studies) perform to detect the prognosis or the cure (Zhu, She, Cheng, Guo, et al., 2020).

Objectives

This study aims to review research publications of studies on COVID-19 patients with pre-existing condition of diabetes mellitus.

Research Problem / Methodology

Literature search strategy

A literature review was comprehensively conducted in the online database of PubMed in the duration of 1st January to 31st June 2021. The utilized keywords for electronic PubMed search were "COVID-19" and "Diabetes" or "Diabetes Mellitus". The reviewing process started on PubMed-listed articles after considering the inclusion and exclusion criteria.

Inclusion and exclusion criteria

The articles of case reports, case series, and single-centered or multi-centered clinical trials written in the English language had selected for the review. The non-English language references, duplicates and unavailability of the full-text document were removed from the search via screening process. A total of 46 papers met the inclusion criteria of the literature review.

The full papers of all 46 articles were read by the reviewer. But it was revealed that 40 full articles have described the research finding as a combination of other comorbidities as hypertension and asthma. Therefore, the six articles were eligible for the overall reviewing process about COVID-19 and Diabetes Mellitus.

Data extraction and data analysis

The relevant details of the selected six articles were extracted purposively using a self-prepared data extraction EXCEL form (Table 01). The extracted data includes study title, authors, population or the study based country, objectives, methodology, results, and the conclusions of the particular reference.

The selection of references for the review was conducted according to the PRISMA checklist for scoping review process (Figure 01).
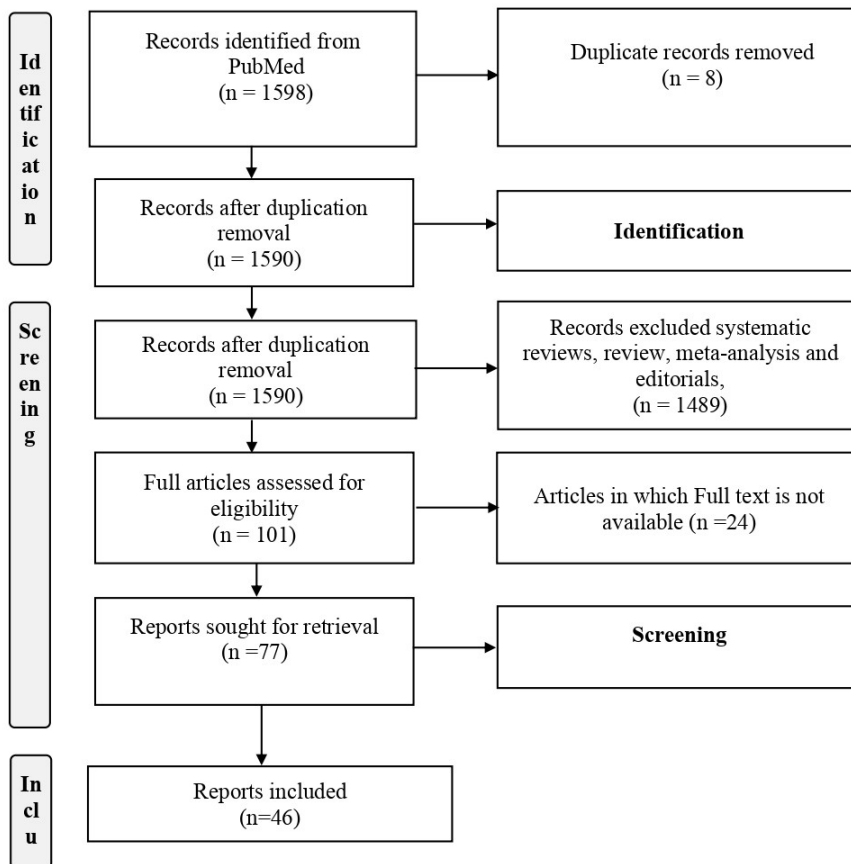
Figure 01: Selection of references for the review

Findings

The selected 46 studies assessed the severity of clinical symptoms and death rate to evaluate the impact of diabetes mellitus on COVID - 19 related deaths. Among them, 40 studies were the original article associated with other comorbidities like hypertension, obesity, and asthma. The unique data relevant to diabetes mellitus, hyperglycaemia, or glucose control that engaged with the outcomes of COVID patients were not eligible to be extracted separately.

Table 01: Extracted review data including study title, authors, population or the study based country, objectives, methodology, results, and the conclusions of the particular reference

Title, authors and year of Publication	Objectives and Methodology	Sample (N), Study Population and Setting	Findings and Conclusions
1Adverse outcomes in	A retrospective cohort study was performed to outcomes of COVID-19 with diabetes	N= 889 (three hospitals in London)	There were 337 (38%) COVID-19 patients with pre-existing diabetes in the study sample. Out of 337, 324 of having type-2 diabetes mellitus, and 13 of having type-1 diabetes mellitus. All study participants showed equal chest X-ray severity scores. But, 33% of diabetes patients required the administration of ICU. At the administration, they showed significantly low platelet counts. They required mechanical ventilation during the administration. This study concluded that diabetes as comorbidities increases the poor outcome, especially in older patients
2Does inpatient hyperglycaemia predict a worse outcome in COVID-19 intensive care unit patients? (Saand et al., 2021)	This retrospective study aimed to discover the association between diabetes and COVID-19 outcomes of ICU patients.	N = 495 (ICU patients in 10 hospitals in northeast Ohio)	Among the total study population, 242 COVID-19 patients were pre-diabetes survivals. The pre-diabetes patients showed a prolonged duration at ICU (5.53 days) compared to non-diabetes (3.40 days). A 50% of diabetes COVID patients required ventilation support compared to non-diabetes (37.2%). The mortality rates of diabetes and non-diabetes COVID patients were 31.4% and 16.6%, respectively. The diabetes patients showed high counts of WBC and high concentrations of several biochemical parameters as ferritin, CRP, and IL-6.

			The study concluded that the COVID-19 patients with pre-existing diabetes increased the duration of ICU treatment and requirement of ventilation with a high mortality rate compared to non-diabetes patients.
3Predictors of Severe COVID-19 in Patients With Diabetes : A Multicenter Review (Kristan et al., 2021)	A retrospective multicentre study was conducted to access any risk factors in hospitalization with COVID-19	N = 832 (Bailimore city)	The study included 137 inpatients and 26 outpatients with diabetes mellitus. According to the data, there had no significant difference between diabetes and non-diabetes groups unless the patient had chronic kidney disease or aging. The study concluded that the hospital admissions increased due to predictors of severe COVID-19 with diabetes and chronic kidney disease or aging.
4The Relationship Between Diabetes Mellitus and COVID-19 Prognosis : A Retrospective Cohort Study in Wuhan , China (Shang et al., 2021)	This study aimed to conduct a retrospective study to understand the association between diabetes and prognosis of the disease.	N = 584 (No.7 hospital, Wuhan city, China)	In the study, there were 84 pre-diabetes patients and 500 of non-diabetes patients. Among them 52.6% of patients were female. At the admission of study samples, 20.2% of diabetes patients and 10.0% of non-diabetes patients were in the critical stage. The laboratory findings, Imaging, survival rates and mortality rates were considered in the study. The diabetes patients who infected with COVID-19 expressed high blood parameter values in white cell count and neutrophil count and low values in lymphocyte count compared to non-diabetes patients. The concentrations D-dimer and procalcitonin were also high in diabetes patients. (Table 2) According to the imaging findings, COVID-19 patients with diabetes had more probability to end up with bilateral pneumonia (86.9%) than the non-diabetes group (75.4%).

			According to the study, the diabetes group had "significantly increased levels of serum inflammation-related biomarkers, including interleukin-6, C-reactive protein, and procalcitonin, higher incidence of bilateral pneumonia, significantly higher serum D-dimer concentration, higher incidence of respiratory failure and acute cardiac injury and more likely to receive corticosteroids," compared to the COVID-19 infected non-diabetes group. Therefore, diabetes patients infected with COVID-19 had a faster disease prognosis and required more sophisticated treatment.
5Clinical character-istics and outcomes of COVID-19 infected diabetic patients admitted in ICUs of the southern region of Bangladesh

(Saha et al., 2021) | The study aimed to collect data on clinical features and outcomes of COVID-19 with and without dia-betes. | N = 168

(hospitals of Chatto-gram, Ban-gladesh) | There were 88 and 80 COVID-19 patients in the study with and without diabetes, respectively. After the admission, 60.2% of pre-diabetes patients and 52.5% of non-diabetes patients had passed away. The diabetes patients who required insulin therapy had the shortest survival duration. The diabetes group had high counts in total white cells (71.45 and 65.4%) and neutrophils (75.7% and 55.2%). The D-dimer assays showed a significant difference between the groups (76.0% and 52.4%), emphasizing the poor prognosis of diabetes patients. Respectively, 56.8%, 97.7%, 92%, 92%, and 84.1% of diabetic COVID-19 patients administered antiviral drugs, antibiotic drugs, anti-allergic treatments, vitamins, and anti-inflammatory minerals.

The study concluded that diabetes is an independent risk factor for the poor prognosis of COVID-19. Therefore, the prevention and treatment of diabetic patients should be paid attention to maintaining the blood glucose level. |

The six articles were chosen for the review after considering the scope and the inclusion criteria of the study.

The review findings were discussed in each of six research articles separately (Table: 01). The inflammatory marker levels in the clinical profile of COVID-19 patients with diabetes showed higher levels of interleukin (IL), C-reactive protein (CRP), erythrocyte sedimentation rate (ESR), white cell and neutrophil counts and abnormal chest x-ray findings compared to non-diabetes COVID-19 patients (Saha et al., 2021; Shang et al., 2021; Zhu, She, Cheng, Qin, et al., 2020).

The D-dimer test and procalcitonin level estimation were considered to detect any adverse effects of COVID patients. The D-dimer test enrolled with the coagulation assessment.

The abnormalities of these parameters were emphasized the increased degree of severity and inflammatory condition which ultimately progressed into Acute Respiratory Distress Syndrome (ARDS).

Discussion

According to the available data of various studies related to COVID-19 and diabetes mellitus (Engbeaya et al., 2021; Kristan et al., 2021; Saand et al., 2021; Saha et al., 2021; Shang et al., 2021; Zhu et al., 2020), the severity of symptoms, requirement of mechanical ventilation, readings of serum and blood parameters, imaging and scan findings, duration of hospitalization and intensive care, mortality, and survival rates had assessed to predict on poor prognosis and requirement of critical care on COVID patients with diabetes.

The common symptoms encountered with COVID-19 were fever, headache, diarrhea, vomiting, cough, dyspnea, fatigue, and lethargy. Even though both COVID diabetes patients and COVID non-diabetes patients expressed these symptoms, the worsening of symptoms was prominent in COVID patients with diabetes mellitus (Paolo et al., 2020). The percentage of COVID patients with pre-existing diabetes elevated compared to the non-diabetes group of patients. The study of Saha et al., 2021 showed that the diabetes group of ICU-administered COVID-19 patients had an 8% more risk of death than the non-diabetes group. The percentage of ICU administration was considerable in the group of pre-existing diabetes and the pre-diabetes patients showed a prolonged duration at ICU (5.53 days) compared to non-diabetes (5.53 days versus 3.40 days) (Saand et al., 2021). The groups of COVID patients with diabetes required high percentage supply of mechanical ventilation as oxygen inhalation, invasive ventilation or non-invasive ventilation.

The publications detailed on the laboratory testings which that were performed to obtain estimated blood or serum parameters to ensure the prognosis of the disease. The profile of laboratory tests for a COVID patient had included full blood counts (FBC), Liver enzyme assays as ALP (alkaline phosphatase), ALT (alanine transaminase), AST (aspartate aminotransferase), gamma-glutamyltransferase (GGT), kidney function tests as GFR (glomerular filtration rate), serum creatinine, serum inflammatory marker levels as CRP (C-reactive protein), procalcitonin, ESR (erythrocytes sedimentation rate) and coagulation based tests as D-dimer assays, APTT (activated partial thromboplastin time), PT (prothrombin time) (Zhu, She, Cheng, Guo, et al., 2020). The diabetes COVID-19 patients showed different investigation profiles containing one or more severity emphasizing values of laboratory parameters. D-dimer tests and procalcitonin levels had considered the main parameters assessing the poor prognosis of a patient. D-dimer test revealed the coagulation status of a patient (Shang et al., 2021).As D-dimer is a fibrin degradation product, the levels of D-dimers indicated the presence of minor clots in the blood circulation. Ultimately the clots could cause strokes, kidney damage, pulmonary embolism, or heart attacks. Therefore, the D-dimer test had used as a marker of the severity of COVID-19 (Saha et al., 2021). Procalcitonin (PCT) is a precursor of calcitonin. The literature reveals that there was a significant level of procalcitonin in serum in COVID-19 patients. The kidney function tests and liver function tests showed different profiles in different studies. It may mention a difference between diabetes and non-diabetes COVID-19 patients, while other references concluding no significant difference (Barron et al., 2020; Shaikh et al., 2021).

The impact on patients of controlling glycaemic conditions compared to the group of patients with uncontrolled hyperglycemia (Shang et al., 2021), showed importance of using insulin or glucose-lowering drugs in order to prevent adverse reactions.

Conclusion and Recommendation

The review reveals that the factors related to the prognosis of COVID-19 patients with pre-existing diabetes are markedly different than non-diabetes mellitus COVID patients. The result of this literature review suggests that the patients with pre-existing diabetes mellitus demonstrated a significantly higher risk of death compared to non-diabetes. The pre-existing diabetes patients (type-2 and type-1 diabetes) should consider the better glycaemic control in the event of COVID-19 infection.

References

Barron, E., Bakhai, C., Kar, P., Weaver, A., Bradley, D., Ismail, H., & Valabhji, J. (2020). Associations of type 1 and type 2 diabetes with COVID-19- related mortality in England : a whole-population study. *Lancet Diabetes Endocrinol*, *8*(10), 813–822. Retrieved from https://doi.org/https://doi.org/10.1016/S2213-8587(20)30272-2

Chang, M. C., Park, Y.-K., Kim, B.-O., & Park, D. (2020). Risk factors for disease progression in COVID-19 patients. *BMC Infectious Diseases*, *20*(1), 445. Retrieved from https://doi.org/10.1186/s12879-020-05144-x

Chauhan, S. (2020). Comprehensive review of coronavirus disease 2019. *Biomedical Journal*, *43*(4), 334–340. Retrieved from https://doi.org/10.1016/j.bj.2020.05.023

Engbeaya, C. I.-, Distaso, W., Amin, A., Yang, W., Idowu, O., Kenkre, J. S., … Salem, V. (2021). Adverse outcomes in COVID-19 and diabetes : a retrospective cohort study from three London teaching hospitals. *BMJ Open Diabetes Research & Care*, *9*(1), e001858. Retrieved from https://doi.org/10.1136/bmjdrc-2020-001858

Fadl, N., Ali, E., & Salem, T. Z. (2021). COVID-19: Risk Factors Associated with Infectivity and Severity. *Scandinavian Journal of Immunology*, *93*(6). Retrieved from https://doi.org/10.1111/sji.13039

Kristan, M. M., Kim, Y. K., Nelson, T., Moxley, M. C., Yip, T. C., Munir, K., & Malek, R. (2021). Predictors of Severe COVID-19 in Patients With Diabetes : A Multicenter Review. *Endocrine Practice : Official Journal of the American College of Endocrinology and the American Association of Clinical Endocrinologists*, *27*(8), 842–849. Retrieved from https://doi.org/https://doi.org/10.1016/j.eprac.2021.05.011

Li, G., Chen, Z., Lv, Z., Li, H., Chang, D., & Lu, J. (2021). Diabetes Mellitus and COVID-19: Associations and Possible Mechanisms. *International Journal of Endocrinology*, *2021*, 1–10. Retrieved from https://doi.org/10.1155/2021/7394378

Lim, S., Bae, J. H., Kwon, H.-S., & Nauck, M. A. (2021). COVID-19 and diabetes mellitus: from pathophysiology to clinical management. *Nature Reviews Endocrinology*, *17*(1), 11–30. Retrieved from https://doi.org/10.1038/s41574-020-00435-4

Marcos, L. M., Boada, C. C., D., M.-S. M., Marin, W., & Contreras, M. (2021). COVID-19 and diabetes: A bidirectional relationship. COVID-19 y diabetes mellitus: una relación bidireccional. *Clinica e Investigacion En Arteriosclerosis : Publicacion Oficial de La Sociedad Espanola de Arteriosclerosis*, *33*(3), 151–157. Retrieved from https://doi.org/https://doi.org/10.1016/j.arteri.2020.10.001

Paolo, G., Luca, M., Boscari, F., Fioretto, P., Maran, A., Busetto, L., … Vettor, R. (2020). Newly-diagnosed diabetes and admission hyperglycemia predict COVID-19 severity by aggravating respiratory deterioration. *Diabetes Research and Clinical Practice*, *168*. Retrieved from https://doi.org/https://doi.org/10.1016/j.diabres.2020.108374

Saand, A. R., Flores, M., Alwakeel, M., Griffiths, L., Wang, X., Han, X., … Fadel, F. A. (2021). Does inpatient hyperglycemia predict a worse outcome in COVID-19 intensive care unit patients ? *Journal of Diabetes*, *13*(3), 253–260. Retrieved from https://doi.org/10.1111/1753-0407.13137

Saha, A., Moinul, M., Quader, T., Naher, S., Akter, F., Mehedi, H. M. H., … Parvin, A. (2021). Clinical characteristics and outcomes of COVID-19 infected diabetic patients admitted in ICUs of the southern region of Bangladesh. *Diabetes & Metabolic Syndrome: Clinical Research & Reviews*, *15*(1), 229–235. Retrieved from https://doi.org/https://doi.org/10.1016/j.dsx.2020.12.037

Sanyaolu, A., Okorie, C., Hosein, Z., Patidar, R., Desai, P., Prakash, S., … Marinkovic, A. (2021). Global Pandemicity of COVID-19 : Situation Report as of June 9 , 2020. *Infectious Diseases: Research and Treatment*, *14*. Retrieved from https://doi.org/10.1177/1178633721991260

Shaikh, F. S., Aldhafferi, N., Buker, A., Alqahtani, A., Dey, S., Abdulhamid, S., … Abdul-Salam, V. B. (2021). Comorbidities and Risk Factors for Severe Outcomes in COVID-19 Patients in Saudi Arabia: A Retrospective Cohort Study. *Journal of Multidisciplinary Healthcare*, *Volume 14*, 2169–2183. Retrieved from https://doi.org/10.2147/JMDH.S317884

Shang, J., Wang, Q., Zhang, H., Wang, X., Wan, J., Yan, Y., … Lin, J. (2021). The Relationship Between Diabetes Mellitus and COVID-19 Prognosis : A Retrospective Cohort Study in Wuhan , China. *The American Journal of Medicine*, *134*(1), e6–e14. Retrieved from https://doi.org/https://doi.org/10.1016/j.amjmed.2020.05.033

World Health Organization. (2021a). The Global Diabetes Compact. *Global Diabetes Summit*.

World Health Organization. (2021b). *Weekly Operational Update on COVID-19*. (71), 1–15.

Yan, Y., Yang, Y., Wang, F., Ren, H., Zhang, S., Shi, X., … Dong, K. (2020). Clinical characteristics and outcomes of patients with severe covid-19 with diabetes. *BMJ Open Diabetes Research and Care*, *8*(1), 1–9. Retrieved from https://doi.org/10.1136/bmjdrc-2020-001343

Yaribeygi, H., Sathyapalan, T., Jamialahmadi, T., & Sahebkar, A. (2020). The Impact of Diabetes Mellitus in COVID-19: A Mechanistic Review of Molecular Interactions. *Journal of Diabetes Research*, *2020*. Retrieved from https://doi.org/10.1155/2020/5436832

Zhu, L., She, Z.-G., Cheng, X., Guo, J., Zhang, B.-H., & Li, H. (2020). Association of Blood Glucose Control and Outcomes in Patients with COVID-19 & Pre-existing Type-2 Diabetes. *Cell Metabolism*, *31*(6), 1068–1077. Retrieved from https://doi.org/doi: 10.1016/j.cmet.2020.04.021

Impact of COVID-19 Pandemic on the Role of Parents in Education of Their Children in High-Rise Housing Schemes in Colombo

Eranga Rajika Panawenne[1]

ABSTRACT

The COVID-19 pandemic has directly attacked to children's education worldwide. Every child is entitled to free education in Sri Lanka since 1945. The parents play a limited role in their school-age children's education. However, the role of parents in education has widened due to changes caused by the COVID-19 pandemic. The research has focused on the role of parents in the education of school children living in low-middle-class flats. The main objective of this research is to identify the psychosocial changes of the parental role that could adversely affect their children's education during the COVID-19 pandemic. Four housing schemes in Colombo were selected as the sample frame for this research and randomly selected 20 households with including at least one school child. The data was analyzed after obtaining data by using a questionnaire, an in-depth interview, and case studies. Findings revealed that parents were equally engaged and shared limited responsibility for their children's education before the pandemic. However, presently, the mother is primarily responsible for the education of school children unlimitedly because their children learn online from home all day. 80% of mothers of the students stated that their knowledge was insufficient to support their children's education. Only 5% of parents have stated that they can help their children's education and 15% of mothers have complained that it is difficult to manage work and family affairs with their children's education. According to these findings, changes due to the pandemic towards the parental role of these parents directly and negatively affect the children's education. Therefore, empowering parents with overall knowledge to support their children's education via awareness programmes is a manageable solution.

Keywords : Children, School Education, Parenting Role, COVID-19 Pandemic, Online Learning

[1]Supreme Court of Sri Lanka
Email : erangapanawenne@gmail.com

කොවිඩ්-19 වසංගතය හේතුවෙන් කොළඹ මහල් නිවාස සංකීර්ණවල
දරුවන්ගේ අධ්‍යාපනය සම්බන්ධව දෙමාපියන්ගේ භූමිකාවට
සිදු වූ බලපෑම

හැඳින්වීම

කොවිඩ්-19 වසංගත තත්ත්වය හේතුවෙන් පහළ මධ්‍යම පාන්තික අඩු ආදායම්ලාභී පවුල් නියෝජනය කරන දරුවන්ගේ අධ්‍යාපනය සම්බන්ධයෙන් දෙමාපියන්ගේ භූමිකාවට සිදු වූ බලපෑම පිළිබඳව මෙම අධ්‍යයනය සිදු කළ අතර වසංගතයට පෙර තත්ත්වය, වසංගතයේ මුල් අවධිය හා වත්මන් තත්ත්වය ලෙස වෙන් වෙන් වශයෙන් පාසැල් ළමුන්ගේ අධ්‍යාපනය සම්බන්ධයෙන් දෙමාපියන්ගේ භූමිකාව වෙනස් වූ ආකාරය පිළිබඳව එක් රැස් කරගන්නා ලද දත්ත විශ්ලේෂණය කොට නිගමන වලට එළඹෙන ලදී.

වසංගතයට පෙර, ඉහළ අධ්‍යාපනයක් හා වරප්‍රසාද සහිත පවුල් නියෝජනය කරන දරුවන්ගේ අධ්‍යාපනය සම්බන්ධයෙන් දෙමාපියන්ගේ ධනාත්මක මැදිහත්කරණ භූමිකාව හා නාගරික පහළ මධ්‍යම පාන්තික අඩු අධ්‍යාපනයක් හා අඩු වරප්‍රසාද සහිත පවුල් නියෝජනය කරන දරුවන්ගේ අධ්‍යාපනය සම්බන්ධයෙන් දෙමාපියන්ගේ භූමිකාව අතර පරතරය අවම කිරීම සඳහා ශ්‍රී ලංකාවේ නිදහස් අධ්‍යාපන ක්‍රමය සෑහුව මැදිහත් වූ නමුත්, කොවිඩ්-19 වසංගත තත්ත්වය හමුවේ පාසැල් වසා දැමීමට සිදු වීම, පාසල හැරුණු විට වෙනත් අධ්‍යාපනික අවස්ථා සීමිත සමාජ කණ්ඩායමක් නියෝජනය කරන දරුවන්ගේ අධ්‍යාපනය සම්බන්ධයෙන් දැඩි අවාසි සහගත තත්ත්වයක් ඇති කිරීමට මූලික හේතුව බවට පත් වී තිබේ.

රටේ අනාගත අභිවෘද්ධිය සම්බන්ධයෙන් තීරණාත්මක බලපෑමක් සිදු කළ හැකි දරුවන්ගේ අධ්‍යාපනය බිඳ වැටීම, අධ්‍යාපනය හේතුවෙන් ඇති වන අසමානතාවය පුළුල් වීම ඇතුළ අහිතකර ප්‍රතිඵල පාලනය කර ගැනීම සඳහා මැදිහත්වීම අත්‍යාවශ්‍ය වන අතර, වසංගත තත්ත්වය හේතුවෙන් පාසැල් දරුවන්ගේ අධ්‍යාපනය සම්බන්ධයෙන් සෑහුව මැදිහත්වීමට සිදුව ඇති අඩු ආදායම්ලාභී නාගරික දෙමාපියන්ගේ භූමිකාව බලගැන්වීම සඳහා දැනුවත් කිරීමේ වැඩසටහන් ඇතුළ වඩාත් ප්‍රායෝගික ක්‍රියාමාර්ගවලට අවතීර්ණ වීම වඩාත් උචිත බව හඳුනා ගත හැකිය.

සාහිත්‍ය විමර්ශනය

ලොව පුරා පුද්ගලයන් මිලියන 4.5 කට වැඩි සංඛ්‍යාවකට දිවි අහිමි කළ කොවිඩ්-19 වසංගත තත්ත්වය ශ්‍රී ලංකාවට පමණක් අදාළ නොවන ගෝලීය අර්බුදයකි (World Health Organization, 2021). එහි බරපතල අහිතකර බලපෑම් සිදු වූ ක්ෂේත්‍ර අතර අධ්‍යාපන ක්ෂේත්‍රය ප්‍රමුඛ වන අතර, ලෝකයේ සිසුන්ගෙන් හරි අඩකට ආසන්න ප්‍රමාණයක් තවමත් අර්ධ වශයෙන් හෝ පූර්ණ වශයෙන් පාසැල් වසා දැමීමෙන් පීඩාවට පත්ව ඇති අතර, දරුවන් මිලියන සියයකට වැඩි ප්‍රමාණයක් කියවීමේ අවම

ප්‍රවීණතා මට්ටමට වඩා පහළ වැටෙනු ඇතැයි අනුමාන කරන අතර, අධ්‍යාපනය යථා තත්ත්වයට පත් කර ගැනීමට ප්‍රමුඛත්වය දීම, පරම්පරා ව්‍යසනයක් වළක්වා ගැනීමක් ලෙස අර්ථකථනය කරයි (UNESCO, 2021).

එක් එක් රටවල දත්ත හා අධ්‍යයන ගණනාවකින් පෙනී යන ආකාරයට කොවිඩ්-19 රෝගය වැළඳුණු මුළු සංඛ්‍යාවෙන් 8.5%ක් පමණ වයස අවුරුදු 18 ට අඩු ළමුන් විසින් නියෝජනය කරන අතර, අනෙක් වයස් කාණ්ඩවලට සාපේක්ෂව මරණ සංඛ්‍යාව ඉතා අඩුය. තවද, ආසාධිත ළමුන් තුළ ඉතාම කලාතුරකින් පමණක් බරපතල රෝග තත්ත්වයන් ඇති වේ (World Health Organization, 2021). මේ අනුව කොවිඩ්-19 වසංගත තත්ත්වය නිසා දරුවන් සම්බන්ධයෙන් උද්ගත වූ බරපතලම හානිය ලෙස දරුවන්ගේ අධ්‍යාපනය බිඳ වැටීම හඳුනා ගත හැකි අතර, මේ සඳහා පාසැල් වසා දැමීමට සිදු වීම ප්‍රමුඛ බලපෑ අතර, වසංගතයේ උච්චතම අවස්ථාවේ දී, යුරෝපයේ හා ආසියානු කලාපයේ රටවල් 45 ක පාසැල් වසා දැමීම නිසා මිලියන 185 ක දරුවන් අපහසුතාවයට පත් වූ අතර, මෙම තත්ත්වය දරුවන්ට අධ්‍යාපනය මඟ හැරීමත්, දරුවන් අතර අසමානතාවය පුළුල් කිරීමටත් හේතු වී තිබේ (Donnelly et al., 2021).

බෙල්ජියම, නෙදර්ලන්තය, ස්විස්ටර්ලන්තය හා එක්සත් රාජධානිය වැනි රටවල සිදු කළ පර්යේෂණ මඟින් පෙන්නුම් කරන්නේ, පාසැල් වැසී යන කාලය තුළ සමාජ ආර්ථික වශයෙන් ශක්තිමත් පවුල්වල දරුවන්ට අධ්‍යාපනය සඳහා වැඩි දෙමාපිය සහයෝගයක් ලැබෙන අතර අඩු අධ්‍යාපනයක් ලැබූ දෙමාපියන්ගේ දරුවන්ට එම සහයෝගය නොලැබීම නිසා අධ්‍යාපනය ගිලිහීම නිසා ඇති වන පරතරය හා අසමානතාවය පුළුල් වන බවයි (Donnelly et al., 2021). ශ්‍රී ලංකාවේ පරිගණක සාක්ෂරතාවය 32.3%ක් වන අතර, නාගරික වශයෙන් අන්තර්ජාලය භාවිත කරන ප්‍රතිශතය 54.5%කි (Department of Census and Statistics, 2020). එම ප්‍රතිශතයෙන් 72.1% ක් ස්මාර්ට් ජංගම දුරකථන භාවිත කරන අතර, 26.1%ක් පමණක් පරිගණක භාවිත කරයි (Department of Census and Statistics, 2020). මෙවැනි අඩු තාක්ෂණික හැකියාවක් සහිත පවුල් වෙසෙන මධ්‍යම හා අඩු ආදායම්ලාභී රටවල මෙම තත්ත්වය වඩාත් බරපතල විය හැකි බව පැහැදිලිය. මෙම තත්ත්වය උසස් අධ්‍යාපනය සඳහා අවතීර්ණ වන ප්‍රතිශතය අඩු වීම, ශ්‍රම වෙළඳපොළ සහභාගීත්වය අඩු වීම හා අනාගත ඉපැයීම් අවම වීම සඳහා හේතු විය හැකිය (Donnelly et al., 2021).

සී. ඩබ්. ඩබ්. කන්නන්ගර විසින් 1939 අංක 31 දරන අධ්‍යාපන ප්‍රඥප්තිය හා 1945 අංක 21 දරන නිදහස් අධ්‍යාපන පනත ඉදිරිපත් කිරීමත්, 1945 ජූලි මාසයේ දී නිදහස් අධ්‍යාපන පනත සම්මත වීමත්, ඔක්තෝබර් 01 වනදා සිට එම පනත බලාත්මක වීමත් හේතුවෙන් සෑම දරුවෙකුටම නොමිලේ අධ්‍යාපනය හිමි විය (බණ්ඩාර et al., 2019). එමෙන්ම අධ්‍යාපනය සම්බන්ධයෙන් ඇති වී තිබෙන දැඩි තරගකාරීත්වය තුළ කොවිඩ්-19 වසංගත තත්ත්වයට හේතුවෙන් පෙර, පාසැල් දරුවෝ සතියේ දින පහේම වරුවක් පාසැල් ගිය අතර, දවසේ ඉතිරි කාලයේත් සති අන්ත දිනවලදීත් උපකාරක පන්තිවලට සහභාගී වූහ (කරුණානන්ද, 2019). ඒ අනුව දරුවන්ගේ අධ්‍යාපනය සම්බන්ධයෙන් දෙමාපියන්ගේ භූමිකාව බොහෝ දුරට දරුවන්ගේ මූලික අවශ්‍යතා හා වුවමනා තෘප්ත කොට පාසැල හෝ උපකාරක පන්තිවලට සහභාගී කරවීමට පමණක් සීමා විය.

නමුත්, කොවිඩ්-19 වසංගත තත්ත්වය හමුවේ පාසැල් වසා දැමීම හේතුවෙන් පාසැල් අධ්‍යාපනය හැර වෙනත් අධ්‍යාපනික අවස්ථා සීමිත අඩු වරප්‍රසාද සහිත දරුවන් දැඩි අවාසි සහගත තත්ත්වයකට මුහුණ දීමට සිදු වීම නිවසේ දී මාර්ගගත දුරස්ථ අධ්‍යාපනය ලබා දීම සඳහා විශේෂයෙන්ම අඩු සම්පත් හා අඩු අධ්‍යාපනයක් සහිත දෙමාපියන් සූදානම්ව නොසිටීම දුරස්ථ අධ්‍යාපන ක්‍රම නිර්මාණය කිරීමේ දී පවත්වාගෙන යාමේදී හා වැඩි දියුණු කිරීමේ දී අභියෝගවලට මුහුණ දීමට සිදු වීම පාසැල් වසා තැබීම නිසා වැඩ කරන දෙමාපියන්ගේ දරුවන් රැක බලා ගැනීමට ක්‍රමවේදයක් නොමැති වීම හා දරුවන් හුදකලා බවට පත් වීම තුළ දරුවන් අන්තරායකර ව්‍යාපාවන් සඳහා යොමු වීම වර්ධනය වීම, පාසැල් වැසීම නිසා දරුවන් රැක බලා ගැනීමට රැකියාවට නොයා නිවසෙහි රැඳී සිටීම, තෝරා ගත් දෙමාපියන්ට ලැබෙන වැටුප් අවම වීම නිසා ආර්ථික වශයෙන් බලපෑම් සිදු වීම, පාසැල් හැර යන ප්‍රතිශතය ඉහළ යාම, ගැහැණු දරුවන් සම්බන්ධ ලිංගික සුරාකෑම ඉහළ යාම, ගැටවර වියේ පසුවන්නන් අතර ගර්භනීභාවය සාමාන්‍ය වීම හා ළමා ශ්‍රමිකයන් ඉහළ යාම වැනි ප්‍රචණ්ඩත්වය හා සුරාකෑම ආශ්‍රිත ගැටලු වර්ධනය වීම, ඉගෙනුම හා සංවර්ධනය සඳහා අත්‍යාවශ්‍ය වන සමාජ සම්බන්ධතා බිඳ වැටීම හා දරුවන් ලබන අධ්‍යාපනයේ වලංගුතාවය මැන බැලිය හැකි විභාග, ඇගයීම් ආදිය පැවැත්වීමට පවතින අභියෝග හමුවේ අධ්‍යාපනය නිවැරදිව තක්සේරු කළ නොහැකි වීම වැනි තත්ත්වයන් උද්ගත විය (Lucas, 2020).

නාගරික සංවර්ධන අධිකාරිය සිදු කළ පරීක්ෂණයකින් අනාවරණය වී ඇති ආකාරයට, කොළඹ නගරයේ ජනගහනයෙන් 50% කට වඩා ජීවත් වන්නේ, නගරයේ මුළු භූමි ප්‍රමාණයෙන් 9% ක් ආවරණය කරන පිරිසිදු පානීය ජලය, විදුලිය හා සනීපාරක්ෂක පහසුකම් වැනි මූලික යටිතල පහසුකම් සහිත මානව වාසයට හිතකර සෞඛ්‍ය සම්පන්න පරිසරයක් නොමැති පැල්පත්, මුඩුක්කු නිවාස හෝ අබලන් පැරණි නිවාස යෝජනා ක්‍රමවලය. නාගරික සංවර්ධන අධිකාරියේ දත්ත වාර්තාවලට අනුව, මෙම තත්ත්වයට පිළියමක් වශයෙන්, නාගරික පුනර්ජීවන වැඩසටහන යටතේ, නගරයේ පැල්පත්, මුඩුක්කු හා අබලන් වූ නිවාස ඉවත් කොට, එවැනි නිවාසවල ජීවත් වූ පවුල්, බිම් මහල සමග මහල් 12කින් සමන්විත වර්ග අඩි 450කින් යුක්ත විසිත්ත කාමරයක්, නිදන කාමර 2ක්, මුළුතැන්ගෙයක්, නාන කාමරයක් හා සැදැල්ලකින් සමන්විත, ජලය, විදුලිය, ජලාපවහනය හා මළාපවහන වැනි යටිතල පහසුකම්වලට අමතරව අභ්‍යන්තර මාර්ග සහිතව ඉදි වූ නිවාස සංකීර්ණවල පදිංචි කිරීම සිදු විය (Urban Development Authority, 2018).

මෙම අධ්‍යයනයේ මූලික අවධානය යොමු වන ඉහත විස්තර කරන ලද කොළඹ නගර සීමාව තුළ පිහිටි පහළ ආදායම් සහිත මහල් නිවාස ඉදිකිරීමේ මූලික පරමාර්ථ, අදාළ බලධාරීන් විසින් ආර්ථික ප්‍රතිලාභ, සාමාජීය ප්‍රතිලාභ, පාරිසරික ප්‍රතිලාභ හා ඊළඟ පරම්පරාවට හිමි වන ප්‍රතිලාභ වශයෙන් ප්‍රධාන කොටස් හතරක් යටතේ ඉදිරිපත් කොට තිබේ. නිවසක හිමිකරුවෙකු වීමේ ගෞරවය හා නිත්‍යානුකූල අයිතිය, පුද්ගලයන් තුළ ව්‍යවසායකත්වය සංවර්ධනය කිරීම හා රැකියා අවස්ථා හඳුනා ගැනීම ආර්ථික ප්‍රතිලාභ ලෙසත්, සමාජ පිළිගැනීම, ස්ථිර ලිපිනයක් ලැබීම, වඩාත් යහපත් සමාජය හා නීති විරෝධී කටයුතු මුලිනුපුටා දැමිය හැකි වීම සාමාජීය ප්‍රතිලාභ ලෙසත්, යහපත් සනීපාරක්ෂක පහසුකම්, සෞඛ්‍ය සම්පන්න දූෂණයෙන් තොර පරිසරය හා නගරයේ විවිධ ස්ථානවලට පහසුවෙන් ප්‍රවේශ විය හැකි වීම පාරිසරික ප්‍රතිලාභ වශයෙනුත්

අවසාන වශයෙන් නිසි අධ්‍යාපනය සඳහා දරුවන්ට යහපත් පුවේශයක් ඇති වනු ඇති බවටත්, විශේෂයෙන්ම කාන්තාවන් සඳහා විවාහයක් සිදු කර ගැනීමේ දී, සමාජයෙන් යහපත් පිළිගැනීමක් ලැබෙනු ඇති බවටත් පුක්ෂේපණය කොට ඇත (Rasnayake, 2019). රැග්නර් නර්ක්ස් විසින් ඉදිරිපත් කළ දුගී බවේ විෂම චකුය (Kumar, 2021) බිඳ දැමීම සඳහා ඉදිරිපත් කළ යෝජනා වශයෙන් ඉහත පරමාර්ථ අර්ථ දැක්විය හැකි අතර, පරම්පරාවකින් තවත් පරම්පරාවකට සම්පේෂණය වන දරිදුතාවය, බිඳ දැමිය හැකි අවස්ථාවක් වශයෙන් අධ්‍යාපනයෙහි වැදගත්කම මෙම අධ්‍යයනය තුළ අවධාරණය කරනු ලැබේ.

මෙම මහල් නිවාස සංකීර්ණ ආශිතව දැනට සිදු කොට ඇති පර්යේෂණ සීමිත වන අතර, සිදු කොට ඇති පර්යේෂණ මගින් පුධාන වශයෙන් අවධානය යොමු කොට ඇත්තේ, මෙම පදිංචිකරුවන්ගේ ආර්ථික සාධකය සම්බන්ධයෙන් වන අතර, විශේෂයෙන්ම, මෙම නැවත පදිංචි කිරීමේ ව්‍යාපෘතිය හේතුවෙන්, මෙම නාගරික දිළිඳු පුජාවගේ සමාජ සම්බන්ධතා ජාලය බිඳ වැටීම නව මහල් නිවාසයේ ඉඩකඩ සීමිත වීම හා පරිපාලන සීමා හා මුල් පදිංචි ස්ථානයෙන් හෝ නගර මධ්‍යයෙන් දුර බැහැර වීම යන හේතු මත, ව්‍යාපාර කටයුතු පවත්වාගෙන යාමට නොහැකි වීම නිසා ආර්ථික කියාකාරකම් බිඳ වැටීමට හේතු වී ඇති බව දක්වා තිබේ (Rasnayake et al., 2015). නාගරික පහසුකම් සහිත පුජාවක් ලෙස සලකා නොසලකා හැරීම හා ශී ලංකාවේ මහල් නිවාස වල ජීවත් වන පවුල් සංඛ්‍යාව පුමාණාත්මක වශයෙන් සුළු පුතිශතයක් නියෝජනය කිරීම මහල් නිවාසවල වෙසෙන පාසැල් ළමුන්ගේ අධ්‍යාපනය සම්බන්ධ පර්යේෂණ සීමිත වීම සඳහා බලපෑ පුධාන සාධක බවට අනුමාන කළ හැකිය.

ශී ලංකාවේ දරිදුතාවය සම්බන්ධ සංඛ්‍යා දත්ත වලට අනුව, දරිදුතාවය සඳහා නාගරික අංශය දක්වන දායකත්වය 8%ක් වන විට ගුාමීය අංශය 82.2%ක දායකත්වයක් සපයයි. එමෙන්ම පළාත් වශයෙන් සලකා බලන විට දරිදුතා දර්ශකයෙහි පහළම අගය වන 1.7%ක අගය බස්නාහිර පළාතෙන් හා දිස්තික්ක වශයෙන් දරිදුතා දර්ශකයෙහි අවම අගය වන 0.9% කොළඔ දිස්තික්කයෙන් වාර්තා වේ. නිල දරිදුතා රේඛාවට පහළ සිටින අවම ගෘහ ඒකක පුතිශතය සහිත දිස්තික්කය ද කොළඔ දිස්තික්කය වන අතර, එම පුතිශතය 0.6%කි (Department of Census and Statistics, 2017). පරිගණක හා ඩිජිටල් සාක්ෂරතාවය සැලකීමේ දී නාගරික අංශයේ පරිගණක හා ඩිජිටල් සාක්ෂරතාවය ගුාමීය හා වතු අංශ යන ද්විත්වයේම එකතුව ඉක්මවා යයි (Department of Census and Statistics, 2020). මෙම සංඛ්‍යා දත්ත ගුාමීය හා වතු අංශ කෙරෙහි දක්වන අවධානය කොළඔ නාගරික පහළ ආදායම් සහිත මහල් නිවාසවල වෙසෙන ජනතාව මුහුණ දෙන අභියෝග සම්බන්ධයෙන් යොමු නොවීමට හේතු විය හැකි බවට ඉඟි සපයයි. එමෙන්ම නියෝජනය කරන පුතිශතය අවම වීම ද මෙම තත්ත්වය සඳහා බලපෑ හැකි බව සංඛ්‍යා දත්ත ඇසුරෙන් හඳුනා ගත හැකිය.

එනම් දීර්ඝ කාලයක සිට ශී ලාංකිකයන් තුළ පවතින නිවාස සිහිනය තුළ තමාගේම බිම්කඩක් තුළ ඉදි කරන ලද නිවසක් අන්තර්ගත වීම හා තමාට අයිති නිවසක් තිබීම පෞද්ගලිකව ජීවිතයේ ලබන ජයගුහණයක් ලෙස සැලකීම හේතුවෙන් වෙනත් ආසියාතික රටවලට සාපේක්ෂව ශී ලංකාවේ මහල් නිවාස ජනපිය නොවන අතර 2016 වසරේ ගෘහ ඒකක ආදායම් හා වියදම් සමීක්ෂණය අනුව ශී ලංකාවේ මුළු ගෘහ ඒකක

සංඛ්‍යාව මිලියන 5.4ක් වන අතර, එම සංඛ්‍යාවෙන් තනි නිවසක ජීවත් වන ගෘහ ඒකක ප්‍රමාණය 93.4%ක් වන විට මහල් නිවාස හෝ සුපිරි මහල් නිවාසවල (සහාධිපත්‍යය) වෙසෙන පවුල් සංඛ්‍යාව 0.7%ක් වේ. තවද, නාගරික, ග්‍රාමීය හා වතු අංශය සලකා බලන විට තනි නිවසක ජීවත් වන පවුල් ප්‍රමාණය පිළිවෙලින් 88.3%, 97.9% හා 30.6% වන විට මහල් නිවාස හෝ සුපිරි මහල් නිවාසවල (සහාධිපත්‍ය) ජීවත් වන පවුල් ප්‍රමාණය පිළිවෙලින් 3.7%ක්, 0.1%ක් හා 0.1%ක් වේ. පළාත් මට්ටමෙන් සලකා බලන විට බස්නාහිර පළාත තුළත් දිස්ත්‍රික්ක වශයෙන් සලකා බලන විට කොළඹ දිස්ත්‍රික්කය තුළත් සාපේක්ෂව ඉහළම මහල් නිවාස හෝ සුපිරි මහල් නිවාස (සහාධිපත්‍යය) ගෘහ ඒකක ප්‍රතිශතය හඳුනා ගත හැකිය. එම ප්‍රතිශත අනුපිළිවෙලින් 2.1%ක් හා 5.3%ක් වේ (Department of Census and Statistics, 2018). ඒ අනුව ලංකාවේ මහල් නිවාසවල වෙසෙන පවුල් සංඛ්‍යාව ආසන්න වශයෙන් 37,800ක් පමණ වේ.

මේ අනුව නාගරික මහල් නිවාසවල වෙසෙන පහළ මධ්‍යම පාන්තික පවුල්වල දරුවන්ගේ අධ්‍යාපනය සම්බන්ධයෙන් මෙතෙක් අවධානය යොමු වී නොමැති අතර, දරිද්‍රතාවය තුරන් කළ හැකි මෙන්ම සමාජයේ පුද්ගලයන් අතර අසමානතාවය තුරන් කළ හැකි සාධකයක් වශයෙන් සැමට සමාන අධ්‍යාපන අවස්ථා තහවුරු කිරීම වැදගත් වේ. එමෙන්ම කොවිඩ්-19 වසංගත තත්ත්වය හේතුවෙන් වර්තමානයේ දී දරුවන්ගේ අධ්‍යාපනය සම්බන්ධයෙන් දෙමාපියන්ගේ භූමිකාව ප්‍රබලව බලපෑම් සිදු කරන බව විවිධ සමීක්ෂණ ඇසුරෙන් අනාවරණය වූ අතර, මෙම තත්ත්වය සමාජය නියෝජනය කරන වරප්‍රසාද රහිත එක් ස්ථරයකට පමණක් අවාසිදායක ලෙස බලපෑම් සිදු කිරීම වැළැක්වීමට මෙන්ම දරුවන්ට මාර්ගගත දුරස්ථ අධ්‍යාපනයේ ප්‍රතිඵල නිසි ලෙස හුක්ති විඳීම සඳහා අවස්ථාව ලබා දීමට අවශ්‍ය පදනම දැනුම ලබා ගැනීම සඳහා මූලික පර්යේෂණයක් ලෙස මෙම පර්යේෂණය සිදු කරන ලදි. එහි දෙවන පියවර වශයෙන් පවතින වසංගත තත්ත්වය හමුවේ දරුවන්ගේ අධ්‍යාපනය සම්බන්ධයෙන් දෙමාපියන්ට ඇති වන ගැටලු හඳුනා ගැනීම හා ඒවා හැකි ඉක්මනින් නිරාකරණය කර ගැනීම සඳහා තනි පුද්ගලයන්, පවුල් හා ප්‍රජාව සමග වැඩ කරන සමාජ වැඩ සෑදූ විධි ක්‍රම භාවිතයෙන් සිදු කරන වෘත්තීය මැදිහත්කරණයක් හරහා මෙම ප්‍රජාව බලගැන්වීම සඳහා ප්‍රායෝගික මැදිහත්කරණ ක්‍රියාවලියක් සැලසුම් කොට ක්‍රියාත්මක කිරීමට අපේක්ෂිතය.

අරමුණ

කොවිඩ්-19 වසංගත තත්ත්වය හමුවේ අඩු ආදායම් සහිත නාගරික මධ්‍යම පාන්තික මහල් නිවාස වල වෙසෙන පාසැල් දරුවන්ගේ අධ්‍යාපනය සම්බන්ධයෙන් දෙමාපියන්ගේ භූමිකාවට සිදු වූ මනෝ සමාජීය බලපෑම හඳුනා ගැනීම මෙම අධ්‍යයනයේ අරමුණ වේ.

පර්යේෂණ ක්‍රමවේදය

පර්යේෂණ ගැටලුව පර්යේෂකයාගේ දෘෂ්ටිකෝණයෙන් මෙන්ම, පහළ මධ්‍යම පාන්තික මහල් නිවාසවල වෙසෙන දෙමාපියන්ගේ දෘෂ්ටිකෝණයෙන් නිරීක්ෂණය කිරීමේ අවශ්‍යතාවය හේතුවෙන් මෙම පර්යේෂණය සඳහා ප්‍රමාණාත්මක හා ගුණාත්මක පර්යේෂණ ක්‍රමවේද ඇතුළත් මිශ්‍ර පර්යේෂණ ක්‍රමවේදය භාවිත කරන ලදී.

නාගරික පුනර්ජීවන වැඩසටහන යටතේ ආරම්භ කොට ඇති මහල් නිවාස ව්‍යාපෘති 18න් (Urban Development Authority, 2018) මේ වන විට වැඩ අවසන් කොට ජනතාව පදිංචි කොට ඇති කොළඹ පිහිටි මහල් නිවාස ව්‍යාපෘති හතරක් සම්බන්ධයෙන් පළමුව සහභාගීත්ව නිරීක්ෂණ ක්‍රමවේදය භාවිත කරමින් ක්ෂේත්‍ර පර්යේෂණයක් සිදු කරන ලදී.

ක්ෂේත්‍ර පර්යේෂණය මඟින් ක්ෂේත්‍රය නිරීක්ෂණය කිරීම හැරුණු විට දරුවන්ගේ වයස සම්බන්ධයෙන් මූලික අවධානය යොමු කරන ලද අතර, පාසල් දරුවන් සහිත නිවාස වල අංක සටහන් කර ගැනීම හා ඔවුන් සමග දුරකථන අංක හුවමාරු කර ගැනීම හරහා සම්බන්ධතාවයක් ගොඩ නගා ගන්නා ලදී. මෙම නිවාස සංකීර්ණ 4 නියැදි රාමුව ලෙස සලකා හඳුනා ගන්නා ලද පාසල් දරුවන් සිටින නිවාස අතුරින් අහඹු ලෙස නිවාස 20ක් මෙම පර්යේෂණයේ නියැදිය ලෙස තෝරා ගන්නා ලද අතර ජනගහනයේ සජාතියත්ව සලකා ප්‍රමාණයෙන් කුඩා නියැදියක් පර්යේෂකයා විසින් තෝරා ගන්නා ලදී.

දුරකථන මාර්ගයෙන් කෙටි ප්‍රශ්නාවලියක් යොමු කරන ලද අතර, ඉන් තෝරාගත් නිවාස 10ක් සමඟ ප්‍රශ්නාවලිය හරහා අනාවරණය කර ගැනීමට අපහසු වූ අපැහැදිලි කරුණු නිරාකරණය කර ගැනීමේ අරමුණින් සම්මුඛ සාකච්ඡා සිදු කරන ලදී. ඉන් අනතුරුව තෝරාගත් නිවාස 5ක් ඇසුරෙන් සිද්ධි අධ්‍යයන සිදු කරන ලදී. ප්‍රතිචාරිකයන් ලෙස පවුලේ කාන්තාව / මව තෝරා ගන්නා ලද අතර, මෙම පර්යේෂණය තුළ කෝවිඩ්-19 වසංගතය හේතුවෙන් දෙමාපිය භූමිකාව වෙනස් වූ ආකාරය මවගේ දෘෂ්ටිකෝණයෙන් අනාවරණය කර ගැනීමට උත්සාහ කරන ලදී.

ප්‍රමාණාත්මක දත්ත විශ්ලේෂණය කිරීම සඳහා SPSS මෘදුකාංගය භාවිත කරන ලද අතර සම්මුඛ සාකච්ඡා හා සිද්ධි අධ්‍යයන ඇසුරෙන් ලබාගත් ගුණාත්මක දත්ත විශ්ලේෂණය කිරීම සඳහා තේමාත්මක විශ්ලේෂණ (Thematic analysis) ක්‍රමවේදය යොදා ගන්නා ලදී.

මෙම අධ්‍යයනයේ දී, දරුවන්ගේ අධ්‍යාපනයේ ගුණාත්මකභාවය තහවුරු කරන සාධක ලෙස දරුවාගේ කායික හා මානසික සමබරතාවය හා අන්තර්ජාල පහසුකම් සඳහා ප්‍රවේශය පමණක් සලකා බලන ලද අතර, මෙම සාධක ද්විත්වය තෘප්ත කිරීමේ දී දෙමාපිය භූමිකාව තුළ වසංගත තත්ත්වය ඇති කරන ලද බලපෑම පිළිබඳව පමණක් අවධානය යොමු කොට නිගමනවලට එළැඹෙන ලදී. ක්ෂේත්‍රය ඇසුරෙන් රැස් කරගන්නා ලද දත්ත මෙම පර්යේෂණයේ ප්‍රාථමික දත්ත ලෙස භාවිතා වූ අතර, ද්විතික දත්ත ලෙස රාජ්‍ය හා රාජ්‍ය නොවන සංවිධාන විසින් ඉදිරිපත් කරන ලද වාර්තා, සංඛ්‍යා ලේඛන මෙන්ම වෙනත් දේශීය හා විදේශීය පර්යේෂකයන් විසින් පළ කරන ලද ලිපි, ලේඛන හා ග්‍රන්ථ භාවිත කරන ලදී.

ප්‍රතිඵල හා සාකච්ඡා

ප්‍රශ්නාවලිය මගින් අනාවරණය කර ගන්නා ලද ප්‍රමාණාත්මක දත්තවලින් අනාවරණය වූ ආකාරයට නියැදියෙන් 55%ක් සිංහල බෞද්ධ 35%ක් මුස්ලිම් 5%ක් සිංහල ක්‍රිස්තියානි හා 5%ක් දුවිඩ ප්‍රජාව නියෝජනය කළ අතර, එක් පාසැල් දරුවෙක් පමණක් සිටින පවුල් 15%ක් ද, දරුවන් දෙදෙනක් පමණක් සිටින පවුල් 40%ක් ද, දරුවන් තිදෙනෙක් හෝ ඊට වැඩි සංඛ්‍යාවක් සිටින පවුල් 45%ක් ද නියැදිය නියෝජනය කරන ලදී. නියැදිය නියෝජනය කළ මුළු පාසැල් සිසුන් සංඛ්‍යාව 50 ක් වූ අතර, 1-5 වසර දක්වා පන්තිවල සිසුන් 48%ක් ද 6-11 දක්වා පන්තිවල සිසුන් 52%ක් ද විය.

වසංගතයෙන් පසුව දරුවන්ගේ අධ්‍යාපනයට උපකාර විය හැකි බව සඳහන් කළ දෙමාපියන් ප්‍රමාණය 5%ක් වූ අතර, 80%ක් දරුවන්ගේ අධ්‍යාපනයට උපකාර කිරීම සඳහා තම දැනුම මට්ටම ප්‍රමාණවත් නොවන බවත්, 15%ක් ඒ සඳහා කාලය ප්‍රමාණවත් නොවන බවත් ප්‍රකාශ කරයි. දරුවන් පස් දෙනෙකුගෙන් සමන්විත පවුලක් හැරුණු විට අනෙක් සියලුම පවුල් වසංගතයට පෙර දෛනිකව ඉටු කළ යුතු කාර්යයන් ඉටු කර ගැනීම සඳහා කාලය කළමනාකරණය කර ගැනීම ගැටළුවක් නොවූ බව සඳහන් කරන අතර, වසංගතයට පසු 85%ක් කාලය කළමනාකරණය අපහසු හෝ ඉතා අපහසු වූ බව සඳහන් කරයි.

නියැදිය නියෝජනය කළ එක් පවුලක පියා මිය ගොස් ඇති අතර ඔහු හැරුණු විට දෙමාපියන්ගෙන් 35%ක් තම අධ්‍යාපන මට්ටම හෙළි කොට නොමැති අතර, අධ්‍යාපන මට්ටම හෙළි කළ දෙමාපියන්ගෙන් 96%ක් අ.පො.ස සාමාන්‍ය පෙළ හෝ ඊට අඩු අධ්‍යාපන මට්ටමක් සහිත අය වන අතර, 4%ක් පමණක් අ.පො.ස. උසස් පෙළ සමත් වී තිබේ. රාජ්‍ය අංශයේ රියදුරු, සුළු සේවක, කාර්යාල කාර්ය සහයක වැනි අංශවලත් (13.3 %), ආහාර, විසිතුරු භාණ්ඩ හා රෙදිපිළි වෙළඳාමෙහිත් (46.6%), වාහන සේදුම්කරු (3.3%), වාහන අලුත්වැඩියාකරු (3.3%), නිවෙස් මෙහෙකරු (3.3%), තැරව්කරු (3.3%), වෙළඳසැල් සේවක (10%), කම්කරු (3.3%), සනීපාරක්ෂක සේවක (6.6%), ත්‍රීරෝද රථ රියදුරු (6.6%) වැනි අංශවල දෙමාපියන් සේවයේ නිරත වී සිටින අතර, රැකියාවක නියුතු කාන්තාවන්ගෙන් 50% කට වසංගත තත්ත්වය හේතුවෙන් රැකියාවක් නොමැති තත්ත්වයක් උද්ගතව පවතියි.

පරිගණක හා ඩිජිටල් සාක්ෂරතාවය සහිත දෙමාපියන් සංඛ්‍යාව 5%ක් වූ අතර, ඩිජිටල් සාක්ෂරතාවය සහිත දෙමාපියන් සංඛ්‍යාව 77.5% කි. සෑම පවුලකම මව හෝ පියා අතරින් අවම වශයෙන් එක් අයෙකුට හෝ ඩිජිටල් සාක්ෂරතාවය ඇති අතර, ජංගම දුරකථනය භාවිතයෙන් අන්තර්ජාලය හා සම්බන්ධ වීම සම්බන්ධයෙන් අවබෝධයක් ඇත. නමුත් දරුවන් දෙදෙනෙක් හෝ ඊට වැඩි සංඛ්‍යාවක් සහිත පවුල් (85%) වල අන්තර්ජාලය හා සම්බන්ධ වීම සඳහා මෙවලම් ප්‍රමාණවත් නැත. අධ්‍යාපනය ලබා ගැනීම සඳහා දරුවන් වෙනුවෙන් වෙන් කළ අවකාශයක් ඇති බව ප්‍රකාශ කළ පවුල් සංඛ්‍යාව 60%ක් වන අතර, නිවසේ ඉඩකඩ ප්‍රමාණවත් නොවන බව ප්‍රකාශ කළ පිරිස 85%කි.

වසංගතයට පෙර තෝරාගත් අමතර පන්තිවලට පමණක් සිසුන් 30%ක ප්‍රමාණයක් සහභාගී වී ඇති අතර, වසංගතයට පසුව අමතර පන්ති සඳහා නියැදිය නියෝජනය කළ දත්ත දායකයන් සහභාගී නොවේ. මේ අනුව රටෙහි සාමාන්‍ය ස්වභාවය ලෙස විස්තර කරන "පාසල් දරුවෝ සතියේ දින පහේම වරුවක් පාසල් ගිය අතර, දවසේ ඉතිරි කාලයේත් සති අන්ත දිනවලදීත් උපකාරක පන්තිවලට සහභාගී වූහ" (කරුණානන්ද 2019) යන මතය සමග මෙහිදී එකඟ විය නොහැකි අතර, මෙම අධ්‍යයනය ඉහත මතයට වෘත්තිරේඛී අවස්ථාවකට නිදසුන් සපයයි. දරුවන්ගේ අධ්‍යාපනය පිළිබඳ වැඩි වගකීමක් වසංගත තත්ත්වය හමුවේ මව වෙත පැවරී ඇති බව 95%ක් ප්‍රතිචාරකයන්ගේ අදහස වන අතර, 5%ක් පමණක් අධ්‍යාපනය පිළිබඳ වගකීම සමානව ගන්නා බව සඳහන් කර තිබේ.

සම්මුඛ පරීක්ෂණ හා සිද්ධි අධ්‍යයන මඟින් ලබා ගන්නා ලද දත්ත මත පදනම්ව ගොඩ නඟන ලද ක්ෂේත හා සංකල්ප විශ්ලේෂණය තුළින් දරුවන්ගේ අධ්‍යාපනය සම්බන්ධයෙන් දෙමාපියන්ගේ භූමිකාවට සිදු කළ බලපෑම සම්බන්ධයෙන් මතු වූ එක් එක් තේමා අතර දරුවන්ගේ කායික හා මානසික සුවතාවයට ඇති වූ නව බාධක සමඟ කටයුතු කිරීමට සිදු වීම මෙම මහල් නිවාසවල වෙසෙන දෙමාපියන් විසින් මතු කළ පොදු කරුණක් වේ.

නාගරික පරිසරයක කුඩා පරිමාණයේ නිවාස ඒකකයක් තුළ, එළිමහනක් නොමැතිව ජීවත් වන මෙම පවුල්වලට නිදහස් අවකාශයක් තුළ විනෝද වීමට ලැබෙන එකම අවස්ථාව පොදු විනෝද ස්ථාන භාවිතා කිරීම වන අතර, පළමු ශ්‍රී ලාංකික රෝගියා වාර්තා වූ 2020 මාර්තු මස සිටම කොළඹ නාගරික මහල් නිවාස හුදකලා කර දැඩි සංචරණ සීමා පනවන ලද ප්‍රදේශවලට අයත් වීම හේතුවෙන් දරුවන්ගේ කායික මෙන්ම මානසික සුවතාවය කෙරෙහි අහිතකර ලෙස බලපා තිබේ.

සිය පවුල සමග මහල් නිවාසවලට ආසන්නව පිහිටා ඇති උද්‍යාන, මුහුදු වෙරළ, ඇවිදින මංතීරු, ක්‍රීඩා පිටි ආදී පහසුවෙන් අවම වේලාවක් තුළ නොමිලේ හෝ ඉතා සුළු මුදලක් වැය කොට ප්‍රවේශ විය හැකි එදිනෙදා ආතතිකාරී ජීවන රටාවට යම් මානසික සහනයක් ලබා දෙන ස්ථාන වෙත ගොස්, දරුවන් සමග විනෝද වීමට සති අන්තය බොහෝ විට වෙන් කළ බවයි. මෙවැනි ක්‍රියාකාරකම් හරහා, දරුවන්ට මෙන්ම දෙමාපියන්ට ද වඩාත් සැහැල්ලුවෙන් එදිනෙදා කටයුතු කරගෙන යාමට හැකියාව ලැබුණු බව ඔවුන් ප්‍රකාශ කරයි ('ඉස්සර අපි දරුවොත් එක්ක, අපේ ත්‍රීවිල් එකෙන් එක්කෝ ගෝල්ෆේස් යනවා, නැත්තම් පාර්ක් යනවා, ගිහින් ළමයි එක්ක සෙල්ලම් කරනවා').

මීට අමතරව පාසල් වසා දැමීම හේතුවෙන් දරුවන්ගේ කායික හා මානසික යහ පැවැත්මට අත්‍යාවශ්‍ය වන දරුවන්ගේ සමාජ සම්බන්ධතා ජාලය බිඳ වැටීමද පාසල් කාලයට අමතරව පාසල් විසින් සංවිධානය කොට තිබූ වෙනත් ක්‍රීඩා පුහුණු ඇතුළු ශිෂ්‍යභටට, පරිසර නියමු, බාලදක්ෂ වැනි විෂය බාහිර ක්‍රියාකාරකම් සඳහා සම්බන්ධ වීමේ අවස්ථාව ද මඟ හැරී ගොස් තිබේ. එමෙන්ම, ගායනය, වාදනය, නර්තනය හා පිහිනුම් වැනි ක්‍රියාකාරකම් සඳහා ප්‍රායෝගික උපකාරක පන්ති වලට සහභාගී වූ දරුවන්ට එම අවස්ථාව මඟ හැරීම හේතුවෙන් දරුවන් දැඩි අපහසුතාවයට පත්ව සිටින

බව දෙමාපියන්ගේ අදහසයි ('දුව හරිම ආසයි වයලින් ඉගෙන ගන්නට. තාත්තට දුව අවුරුද්දක් විතර කිව්වට පස්සේ, තාත්තා වයලින් එකක් ගෙනත් දුන්නා. පන්තියකටත් දැම්මා.. දවස් හතරක්වත් ඒකට යන්න වුණේ නැහැ')

අධ්‍යාපනය සම්බන්ධයෙන් මෙම අඩු ආදායම්ලාභී මහල් නිවාසවල වෙසෙන දරුවන්ට ඇති සුවිශේෂම අවස්ථාව වශයෙන් පාසල හඳුනා ගත හැකි අතර, පාසලෙන් ඔබ්බෙහි වන අධ්‍යාපන අවස්ථා ඉතාම සීමිත වේ. එනම් අධ්‍යයනය සඳහා සහභාගී වූ මව්වරුන්ට අනුව දරුවන් උපකාරක පන්තිවලට යොමු කිරීම ආර්ථික වශයෙන් අපහසු වීම නිසා ඉතාම අත්‍යාවශ්‍ය තෝරා ගත් එක් විෂයයකට හෝ දෙකකට පමණක් උපකාරක පන්ති සඳහා සහභාගී කරවා ඇත. විශේෂයෙන්ම වසංගත තත්ත්වය හමුවේ දැඩි වූ ආර්ථික අපහසුතා හේතුවෙන්, මාර්ගගත ක්‍රමවේදය ඔස්සේ දරුවන්ට අධ්‍යාපනය ලබා දෙන උපකාරක පන්ති සඳහා සහභාගී කරවීමක් සිදු නොවේ.

මාර්ගගත ක්‍රමවේදය ඔස්සේ, සැලසුම් සහගත ලෙස අධ්‍යාපනය ලබා දීම සඳහා ක්‍රමවත් වැඩ පිළිවෙළක් සකස් කිරීම සඳහා සමහර පාසල් මේ වන තෙක් අසමත් වී ඇති අතර, දෙමාපියන්ට තම දරුවන් වෙනුවෙන් සමවයස් දරුවෙකුගේ පාසල විසින් සංවිධානය කරන පන්ති සඳහා සහභාගී කරවීම වැනි වෙනත් විකල්ප ක්‍රමවේද සොයා ගැනීමට සිදු වී තිබේ. ආර්ථික අපහසුතා හේතුවෙන් පවුලේ දරුවන් සංඛ්‍යාව එක් දරුවෙකුට වඩා වැඩි වන විට අන්තර්ජාලය හා සම්බන්ධ විය හැකි තාක්ෂණික මෙවලම් සපයා ගැනීම අපහසු වී ඇති අතර, භාවිතයට නුසුදුසු තත්ත්වයට පත් වීමට ආසන්න තාක්ෂණික මෙවලම් නොමිලේ හෝ අඩු මුදලකට සපයා ගැනීමට හෝ තාක්ෂණික මෙවලම් සපයා ගත හැකි ක්‍රමවේදයක් නොමැති නිසා දරුවන්ගේ අධ්‍යාපන කටයුතු බිඳ වැටීමට ආසන්න තත්ත්වයකට පත් වී තිබේ.

වසංගත තත්ත්වයට පෙර මව හා පියා යන දෙදෙනාම විසින් දරුවන්ගේ අධ්‍යාපනය සම්බන්ධ වගකීම ගත් බව පොදු අදහස වන අතර අද වන විට දරුවන්ගේ අධ්‍යාපනය පිළිබඳ වගකීම මව මතත්, ආර්ථික වගකීම පිය වෙතත් පැවරී ඇති ආකාරයක් හඳුනා ගත හැකිය. නියැදිය නියෝජනය කළ වසංගත තත්ත්වයට පෙර රැකියාවක නිරත වූ මව්වරුන්ගෙන් 50%කට ආයතන වසා දැම්ම, නිරෝධායන ඇඳිරි නීතිය හමුවේ ඇති වූ බාධා හේතුවෙන් රැකියාව සිදු කර ගෙන යාමට නොහැකි තත්ත්වයක් උද්ගත වීම මෙහි දී කැපී පෙනේ. නමුත් සෑම පවුලකම පිය විසින් පාඩු සහිතව වුවද කුමන හෝ රැකියාවක නියුක්ත වේ.

විශේෂයෙන්ම වසංගත තත්ත්වය හේතුවෙන් ඇති වූ ආර්ථික අස්ථාවරභාවය හේතුවෙන් ආහාර ඇතුළු අනෙකුත් අත්‍යාවශ්‍ය වියදම් හැරුණු විට නිවසට අදාළ අනිවාර්ය වියදම් වන විදුලි බිල්, ජල බිල්, දුරකතන බිල්, වරිපනම් ඇතුළු බිල්පත් හා විවිධ හේතු මත ලබා ගත් ණය පියවීම සඳහා මසකට අවම වශයෙන් රු.15,000/-ක පමණ මුදලක් වෙන් කිරීමට සිදු වීම මෙම පවුල්වලට විශාල අභියෝගයක් වී ඇති අතර, දීර්ඝකාලීනව සංචරණ සීමා හා නිරෝධායන ඇඳිරි නීතිය වැනි තත්ත්වයන්ට යටත් වීමට සිදු වීම හේතුවෙන් දෙමාපියන් දැඩි පීඩනයට පත් වී ඇත. ඒ අනුව මාර්ගගත අධ්‍යාපනය සඳහා දරුවන්ට ඇති සීමාසහිත අවස්ථා රැකගැනීමට දැඩි වෙහෙසක් දැරීමට දෙමාපියන්ට සිදු වී තිබේ.

ඉහත එක් එක් සිදුවීම තුළ පැහැදිලි වන ප්‍රධානතම කරුණ වන්නේ, පාසලෙන් ලැබෙන අධ්‍යාපනය හැරුණු විට, මෙම දරුවන්ට ඉන් බාහිර අධ්‍යාපන අවස්ථා ඉතාම සීමා සහිත බවත්, දෙමාපියන්ගේ උපකාරය හා දරුවන්ට අධ්‍යාපනය ලබා දීම සඳහා දෙමාපියන් තුළ ඇති උනන්දුව ගිලිහී ගියහොත් ඔවුන් පවතින අධ්‍යාපනයෙන් ඉවත්වී යාමේ අවදානම ඉතාම ඉහළ බවයි. විශේෂයෙන්ම, නාගරිකව වෙසෙන ඉහළ අධ්‍යාපන සුදුසුකම් හා සමාජ හා ආර්ථික ස්ථාවරභාවයක් සහිතව, සුවදායී පරිසරයක ජීවත් වන පවුල් වල දරුවන්ට සාපේක්ෂව දැඩි අසමානතාවයට ගොදුරු වීමට මෙම දරුවන්ට සිදු වී ඇති බව හඳුනා ගත හැකි අතර, පුළුල් වන පරතරය අවම කිරීමේ කඩිනම් ප්‍රායෝගික ක්‍රියාමාර්ග වල අවශ්‍යතාව මතු වේ.

නිගමනය

කොවිඩ්-19 වසංගත තත්ත්වය හමුවේ, නාගරික මහල් නිවාසවල වෙසෙන පාසැල් දරුවන්ගේ අධ්‍යාපනය සම්බන්ධයෙන් දෙමාපියන්ගේ භූමිකාවේ සිදු වූ වෙනස සම්බන්ධයෙන් මෙහිදී විස්තරාත්මකව අධ්‍යයනය කරන ලදී. පාසැල් වසා දැමීම, දරුවන් මාර්ගගත ක්‍රමවේදය ඔස්සේ අධ්‍යාපනය ලැබීම යන මූලික හේතු හා දෙමාපියන්ගේ ආර්ථික අස්ථාවරභාවය, අඩු අධ්‍යාපන සුදුසුකම්, සීමිත ඉඩ පහසුකම්, උපකාර ලබා ගත හැකි සීමිත සම්බන්ධතා, සීමිත අවස්ථා හා සීමිත සම්පත් වැනි අවශේෂ හේතු මත දරුවන්ගේ අධ්‍යාපනය සම්බන්ධයෙන් වසංගත තත්ත්වය දෙමාපියන්ගේ භූමිකාවට සෘජු බලපෑමක් සිදු කළ අතර, එම බලපෑම දරුවන්ගේ අධ්‍යාපනයට සෘජු සෘණාත්මක බලපෑමක් සිදු කරයි.

මෙම තත්ත්වය පාලනය කර ගැනීම සඳහා මූලික වශයෙන් පාසැල් විවෘත කිරීමට අමතරව පාසැල් දරුවන්ගේ දෙමාපියන් ඉලක්ක කර ගත්, දරුවන්ගේ අධ්‍යාපනය සම්බන්ධයෙන් දෙමාපියන්ගේ දැනුවත්භාවය ඉහළ නැංවීම හා කාල කළමනාකරණය, ගෘහ කළමනාකරණය, අන්තර්ජාලය හා තාක්ෂණික මෙවලම් භාවිතය සම්බන්ධ දැනුම ලබා දීම අරමුණු කර ගත් කෙටි සැසි මාර්ගගත ක්‍රමවේදය ඔස්සේ සංවිධානය කිරීම හා ඒ තුළින් දෙමාපියන් බලගැන්වීම පවතින තත්ත්වය හමුවේ දරුවන් අධ්‍යාපනය තුළ රඳවා තබා ගැනීම සඳහා ගත හැකි කාලීන පියවරක් ලෙස යෝජනා කළ හැකිය. විශේෂයෙන්ම මෙම අධ්‍යයනය සඳහා සහභාගී වූ සියලු ප්‍රතිචාරකයන් නියෝජනය කළ පවුල්වල දෙමාපියන් දෙදෙනාගෙන් එක් අයෙක් හෝ ඩිජිටල් සාක්ෂරතාවයෙන් යුක්ත වීමත් අන්තර්ජාලයට සම්බන්ධ වීම සඳහා අවම මට්ටමෙන් හෝ තාක්ෂණික මෙවලම් භාවිතයත් මේ සඳහා උපකාර කර ගත හැකිය.

ආශ්‍රිත ග්‍රන්ථ නාමාවලිය

කරුණානන්ද, යූ. (2019). පහේ ශිෂ්‍යත්වය හා මධ්‍ය විද්‍යාල. යුගතර ශාස්ත්‍රීය සඟරාව, 2, 7-10. Retrieved from https://units.kln.ac.lk/chs/images/Publications/Yugathara/CHS_2019_1_2.pdf

බණ්ඩාර, එන්., බණ්ඩාර, ඩී., වර්ණජිත්, එන්., හා හරිස්චන්ද්‍ර, එම්. (2019). ශ්‍රී ලාංකේය දරු පරපුරට උරුම වූ නිදහස් අධ්‍යාපනය සඳහා කන්තන්නගරයන්ගේ දායකත්වය. යුගතර ශාස්ත්‍රීය සඟරාව, 2, 29-32. Retrieved from https://units.kln.ac.lk/chs/images/Publications/Yugathara/CHS_2019_1_2.pdf

Department of Census and Statistics. (2017). *Household Income and Expenditure Survey - 2016 Final Report* (pp. vi, 101). Battaramulla : Department of Census and Statistics.

Department of Census and Statistics. (2017). *Poverty Indicators Department of Census and Statistics Household Income and Expenditure Survey*(pp.2) - 2016. Battaramulla,: Department of Census and Statistics.

Department of Census and Statistics. (2020). *Computer Literacy Statistics – 2020* (First six months) (pp. 1-4). Battaramulla: Department of Census and Statistics. Retrieved from http://www.statistics.gov.lk/PressReleases/ComputerLiteracystatistics-2020-Firstsixmonths

Donnelly, R., Patrinos, H., & Gresham, J. (2021). *The Impact of COVID-19 on Education – Recommendations and Opportunities for Ukraine*. Retrieved 13 September 2021, from https://www.worldbank.org/en/news/opinion/2021/04/02/the-impact-of-covid-19-on-education-recommendations-and-opportunities-for-ukraine

Kumar, M. (2021). *Vicious Circle of Poverty and the Scarcity of Capital* (With Diagram). Retrieved 14 September 2021, from https://www.economicsdiscussion.net/capital-formation/the-vicious-circle/vicious-circle-of-poverty-and-the-scarcity-of-capital-with-diagram/11830

Lucas, G. (2020). COVID-19 pandemic and school education. *Sri Lanka Journal Of Child Health*, 49(3), 207. doi: 10.4038/sljch.v49i3.9135

Rasnayake, S. (2019). The Discourse of 'Slum-Free' City: A Critical Review of the Project of City Beautification in Colombo, *Sri Lanka. Sri Lanka Journal Of Sociology*, 01(1), 87-120. Retrieved from https://arts.pdn.ac.lk/socio/research/pdf/05Susantha.pdf

Rasnayake, S., Silva, K., & Herath, H. (2015). Victims of Beauty: An Inquiry on the Livelihood Impacts of Slum Resettlement Programme Driven by the City Beautification Project in Colombo. *Faculty Of Arts International Research Conference*, 61. Retrieved from http://archive.cmb.ac.lk:8080/research/handle/70130/4387

UNESCO. (2021). Education: From disruption to recovery. Retrieved from https://en.unesco.org/covid19/educationresponse

Urban Development Authority. (2018). Retrieved from https://www.uda.gov.lk/urban-regeneration-programme.html

World Health Organization. (2021). *Considerations for school-related public health measures in the context of COVID-19*. Retrieved from https://www.who.int/publications/i/item/considerations-for-school-related-public-health-measures-in-the-context-of-covid-19

World Health Organization. (2021). *WHO Coronavirus (COVID-19) Dashboard*. Retrieved from https://covid19.who.int/

User Satisfaction on Public Library Services: Special reference to Public Libraries in Vavuniya District

S. Kalaivani[1], S. Shanmugathasan[2]

ABSTRACT

This study is to identify the public library services in Vavuniya district and the satisfaction of the users about their services. It aims to assess the current status of the service provisions of public libraries to the users. There are one Urban Council Library and six Pradeshiya Sabha Libraries available in Vavuniya District and 230 users are officially registered in these seven public libraries. The sample of 144 users was selected for this study by the adaption of Krejcie & Morgan sampling table from the total population. These 144 users from seven libraries were selected on the basis of stratified random sampling method. In addition, seven Chief Librarians were issued a structured questionnaire and interviewed to counter check the library services. Data were collected using questionnaires, direct observation and discussions as primary source from the users and the documents were retrieved as secondary source. Data were analysed by the way of rating scale, percentage system by using MS Excel. The results showed as per the users point of view that the Public Libraries are lagging behind in physical resources, infrastructure facilities and human resources. The physical condition of the libraries indicated by the library facilities, furniture, documents, electronic equipment and basic facilities are not sufficient. On this basis 68 per cent of the users have expressed dissatisfaction with the services of the public libraries. Based on the Chief Librarians' responses, there is shortage of library personnel and at the same time there are inappropriate staff employed. As library staff is not aware of cataloguing, classification and physical information resources due to their low level of education and training, which also leads to the user dissatisfaction. Further, it states that electronic information service is marginal and is not found in 85% of the public libraries. Beside, Vavuniya District Public Libraries face problems in providing services due to the lack of adequate funds, insufficient library buildings and shortage of furniture facilities. Therefore, this study points out to the need to move towards a user-centered service environment with the appropriate physical and information resources in order to enhance the user satisfaction.

Keywords: Information Services, Public Library, User Satisfaction, Vavuniya, Library management

[1]Nelukkulam Kalaimagal Maha Vidyalayam, Vavuniya
[2]Library, University of Vavuniya.
Email : shan@vau.ac.lk

பொது நூலகங்களின் சேவைகளில் வாசகர் திருப்தி : வவுனியா மாவட்டத்தில் உள்ள பொது நூலகங்களை அடிப்படையாகக் கொண்ட ஆய்வு

அறிமுகம் (Introduction)

இலங்கையில் பண்டைய காலத்திலிருந்தே நூலகங்கள் காணப்பட்டிருக்கின்றன. ஆலயங்கள், பௌத்த விகாரைகள் மற்றும் மன்னர்களின் அரண்மனைகளிலும் நூல்கள் பாதுகாக்கப்பட்டு பயன்படுத்தப்பட்டு வந்திருக்கின்றன. 13ஆம் நூற்றாண்டில் "சரஸ்வதி மஹாலயம்" எனும் பெயரில் நூலகம் நல்ல நிலையில் செயற்பட்டதாகவும் வரலாறுகள் கூறுகின்றன. அந்நியராட்சி காலங்களிலிருந்தே நூலகங்கள் தோற்றம் பெற்றிருந்தன. ஆங்கிலேயர் ஆட்சியின் கீழ் நவீன முறையிலான நூலகத் தேவையின் வளர்ச்சி அரும்பலாயிற்று. காலப்போக்கில் உள்ளூராட்சி மன்றங்களுக்கு கீழ் பொது நூலகங்கள், சனசமூக நிலையங்கள் தோற்றம் பெற்றதுடன் கல்விசார் நூலகங்கள், சிறப்பு நூலகங்களும் உருவாக்கம் பெற்று அறிவுத்தேடலின் பொக்கிஷமாக நூலகங்கள் வளர்ச்சியடைந்து வருகின்றன.

மக்களுக்காக மக்களால் மக்களைக் கொண்டு உருவாக்கப்படும் ஒரு நிறுவனமே பொது நூலகமாகும். இலங்கையில் உள்ளூராட்சி திணைக்களத்திடம் நிதியினைப் பெற்று மாநகர சபை, நகர சபை, பிரதேச சபை மட்டத்தில் இயங்கும் நூலகங்கள், கிராம மட்டத்தில் கிராம மக்களின் ஒன்றிணைந்த முறையில் உருவாக்கப்பட்டு அவற்றின் தனிப்பட்ட நிதியினால் இயங்கும் நூலகங்கள், சனசமூக நிலையங்களின் ஒரு பிரிவாக இயங்கும் நூலகங்கள் என்பன பொது நூலகங்கள் என்ற வரையறைக்குள் வருகின்றன. நவீன சமுதாயத்தின் முக்கிய அம்சமாக கருதப்படும் பொது நூலகம் சமூகத்தின் நாளாந்த செயற்பாடுகளின் மிக முக்கியம் வகிக்கின்ற ஒரு சமூக நிறுவனமாகும்.

சமூகத்தில் கலாசார நிறுவனங்களாக சேவையாற்றும் இந்நிறுவனங்கள் சமூக அங்கத்தவர்களை இன, வயது, மொழி வேறுபாடு இன்றி ஒன்றிணைக்கும் நிலையங்களாகக் காணப்படுகின்றன. இவை குறிப்பிட்டதொரு வாசகர் பிரிவிற்கென மட்டும் சேவை செய்வனவல்ல. சிறுவர், மாணவர், முதியவர், பெண்கள், விசேட தேவைக்குட்பட்டோர், கல்வியாளர், ஆராய்ச்சியாளர் போன்ற சமூகத்தின் அனைத்து மட்டத்தினருக்கும் சேவை செய்யக் கூடிய கடமைப்பாட்டினைக் கொண்டவை பொது நூலகங்களாகும்.

பரந்தளவில் தமது சேவைகளை வழங்கி நாட்டின் சமூக, பொருளாதார முன்னேற்றத்திற்கும் அபிவிருத்திக்கும் பிரதானமானவையாக விளங்குபவை பொது நூலகங்களாகும். இவை சமுதாயத்தின் தேவைகளை அறிந்து அவற்றின் வளர்ச்சிக்கு உந்துசக்தியாகவும் உறுதுணையாகவும் விளங்குவனவாகும்.

தகவல் வெடிப்புயுகம் என்று கருதப்படுகின்ற இன்றைய காலகட்டத்தில் நூலகத்தின் தேவைப்பாடு, பயன்பாடு என்பன நன்கு உணரப்பட்டுள்ளது. வளர்ந்து வரும் தகவல் யுகத்தில் அறிவுக்கான தேவை முக்கியத்துவம் வாய்ந்ததாகின்றது. வாசகரின் அறிவுத் தேடலுக்கான தகவல்களையும், தகவல் சாதனங்களையும் வழங்கும் நிலையங்களாக பொதுசன நூலகங்கள் விளங்குகின்றன. "எமது சமுதாயத்தில் சகல மக்களினதும் அறிவுசார் தேவைகளையும் நிறைவேற்ற வேண்டிய ஒருநிலையில் வரையறுக்கப்பட்ட

சட்டதிட்டங்களையும் நிர்வாக ஒழுங்கமைப்பு முறைகளையும் கொண்டு இயங்கி வருவதால் இவை சமுதாயத்தில் மிக முக்கிய அம்சமாகத் திகழ்கின்றன'' (ஸ்ரீகாந்தலட்சுமி, 2010).

வாசகர் திருப்தியான சேவையைப் பெறுவதற்கு பொது நூலகங்கள் வினைத்திறனான சேவையை வழங்கவேண்டிய நிலையில் உள்ளன. ஆனால் வவுனியா மாவட்டத்தைப் பொறுத்தவரையில் கூடுதலான பிரதேசங்கள் கிராமப்புறங்களாகக் காணப்படுவதுடன் தகவல் தொடர்புசாதனப் பயன்பாடுகளைப் பெற்றுக்கொள்வதிலும் சிரமங்களை எதிர் நோக்குகின்றன. இவ்வாறான நிலைமையில் பொது நூலகங்களின் சேவை முக்கியம் பெறுகின்றது. இவை சேவையை வழங்குவதிலும் வாசகரைத் திருப்திப்படுத்துவதிலும் சில சவால்களை எதிர்கொள்கின்றன.

தகவல் அறிதிறன் விருத்தியடைந்து வருகின்ற நிலையில் வாசகர் தமக்குத் தேவையான தகவல்களைப் பெற்றுக் கொள்ள பொது நூலகங்களையே நாடிச்செல்கின்றனர். இவ்வாறு நாடிச்செல்பவர்களின் தேவைகளைப் பூர்த்தி செய்வதில் பொது நூலகங்கள் இடர்களை எதிர்கொள்கின்றன. அவற்றில் பௌதீக வளம், உட்கட்டமைப்பு, மனித வளம், நூற்சேர்க்கை, தகவல் வளத் தொழிநுட்பச் செயற்பாடுகள், தகவல் வளச் செயற்பாடுகள் எனபவற்றை முறைப்படி செயற்படுத்துவதில் உள்ள இடர்கள் வாசகரை எந்தளவிற்குத் திருப்திப்படுத்துவதாக உள்ளது என்பது ஆய்வுப் பிரச்சனையாகக் காணப்படுகின்றது.

பொது நூலகமானது அனைத்து வகையான அறிவுகளையும், தகவல்களையும் தனது வாசகர்களுக்கு உடனடியாகத் தயாரித்து வழங்குகின்ற ஒரு தகவல் நிலையமாகக் காணப்படுகின்றது. நூலகத்தின் சேகரிப்புகளும், சேவைகளும் வாசகர்களுக்குத் திருப்தியளிக்கக்கூடிய வகையில் பொருத்தமான சாதனங்களைக் கொண்டிருப்பதுடன், இன்றைய நவீன தொழிநுட்பங்களையும் கொண்டிருத்தல் அவசியமானதாகும். வாசகர்களுக்குத் திருப்தியளிக்கக்கூடிய வகையில் சேவைகளை வழங்க வேண்டியது பொது நூலகங்களின் முக்கிய கடமைப்பாடாகும்.

இலக்கிய மீளாய்வு (Literature Review)

பொது நூலகங்களினால் வாசகர்களுக்கு வழங்கப்படுகின்ற சேவைகள் திருப்திகரமானதாக இருப்பதற்குப் பல காரணிகள் தடையாக உள்ளமையை பல நூல்களிலிருந்தும், ஆய்வுக் கட்டுரைகளிலிருந்தும் கள ஆய்வில் இருந்தும் அறியக்கூடியதாக உள்ளது. பொது நூலகங்கள் நகர்ப்புறங்களில் ஓரளவு சேவையை வழங்கினாலும் கிராமப்புற நூலகங்களின் சேவைகள் கேள்விக்குரியதாகவே உள்ளன.

ஒரு சமூகத்தின் உயிர் நாடிகள் வாசகர்கள். வாசிப்பைத் தூண்டக்கூடிய மிகப் பொருத்தமான இடம் நூலகமே இதனால் தான் மாணவர் சமுதாயம் பயனடைய வேண்டும் என்ற நோக்கத்தோடு பாடசாலைகளிலும் கிராமங்களிலும் நூலகங்கள் தோற்றுவிக்கப்படுகின்றன. நூல்களை வாசிக்க வாசிக்க அறிவு பலமடையும். இதனால் மனிதன் பூரணமடைகின்றான். ஒரு சமூகத்தை சீர்திருத்த, அவர்களின் அறிவு பிரகாசிக்க, சமூக ஊழல்களிலிருந்து பாதுகாக்க, இளம் சிறார்களை

இலட்சியப் பாதையில் புகுத்த, அறப் பண்புகளில் தர்ம நெறியில் வாழ வைக்க நாட்டில் நல்ல நூல் நிலையங்கள் இருக்கவேண்டும். பெரியார்களின் வாழ்க்கை வரலாற்று நூல்களை வாசிப்பதால் பிள்ளைகளின் உள்ளங்களில் இலட்சிய உணர்வு ஏற்படும் (கமால்தீன், 1992).

வினைத்திறனான வாசகர் திருப்திக்கு நூலகத்தில் போதியளவான சேகரிப்புக்கள் மற்றும் சிறந்த பௌதீக வசதிகள் என்பன இருத்தல் அவசியம். வாசகர்களின் மாறும் தேவைகளுக்கு ஏற்ப சேகரிப்புக்கள், சேவைகள், வசதிகள் போன்றவற்றை மேம்படுத்துவது மட்டுமன்றி வழங்கப்படும் வளங்கள், சேவைகளின் விளைதிறனின் பின்னூட்டலையும் கண்டுகொள்ளல் வேண்டும் (இஜாஸ் மெய்ரா மற்றும் முகம்மட் நசீர், 2013).

நூல்சாதனத் தெரிவின் போது வாசகரின் கருத்துக்கள் உள்வாங்கப்படாமை நூலகப் பாவனையாளர்களிடையே திருப்தியின்மையை ஏற்படுத்துகின்றது. நூலகத்தின் நோக்கமானது அது சார்ந்த சமூகத்தின் தேவைகள் மற்றும் அபிலாசைகளை திருப்திப்படுத்தக் கூடியதாகவும் ஆதரவளிப்பதாகவும் இருத்தல் வேண்டும். எனவே நூலக சாதனத் தெரிவுச் செய்முறையின் போது சமூகத்தின் பங்களிப்பும் இருத்தல் அவசியமானதாகும். எவ்வாறாயினும் சில நூலகர்கள் நூல்தெரிவுச் செய்முறையின் போது சமூகத்தின் பங்களிப்பை எதிர்ப்பவர்களாகக் காணப்படுகின்றனர் (கில்பேட், 2015).

உலகத்தில் தகவலானது அடிக்கடி மாற்றமடையும் தன்மையைக் கொண்டுள்ளதாகக் காணப்படுகிறது. மனித அறிவின் வளர்ச்சியில் பொது நூலகங்கள் முக்கிய பங்கினை வகிக்கின்றன. சமூகத்தில் வாசிப்புத் திறனை ஊக்குவிப்பதுடன் அறிவுசார் திறன்களையும் வாழ்க்கைத் திறன்களையும் மேம்படுத்துவதிலும் பொது நூலகங்கள் முக்கிய பங்காற்றுகின்றன (சின்னசாமி மற்றும் நாச்சிமுத்து, 2018).

பொது நூலக நூலகர்கள் அதிகாரப் பகிர்வு, பதவி உயர்வு, வேலைச் சூழல், ஆராய்ச்சி மற்றும் பயிற்சிக்கான வாய்ப்புக்கள் எனபவற்றில் சவால்களை எதிர்கொள்கின்றனர். மேலும் ஒழுங்கு முறையிலான இடமாற்றங்கள் மற்றும் பிரமாணக் குறிப்பில் குறிப்பிடப்பட்டவாறு தடை தாண்டல் பரீட்சைகள் நடாத்தப்படாமை அவர்களின் தொழில் திருப்தியைக் குறைக்கின்றது (சண்முகதாசன், 2020). தொழிற் திருப்தி குறைவாகக் காணப்படும் போது வாசகர் சேவையினை திருப்திகரமாக மேற்கொள்ளல் என்பதும் சாத்தியம் குறைந்ததாகின்றது.

பொது நூலகங்களின் சேவைகள் மற்றும் வாசகர்களின் திருப்தி நிலையில் பல்வேறு காரணிகள் செல்வாக்குச் செலுத்துவதை அவதானிக்க முடிகின்றது. வாசிப்பைத் தூண்டுவதற்கு, உலகளாவிய ரீதியில் மேற்கொள்ளப்பட்ட ஆய்வுகளினூடாக வாசகர்கள் தமது தகவல் தேவையைப் பெற்றுக்கொள்வதில் முக்கியமாக கிராமங்களிலுள்ள நூலகங்களின் தேவைப்பாடு, சிறந்த பௌதீக வசதிகள், காலத்திற்கு ஏற்ற வகையிலான தகவல் சேமிப்பு சாதனங்கள், வினைத்திறனான வளங்கள் மற்றும் சேவைகளின் பின்னூட்டல்கள் எனபவை கவனத்தில் கொள்ளப்படவேண்டியவையாகக் காணப்படுகின்றன. அத்துடன் நூல்சாதனத் தெரிவுகளின்போது நூலகரினதும் வாசகர்களினதும் கருத்துக்கள் உள்வாங்கப்படாத நிலைமை காணப்படுகின்றது. உலகில் தகவலானது அடிக்கடி மாற்றமடைவதால் சமூகத்தின் வாசிப்புத்திறன், அறிவுத்திறன்,

வாழ்க்கைத்திறன் போன்றவற்றினை மேம்படுத்துவதில் பொது நூலகங்கள் முக்கிய பங்கை வகிக்கின்றன. இந்நிலையில் நூலக ஊழியர்கள் தமது சேவையினை மேற்கொள்வதில் அதிகாரப் பகிர்வு, பதவி உயர்வு, வேலைச் சூழல் என்பவற்றில் பல்வேறு சவால்களை எதிர்கொள்கின்றனர். இவற்றின் காரணமாக வாசகர்கள் பொது நூலகங்களின் சேவையில் போதிய திருப்தித் தன்மையை பெற்றுக்கொள்ள முடியாத நிலையில் உள்ளனர்.

ஆய்வின் நோக்கங்கள் (Research Objectives)

1. பொது நூலகங்கள் வாசகர்களுக்கான சேவையை வழங்குவதில் வினைத்திறனாக எந்த அளவிற்குச் செயற்படுகின்றன என்பதனைக் கண்டறிதல்.
2. வாசகர் நூலக சேவையைப் பெறும் போது எதிர்கொள்ளும் சவால்களைத் தெளிவாக இனம் கண்டுகொள்ளல்.
3. சவால்களுக்கான காரணங்களைப் பகுப்பாய்வு செய்தல்.
4. நூலக சேவையில் வாசகர்களைத் திருப்திப்படுத்துவதற்கான உபாயங்களைக் கண்டறிதல்.
5. எதிர்கால முன்னேற்றத்திற்கான ஆலோசனைகளை முன்மொழிதல்.

ஆய்வு முறையியல் (Research Methodology)

ஆய்வுப் பிரதேசமாக இலங்கையின் வடமாகாணத்தின் வவுனியா மாவட்டத்தில் அமைந்துள்ள பொது நூலகங்கள் ஆய்வுக்கு உட்படுத்தப்பட்டுள்ளன. இங்கு ஒரு நகர சபை நூலகம் மற்றும் ஆறு பிரதேச சபை நூலகங்களும் காணப்படுகின்றன. இவற்றில் 230 வாசகர்கள் தொடர்ச்சியான சேவையைப் பெறுபவர்களாக உள்ளனர். ஆய்வுக்கான மாதிரிமுறை கிரைசி மற்றும் மோகனின் (Krejcie & Morgan) மாதிரி எடுப்புமுறை அடிப்படையில் தொடர்ச்சியான வாசகர்களான 230 பேரில் இருந்து 144 பேர் குடித்தொகை மாதிரியாக எடுக்கப்பட்டனர். ஏழு நூலகங்களில் இருந்தும் படையாக்க மாதிரி எடுப்புமுறை மூலம் 144 பேரும் தெரிவு செய்யப்பட்டனர்.

அட்டவணை 01: ஆய்வுக்குத் தெரிவு செய்யப்பட்ட பொது நூலகங்களின் வாசகர் மாதிரியின் பருமன்

இல.	உள்ளூராட்சி மன்றங்கள்	தெரிவு செய்யப்பட்ட பொது நூலகங்கள்	வாசகர் மொத்த எண்ணிக்கை	மாதிரியின் பருமன்
1	நகரசபை	வவுனியா பொது நூலகம்	150	93
2	வவுனியா தெற்கு தமிழ் பிரதேச சபை	கூமாங்குளம் பொது நூலகம்	20	12
3		ஓமந்தை பொது நூலகம்	15	9
4	வெண்கலச் செட்டிகுளம்	செட்டிகுளம் பொது நூலகம்	15	9
5		பாவற்குளம் பொது நூலகம்	10	7
6	வவுனியா தெற்கு சிங்களப் பிரதேச சபை	உலுக்குளம் பொது நூலகம்	10	7
7		மடுகந்தை பொது நூலகம்	10	7
மொ-த்தம்			230	144

ஆதாரம் - சம்பந்தப்பட்ட நூலகங்களின் தகவல் சேகரிப்பு

இவ்வாய்வில் முதனிலைத் தரவுகளும் இரண்டாம் நிலைத் தரவுகளும் சேகரிக்கப்பட்டு பகுப்பாய்வு செய்யப்பட்டது. 144 மாதிரிக் குடித்தொகையினருக்கும் வினாக்கொத்து வழங்கப்படும் குறிப்பிட்ட சிலருடன் கலந்துரையாடல்கள் மேற்கொண்டும் தரவுகள் பெறப்பட்டன. அத்துடன் நூலகப் பொறுப்பாளர்களுக்கும் வினாக்கொத்து வழங்கப்பட்டு தரவுகள் பெறப்பட்டதுடன் நேரடி அவதானம், கலந்துரையாடல் மற்றும் ஆவணப் பதிவேடுகளைப் பார்வையிடல் போன்றவற்றின் மூலமும் தரவுகள் சேகரிக்கப்பட்டன. பெறப்பட்ட தரவுகள் தரவளவுச் சட்டம் மூலமும் MS Excel ஐப் பயன்படுத்தி சதவீதம் மூலமும் பகுப்பாய்வு செய்யப்பட்டு அட்டவணைகள், வரைபடங்கள் மூலம் அளிக்கை செய்யப்பட்டுள்ளன.

தரவளிக்கையும் தரவுப் பகுப்பாய்வும் (Data Presentation and Data Analysis)

ஆய்வுக்கு உட்படுத்தப்பட்ட நூலகங்கள் தொடர்பான தரவுகள் பகுப்பாய்வு செய்யப்பட்டுள்ளன. அந்தவகையில் நூலகத்தின் தரம், நூலகப் பொறுப்பாளர் நியமனம், நூலகப் பொறுப்பாளர் கல்வித் தகைமை, நூலக வளங்கள் தொடர்பான தரவுகள் பகுப்பாய்வு செய்யப்பட்டுள்ளன.

<p align="center">அட்டவணை 02: பொது நூலகங்களின் தரம்</p>

இல.	தரம்	எண்ணிக்கை	சதவீதம்
1	சாதாரணம்	3	43
2	தரம் 3	2	29
3	தரம் 2	1	14
4	தரம் 1	1	14

<p align="center">மூலம் - நூலகப் பொறுப்பாளர் வினாக்கொத்து</p>

இங்கு 43 வீதமான நூலகங்கள் சாதாரண தரத்திலும், தரம் 1 மற்றும் தரம் 2 இல் தலா 14 வீதமாகவும் தரம் 3 இல் 29 வீதமாகவும் காணப்படுகின்றன.

<p align="center">அட்டவணை 03: நூலக வளங்கள்</p>

இல.	அளவுத்திட்டம்	நூலக எண்ணிக்கை	சதவீதம்
1	1000 இற்கும் குறைவு	2	29
2	1000 - 5000	3	43
3	5000 - 10000	1	14
4	10000 இற்குமேல்	1	14

<p align="center">மூலம் - நூலக நூற்சேர்க்கைப் பதிவேடு</p>

இங்கு 10000 இற்கு மேல் நூல்களைக் கொண்டவையாக 14 வீதமான (ஒரு நூலகம்) நூலகங்களும், 5000 இற்கும் 10000 இற்கும் இடைப்பட்ட நூற் தொகையைக் கொண்டதாக 14 வீத நூலகங்களும், 1000 இற்கும் 5000 இற்கும் இடைப்பட்ட நூற் தொகையைக் கொண்டதாக 43 வீத நூலகங்களும், 1000 இற்கும் குறைவான நூல்களைக் கொண்டவையாக 29 வீதமான நூலகங்களும் காணப்படுகின்றன.

அட்டவணை 04: நூலகப் பொறுப்பாளர் விபரம்

இல.	துலங்கல்	எண்ணிக்கை
1	நூலகர்	04
2	நூலக உதவியாளர்	02
3	ஏனையவை	01

மூலம் - நூலகப் பொறுப்பாளருக்கான வினாக்கொத்து

இத்தரவின்படி நூலகர் தரத்தில் நால்வர் நூலகராக சேவையாற்றும் அதே நேரத்தில் நிரந்தர நூலக உதவியாளர் நியமனம் பெற்ற இருவர் மற்றும் தற்காலிக நூலக உதவியாளர் நியமனம் பெற்ற ஒருவருமாக மூவர் பொது நூலகங்களை வழிநடத்திவருகின்றனர்.

அட்டவணை 05: நூலகப் பொறுப்பாளர் கல்வித் தகைமை

இல.	துலங்கல்	எண்ணிக்கை
1	க.பொ.த. உயர் தரம்	3
2	நூலகவியலில் உயர் தேசிய டிப்ளோமா	4
3	பட்டப்படிப்பு	-
4	பட்டப்பின் டிப்ளோமா	-
5	முதுமாணிப்பட்டம்	-

மூலம் - நூலகப் பொறுப்பாளருக்கான வினாக்கொத்து

பெறப்பட்ட தரவுகளின் அடிப்படையில் உயர்வான கல்வித் தகைமையாக நூலகவியலில் உயர் தேசிய டிப்ளோமாவை 4 பேர் பெற்றிருக்கின்றனர். எனினும் நூலகப் பொறுப்பாளர்களின் கல்வித்தகைமை போதாமையைக் காணக்கூடியதாக இருக்கின்றது.

நூலக சேவையும் வாசகர் திருப்தியும்
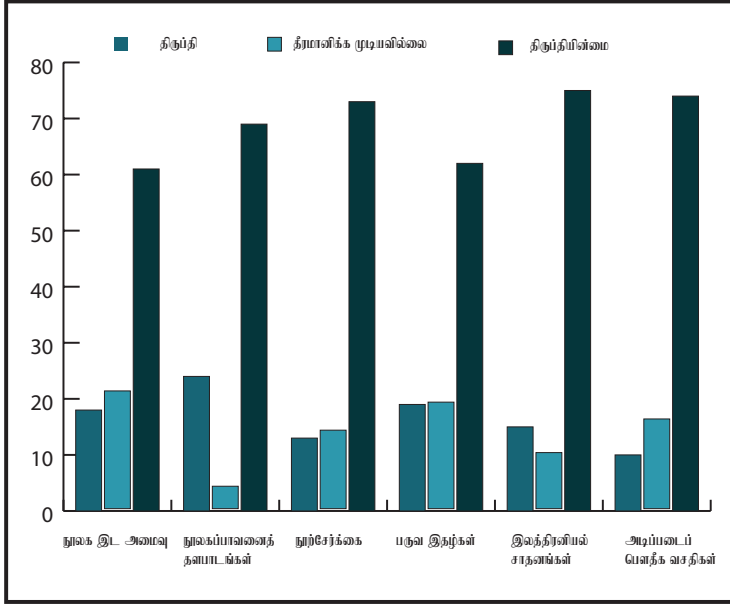
வரைபடம் 01: நூலகங்களின் பௌதீகநிலை (நூற்று வீதம்) (மூலம்: வாசகர் வினாக்கொத்து)

நூலகங்களின் பௌதீக நிலைமையின் பல்வேறு விடயங்களை எடுத்துநோக்கும் போது இட அமைவானது 18 வீத திருப்தி நிலையினையும் 61 வீதம் திருப்தியற்ற நிலையினையும் காட்டுகின்றது. நூலகத் தளபாடங்களைப் பொறுத்தவரையில் 24 வீதம் திருப்தி நிலையினையும் 69 வீதம் திருப்தியற்ற நிலையினையும், பத்திரிகைகள் மற்றும் இலத்திரனியல் சாதனங்களின் திருப்தி நிலை முறையே 19 மற்றும் 16 வீதமாகவும், திருப்தியைத் தீர்மானிக்க முடியாத நிலை முறையே 19 மற்றும் 07 வீதமாகவும், திருப்தியின்மையானது முறையே 62 மற்றும் 77 வீதமாகவும் காணப்படுகின்றது. நூல்கள் மற்றும் பருவ இதழ்களின் திருப்தி நிலை முறையே 13 மற்றும் 15 வீதமாகவும், திருப்தியைத் தீர்மானிக்க முடியாத நிலை முறையே 14 மற்றும் 10 வீதமாகவும், திருப்தியின்மையானது முறையே 73 மற்றும் 75 வீதமாகவும் காணப்படுவதை வரைபடம் 01 விளக்கி நிற்கின்றது. அடிப்படை பௌதிக வசதிகள் 10 வீதமான திருப்தியையும் 74 வீதமான திருப்தியின்மையையும் எடுத்துக்காட்டுகின்றது.

அட்டவணை 06: நூலக ஒழுங்கமைப்பு

இல.	துலங்கல்	தரமிடும் அளவுப் பெறுமானம்
1	நூலக அமைவிடமும் வாசகர் அணுகலும்	3.29
2	நூலக கவின்நிலை	2.40
3	பௌதிக வளம்	2.57
4	நூல் பகுப்பாக்கம்	2.43
5	நூல் பட்டியலாக்கம்	2.16
6	இலத்திரனியல் / இறுவட்டு சாதனங்கள்	1.98
7	நூல்களின் பௌதீக நிலை	2.16

மூலம்: நூலகப் பொறுப்பாளருக்கான வினாக்கொத்து.

வாசகர் தேவையை நிறைவு செய்வதிலும், திருப்திப்படுத்துவதிலும், நூலக ஒழுங்கமைப்பு முக்கியமானதாகும். தரமிடும் அளவுகோல் பெறுமானத்தின்படி மூன்று என்ற பெறுமானத்திற்கு கூடுதலாக நூலக அமைவிடமும் வாசகர் அணுகலும் (3.29) காணப்படுவது வாசகர்களுக்கு திருப்தியானதாக உள்ளதாயினும் ஏனைய நூலக கவின்நிலை, பௌதிக வளம், நூல் பகுப்பாக்கம், நூல் பட்டியலாக்கம், இலத்திரனியல் / இறுவட்டு சாதனங்கள் மற்றும் நூல்களின் பௌதிக நிலை போன்றவற்றின் தரமிடும் அளவுப் பெறுமானங்கள் மூன்றிலும் குறைவாகக் காணப்படுவதால் அவை திருப்தியற்ற தன்மையைச் சுட்டி நிற்கின்றன.
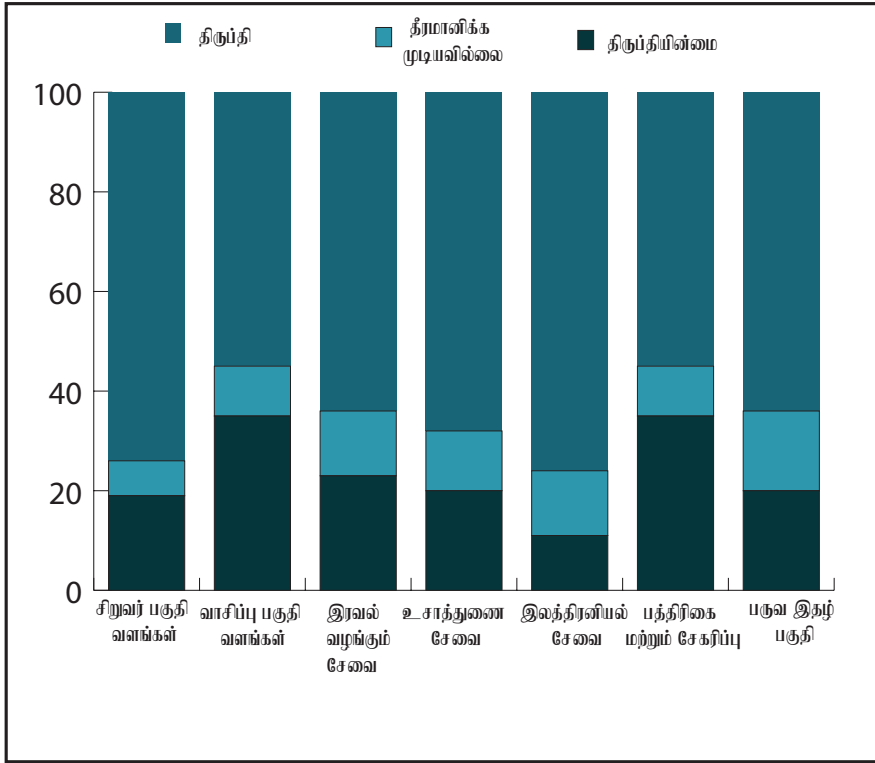
வரைபடம் 02: தகவல் வளங்கள் மற்றும் சேவைகள் (மூலம்: வாசகர் வினாக்கொத்து)

வாசகர்களுக்குத் தகவல் வளங்களும் அவற்றின் பொருத்தப்பாடும் மிக முக்கியமானதாகும். வரைபடம் 02 இன்படி சிறுவர் பகுதி சேவையில் 19 வீதத்தினர் திருப்தியையும், 74 வீதத்தினர் திருப்தியின்மையையும் வெளிப்படுத்தியுள்ளனர். வாசிப்புப் பகுதியைப் பொறுத்தவரையில் 35 வீதத்தினர் திருப்தியையும், 55 வீதத்தினர் திருப்தியின்மையையும் வெளிப்படுத்தியுள்ளனர். இவ்வாறே இரவல் வழங்கும் பகுதி மற்றும் உசாத்துணைப் பகுதி போன்றவற்றில் முறையே 23 வீதம் மற்றும் 20 வீதத்தினர் திருப்தியையும், 64 வீதம் மற்றும் 68 வீதத்தினர் திருப்தியின்மையையும் வெளிப்படுத்தியுள்ளனர். இலத்திரனியல் தகவல் சேவையில் 11 வீதத்தினர் திருப்தியையும், 76 வீதத்தினர் திருப்தியின்மையையும் வெளிப்படுத்தியுள்ளனர். மேலும் பத்திரிகைப் பகுதி மற்றும் பருவ இதழ் பகுதி என்பனவற்றின் திருப்தி நிலையானது முறையே 35 வீதம் மற்றும் 20 வீதமும், திருப்தியின்மை முறையே 55 வீதம் மற்றும் 64 வீதமுமாகக் காணப்படுகின்றது.

இத் தரவின் பிரகாரம் நூலகங்களின் சேவை வழங்கும் பகுதிகளை நோக்கும் போது அவை பல்வேறு வகையில் காணப்படுகின்ற போதிலும் வாசகர்களுக்கு தகவல் வள சேவைகளில் திருப்தியின்மையே மேலோங்கிக் காணப்படுகின்றது.
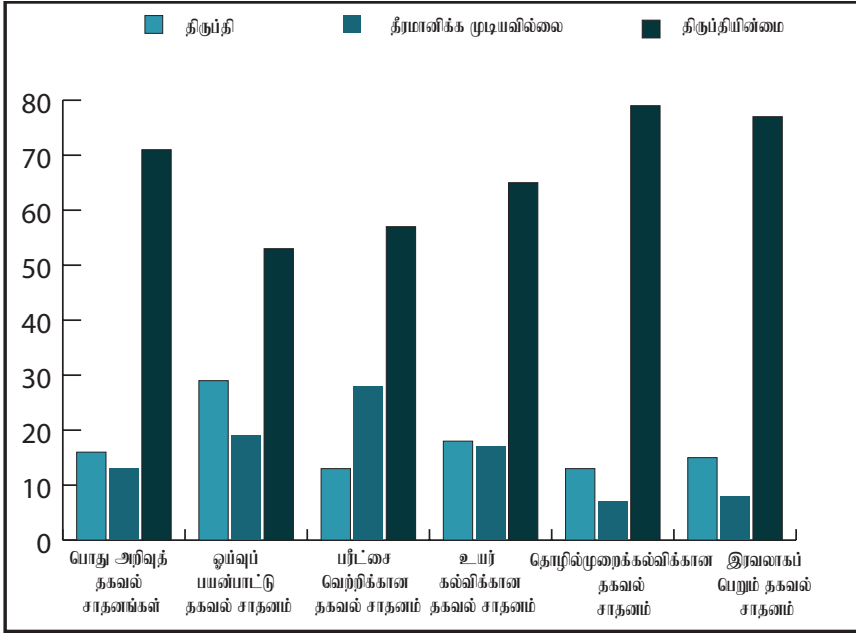
வரைபடம் 03: வாசகர் தகவல் சாதனப் பயன்பாடு (மூலம்: வாசகர் வினாக் கொத்து.)

வாசகர் தகவல் சாதனப் பயன்பாட்டில் பொது அறிவிற்கான தகவல் சாதனங்கள், ஓய்வு நேரப் பயன்பாட்டிற்கான தகவல் சாதனங்கள் மற்றும் பரீட்சை வெற்றிக்கான தகவல் சாதனங்கள் போன்றவற்றின் திருப்தி நிலை வரைபடம் 03 இன்படி முறையே 16, 29 மற்றும் 13 வீதமானவர்களும், திருப்தியின்மையை முறையே 71, 52 மற்றும் 59 வீதமானவர்களும் வெளிப்படுத்தியுள்ளனர். இவ்வாறே உயர் கல்விக்கான தகவல் சாதனங்கள், தொழில் முறைக் கல்விக்கான தகவல் சாதனங்கள் மற்றும் இரவலாகப் பெறும் தகவல் சாதனங்கள் என்பனவற்றின் திருப்தி நிலை முறையே 18, 13 மற்றும் 15 வீதமானவர்களும், திருப்தியின்மையை முறையே 65, 80 மற்றும் 77 வீதமானவர்களும் வெளிப்படுத்தியுள்ளனர்.

இவ்வாய்வறிக்கையுடன் தொடர்புபட்ட பல ஆய்வுகள் காணப்படுகின்றன. அவற்றில் சிலவற்றின் முடிவுகள் பின்வருமாறு அமைகின்றன. "யாழ் மாவட்டத்தின் பொது நூலகங்கள் : அபிவிருத்தி நோக்கிய பிரச்சினைகளும், கட்டுமானங்களும்" எனும் ஆய்வின் முடிவாக போதிய நிதி வசதி மற்றும் போதிய உட்கட்டமைப்பு வசதிகள் இன்மை, ஊழியர்கள் பற்றாக்குறை, நூலக மற்றும் தகவல் அறிவியல் கல்வி பற்றாக்குறை, தகவல் நூலக ஊழியர் பற்றாக்குறை மற்றும் சேவைப் பயிற்சிக் கூடங்கள் இல்லாமை, நூலகங்களுக்கான ஒழுங்குமுறை அல்லது வழிகாட்டல் மிகக்குறைவாக இருக்கின்றமை என்பன கண்டறியப்பட்டவையாகும் (சந்திரசேகர் மற்றும் விசாகரூபன், 2005).

"இலங்கையின் யாழ்ப்பாண மாவட்டத்திலுள்ள பொது நூலகங்களின் சவால்கள்" என்ற ஆய்வின் முடிவாக சவால்களாக போதிய நிதி வசதியின்மை, போதிய உட்கட்டமைப்பு வசதியின்மை, இலத்திரனியல் சாதனங்கள் மற்றும் பயன்பாடு,

ஊழியர்களிடையே தொழில் முறை மற்றும் தனிப்பட்ட திறனில் குறைந்த தன்மை போன்றன காணப்படுகின்றன (சந்திரசேகர், 2013).

"யாழ் மாவட்ட பிரதேச சபைக்குட்பட்ட பொது நூலகங்கள் பற்றிய ஓர் மதிப்பீடு" எனும் ஆய்வின் முடிவுகளாக போதிய பண ஒதுக்கீடு இன்மை, திருப்தியான கட்டட, தளபாட வசதியின்மை, வாசகரை இலக்காக கொண்ட தகவல் சேகரிப்பின்மை அத்துடன் இலத்திரனியல் தகவல் வளத்திற்கு முக்கியத்துவம் கொடுக்கப்படாமை. மக்களுக்கு அவசியமான சமுதாய தகவல் சேவை வழங்கப்படாமை என்பன கண்டறியப்பட்டுள்ளன (முருகதாஸ், 2014).

மேற்படி ஆய்வுகளின் முடிவுகளினை தொகுத்து நோக்குகையில் பொது நூலகங்களில் போதிய நிதி வசதியின்மை, போதியளவான இட வசதியின்மை மற்றும் தளபாடப் பற்றாக்குறை போன்றவற்றுடன் ஆளணிப் பற்றாக்குறை, ஆளணியினர் பொருத்தமான கல்வித் தகைமை மற்றும் தொழிற் தகைமையைப் பெற்றுக்கொள்ளாமை என்பதுடன் அவர்களுக்கான சேவைக்காலப் பயிற்சிகள் வழங்கப்படாமை போன்ற பல்வேறு காரணங்களினால் வெவ்வேறுபட்ட சேவைப் பகுதிகளில் இருந்தும் சேவைகளை வழங்குவதில் நூலகங்கள் சவால்களுக்கு முகம் கொடுக்கின்றன என்பதுடன் இதனால் வாசகர்களும் முழுமையான சேவைகளைப் பெறமுடியாத நிலையில் உள்ளனர் என்பதையும் காணமுடிகின்றது. இவ்வாறே "வவுனியா மாவட்டத்தில் பொது நூலகங்களின் சேவைகளில் வாசகர் திருப்தி" என்ற இவ் ஆய்வின் மூலமாக வவுனியா மாவட்ட பொது நூலகங்களும் மேற்படி சவால்களுக்கு முகம் கொடுப்பதையும் இதன் காரணமாக வாசகர் சேவைகளைப் பெற்றுக்கொள்வதில் திருப்தியற்ற நிலை காணப்படுவதையும் அவதானிக்கமுடிகின்றது.

முடிவுரையும் விதப்புரையும் (Conclusion and Recommendations)

வவுனியா மாவட்டத்தில் பொது நூலகங்களின் சேவைகளில் வாசகர் திருப்தி என்ற இவ் ஆய்வானது நூலக சேவைகள் மற்றும் அவற்றைப் பெறுவதில் வாசகர்களின் திருப்தி நிலை பகுப்பாய்வுக்கு உட்படுத்தப்பட்டன. நூலகங்களின் பௌதீக நிலைமைகளில் வாசகர்கள் திருப்தியின்மையையே கொண்டவர்களாகக் காணப்படுகின்றனர். போதிய நிதி வசதியின்மை, போதியளவான இட வசதியின்மை மற்றும் தளபாடப் பற்றாக்குறை போன்றவை காரணமாக வெவ்வேறுபட்ட சேவைப் பகுதிகளில் இருந்தும் சேவைகளை வழங்குவதில் நூலகங்கள் சவால்களுக்கு முகம் கொடுக்கின்றன. இதனால் வாசகர் முழுமையான சேவையைப் பெறமுடியாத நிலையில் உள்ளனர். பொருத்தமான வகையில் ஆவணங்கள் இன்மை அத்துடன் இலத்திரனியல், உசாத்துணை மற்றும் பருவ இதழ் பகுதிகளில் இருந்து சேவையை வழங்குவதில் நூலகங்கள் பல்வேறு பிரச்சனைகளை எதிர்கொள்வதால் வாசகர் திருப்தியடைய முடியாத நிலை காணப்படுகின்றது. பயிற்சி பெற்ற தகவல் வழிகாட்டுனர்கள் நூலகங்களில் காணப்படாமை, நூற்சேர்க்கையின் அளவு குறைவாகக் காணப்படுதல் மற்றும் ஆளணிப் பற்றாக்குறை போன்றன வாசகர் தமக்கான சேவைகளைப் பெறுவதில் திருப்தியின்மைய ஏற்படுத்துகின்றன. ஆளணியினர் பொருத்தமான கல்வித் தகைமை மற்றும் தொழிற் தகைமையைப் பெற்றுக்கொள்ளாமை, அவர்களுக்கான சேவைக்காலப் பயிற்சிகள் இன்மை போன்றனவும் நூலக சேவையில் வாசகர் தமக்கான தகவல்வள சேவையைப்

பெறுவதில் திருப்தியற்ற நிலையை வெளிப்படுத்துவதற்குக் காரணமாக அமைகின்றது. மாறிவரும் தகவல் யுகத்திற்கான பொருத்தமான ஆவணச் சேர்க்கைகள் குறைவாகவே காணப்படுகின்றன. இந்நிலையில் நடைமுறைத் தகவல்களைப் பெற்றுக்கொள்வதில் வாசகர் திருப்தியடைய முடியாத நிலை காணப்படுகின்றது.

பொது நூலகங்கள் சேவையை வழங்குவதில் வெற்றி கொள்ளும் வகையிலும் வாசகர் தேவையைப் பூர்த்தி செய்து திருப்தியைப் பெறும் வகையிலும் பல இற்றைப்படுத்தல் திட்டங்களை மேற்கொள்ளலாம்.

- உள்ளூராட்சி சபைகள் கூடுதலான நிதியை நூலகத்திற்கு ஒதுக்க முயற்சிக்க வேண்டும்.
- காலத்தின் தேவை கருதி ஊடக சாதனங்கள், இலத்திரனியல் சாதனங்கள் சமூக வலைத்தளப் பயன்பாடுகள் என்பவற்றை எல்லா பொது நூலகங்களிலும் இருக்கக் கூடிய வகையில் நிதி ஒதுக்கீட்டில் முன்னுரிமைப்படுத்தல்.
- பொருத்தமான தகுதியுடைய ஆளணியினரை நியமனம் செய்தல்.
- நூலக ஆளணியினரின் கல்வித் தகைமை, தொழில் தகைமை என்பவற்றை மேம்படுவதற்கான நடவடிக்கைகளை மேற்கொள்ளல்.
- நூலக அங்கத்துவத்தினை வழங்குவதற்கான நடவடிக்கைகளை இலகுபடுத்துவதன் மூலம் இரவல் வழங்கும் சேவையில் வாசகர் திருப்தியை ஏற்படுத்தலாம்.
- அண்மைய பாடசாலைகளுடன் பொது நூலகங்கள் சிறந்த தொடர்பாடலை பேணுதல்.
- நூற்சேர்க்கையின் போது வாசகர் கருத்துக்களும், நூலகர்களின் கருத்துக்களும் உள்வாங்கப்படுவதுடன் அவற்றிற்கு முன்னுரிமை அளிக்கப்படல் வேண்டும்.
- பொது நூலகங்களின் அடிப்படை வசதிகள் உள்ளூராட்சி நிறுவனங்களினால் பூர்த்தியாக்கப்படல் வேண்டும்.
- உள்ளூராட்சி சபைகள் தமக்குக் கீழ் உள்ள பொது நூலகங்களின் சேவைகளை விரிவுபடுத்துவதன் மூலம் வாசகர்களின் தகவல் தேவையை பூர்த்தி செய்வதனூடாக பிரதேச ரீதியான கல்வி, பொருளாதார மேம்பாட்டினை மென்மேலும் இற்றைப்படுத்திக் கொள்ளலாம்.

உசாத்துணை (**References**)

கமால்தீன்,எஸ்.எம். (1992). நூலும் நூலகமும். அயோத்திநூலகசேவைகள்.

ஸ்ரீகாந்தலட்சுமி, அ. (2010). நூலகதகவல் அறிவியல் கோவை. சேமமட்டுபுத்தகசாலை.

Chandrasekar, K. (2013). Public Libraries in Jaffna District, Sri Lanka - Challenges. *Library Philosophy and Practice*. Retrieved from https://digitalcommons.unl.edu/libphilprac/957.

Chandrasekar, K. & Visakaruban, M. (2005). Public libraries of Jaffna District: Problems and constraints towards development. *Sri Lanka Library Review*, 19.

Chinnasami, K. & Nachimuthu, R. (2018). User satisfaction of public library resources and services in Chennai City : A study. Retrieved from https://www.researchgate.net/publication/348019526

Gilbert, K. (2015). A Survey of User satisfaction with public library services in Mubi, Adamawa state. *IOSR Journal of Humanities and Social Science*, 20(8), 52-57. Retrieved from https://www.iosrjournals.org/iosr-jhss/papers/Vol20-issue8/Version-3/H020835257.

Mairaj, M.I. & Naseer, M.M. (2013). Library services and user satisfaction in developing countries: A case study. *Health Information and Libraries Journal*. Retrieved from https://www.researchgate.net/publication/258765422.

Murugathas, M. (2014). A Study on Pradheshiasabha public libraries in Jaffna district. *Sri Lanka Library Review*, 28.

Shanmugathasan, S. (2020). Factors influencing the job satisfaction of librarians of the public libraries in Northern Province, Sri Lanka. *Sri Lanka Library Review*, 34(02).

A Review of Linear and Nonlinear Information Literacy Models

Farbod Kamgar[1]

ABSTRACT

Various scientific research have been conducted about information literacy models, their applications, processes and characteristics, however, few researchers have investigated and explicitly defined the information literacy models as linear or nonlinear. Linear models involve progressing from one stage to another in a sequential manner, while nonlinear models include nonsequential orders. This trend is of a paramount importance for educational purposes, instructional approaches as well as the patterns of learning and teaching, since by distinguishing and comparing the potential discrepancies between linear and nonlinear models, educational institutions and libraries not only are able to better serve their communities but also can significantly enhance their instructional programmes. Therefore, this research aims to review some eminent information literacy models based on the existing literature by identifying whether they are linear, nonlinear or both. For this purpose 7 popular models of information literacy were chronologically introduced, analyzed and their linear or nonlinear characteristics described by different diagrams. These models are: Kuhlthau's information search process (ISP), the big6 information skills by Eisenberg, the PLUS model by Herring, seven faces of information literacy by Bruce, the seven pillars of information literacy, Sauce model, and the pathways to knowledge. Findings of this research identified the differences among all these models based on their linear and recursive characteristics and indicated that although most information literacy models can be altered and interpreted as nonlinear in different circumstances; it is highly advised that educational organizations and institutions worldwide effectively exploit each model's steps and sequences in line with the needs of researchers and communities.

Keywords: Information literacy models, linear, nonlinear, education, teaching, learning.

[1]National Library and Archives of Iran, Fars branch
E-mail : farbod4ever@gmail.com

Introduction

Information literacy is often deemed as an ability to define, analyze and exploit information as a process or a development model. These models were all introduced according to various educational and instructional necessities and purposes based on philosophical thoughts and concepts. Each information literacy model explains a classification of information needs as an obligatory element and emphasizes the value of the moral or behavioral use of information (Boon,2007). In terms of curriculum development, each model indicates the foundation and structure for effective and efficient teaching and learning of information literacy skills. By reviewing these models, it is vividly inferred that they consist of a range of linear or nonlinear stages starting from defining to synthesizing and evaluating applicable to all disciplines from elementary level to higher education.The teaching of conceptual models for handling information through an integrated and incremental approach have provided students with a broad context for understanding the different forms, sources and structures of information which ensures the transferability of acquired skills for a lifelong experience (Emmanuel Baro,2009).

Linear and nonlinear models

Information literacy models are generally divided in to 2 different categories based on a series of steps while a research is conducted as following (Bilawar,2011):

- Linear: A linear model means that the steps must be performed in a set manner,

- Nonlinear: A nonlinear model means that an individual passes through various stages at different times depending on information need.

These two models are useful in scaffolding the activities of information seekers, however, recent studies have indicated that nonlinear models do provide some chances for flexibility. According to Guild (2003) application of a research procedure to the results of a prior procedure, is invoked any time the research determines that the emerging complex ofrelationships have undeveloped area, logical errors, or incongruities. Unfortunately, when educators teach about the research process, it's often presented in a fashion that leads students to assume that the process is linear.The importance of recursion in learning is identified by encouraging students to search for more information even after they have completed their research. Therefore, Information literacy models that are circular and recursive can create a more understanding and flexibility for users.

Methodology

According to the objective of this research, firstly, top eminentmodels of information literacy are chronologically analyzed, then the possibilities of whether they are considered as linear, nonlinear or both are discussed via diagrams.

The selection of the top information literacy models is based on the existing literature. The existing literature obviously indicatesa high number of research and problem-solving models in information literacy. Thus the top 7 models for this purpose are:

1) The Information Search Process (ISP)(Kuhlthau,1987),
2) The Big6 information skills, (Eisenberg, 2003),
3) The PLUS model, (Herring, 1996),
4) The Seven Faces of Information Literacy, (Bruce,1999),
5) The Seven Pillars of Information Literacy, (SCONUL,2011),
6) Sauce model (Bond,2001),
7) The Pathways to Knowledge,(Pappas, M. &Tepe, A. 2002).

The Information Search Process (ISP):

In the 1980s and early 1990s many information models were developed. The Information Search Process (ISP) by Carol Kuhlthau is unique because it is based on research specifically designed in this area. The process includes seven stages. Within each stage isfeelings, thoughts and actions. The process includes the following stages:(Kuhlthau, 2004)

Figure 1: Seven stages of information search process model and feelings:(Kuhlthau,2004.p82)

If information is not enough, new information is explored and collected in recursive loops. (both linear and nonlinear)

Model of the Information Search Process

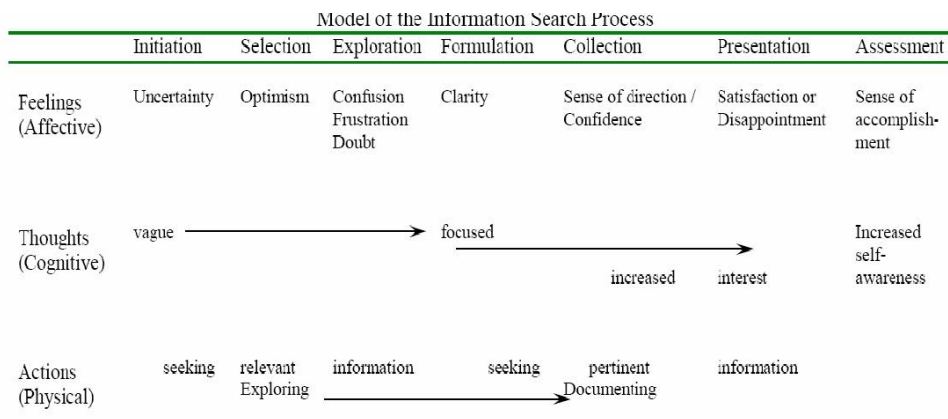|	Initiation	Selection	Exploration	Formulation	Collection	Presentation	Assessment
Feelings (Affective)	Uncertainty	Optimism	Confusion Frustration Doubt	Clarity	Sense of direction / Confidence	Satisfaction or Disappointment	Sense of accomplish-ment
Thoughts (Cognitive)	vague			focused	increased	interest	Increased self-awareness
Actions (Physical)	seeking	relevant Exploring	information	seeking	pertinent Documenting	information	

Figure 1. Information Search Process (Kuhlthau, 2004, p.82)

Kuhlthau points out that using a timeline to describe the search process helps students to understand the time and effort involved in an extensive search and to plan the work accordingly, asthe process of gathering and applying information to an issue or problem takes place in a series of stages over an extended period of time. An understanding grows that information gathering and use are not just linear processes addressing a single questionbut rather complicated processes in which questions are continually changing and evolving as new information is collected and thought about (Kuhlthau, 1987). In developing her ISP-model Kuhlthau was influenced by Kelly´s personal construct theory which focuses on the structure and function of how humans construe their experiences (Reynolds, 2013). In her model,learners go through the different nonlinear stages, when they seek or apply information to solve a problem or make a decision. It is not just necessary to complete the stages in linear order, but it is an approach that clarifies the problem at hand.

The Big 6 model

The Big6 information problem-solving approach is an information literacy model developed by Mike Eisenberg and Bob Berkowitz in 1990. The process encompasses the way in which individuals learn to recognize their specific information in various stages to effectively and efficiently solve their information problems. These skills can be applied in all situations at school, personal, and work settings. It is applicable to all subject areas across the full range of grade levels (Eisenberg, 2003). It includes six steps: task definition; information seeking strategies; location and access; use of information; synthesis and evaluation. The Big6 information problem-solving requires the completion of each stage at some point in time. However, the stages do not necessarily need to be completed in any particular order or in any set amount of time but all the stages must be completed for overall success. Although presented in steps, Eisenberg and Berkowitz stress that the model does not need to be just linear but also allows for recursive loops(Eisenberg 2008).According to Eisenberg, a particular stage can be repeated or revisited a number of times. While a stage can be completed with little effort, at some times might be difficultand time consuming.
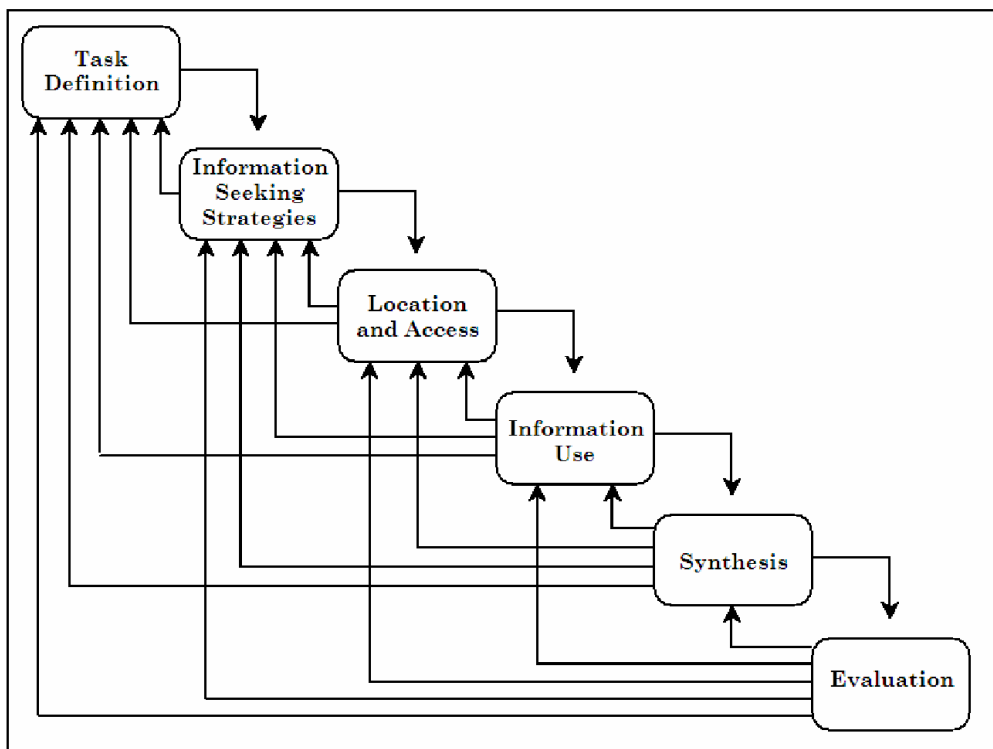
Figure 2: The big six model: Stages do not necessarily need to be completed in any particular order or time. (both linear and nonlinear): (Eisenberg, 2008)

The PLUS Model

Being developed in Scotland, the model was first published in 1996 by James Herring. The model seeks to incorporate the key elements of existing theories from education and information literacy models that had been developed previously, including the Big6 and integrated and combined crucial elements that can be grouped under the following four, not strictly linear, interrelated steps (Herring 1996; 1999), namely: Purpose, Location, Use and Self-evaluation. The PLUS model as a successful information-solving process involves four interrelated steps and each step includes the range of skills required to be possessed by a student or an individual to solve an information problem, as shown here:

Figure 3: nonlinear interrelated steps of PLUS model,(Herring,2011)

Herring (2011) stated that the PLUS model is more than a set of skills or a routine process; it is a critical and reflective ability to exploit the current information environment. The application of the PLUS model has been investigated empirically in the context of education (Herring 2006) and used by various studies. This nonlinear model has also been criticized for the lack of well-formed statements of information needs, especially in the description of ideal paths as well as the neglect of early phases and affective dimension that are of relevance to the acquisition of information literacy skills.

Seven Faces of Information Literacy Model

The Seven Faces of Information Literacy model was developed by Christine Bruce in 1997. The model contains seven linear ways or faces through which an individual observes and experiences information use.

Table 1: Seven linear faces of information literacy model (Bruce,1999)

Table 1
Workplace processes that correspond to the seven faces of information literacy

The seven faces of IL [Individual]	Workplace processes [Organisational]
The information technology experience	Environmental scanning
The information sources experience	Provision of inhouse and external information resources and services
The information process experience	Information processing; packaging for internal/external consumption
The information control experience	Information/records management, archiving
The knowledge construction experience	Corporate memory
The knowledge extension experience	Research and development
The wisdom experience	Professional ethics/codes of conduct

The Seven Faces model differs considerably from the other models as it is mandatory to follow the structures in a given order or sequence compared to other models such as the Big6 and Seven Pillars models (odede,2020).

Implementing this model in a compulsory linear progression disconnects an individual from an authentic information experience. Regardless of these differences, the Seven Faces model does include many of the same ideas such as the importance of finding and understanding sources in order to define the structure and scope of an information problem, synthesize and create knowledge (Bruce,2004).

Table 2: Seven linear faces of information literacy model and its descriptions (Webber,2000)

Category one : The information technology conception.	Information literacy is seen as using information technology for information retrieval and communication.
Category two: The information sources conception.	Information literacy is seen as finding information located in information sources.
Category three: The information process conception.	Information literacy is seen as executing a process.
Category four: The information control conception.	Information literacy is seen as controlling information.
Category five: The knowledge construction conception.	Information is seen as building up a personal knowledge base in a new area of interest.
Category six: The knowledge extension conception.	Information is seen as working with knowledge and personal perspectives adopted in such a way that novel insights are gained.
Category seven: The wisdom conception	Information literacy is seen as using information wisely for the benefit of others.

Seven pillars of the information literacy

In 1999, the Society of College, National and University Libraries in the UK, published "The Seven Pillars of Information Literacy model" to facilitate further development of ideas amongst practitioners in the field to stimulate debate about the ideas and how they might be used by library and other staff in higher education concerned with the development of students' skills (SCONUL,2011).

This model consists of 7 nonlinear stages (pillars) and describes a set of generic skills and understandings for different user communities such as identifying information needs, distinguishing scopes, constructing plans, gathering, evaluating and managing information and finally presenting. This model acts as a lens that can be developed which highlights different attributes, adds in more complex or simpler statements, and uses language recognized by the specific community which it represents. In this way, this model can be used flexibly by individuals and teachers who can adapt it as appropriate to personal circumstances. The circular nature of the model demonstrates that becoming information literate is not a linear process; a person can be developing within several pillars simultaneously and independently, although in practice he/she is often closely linked to the pillars (Odede,2020).

Figure 4: 7 Nonlinear pillars of Information literacy with Information literate person in the middle(SCONUL,2011):

Sauce Model

According to Bond (2001) Sauce is an information literacy model aimed at providing research, problem-solving and inquiry skills to learners (Maguire,2015). This model was initially developed by Bond in the year 1999 and then slightly revised in April 2009. It has six key facets, namely Information literacy, Collaborative andindividual learning, Essential skills, Higher thinking skills, Problem solving and ICT integration. Buzzetto-More (2009) observed that the Sauce nonlinear model involves linking what a seeker already knows to keywords. By using the keywords, questions are generated and searched from reliable sources. Subsequently, results of the search are evaluated and implemented to generate newinformation that is then used and communicated.

The information literacy facet emphasizes technical and critical skills. Technical skills include the ability to locate, acquire and store information; while critical skills include the ability to identify an information need, comprehend and discard

irrelevantinformation, validate related information and finally communicate and evaluate the outcome appropriately and clearly (Kanguha,2016).

Bond (2001) observed that, practically, the six facets described above are experienced through a five-stage process that starts with setting the scene, acquiring information, using information, celebrate understanding and evaluation. This process is not linear but cyclical, with the user having to go back and forth between different steps.
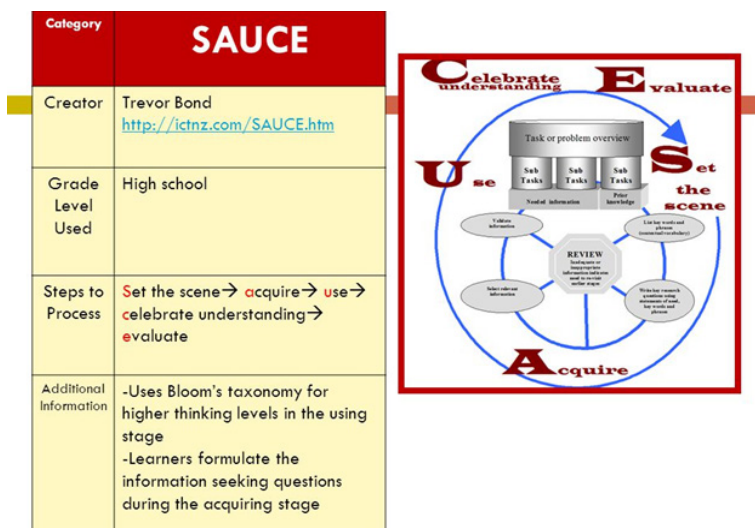
Figure 5: 5 nonlinear stages of Sauce model (Bond,2001)

Pathways to Knowledge Model

The Pathways to Knowledge model sponsored by Follett was developed by Marjorie Pappas and Ann Tepe in 2002. It is a model on information seeking and the research process with an emphasis on constructivism and enquiry-based learning that is designed for both students and adults (Zimmerman 2002). The authors stress the importance of questioning and authentic learning since their focus is on a nonlinear process for finding, using, and evaluating information. As a model of process, it covers many of the aspects that are applicable to information literacy and cultural heritage awareness in the context of lifelong learning" (Baker 2014). The model consists of six nonlinear steps:

1. Appreciation: At this stage, individuals explore a topic for information seeking through sensing, viewing, listening, reading and enjoyment,

2. Pre-search:Individuals at this stage explore what they already know andwhat they want to know about the topic, establish a focus, develop an overview, and explore relationships,

3. Search: This stage is when individuals seek appropriate sources, plan and implement a search strategy, identify information providers, select information resources and tools and seek relevant information,

4. Interpretation: At this stage, individuals assess useful information and reflect on research results to develop personal meaning and interpret information,

5. Communication: Individuals at this stage organize and apply their research in an appropriate format,

6. Evaluation: This stage involves thinking about productsand processesthrough evaluation. Ideally this should occur at each stage (Pappas, M. &Tepe, A. 2002).

The pathways model also emphasizes the ethical use of information and respect for intellectual property which is paramount in today's information literacy. Evaluation is listed as the final stage, but is ongoing in nonlinear information process. This model was originally designed as a diagram rather than a series of steps. Students are encouraged to continuously explore and reassess as they process information (Lamb,2016).

Discussion

From what discussed above, it is inferred that the vast majority of selected information literacy models can be deemed as nonlinear due to their flexibility and capability of being recursive. Investigating through these nonlinearmodels by diagrams also revealed that distinguishing the specific stages in which the recursive loops maytake place, specifically depends on the unique characteristics and various defined stages in each model. Therefore, it is important to compare andinterpret the linear and nonlinear potentiality of different models according to their definitions andcircumstances. The table below briefly indicates the linear, nonlinear or both aspects of the models discussed in this article.

Table 3. A quick review on linear and nonlinear information literacy models (ILM):

Information literacy models	Linear	Nonlinear
The Information Search Process (ISP)	X	X
TheBig6 Information skills	X	X
ThePLUS Model		X
The Seven Faces of IL	X	
The Seven Pillars of IL		X
Sauce Model		X
The Pathways to Knowledge		X

Conclusion

As educational institutions worldwide are implementing myriads of teaching methods for their instructions and students are also involved in numerous research activities;linear or nonlinear Information literacy models can be both advantageous in these aspects, thus, exploiting appropriate information literacy models according to the particular kinds of research or instructions requires the recognition of the merits and limitations of each model. Defininga Linear or nonlinear model obviously assists educational experts and investigators to better predict and meticulously plan what should be fulfilled or reversed for further considerations in different stages of each modelin case of repetition or revision. Therefore, it is desperately important to analyze the different models of information literacy and their standards clearlybased on circumstances and the capability of whether they are linear, recursive or both.

References

Baker, D. (2014). The Schooled Society: The Educational Transformation of Global Culture. Stanford: Stanford University Press.

Bond, T. (2001). Sauce Description., Retrieved from http://ictnz.com/SAUCE.htm Accessed 1 June 2021.

Bilawar, P. (2011). Information Literacy Models: Correlation and Conceptual Model for Higher Education. 8th International Conference CALIBER (Convention on Automation of Libraries in Education and Research Institutions). India, 2-4 March.

Boon, S., Johnston, B. & Webber, S. (2007). A phenomenographic study of English faculty's conceptions of information literacy, Journal of Documentation,63. (2), 204-228. Retrieved from https://doi.org/10.1108/00220410710737187

Bruce, C. S. (1999).Workplace experiences of information literacy. International journal of information management, 19(1), 33–47.

Bruce, C. (2004). Information Literacy as a Catalyst for Educational Change. A Background Paper . In Danaher, Patrick Alan, Eds. Proceedings Lifelong Learning: the 3rd International Lifelong Learning Conference,8-19, Yeppoon, Queensland.

Buzzetto-More, N. (2009). Using web-enabled project based learning to build information literacy, In book: Issues in Information and Media Literacy: Education, Practice and Pedagogy. Vol.2. 51-74. Santa Rosa, Ca. Informing Science Press

Eisenberg, M. B. (2003). Implementing Information Skills: Lessons Learned from the Big 6 Approach to Information Problem Solving.School Libraries in Canada, 22(4) ,20–23.

Eisenberg, M. B. (2008). Information literacy: Essential skills for the information age. Journal of Library & Information Technology,28(2), 39-47.

Emmanuel Baro, E., & Fyneman B. (2009). Information Literacy among Undergraduate Students in Niger Delta University. 27(4), 659–675. Retrieved from https://doi.org/10.1108/02640470910979606. Accessed 8 july 2021.

Guild, S. (2003). Modeling Recursion in Research Process Instruction. In Curriculum Connections through the Library, edited by Barbara Stripling and Sandra Hughes-Hassell. Libraries Unlimited, 141-155.

Herring, J. E. (1996). Teaching Information Skills in Schools. London: Library Association.

Herring, J. E. (1999). Exploiting the Internet as an Information Resource in Schools. London: Library Association.

Herring, J. E. (2006). A Critical Investigation of Students' and Teachers' Views of the Use of Information Literacy Skills in School Assignments.School Library Media Research, 9(1) Retrieved from https://files.eric.ed.gov/fulltext/EJ965631.pdf . Accessed 10 June 2021.

Herring, J. E. (2011). Year Seven Students, Information Literacy Skills and Transfer: A Grounded Theory. School Library Research, 15, 1-31. Retrieved from https://researchoutput.csu.edu.au/ws/portalfiles/portal/8835100/35969_Herring_pub+paper.pdf . Accessed: 18 June 2021.

Kanguha , E. M. (2016). Information literacy learning experiences of forth-year psychology students in Kenyan Universities. PhD dissertation in Information Studies Program, School of Social Sciences, College of Humanities, University of KwaZulu-Natal, Pietermaritzburg, South Africa. Retrieved from https://researchspace.ukzn.ac.za/xmlui/bitstream/handle/10413/13422/Kanguha_Ephraim_Mudave_2016.pdf?sequence=1&isAllowed=y Accessed: 15 June 2021.

Kuhlthau, C. C. (1987). Information skills for an information society: A review of research. Syracuse: Syracuse University. Retrieved from https://files.eric.ed.gov/fulltext/ED297740.pdf , Accessed: 19 June 2021.

Kuhlthau,C. C. (2004). Seeking meaning: A process approach to library and information services.2nd edition.Westport: Libraries Unlimited.

Lamb, A. (2016). Information Instruction: Strategies for Library and Information Professionals. Retrieved from https://eduscapes.com/instruction/5.htm Accessed 11 June 2021.

Maguire, B. (2015). Designing an Information Literacy Program to key standards and frameworks.Qualitative and Quantitative Methods in Libraries (QQML) , 4, 789-793.

Odede, I. (2020). Models for Teaching Information Literacy: A Comparative Review of the Top Six Models.Mousaion, 38(2). Retrieved from https://doi.org/10.25159/2663-659X/7254 . Accessed 12 july 2021.

Pappas, M. & Tepe, A. (2002). Pathways to Knowledge and Inquiry Learning. Libraries Unlimited.

Reynolds, R. (2013). Theory in Information Behaviour Research. Chapter: Personal Construct Theory. Editors: Tom Wilson Publisher: Eiconics Ltd. 75-96.

SCONUL Working Group on Information Literacy. (2011). The Seven Pillars of Information Literacy: the core model. Retrieved from https://www.sconul.ac.uk/sites/default/files/documents/coremodel.pdf Accessed: 5 September 2021

Webber, S. & Johnston, B. (2000). Conceptions of information literacy: new perspectives and implications. Journal of Information Science, 26 (6).381–397. Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.915.575&rep=rep1&type=pdf Accessed 5 October 2021.

Zimmerman, N. P., Pappas, M. L., & Tepe, A. E. (2002). Pappas and Tepe's Pathways to Knowledge Model.School Library Media Activities Monthly,19(3), 24–27.

Commercializing User Behavioral Data in the Telecommunication Industry – A User Perspective

Buddhika T. Withanage[1]

ABSTRACT

Short Messaging Service (SMS) was highly utilized for nonverbal communication before the rapid growth of smartphones. With smartphone penetration, voice calls, and SMS were overtaken by Instant Messaging (IM) applications. To minimize the damage, telecommunication service providers designed solutions to use SMS as a product/ service marketing channel. Nowadays, SMS advertising has matured into a popular medium of advertising throughout the world. Since third-party clients are involved, there is a concern between the SMS campaign costs and impressions achieved for each campaign. To ensure maximum effectiveness, telecommunication providers tend to harvest user behavioral data by tracing SMS aliases through the SMSC. (Short Message Service Center- an essential system compartment of a telecommunication infrastructure) This categorization can be brought forward to create user personas. This research concentrates on the privacy matters of these outlines and the ethical front of commercializing the user behavioral data without the direct consent of the network subscriber. The study process included technical fact research, a survey, and an insight building resulted from a statistical evaluation of survey responses. The survey included a structured-mix online questionnaire of both closed and open-ended questions to capture quantitative and qualitative data. 70 adults over 18 years of age participated in the survey to represent crucial demographic groups who are tech-savvy and digitally active. In research findings, it is observed that 72% of the users are aware that their data is being commercialized by telecommunication companies and the fact that they have unintentionally given consent to use customer data for commercial purposes in the initial purchasing agreement. Users are disappointed to see that their data being harvested through the private messaging inbox to earn more revenue. 90% of users are ethically using their service and 91% are expecting ethical data protection from the service providers as a reciprocating.

Keywords: Data privacy, Telecommunications, Behavioral Tracking, Customer Privacy, Advertising, SMS Marketing, Data Ethics

[1]Independent Researcher
Email : buddhika.withanage.sl@gmail.com

Introduction

The decade started from 2010 marked a rapid growth in mobile communication devices. The ordinary mobile phone converted to a Smartphone, opening new paths for telecommunications, advertising, and software development. The smartphone contains a set of impressive features which make the user's lifestyle easy.

Short Messaging Service (SMS) was highly utilized for nonverbal communication before the rapid growth of Smart Phones occurred. Once the Smartphone penetrated the mobile phone industry, standard communication services such as voice calls, and SMS were overtaken by Instant Messaging Applications. Instant Messaging Applications create the convenience to communicate faster, create forums and multiple platforms to communicate in one application (Shahid & Zuberi, 2016). In this plot, the telecommunication service providers designed solutions to use SMS as a product/ service marketing channel and developed a B2B business model to generate revenue. Short Message Service, as known as SMS is recognized as a reliable communication channel since the messages can be stored and retry to deliver in case of a network or system downtime.

For a mobile network service providers can identify the mobility of the customers by monitoring the Cell IDs (Broadcasting tower IDs) of different regions of a country and plan bulk communications through new bulk SMS solutions (Samaka et al., 2009). With these comforts and conveniences, SMS advertising has matured into a very popular medium of advertising throughout the world. With the emergence of data analytics for businesses, the telecommunication industry tends to use customer behavioral data to execute effective SMS campaigns for its clients. The research aims to analyze the ethical aspect and the customer perspective of the process.

Technical Background

To accommodate storing and monitoring the SMS effluxion between senders and receivers, the need for a dedicated gateway emerged, hence the SMSC (Short Message Service Center) was developed (Hillebrand, Trosby, Holley, & Harris, 2010). SMSC is the gateway that receives, validates, and passes the SMS communications that occur within the network. The messages which are not fulfilling the standards set by the SMSC, are unable to pass down to the destination. This validation process is governed by network protocols and reviews each SMS that reaches the SMSC.

To do this validation and standard monitoring, which is crucial for standard integrity and the user experience, SMSC should have the authority to view SMS contents. Traditional SMS transmissions are unencrypted because of this reason. Unencrypted protocols are permitting the network administration to read all

SMS contents so the employees of a wireless network who bear authority, can view SMS contents without a problem. Not only to view, but the authorized employees of the network service provider are also able to modify/change contents without letting the receiver know, (Lockefeer et al., 2010) which is another privacy concern we are not aiming to discuss in this paper.

Bulk SMS Sending Tools and Tracking Behavioral Data

Using wireless web interfaces to send bulk SMS to a target audience is not a novelty in the telecommunication industry. Many enterprises have gathered around the bulk SMS facilities offered by the mobile network services since they can reach their customers and potential customers at a low cost and a high convenience. Usually, a web interface is developed by the service provider, links it with the network SMSC, and creates login credentials for each enterprise which are seeking a tool to send bulk SMS to their clients (Jelassi & Enders, 2004). For the counts of impressions created, the payments are settled. Enterprises are free to use their mobile number bases, which are NOT shared by the mobile network service providers but collected themselves with the customer's consent.

With the emergence of analytics and establishing business intelligence units in telecommunication service companies, enterprise bulk SMS tools seemed new sources of mass revenue generation. Since the SMS contents are readable within the SMSC, Mobile network service providers can retrieve reports of the customers who are getting SMS communications from banks, food delivery services, cab services, pubs, fashion outlets, and other brands that customers are already registered and made purchases in the history. Combining this information with the existing demographic data in the network, mobile service providers enjoy the utmost privilege to create "Customer Personas" (Borgstein, de Ridder, & Mulder, 2010).

These customer personas will be the target audiences of the product campaigns conducted on behalf of the businesses. Even though the customer mobile numbers are not shared with the third party, mobile network companies can identify customer behaviors and purchasing patterns, and demographic data and define a persona, and execute SMS campaigns on behalf of the businesses. These campaigns are highly effective in both results and costs (Revella, 2015).

Research Scope and Limitations

The scope of the research weaves around digitally active adults in a wide age range starting from 18 to 55 and above. The research covers the basic demographic characteristics and the sentiments of the participants.

The research does not cover the legal aspect of the problem situation since it is under the law and all telecommunication service providers are bound to the TRCSL (Telecommunications Regulatory Commission of Sri Lanka) regulations regarding promotional SMS campaigns. If any service provider goes against the rules, the license to operate within the country will be revoked.

Brand names were purposely excluded in the research to eliminate possible bias answers. In this case, each telecom brand can have different strengths in the B2B market. The research limits investigating the market penetration.

This research was conducted in Sri Lanka, a country where Multi-Carrier SIMs are not in operation at the time the research was conducted. Hence, customer behavior and brand loyalty can be different from an environment where the Multi-Carrier SIMs are in function.

The level of brand loyalty may have resulted in biased sentiments. The utilized sampling method has not equally covered the age/ gender groups as well. The ways customers react when they receive unnecessary promotional messages are also not investigated in the research. The research only focuses on user perception over the research problem and the correlation of the demographical factors.

Objectives

Although some researchers attempted to cover the privacy and security concerns of using SMS from a technical perspective (Ulayee, Mesbah-Ul-Awal, & Newaj, 2014; Khan, 2013; Lockefeer, Hubbers, & Verdult, 2010), there is an absence of a study that covers the ethical aspect and the customer perspective of commercializing user behavioral data to generate revenue through a 3rd party.

Briefly, promotional SMS campaigns and customer persona building does not seem like a problematic situation from a marketing perspective, hence there is a lack of attention to this scenario. The research aims to fill that knowledge gap.

Research Problem / Methodology

The telecommunication industry tends to commercialize customer behavioral data to generate revenue by creating effective target audiences.

Sampling

The research adopted the simple random sampling method. Any adult over 18 years old and digitally active, (owning a mobile device for regular use) was eligible to participate in the research. The research target was to collect data from 50 eligible participants but due to the high demand of participants, data of 70 participants were collected.

Out of the 70 participants, 37 participants were females and 33 were males. Every participant owns a smart mobile phone. 67 participants are using their current primary mobile number over a period of 1 year.

Data Collection

A structured mixed questionnaire in both Sinhala and English language was presented to the participants with both open-ended and close-ended questions. Participants were free to select the most comfortable language to answer. The questionnaires were circulated online. Each participant was given a brief about the objectives of the research and the confidentiality of the details they provide. Participants were convinced to answer the questionnaire only in their freedom of thought.

The data collected through the questionnaire is primary. Since there was no prior study conducted to analyze customer sentiments of the research area, the researcher approached a primary data collection.

Analysis

The questionnaire results were analyzed by calculating the average (Arithmetic Mean) of the response rates of the rating scale questions. For seemingly unrealistic results, a separate socio-political and economical background check was conducted to catch evidence for anomic behaviors. This approach is called The Exploratory Data Analysis method, which is a way of statistical analysis. It emphasizes significant/anomaly data patterns and provides valid insights for such patterns.

For the patterns where a correlation could be seen, a linear regression model was adopted to project the relationship between two valid independent and dependent variables.

Some participants avoided revealing their income status, (The income level question was made optional since it can be a sensitive question, person-wise) hence that piece of information had to be excluded from the analysis to maintain the statistical integrity of the research findings.

Results

Data Privacy Self Consciousness and Real-Life Experience- Age Categories

There were 3 questions in the questionnaire to extract the concern level of the data privacy of the participants and there were 3 reverse questions to analyze what they experience in real life contradicting their data privacy self-consciousness. The participants were asked to rate their agreement or disagreement on a scale of 1-5. The average response values are converted into %.
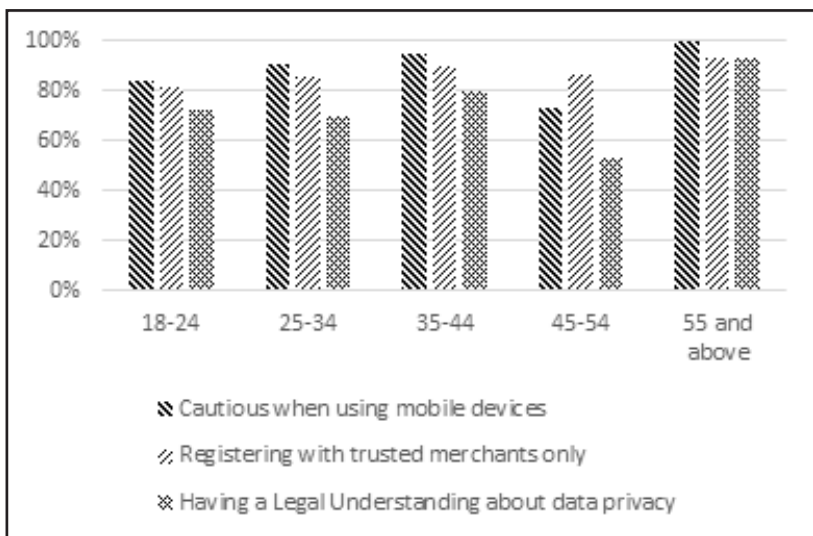
Figure 1: The data privacy concern level of the participants- Age Categories

When there is a visible increase of data privacy consciousness as the age increases, as the Figure 1 emphasizes, there is a decline in the overall data privacy self-consciousness measures in the age group of 45-54. The total % of the participants who are cautious when using mobile devices is 88% when the participants who are registering only with the trusted merchants are 85% of the total sample population. The legal knowledge of how the user data should be retained and utilized by a service provider is substantially lesser than the other two parameters and it is 72% of the total sample population.

Looking at the two parameters of legal understanding and the cautiousness when using mobile devices, a linear pattern can be seen as below.
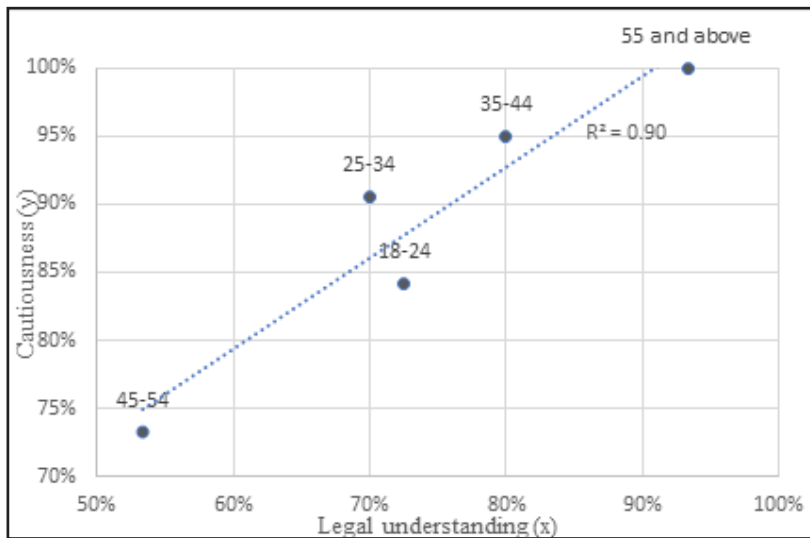
Figure 2: Linear Regression- Legal understanding and the cautiousness

In the Figure 2, the linear regression model proves that the coefficient of relationship is 90% between the independent and the dependent variable. The legal understanding about data privacy acts as the independent variable (x) and the cautiousness of using devices acts as the dependent variable in this model. As the figure 2 shows, when the legal understanding increases, the cautiousness of using mobile devices is also increasing.

In comparison, the reverse question results are projected below.
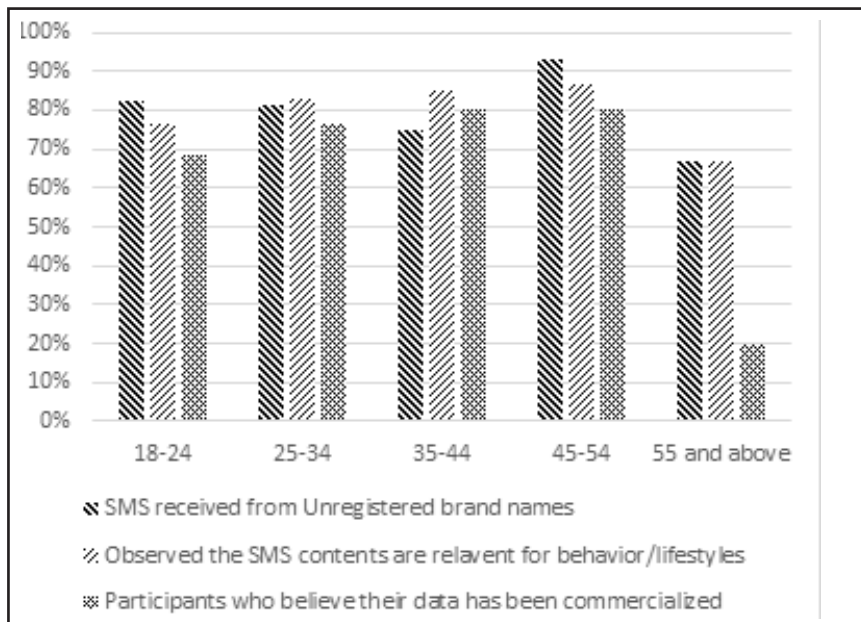
Figure 3 The Real-Life Experience of SMS Marketing- Age Categories

81% of the total sample population has experienced receiving promotional SMS notifications from businesses they have not registered with according to their general consciousness. 80% have observed that these SMS communications are matching with their day-to-day behavior patterns, demographic characteristics, preferences, and lifestyle. 72% of the participants believe that their mobile service provider has commercialized their behavioral data.

When investigating further in comparison, it is observable that the age group which has the least concern/ data privacy consciousness (45-54) has highly experienced receiving promotional SMS notifications from businesses they have never signed up to receive communications. Although every other age category was taking measures to protect their data privacy by all possible means, they have also been receiving promotional SMS notifications from external businesses/ brands.

The 55 and above age category is projecting a low conflict over their very high data privacy consciousness. But it cannot be reasoned that it is caused only by their high data privacy consciousness. Usually, this age category shows a dormant/ reluctant digital behavior in comparison with young age categories. (Lancaster University, 2018; Conger & Griffith, 2020) In that base, it can be figured that this age category is not heavily signed up with digital services which are paving the way for their users for being traced. Hence, this age category has not highly experienced receiving promotional messages, but those who have received these SMS notifications have observed that they are relevant for them at an equal rate. (67%). This clears the fact that the tendency of creating accurate personas is high when the sample count is small and shares similar characteristics (retired/ challenging health conditions/ low mobility etc.). And because of this low marketing engagement happening with this age category, their tendency to believe that their data is being tracked is low. (20%)

The 18-44 age group marks 69% of the global representation of the digitally active population (Statista, 2021). Hence they are more vulnerable to data privacy concerns. Comparing Figure 1 and 3, it projects the idea that no matter the degree of concern about their data privacy, their high digital activity lets other parties harvest their personal and behavioral data.

The above observation ensures that even though the users (customers) are keen to keep their data private, their behaviors are being tracked by the network service providers. The more careless the user is, the more vulnerable he is to being tracked. This part of the analysis also tries to confirm the existence of the problem statement.

Data Privacy Self Consciousness- Educational Level

When evaluating the results of the same set of questions taken the educational level as an attribute, there were some observations made of the user perspectives.
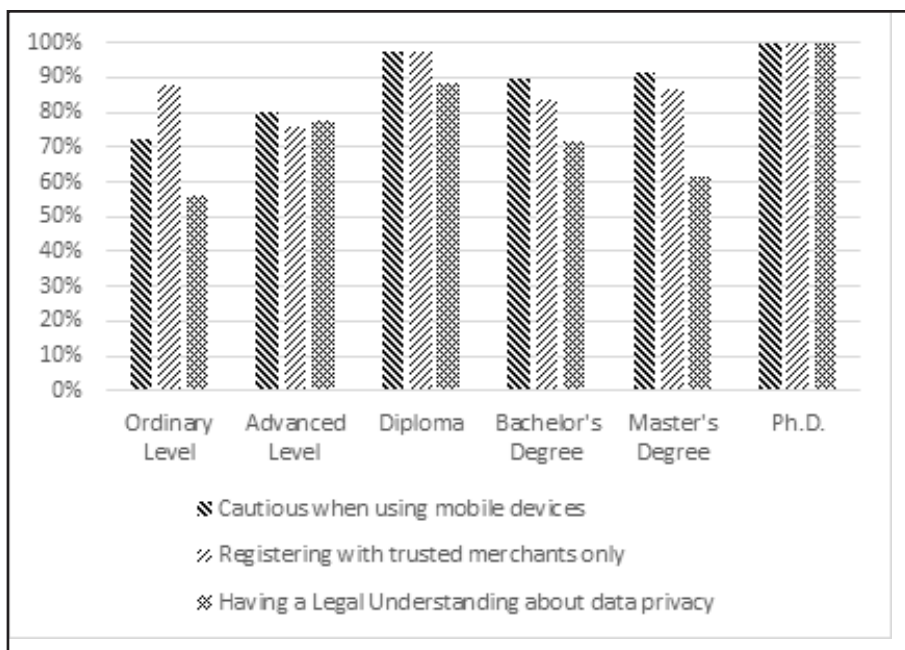
Figure 4: Data Privacy Self Consciousness- Educational Level

In Figure 4, the data shows that the level of education has no significant impact on the self-consciousness of data privacy of the users, except for Ph.D. holders who are projecting a 100% awareness. If carefully inspected, the diploma holders seem highly aware to be cautious when using their mobile devices and their legal background. After the collegiate level, (A/L examination) majority of the youth in Sri Lanka who are not qualified for a state university or unable to afford a private university are signing up with diplomas, which are mainly focusing on technology and business (Craddock, 2021). It can be assumed that this awareness is coming within the knowledge update this group is exposed to. On the other hand, bachelor's degree holders and master's degree holders show similar behavior which is comparatively low, which may have resulted in concentrating on a specific area and made their choice over employment. But the fact that the Ph.D. holders have mostly been driven on research and have met many cross-discipline experiences in their research career, (Peller et al., 2018). It may have resulted in a high awareness and self-consciousness over data privacy.

Data Privacy Self Consciousness - Location

The participants were asked to provide their home location to check whether there is a correlation between the data privacy self-consciousness with the living location. In the participant's knowledge, the answers were provided under 3 categories as rural, suburb, and urban areas.
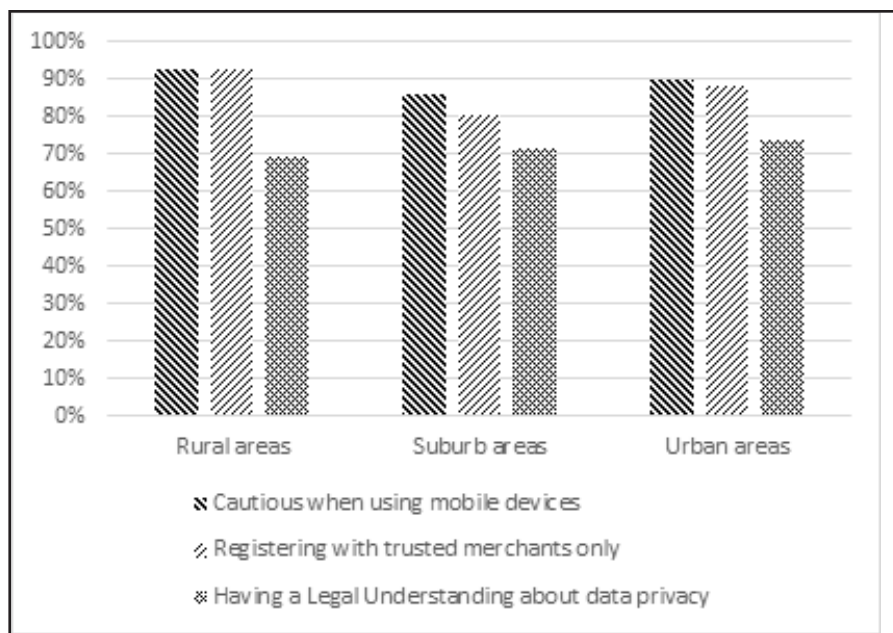
Figure 5: Data Privacy Self Consciousness- Location

In Figure 5, there is no significant correlation be seen with the data privacy self-consciousness and the home location. The reason might be the increasing social mobility in education, employment, and digitalization in recent Sri Lanka. With the New-Normal after the Covid-19 pandemic, there was an unprecedented digitalization spreading throughout the country, (Narimatsu et al., 2021) and that may have resulted in a growth of usage and awareness of digital activity.

User Sentiments

As per the data collected in the research, 90% of the participants have mentioned that they are ethically using their mobile connections. 91% of the participants believe that the telecommunication service providers have an ethical duty to refrain from generating revenue through a 3rd party, using customer data although it is legal. This seems like a fair expectation since the participants are expecting the telecom companies to reciprocate the ethical duty.

According to the questionnaire results, 96% of the participants are using their number over a period of 1 year, and 74% of the participants are using their mobile connection for a long term because they are using Instant Messaging apps linked to their mobile numbers (WhatsApp, Viber, Imo, etc.). This gives an idea of why customers are latching to mobile networks for a long time. It is not brand loyalty, but number loyalty.

Another contradicting area to look at is the customer agreement. Any customer who is going to purchase a mobile connection is presented with an agreement/ contract between the user and the telecom service provider. In these agreements, the telecommunication service providers reserve their right to use the customer data for revenue generation, research, and marketing needs. Once the customer signs the contract it is considered that the customer has given full consent to use the customer data in the company preference.

In this research, 63% of the participants have stated that they thoroughly go through the user agreement carefully before a SIM card purchase. However, 77% of the participants agree that no matter what, signing the agreement means the customer is agreeing to all the terms presented. The rest of the 23% believes that signing is not giving 100% consent. The contradiction occurs here. This 23% of the participants are trying to emphasize that there is something more than a legal contract. The ethical use of the customer data comes to the arena like this.

11 participants have answered the optional open-ended question and out of these responses, 45% of these responses are trying to convey the usual customer dissatisfaction with the service. 45% of the responses are correctly addressing the data privacy concern and they are believing that it is not ethical from the user perspective. Another concern which these customers were having was the constant disturbances caused by these promotional SMS notifications. The existing promotional message opt-out mechanism was also criticized by this group of customers mentioning that the customers should send opt-out messages for each promotional message or should call the customer care hotline of the mobile service provider to blacklist the number from sending promotional messages. 10% of the responses project a neutral attitude, mentioning that if the customer will not be harmed, there is no problem in the situation.

Discussion

The research was conducted to have a comprehension of the user perspective of commercializing user behavioral data of the telecommunication industry. And the results came out with the characteristics of a speedily digitalizing society. The test results could have been different in the pre-Covid-19 era. The digital privacy consciousness and proactive measure taking seem extremely impressive when analyzing the research results.

However, the concept of user data privacy is a multi-disciplinary topic. Its scope includes technology, science, business, law, ethics, and human perception too. The human perception is extremely dynamic and dependable on countless factors.

The significance of the research is it focuses on the unheard voice in the consumer businesses. Telecommunication companies are attracting millions of customers. Each customer has a different opinion and has to say something about their role within this large-scale B2C business model. Market research are focusing on customer activity and trends, but hardly on customer sentiments. Data privacy and rights are currently a controversial topic, and the users should have a voice over their data, even though businesses acquire customer data in a legal framework. That is why the telecommunication industry should have an ethical way of handling customer data before commercializing them to generate revenue through a 3rd party business.

Ethics go in two ways. If the users are ethically behaving and take benefit of the services provided by the telecommunication industry, the industry itself is ethically obliged to reciprocate and respect the user's ethical code.

The research identified that the age categories have different perspectives and impacts on the research problem. With a swiftly digitalizing society, with the Covid-19 pandemic as a catalyst, it is observed that the Sri Lankan society is closing the gaps of the data privacy self-consciousness through thick barriers such as low education levels and rural-urban differences.

In near future, it can be predicted that this scenario will be extremely competitive and explosive when Sri Lanka starts to operate Multi-Carrier SIMs. This would allow all the network service providers to harvest an endless amount of behavioral data from the users.

Finally, this research opens a way for future researchers to investigate many other aspects of the user perspective. (The practical usability of data driven SMS promotions etc.)

Conclusion

According to the research results and background information, the user perspective of commercializing user behavioral data by the telecommunication industry is clearly disapproved by users. The research results stress the fact that users are not only seeking services for the price they pay, but they also ask for mutual ethical standard fulfillment in return from the telecommunication service providers.

The research adopted the Exploratory Data Analysis approach as its statistical analysis method. This analysis led to observe a linear relation between legal understanding about data privacy and the cautiousness of using mobile devices. When the user is more aware of the legal background, the idea of privacy seems to become prominent.

As a recommendation, upon making a sale of a mobile connection, the network service provider can highlight the data privacy agreement terms or verbally communicate them to the customer and get the customer's full consent to use their data for commercial purposes. Alternatively, the network service providers can develop an SMS/ USSD/ OBD self blacklisting /opt-in method to empower the user to decide on their data within the network. It might not be the best business call, but somewhere both parties come to a middle point.

References

Borgstein, P. A., de Ridder, H., & Mulder, I. (2010). Users Inspire Innovation: Understanding the user to inspire innovation in the telecom sector (1). TU Delft. Retrieved from http://resolver.tudelft.nl/uuid:9ebc83c9-3d2d-4cc1-8153-568f4a13916e

Castiglione, A., de Prisco, R., & de Santis, A. (2009). Do You Trust Your Phone? E-Commerce and Web Technologies 10th International Conference, EC-Web 2009, Linz, Austria, September 1–4, 2009. Proceedings, Vol.5692, 50–61. Retrieved from https://doi.org/10.1007/978-3-642-03964-5_6

Conger, K., & Griffith, E. (2020). As Life Moves Online, an Older Generation Faces a Digital Divide. Retrieved from https://www.nytimes.com/2020/03/27/technology/virus-older-generation-digital-divide.html

Craddock, A. (2021). Education in Sri Lanka. Retrieved from https://wenr.wes.org/2017/08/education-in-sri-lanka

Hillebrand, F., Trosby, F., Holley, K., & Harris, I. (2010). Short Message Service (SMS): The Creation of Personal Global Text Messaging (1st ed.). Chichester, United Kingdom: Wiley.

Jelassi, T., & Enders, A. (2004). Leveraging Wireless Technology for Mobile Advertising. ECIS 2004 PROCEEDINGS-EUROPEAN CONFERENCE ON INFORMATION SYSTEMS (ECIS), 3–7. Retrieved from https://aisel.aisnet.org/cgi/viewcontent.cgi?article=1073&context=ecis2004

Khan, M. W. (2013). SMS Security in Mobile Devices: A Survey. International Journal of Advanced Networking and Applications, 5(2), 1873–1882. Retrieved from https://shorturl.at/grFO6

Lancaster University. (2018). Why some older people are rejecting digital technologies. Retrieved from https://www.sciencedaily.com/releases/2018/03/180312091715.htm

Lockefeer, L., Hubbers, E., & Verdult, R. (2010). Encrypted SMS, an analysis of the theoretical necessities and implementation possibilities (18). Nijmegen, Netherlands: Radbound University.

Narimatsu, J., Mendis, A., & Seneviratna, J. (2021). Digitalization is the way forward for Sri Lanka. Retrieved from https://blogs.worldbank.org/endpovertyinsouthasia/digitalization-way-forward-sri-lanka

Peller, L., Chettri, I., Trivedi, I., Zhao, Y., Plocharski, A., & Schulz, D. (2018). Two new doctoral programs to emphasize cross-disciplinary research. Retrieved from https://www.gwhatchet.com/2018/06/11/two-new-doctoral-programs-to-emphasize-cross-disciplinary-research/

Revella, A. (2015). Buyer Personas: How to Gain Insight into Your Customer's Expectations, Align Your Marketing Strategies, and Win More Business. Hoboken, New Jersey: Wiley.

Samaka, M., Fakhroo, A., Al-Omari, N., Moeinzadeh, Z., Al-Kubaisi, S., & Fakhri, H. (2009). Wireless Application Deploying Cell Broadcast, and Bulk SMS/MMS. Journal of Mobile Technologies, Knowledge and Society, Vol. 2009, 2.

Shahid, S., & Zuberi, N. A. (2016). Comparative Study: An analysis of WhatsApp application and SMS by students & Professionals of Karachi. Journal of Mass Communication, Vol. 14, May 2016, Vol. 14(May), 110–116.

Statista. (2021). Age distribution of internet users worldwide 2019. Retrieved from https://www.statista.com/statistics/272365/age-distribution-of-internet-users-worldwide/

Ulayee, H. A. B. A., Mesbah-Ul-Awal, M., & Newaj, S. (2014). Simplified Approach Towards Securing Privacy and Confidentiality of Mobile Short Messages. 2014 Fourth International Conference on Advanced Computing & Communication Technologies, 403–408. Retrieved from https://doi.org/10.1109/ACCT.2014.23

The Evaluation of the Selective Dissemination of Information (SDI) Service Offered by Information Services Centre of Industrial Technology Institute, for Research Scientists: User Perceptions

Preethika Weerasinghe[1], Purnima Jayasinha[2]

ABSTRACT

This research was focused to identify the facts of lower usage of Selective Dissemination of Information (SDI) service and to eliminate the gaps if any to obtain the maximum usage of the service. Main objectives were to identify the users' perception, their opinion on the service and to evaluate the SDI service. A Quantitative research method has been used for this research. The study population was the Research Staff of the Industrial Technology Institute and 69 responded out of 83 researchers. Research findings indicated that about 50% of the Research staff was aware of the SDI service and their perception was that the service moderately effective. The issue of laziness in reading SDI alerts was significantly noticeable through the survey. The service could be popularized and make more effective by conducting frequent user surveys and updating user profiles of the researchers with their subject interests and appropriate key words. Further, the staff of Information Service Center could visit the divisions to provide the necessary training to the Research staff or organize orientation programmes to make aware of the SDI service quarterly. In this research survey, it was also found that new information technological tools such as e-databases, e-journals, e-books, blogs and portals etc. should be introduced to the users and to evaluate the effectiveness on annual basis.

Keywords: Selective Dissemination of Information (SDI), Usage, User surveys, Information Technological Tools

[1, 2]Information Services Centre, Industrial Technology Institute, Colombo, Sri Lanka
Email : preethikaw@yahoo.com

Introduction

Industrial Technology Institute, a Statutory Board that operates as a market-oriented Research & Development and Testing Services partner to its clients and stakeholders. It is a wholly owned institute of the Sri Lankan Government and functions within the purview of the Ministry of Digital Technology and Entrepreneur Development. At the inception, then Ceylon Institute of Scientific and Industrial Research (CISIR) in 1955, as a research institute to support the industries of the country, recognized the importance of a library to quench the information needs of the researchers and the industrialists. With the recommendation of the World Bank, the library was initiated in the same year with the transfer of approximately 3500 books and journals from the Department of Industries. From its inception the library (Now Information Services Centre -ISC) was open for public for their reference work.

This is the only information services centre or the technical library open to public in Sri Lanka and handles exclusively science and technology (S&T) information. There are basically four membership types; namely; ITI, Individual, Deposit and Corporate membership.

Selective Dissemination Information (SDI) service conducted by the Information Services Centre

It was reported that the SDI service was introduced in 1982 with the basic precept of librarianship, the users should be provided with timely accurate information, with in a minimal time. With this rationale, the service was carried out manually by disseminating a slip of paper with bibliographic information among 55 Research Scientists working at CISIR. (Warnasuriya, 1985). A book was maintained for the SDI service with a page for each and every Research Scientist. The fields of interest which were given by RSs were mentioned there. When an information that matches with the field of interest was received, the library sends the SDI slips to RSs manually. If the researcher is interested the reply slip was sent back requesting for a copy of the journal article, reprint or reserving the book.

Today the SDI service has vastly developed and is fully computerized. The handling of the service is very much easier compared to earlier times. SDI service is completely automated and runs via email.

Being an ISO 9001:2008 accredited library, the library operates complying to procedures and work instructions implemented conferring to the ISO standards. According to the work instructions for Selective Dissemination Information – WI 16, the information on subject interest should be collected and update the user profiles of the researchers and should also inform the new members about the SDI service.

Sources considered for SDI service

1. Books – New books entered to the library system during the previous month

2. Reprints – Reprints entered to the library system during the previous month

3. Journal articles – Journal articles indexed and entered to the library system during the previous month

Problem statement

The usage of SDI service by the Research staff of the ITI is significantly decline for the past few years. The Information Services Center spends a vast amount of money for its resources especially ScienceDirect online journals database, journals and books annually. The staff of the ISC devote lot of time and hard work to index and update the information available in the library but the usage is not satisfactory. Therefore, this research was focused to identify the facts of lower usage of SDI service and to eliminate the gaps if any to obtain maximum usage of the service.

Significance of the Study

The Research staff of ITI are engaged in scientific research and testing in various subject fields offering their services to the industry and national issues. They require timely up to date information to take correct and quick decisions for their activities. The nature and field of the information requested from the ISC vary from one to another research scientist according to their interests. However, with the emergence of the computer and revolutionary changes in communication technology, and with information searching skills, ISC could provide a variety of technology-based information to the users with a wide range of interests, which was not possible earlier. In this context, it is clear that SDI service can offer a significant contribution to the research community. Therefore, it is suggested to enhance such valuable scholarly service by way of providing effective SDI service for the benefit of ITI research community.

Ethical issues

The respondents were well informed of the nature, purpose and procedure of this research study. Respondents' personal data and information furnished were not revealed to any kind of third party at any cost and assured of data privacy and confidentiality all the time. The prior consent of the respondents has been taken before distributing questionnaires.

Limitations

a.   The sample consists of only the research staff of the ITI.

b.   Other staff categories including Technical, Administration & Clerical, Craftsmen, Management etc. of the ITI are not included in the study.

Objectives

- To identify the awareness of researchers on SDI service.
- To find out the opinions of researchers on SDI service.
- To evaluate the effectiveness of SDI service.

Methodology

Research questions :

1. Does the Researcher aware on SDI service?

2. What are the Researchers opinions on SDI service?

3. Effectiveness of the SDI service provided by the ISC?

Method

In literature many methods and techniques are reported on data collection. Among them questionnaire survey was found to be very popular and useful technique for collecting data related to the users and their information needs (Kannappanavar & Swamy, 2013).   Therefore, Quantitative research method is adapted for the present study.

Study population – Research Staff of the ITI

The staff of the ITI is categorized as Research, Technical, Administration & Clerical, Craftsmen, Management and Others (Aides, Helpers, drivers etc.).

The Research Staff of the Industrial Technology Institute was selected for the survey. The Research Staff is divided into two categories as Scientists and Engineers. A list of researchers was obtained from the Human Resources Department of ITI.

Expertise of research staff

In the areas of Food and Herbal Technology, the Institute has considerable expertise in food and herbal products development and analysis, food processing, post-harvest technology, microbiology, plant tissue culture, medicinal and aromatic plants and essential oils and spices. In the Materials field, ceramics, cement, rubber, plastics, wood and petroleum technology are the areas in which ITI has expertise. In the Environmental area our strength lies in industrial pollution control – solid, air and water including waste water, energy and environmental monitoring including noise and vibration monitoring.

As one of the leading testing and measurement laboratories in the country, ITI has analytical expertise in analytical, chemical, microbiological and physical testing of variety of fields. ITI is also one of the few laboratories in the country that provide calibration and measurement services. Over the years our laboratory staff has also developed expertise in laboratory quality management systems. The Research staff also has expertise in information management and corporate management. (ITI Annual Report 2015).

Research instrument

A structured questionnaire was used as the research instrument for the survey. The questionnaire consists of 21 question, in which 18 were closed and for 3 questions, structured answers has to be provided. Out of 21 questions 12 questions were designed to get information on Selective Dissemination Information (SDI) service and the remaining questions were on general information about the researcher and on the resources available. This paper evaluates only the SDI service carried out at ISC.

Data analysis method

The results were tabulated and analyzed according the basic statistical methods such as percentages, graphs, pie charts etc. using Microsoft Excel.

Results and Data Analysis

As mentioned in the introduction, only the Research Staff of ITI was selected for the survey. All 83 Research officers were selected for the survey. Duly completed questionnaires, which received within the given time frame were taken for the analysis. The response rate was approximately 84%, 69 researchers out of 83 researchers had answered the questionnaire. The results were calculated for these 69 respondents.

Category analysis

There were 55 Research Scientists and 14 Research Engineers among the study population. (Figure 1.)
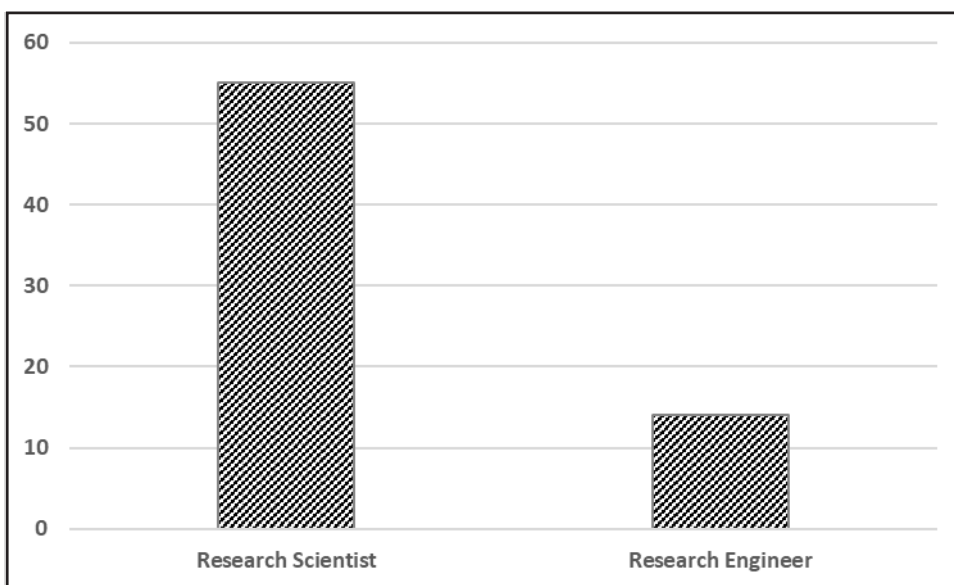
Figure 1: Category wise Research Staff

Information Communication Technology background

All the researches were provided with a computer by the Institute for their own used and none of the computers are shared with any other. Every researcher has an official email account and access to internet.

Evaluation of Selective Dissemination Information (SDI) service

Aware of the service

Out of 69 responses, only 49 were aware of SDI service while 20 were not aware of the service. It showed that the recently joined research staff were not aware of the SDI service. (Figure 2)
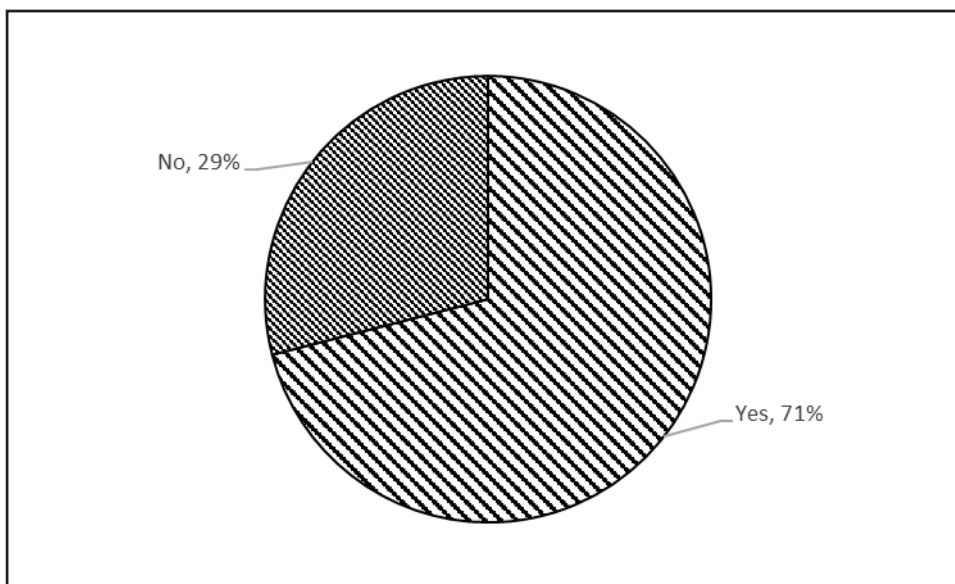
Figure 2 : Awareness on SDI service

Receiving SDI alerts

The 49 respondents who were aware of the service had answered that they receive SDI alerts via email. 18 had answered that they don't receive SDI alerts and 2 had not answered the question. Number and the percentage of respondents who receive SDI alerts via email have shown in Table 1 and Figure 3.

Table 1: Number of researchers receiving SDI alerts

Yes	No	Not Responded	Total
49	18	2	69
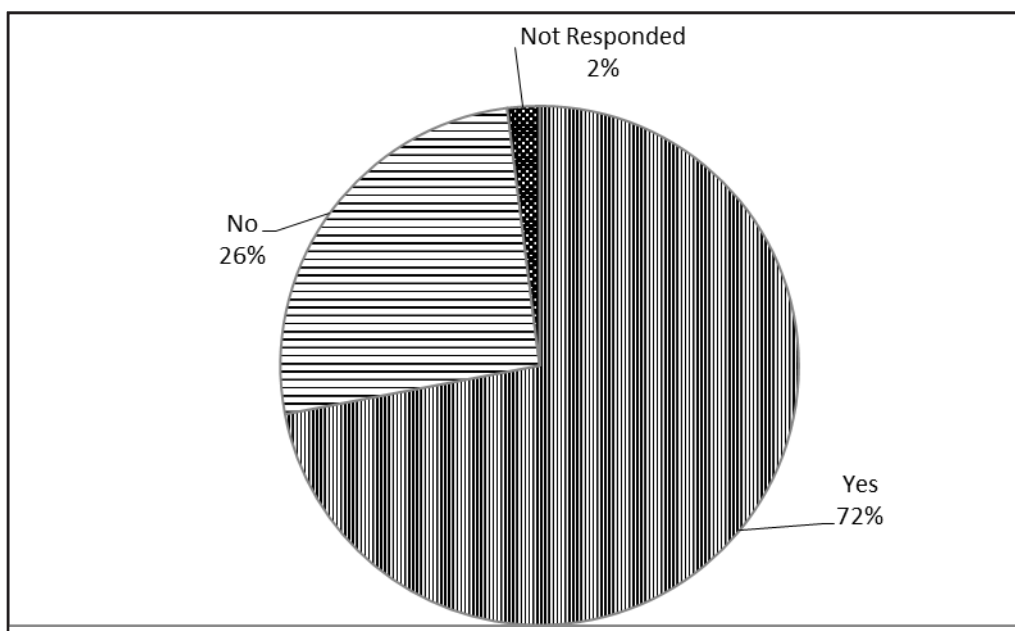
Figure 3: Percentage of receiving SDI alerts

Reading SDI alerts

Only 40 respondents read the SDI alerts receive through emails. It showed that not even half of the entir research staff of 83 read the SDI related emails. (Table 2)

Table 2: Reading SDI alerts receive through email

Yes	No	Don't' know SDI service	Didn't answer questionnaire	Total
40	09	20	14	83

Relevancy of SDI alerts

For the question on relevancy of SDI alerts, 5 answered that it is very useful while 25 answered as useful or moderately useful. Others answered as it is inconsequential to them. 25 have answered that they request articles and books via SDI alerts while others do not. The survey showed that the researchers who answered the service useful are engaged in R & D activities. (Table 3 and Figure 4)

Table 3: Relevancy of SDI alerts

Very useful	Useful	Moderately useful	Inconsequential
5	14	11	7
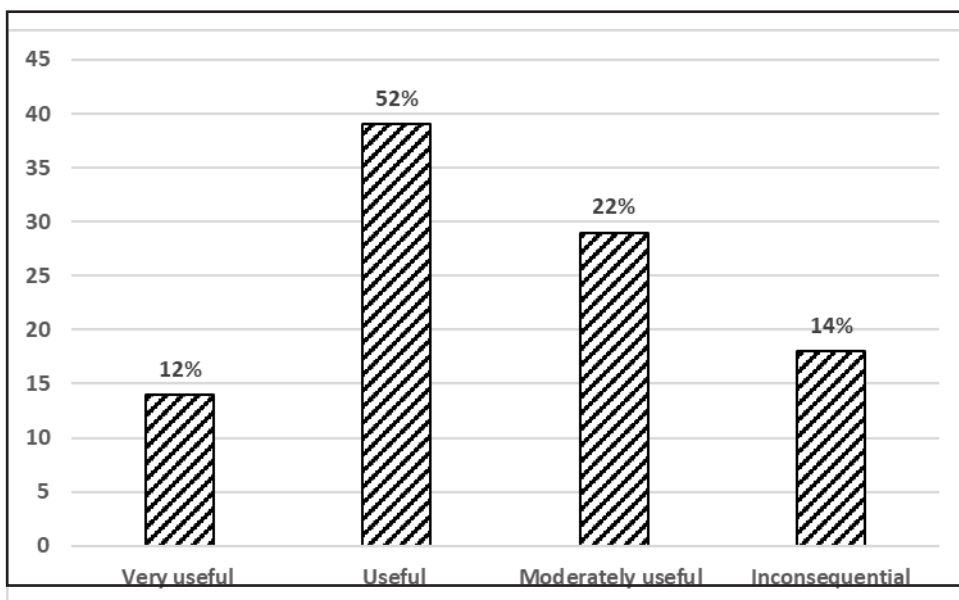
Figure 4: Relevancy of SDI alerts

SDI alerts request by respondents:

Frequency of respondents' requests for SDI alerts is shown in the Table 4. 30 researchers answered that they respond to the email alerts while 19 answered they don't respond the SDI alerts.

Table 4: Frequency of SDI requests by respondents

SDI alerts	Yes	No
Requests	30	19

Effectiveness of the service:

According to the Key Performance Indicator used to measure the effectiveness of the service 34 had answered that the SDI service is moderately satisfied. 7 respondents answered as very satisfied service while 6 answered as poor. 2 respondents had not responded to the question while nobody answered for the "Extremely satisfied" indicator. (Figure 5)
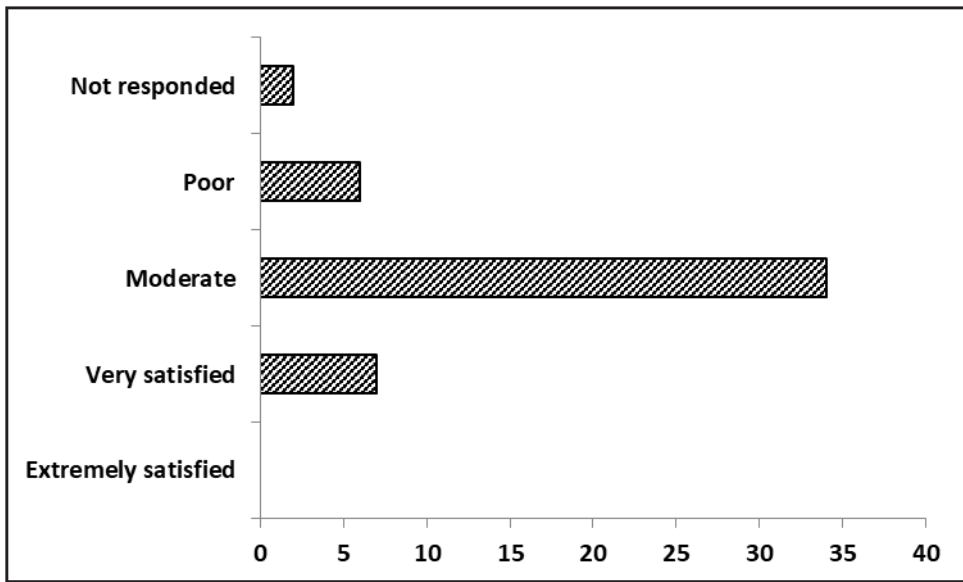
Figure 5: Effectiveness of the SDI Service

Rating of the SDI service:

On rating of the SDI service, 44 respondents had rated as either excellent, good or fair while 5 respondents had rated the service as poor. 10 rated the service as "don't know". (Figure 6)

Rating about the SDI service
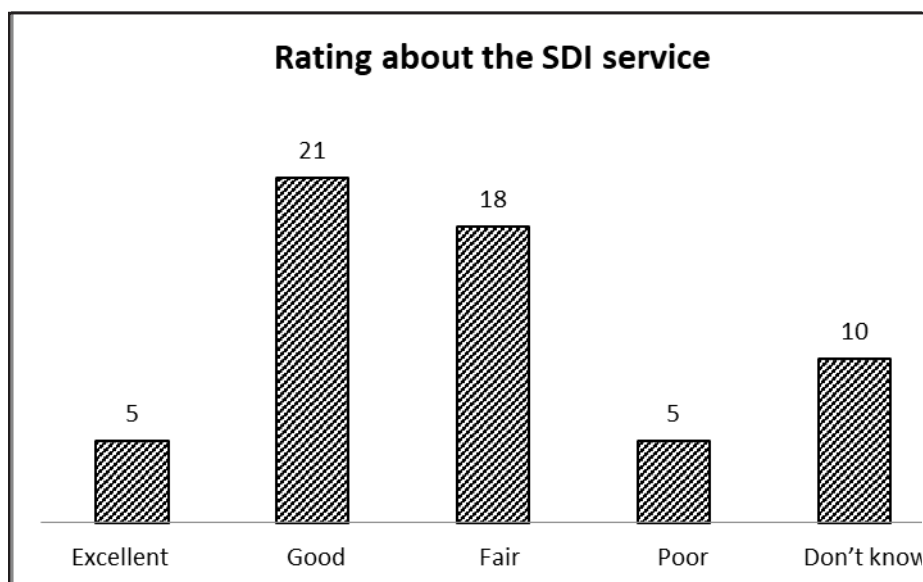
Figure 6: Rating about the SDI service

Opinion on SDI Service:

The respond for the question on their opinion on the SDI service was given by only 24 researchers. Majority of them had appreciated the service and mentioned to be useful and articles are relevant for their research as well as in writing proposals for research grants. There were requests to get access to more online resources such as journal databases and e-books. Also, to update the researches with new books from catalogues and to conduct a survey for required books. The need to update the collection with new editions of books was another request. There was a comment on unavailability of updated scientific literature and information provided through SDI was not relevant to work carried out at ITI. A suggestion to conduct periodical awareness programmes and to update the user profiles was given by one respondent.

Conclusion and Recommendation

The study revealed that the about half of Research staff were aware of the SDI service and found it to be useful for their research work. But most of the recently joined junior research staff and researchers from testing laboratories are not aware of the service. The usage of this service can be increased by educating the researchers about the SDI service.

Orientation programmes to make the researchers aware of the service should be organize periodically. However, the service can be improved by carrying out more in-depth surveys on user requirements taking into consideration individuals belong into different divisions, their subject interests, their educational levels, their category in the organization so that more specialized responses could be obtained. With this information, the SDI service could be improved to cater the requirements of the ITI employees.

Recommendations

1. It is recommended to consider the SDI statistics of number of SDI alerts sent, number replied to the email alerts and the number of requests and to take necessary steps if the alerts are not receiving properly.

2. The usage of this service can be increased by educating the researchers about SDI service.

3. The staff of ISC should visit the divisions and provide the necessary training to the research staff while updating their research interest biannually.

4. It is recommended to introduce more information technological tools such as e-database, e-journals, e-books, blogs and portals etc.

5. After introducing the above the effectiveness and the usage of SDI service should be evaluated annually.

6. Orientation programmes for new recruits should be conducted.

References

Abeyesekera, K. H. T. (2013). *Identification of the information needs of local herbal industry using critical success factors approach.* [Master's thesis in Library and Information Science (MLS)]. National Institute of Library and Information Science, University of Colombo, Sri Lanka.

Industrial Technology Institute. (2015). *ITI Annual Report 2015*. Colombo, Sri Lanka.

Kannappanavar, B. U., & Swamy H. M. C. (2013). User's perception and opinion towards CAS and SDI services in agricultural science university libraries in India, with special reference to South India: An evaluative study. *International Journal of Library and Information Science*, *5*(10), 342-350.

Koubarakis, M., Tryfonopoulos, K., Idreos, S., & Drougas, Y. (2003). Selective Information Dissemination in P2P Networks: Problems and Solutions. *SIGMOD Record*, *32*(3), 71-76.

Sahu, M. K. (2013). Information disseminating through using social Networking sites among library professional in the Engineering colleges of Odisha: A survey. *International Journal of Digital Library Services, 1,* 45-95.

Warnasuriya, D. (1985). Mini Survey on the use of the CISIR Library Sri Lanka, *Library Review 1*(1), 31.

An Investigative Study of Online Learning of Performing Arts Subjects during the COVID-19 Virus Expansion Period

(Based on the study activities of Bharatanatyam Dance Course, 2014-2015 Study Group, Department of Indian and Asian Dance, University of the Visual & Performing Arts, Colombo, during the COVID-19 Virus Outbreak)

K. C. Sampath Silva[1]

The impact of the global pandemic caused by the COVID-19 virus has affected the entire social structure and created a crisis in the field of Performing Arts education. Bharatanatyam dance style is an art that should be studied under strict discipline in the presence of a teacher. During this period, these courses at the University of Visual and Performing Arts were conducted as online lecture sessions and the purpose of this research is to conduct a detailed quality analysis of this learning-teaching process. The problem with this research was whether Bharatanatyam dance have the potential to reach the desired level of learning by learning in an online and virtual learning environment outside of the traditional learning-teaching process. Primary and Secondary data were used under the qualitative quantitative research methodology for this study. A SWOT analysis of this learning process was conducted based on participatory observations, interviews, and field study on Bharatanatyam dance learning online. Also a questionnaire was given to ten students who participated in learning Bharathantyam dance online and identified their problems with online study. 80% of them are moderately satisfied with learning Bharatanatyam dance online and 20% are not satisfied. It was revealed that studying Bharatanatyam dance online affects the quality of the student's academic knowledge, the relationship between the limbs of the dance as well as the difficulty in understanding the gestures and facial expressions, tastes (rasas), use of signs (mudras), lack of learning outcomes and threats. Also lack of practicality in assigning cultural features related to dance to students in a virtual learning environment and incomplete development of the skills and personality development expected of the student by the subject of dance. Technophobia, Stress, communication and technical problems were also reported to have disrupted the online dance learning process. There are opportunities and strengths in the online learning process such as ability to implement internationally intercultural exchange programmes, being able to study Bharatanatyam dance across geographical boundaries, and being able to use online learning to develop self-study skills in students.

[1] University of the Visual & Performing Arts, Sri Lanka.

Email : chamarasampath228@gmail.com

Also, online dance education helps to students for presenting virtual dance performances, empowering student-centered learning and become active learners. Thus, the study concludes that there are both positive and negative reactions to studying Bharatanatyam dance online and that the courses should be reformed to suit the online system while maximizing the existing advantages and minimizing the disadvantages.

කොවිඩ්-19 වෛරසය ව්‍යාප්ති සමයෙහි ප්‍රාසාංගික කලා විෂයයන් මාර්ගගත ක්‍රමයෙන් ඉගෙනීම පිළිබඳ විමර්ශනාත්මක අධ්‍යයනයක්

(කොවිඩ්-19 වෛරසය ව්‍යාප්ති සමයේ සෞන්දර්ය කලා විශ්වවිද්‍යාලයේ, ඉන්දියානු හා ආසියානු නර්තන අධ්‍යයනාංශයේ 2014-2015 අධ්‍යයන කණ්ඩායමේ භරතනාට්‍යම් නර්තන පාඨමාලාවේ අධ්‍යයන කටයුතු ඇසුරින්)

හැඳින්වීම

කොවිඩ්-19 වෛරසය හේතුවෙන් උද්ගත වූ ගෝලීය වසංගත තත්ත්වය සමස්ත ශ්‍රී ලංකාවටම අහිතකර බලපෑම් එල්ල කරන ලද අතර එයින් මෙරට සමාජ, සෞඛ්‍ය, ආර්ථික, දේශපාලන, අධ්‍යාපන ආදී අංශ ගණනාවකම උග්‍ර ගැටලු රාශියක් පැණනැගින. කොවිඩ්-19 වෛරසය සමාජගත වීම වැළැක්වීම සඳහා පිළියමක් වශයෙන් 2020 වර්ෂයේ මාර්තු හා අප්‍රේල් මාසවල දී ශ්‍රී ලංකාවේ නිරෝධායන ඇඳිරිනීතිය පනවන ලද අතර එහි ප්‍රතිඵලයක් වශයෙන් 2020 මාර්තු 12 වන දින සිට ශ්‍රී ලංකා රජය විසින් රාජ්‍ය හා රාජ්‍ය නොවන උසස් අධ්‍යාපන ආයතන 55ක් තාවකාලිකව වසා දමන ලදි. මේ හේතුවෙන් මෙරට අධ්‍යාපන පද්ධතිය තාවකාලික අකර්මණ්‍ය වූ අතර ඒ සඳහා විකල්ප ක්‍රමවේදයක් ලෙස මාර්ගගත අධ්‍යාපනය හඳුන්වා දෙනු ලැබීය. මෙහි ප්‍රතිඵලයක් ලෙස ශ්‍රී ලංකාවේ උසස් අධ්‍යාපන ව්‍යුහය මාර්ගගත තෘතීය අධ්‍යාපන ප්‍රවේශයක් දක්වා විශිෂ්ට හා වේගවත් ලෙස විතැන් විය. සමස්තයක් ලෙස කොවිඩ් -19 වසංගත සමයේ දී අධ්‍යයන කටයුතු යාවත්කාලීන කිරීම සඳහා විශ්වවිද්‍යාලයන්හි සෑම පීඨයක්ම දුරස්ථ අධ්‍යාපන විධි ක්‍රමයක් වශයෙන් මාර්ගගත අධ්‍යාපනය ලබා දීමේ පළමු අත්දැකීම ලැබූ අතර මෙම කාල සීමාවේ දී ශ්‍රී ලංකාවේ උසස් අධ්‍යාපන ව්‍යුහයන්හි සාම්ප්‍රදායික ඉගෙනුම්-ඉගැන්වීම් ක්‍රියාවලිය නව තාක්ෂණය සමඟින් නවීකරණය වීම සිදු විය (Hayashi, R., Maddawin, A., Garcia, M., Hewagamage, K. P., 2020).

මෙම නව අධ්‍යයන ප්‍රවේශය හේතුවෙන් අධ්‍යාපන ක්ෂේත්‍රයේ ද බොහෝ සංකීර්ණතා ඇති වූ අතර ප්‍රාසාංගික කලා අධ්‍යාපන විෂය ක්ෂේත්‍රයේ අර්බුදකාරී වාතාවරණයක් නිර්මාණය වීමට ද හේතු විය. මේ හා සමගාමීව සෞන්දර්ය කලා විශ්වවිද්‍යාලයේ ප්‍රාසාංගික කලා පාඨමාලාවන් ද මාර්ගගත දේශන සැසි වශයෙන් පැවැත්වීණි. මේ සම්බන්ධව ධනාත්මක මෙන්ම සෘණාත්මක ප්‍රතිචාර පවතින බව හඳුනාගත හැකිය. සෞන්දර්ය කලා විශ්වවිද්‍යාලය වනාහි ප්‍රාසාංගික හා දෘශ්‍ය කලාවන් පිළිබඳ විශේෂ උපාධි පිරිනමනු ලබන ශ්‍රී ලංකාවේ රාජ්‍ය විශ්වවිද්‍යාලයකි. මෙහි නර්තන හා නාට්‍ය කලා පීඨය, සංගීත පීඨය, දෘශ්‍ය කලා පීඨය හා පශ්චාත් උපාධි පීඨය නමින් පීඨ හතරක් වන අතර මෙහි පවත්වනු ලබන සියලු පාඨමාලා ප්‍රායෝගික විෂය ක්ෂේත්‍ර සමඟ තදානුබද්ධ වන බැවින් මාර්ගගත ක්‍රමවේදයන්ට අනුව එකී ප්‍රායෝගික දේශන පැවැත්වීම අභියෝගයක්ව පැවති බව හඳුනා ගත හැකිය.

මෙම අධ්‍යයනයේ දී ප්‍රමුඛව සලකා බැලෙනුයේ කොවිඩ් - 19 වෛරසය ව්‍යාප්ති සමයේ දී සෞන්දර්ය කලා විශ්වවිද්‍යාලයේ ඉන්දියානු හා ආසියානු නර්තන අධ්‍යයනාංශයේ 2014-2015 අධ්‍යයන කණ්ඩායමේ අවසන් වසර භරතනාට්‍යම් නර්තන පාඨමාලාව මාර්ගගත ක්‍රමයෙන් ඉගෙනීමේ දී විද්‍යාර්ථීන් ලද අත්දැකීම් පිළිබඳවය.

මෙහි දී මෙම මාර්ගගත ඉගෙනුම්-ඉගැන්වීම් ක්‍රියාවලියෙහි පවති ශක්තීන්, දුර්වලතා, අවස්ථා හා තර්ජන පිළිබඳ තත්ත්ව විශ්ලේෂණයක් මෙන්ම ප්‍රාසාංගික කලා විෂය ක්ෂේත්‍රය යටතේ හරතනාට්‍යම් නර්තන විෂය මාර්ගගත අධ්‍යාපනය සමග සංවර්ධනය කිරීම පිළිබඳ මතවාදයක් ගොඩනැගීමත් මෙම මාර්ගගත දේශන ක්‍රමය කොවිඩ්-19 සමයට පමණක් සීමා නොකොට මෙහි පවත්නා වාසි උපරිම කරගනිමින් අවාසි අවම කර ගනිමින් අනාගතයට යාවත්කාලීන කිරීමේ වැදගත්කම පෙන්වා දීමත් මෙම අධ්‍යයනයේ දී අපේක්ෂා කෙරේ.

පර්යේෂණ අරමුණු

- මාර්ගගත දේශන සැසි වශයෙන් පවත්වන ලද හරතනාට්‍යම් නර්තන පාඨමාලාවේ ඉගෙනුම්-ඉගැන්වීම් ක්‍රියාවලිය පිළිබඳ විස්තරාත්මක තත්ත්ව විශ්ලේෂණයක් සිදුකරමින් මෙහි පවත්නා ශක්තීන් (Strengths), දුර්වලතා (Weaknesses), අවස්ථා (Opportunities) හා තර්ජන (Threats) හඳුනා ගැනීම.

- හරතනාට්‍යම් විෂය සංවර්ධනය සඳහා මාර්ගගත අධ්‍යාපන ක්‍රමවේදය භාවිතයට ගත හැකි ආකාරය විමසීම.

- මාර්ගගත හරතනාට්‍යම් නර්තන පාඨමාලාවන්හි ගැටලු අවම කර ගැනීම සඳහා වන විසඳුම් සාකච්ඡා කිරීම.

පර්යේෂණ ගැටලුව

හරතනාට්‍යම් නර්තනය සාම්ප්‍රදායික ඉගෙනුම්-ඉගැන්වීම් ක්‍රියාවලියෙන් බැහැරව මාර්ගගත හා අතත්‍ය ඉගෙනුම් පරිසරයක් තුළ සිදුකිරීමෙන් අපේක්ෂිත ශක්‍යතා මට්ටම කරා ළඟා වීමට හැකියාවක් පවතී ද යන්න පර්යේෂණ ගැටලුව වේ.

උපන්‍යාසය

හරතනාට්‍යම් නර්තනය සාම්ප්‍රදායික ඉගෙනුම්-ඉගැන්වීම් ක්‍රියාවලියෙන් බැහැරව මාර්ගගත හා අතත්‍ය ඉගෙනුම් පරිසරයක් තුළ සිදුකිරීමෙන් අපේක්ෂිත ශක්‍යතා මට්ටම කරා ළඟා වීම දුෂ්කර වේ.

පර්යේෂණ ක්‍රමවේදය

මෙම අධ්‍යයනය සඳහා ගුණාත්මක පර්යේෂණ ක්‍රමවේදය හා ප්‍රමාණාත්මක පර්යේෂණ ක්‍රමවේදය භාවිත කරන ලදි. ගුණාත්මක පර්යේෂණ ක්‍රමවේදය යටතේ අධ්‍යයනයට අදාළ ප්‍රාථමික හා ද්විතීයික දත්ත එක්රැස් කිරීම සඳහා සහභාගීත්ව නිරීක්ෂණ, සම්මුඛ සාකච්ඡා, අන්තර්ජාල ප්‍රකාශන පිරික්සීම, පර්යේෂණ ලිපි හා පුවත්පත් වාර්තා යනාදී පර්යේෂණ ක්‍රම භාවිත කරන ලදි. එමෙන්ම ප්‍රමාණාත්මක දත්ත එක්රැස් කිරීම සඳහා ප්‍රශ්නාවලී ක්‍රමය භාවිතයට ගන්නා ලදි. මෙහි දී හරතනාට්‍යම් නර්තනය මාර්ගගතව ඉගෙනීම සඳහා සහභාගී වූ විද්‍යාර්ථීන් සමග පැවැත් වූ සම්මුඛ සාකච්ඡා මගින්

රැස්කර ගත් දත්ත හා ඔවුන් වෙත ලබා දෙන ලද ප්‍රශ්නාවලියට ලබා දුන් ප්‍රතිචාර විශ්ලේෂණය කරමින් මෙම ඉගෙනුම් ක්‍රියාවලිය පිළිබඳ විශ්ලේෂණයක් (SWOT analysis) සිදුකරමින් නිගමනවලට එළඹෙන ලදි.

පර්යේෂණ සීමාවන්

මෙම පර්යේෂණයේ දී 2020-05-01 සිට 2020-07-20 දින දක්වා සෞන්දර්ය කලා විශ්වවිද්‍යාලයේ ඉන්දීයානු හා ආසියානු නර්තන අධ්‍යයනාංශයේ 2014-2015 අධ්‍යයන කණ්ඩායමේ උපාධි අවසන් වසර හරතනාට්‍යම් නර්තන පාඨමාලාවේ ප්‍රායෝගික දේශන මාර්ගගත ක්‍රමයට ඉගෙනුම්-ඉගැන්වීම් හා සම්බන්ධ ක්‍රියාවලිය පර්යේෂණ සීමා ලෙස යොදා ගන්නා ලදි.

සාහිත්‍ය විමර්ශනය

■   කොවිඩ්-19 වෛරසය ව්‍යාප්ති සමයේ දී ශ්‍රී ලංකාවේ අධ්‍යාපන ක්‍රියාවලිය

කොවිඩ්-19 වෛරසය චීනයේ හුබෙයි පළාතේ අගනුවර වූ වූහාන් නගරයෙන් 2019 දෙසැම්බර් මස 27වන දින ආරම්භ වී ගෝලීය වසංගතයක් දක්වා ව්‍යාප්ත වූ අතර මෙම තත්ත්වය හේතුවෙන් ලෝක සෞඛ්‍ය සංවිධානය විසින් ගෝලීය හදිසි තත්ත්වයක් ද ප්‍රකාශයට පත් කරන ලදි. මෙම අනපේක්ෂිත වසංගතය හමුවේ ලොව පුරා රටවල සමාජීය, සෞඛ්‍ය, ආර්ථික, දේශපාලන, සංචාරක, අධ්‍යාපන ආදී අංශයන්හි අස්ථාවරත්වයන් මෙන්ම සියලු සමාජ සබඳතා අකර්මණ්‍ය විය. මෙහි බලපෑම මගින් කොරෝනා වෛරස් ව්‍යාප්ති සමයේ දී තාවකාලිකව අධ්‍යාපන ආයතන වසා දැමුණු අතර එමගින් අධ්‍යාපන ක්ෂේත්‍රයේ ද විශාල කඩා වැටීමක් සිදු විය. ලෝකය පුරා රටවල් 192ක පමණ 2020 මාර්තු මාසයේ අවසාන සතියේ සිට දළ වශයෙන් ප්‍රාථමික සිට තෘතියික අධ්‍යාපන මට්ටම දක්වා සිසුන් බිලියන 1.7ක් පාසල් නොයන බව ගෝලීය සංඛ්‍යා ලේඛනවලින් හෙළි වේ (UNESCO, 2020). එමෙන්ම යුනෙස්කෝව විසින් මෙම කාල සීමාවේ දී විද්‍යාර්ථීන්ගේ අධ්‍යයන කටයුතු නිවෙස්වල සිට දුරස්ථ ඉගෙනුම් ක්‍රමවේද ඔස්සේ යාවත්කාලීන කරන ලෙස ගෝලීය නිවේදනයක් ද නිකුත් කරන ලදි (United Nations, 2020). කෝවිඩ්-19 වෛරස් ව්‍යාප්ති සමයේ දී එහි බලපෑම භාෂාව, සාහිත්‍ය, දර්ශනය, ආගම, ලලිත කලා, සමාජ විද්‍යා වැනි ලිබරල් කලාවන්ට බෙහෙවින් බලපා ඇති අතර විශ්වවිද්‍යාලයන්හි සියලු බාහිර ක්‍රියාකාරකම් ඇණහිට තිබේ (Liyanage, 2020).

කොරෝනා වෛරස වසංගතය ව්‍යාප්ත වීම පාලනය කිරීම සඳහා ප්‍රතිචාරයක් ලෙස ශ්‍රී ලංකාවේ සියලු උසස් අධ්‍යාපන ආයතන වසා දැමීමෙන් අනතුරුව උසස් අධ්‍යාපන ක්‍රියාවලිය යාවත්කාලීන කිරීම සඳහා දේශන ශාලාව තුළ සිදුකරනු ලැබූ සාම්ප්‍රදායික අධ්‍යාපන රටාවෙන් බැහැරව මාර්ගගත ක්‍රමයට අධ්‍යාපනය ලබා දීම හා ලබා ගැනීම මගින් මාර්ගගත තෘතීයික අධ්‍යාපනයකට ශ්‍රී ලංකාව ඉතා වේගවත් හා විශිෂ්ට අනුගත වීමක් දක්නට ලැබිණ.

ආසියානු සංවර්ධන බැංකු වාර්තාවට අනුව කොවිඩ්-19 වෛරස් ව්‍යාප්ති සමයේ දී ශ්‍රී ලංකාවේ උසස් අධ්‍යාපන ලබන සිසුන්ගෙන් 88%ක් මාර්ගගත අධ්‍යාපනය සඳහා ක්‍රියාකාරී ලෙස සම්බන්ධ වී ඇති බවත් ඉන් 90%ක සිසුන් ප්‍රමාණයක් මාර්ගගත අධ්‍යාපනය පිළිබඳ සෑහීමකට පත් වන බවත් අනාවරණය වී ඇත. එම ආයතනය මගින් සමීක්ෂණය කරන ලද විශ්වවිද්‍යාල සිසුන්ගෙන් 90%ක ප්‍රමාණයක් සඳහා මාර්ගගත අධ්‍යාපන කටයුතු සඳහා ප්‍රවේශ වීමට අවශ්‍ය පහසුකම් පවතින බවත් තහවුරු විය. මෙම අනුපාතය ජපානය වැනි ලෝකයේ සංවර්ධිත රටවලට සාපේක්ෂව සමානුපාත වේ. 2020-06-01 දින වන විට ජපානයේ 90.3%ක් විශ්වවිද්‍යාල සිසුන් දුරස්ථ අධ්‍යාපනය සඳහා යොමු වී ඇති බව අනාවරණය වී ඇත (Hayashi, R., Maddawin, A., Garcia, M., Hewagamage, K. P., 2020).

සෞන්දර්ය කලා විශ්වවිද්‍යාලයේ, ඉන්දියානු හා ආසියානු නර්තන අධ්‍යයනාංශයේ ද මේ හා සමගාමීව මාර්ගගත ප්‍රායෝගික දේශන සංවිධානය කළ අතර මෙම දේශන සඳහා ශිෂ්‍ය සහභාගීත්වය 100%ක් ලෙස පැවතිණ. එමෙන්ම හරතනාට්‍යම් නර්තන පාඨමාලාවට අදාළ ඇගයීම් හා පැවරුම් ද මාර්ගගත ආකාරයෙන් සිදු කරන ලදි. මෙම මාර්ගගත අධ්‍යයන හා ඇගයීම් ක්‍රියාවලිය පිළිබඳව ධනාත්මක මෙන්ම සෘණාත්මක ප්‍රතිචාර හඳුනාගත හැකි විය. සමස්තයක් වශයෙන් උසස් අධ්‍යාපන ආයතනයන්හි මාර්ගගත ඉගෙනුම් ඉගැන්වීම් ක්‍රියාවලිය හා සම්බන්ධ පළමු අත්දැකීම මෙම අවස්ථාව වූ බැවින් එහි යම් යම් දුර්වලතා ද තිබෙනු දැකිය හැකි විය.

■   **දුරස්ථ අධ්‍යාපනයේ ඓතිහාසික පසුබිම**

දුරස්ථ අධ්‍යාපනය දිගු ඉතිහාසයක් පවතින අතර ලිපි හුවමාරුව මගින් ඉගෙනීම, ගුවන් විදුලිය රූපවාහිනී විකාශය හරහා ඉගෙනීම, සංයුක්ත තැටි හරහා ඉගෙනීම, අන්තර්ජාලය පදනම් කරගත් ඉගෙනුම, ජංගම ඉගෙනුම හෙවත් දුරකථන මාර්ග යෙන් ඉගෙනීම යනාදි වශයෙන් දුරස්ථ අධ්‍යාපනය විවිධ යුගයන්හි විකාශය වෙමින් සංවර්ධනය වී ඇත (Stern, 2020).

සන්නිවේදන ක්‍රමයන්හි සංවර්ධනීය යුගයන් අනුව දුරස්ථ අධ්‍යාපනය ද කලින් කල වෙනස් වී ඇති බව හඳුනාගත හැකි ය. කප්ලන් සහ මයිකල් විසින් දුරස්ථ අධ්‍යාපනයේ සංවර්ධනීය යුග තුනක් හඳුන්වා දී ඇත.

1. මුද්‍රණද්වාරයෙන් දුරස්ථ අධ්‍යාපනය ක්‍රියාත්මක වීම - 1728 දී Print Boston ගැසට් පත්‍රය මගින් තැපැල් මාර්ගයෙන් ක්‍රියාත්මක වන දුරස්ථ Stenography පාඨමාලාවක් සඳහා නිවේදනයක් නිකුත් කරන ලදි.
2. රූපවාහිනිය මගින් දුරස්ථ අධ්‍යාපනය ලබා දීම - 1969 දී UK Open University මගින් තැපැල හා රූපවාහිනිය හරහා දුර බැහැර සිටින ශිෂ්‍යයන්ට කෙටි පාඨමාලා හා උපකාරක පංති සඳහා සහභාගී වීමට අවස්ථාව සලසා දෙන ලදි.
3. මාර්ගගත අධ්‍යාපනයේ ආරම්භය - 1989 දී ගියොනික්ස් විශ්වවිද්‍යාලය මාර්ගගත විශ්වවිද්‍යාලයක් ලෙස ස්ථාපිත විය. එමගින් ප්‍රථම උපාධි හා ශාස්ත්‍රපති උපාධි ලබා දෙන ලදි (Andrew, K.,) Mickel, H., 2016).

■   මාර්ගගත අධ්‍යාපනය

මාර්ගගත ඉගෙනුම යනු අන්තර්ජාලය හරහා සිදුවන අධ්‍යාපනයයි. එය ඊ-ඉගෙනුම ලෙස ද හැඳින්වේ (Online Education, 2020). එමෙන්ම අතථ්‍ය අධ්‍යාපනය (Virtual Education), අන්තර්ජාලය පදනම් කරගත් අධ්‍යාපනය (Internet Based Education), වෙබ් පාදක අධ්‍යාපනය (Web-based Education), පරිගණක මැදිහත් සන්නිවේදනය තුළින් ලබන අධ්‍යාපනය (Education via computer mediated communication) යනාදී නම්වලින් මාර්ගගත අධ්‍යාපනය හඳුන්වනු ලැබේ (Paulsen, 2020).

මාර්ගගත ඉගෙනුම යනු විවෘත හා දුරස්ථ අධ්‍යාපන විධි ක්‍රමයකි. සාම්ප්‍රදායික පන්ති කාමරයක සීමිත සීමාව ඉක්මවමින් බහු මාධ්‍ය තාක්ෂණය යොදා ගනිමින් සිදු කෙරෙන මාර්ගගත අධ්‍යාපනය නැතහොත් විද්‍යුත් අධ්‍යාපනයේ දී ඕනෑම ප්‍රමාණයක දුරින් සිටින බෙහෝ සිසුන් පිරිසකට එකවර එම සේවය ලබා ගැනීමේ පහසුව හිමි වේ (Stern, 2020).

තොරතුරු සන්නිවේදන තාක්ෂණයේ දියුණුවත් සමග දුරස්ථ අධ්‍යාපන ක්‍රමය ඉතා ජනප්‍රිය විය. පන්තිකාමරයේ ගුරුවරුන් හා සිසුන් අතර පැවති සාම්ප්‍රදායික ඉගෙනුම් ක්‍රියාවලිය පසු කාලිනව දුරස්ථ අධ්‍යාපනය දක්වා වැඩි දියුණු වූ අතර වර්තමානයේ දී දුරස්ථ අධ්‍යාපනයේ නවතම පෙරළිය වන්නේ මාර්ගගත ක්‍රමවේද භාවිතයෙන් අධ්‍යාපනය ලබා දීම හා ලබා ගැනීම වන අතර එය ඉතා පහසු හා නම්‍යශීලී ඉගෙනුම් ක්‍රමයක් බවට පත්ව ඇත (Tehrani, 2008). මෙහිදී ගුරුවරයා හා සිසුන් තම තමන්ට පහසු ස්ථානවල සිට සටහන් හා උපදෙස් ලබා දීම හා ලබා ගැනීම කළ හැකි ය (Online Education, 2020). දුරස්ථ අධ්‍යාපනයේ එක් ක්‍රමයක් වන මාර්ගගත ඉගෙනුම් ඉගැන්වීම් ක්‍රියාවලියේ ස්වාභාවය අධ්‍යයනය කිරීම ද මෙහි දී වැදගත් වේ.

ඇන්ඩර්සන් හා ඩ්‍රොන් ප්‍රකාශ කරන පරිදි දුරස්ථ අධ්‍යාපනය යනු ස්ථානය හා වේලාව නොතකා තාක්ෂණික මැදිහත්වීමක් සහිත ඉගෙනීමකි. මාර්ගගත අධ්‍යාපනය පිළිබඳ ඩෙස්මන්ඩ් කීගන් (1988) නිර්වචනයට අනුව මාර්ගගත අධ්‍යාපනයේ මූලික ලක්ෂණ කිහිපයක් හඳුනාගත හැකි ය.

■   අධ්‍යාපනික අන්තර්ගතයන් ඉදිරිපත් කිරීමට හෝ බෙදා හැරීමට පරිගණක ජාලයක් භාවිත කිරීම.

■   ගුරුවරුන් හා ශිෂ්‍යයන් මුහුණට මුහුණලා අධ්‍යාපනයෙන් වෙන් කිරීම.

■   පරිගණක ජාල හරහා ගුරුවරුන් හා ශිෂ්‍යයන් අතර සිදුවන ද්වී මාර්ගික සන්නිවේදන ක්‍රියාවලිය.

■   ස්වයං අධ්‍යයන ක්‍රියාවලිය (Keegan, 1988).

මාර්ගගත අධ්‍යාපනය නම්‍යශීලී හා උපදේශාත්මක දැනුම බෙදාහැරීමක් වේ (අතුකෝරළ, 2019). මෙම ඉගෙනුම් ඉගැන්වීම් ක්‍රියාවලිය ගුරුවරුන් හා සිසුන් වෙන්ව සිටින අධ්‍යාපන ක්‍රමයක් ලෙස ද හැඳින්විය හැකිය (අතුකෝරළ, 2019).

මාර්ගගත අධ්‍යාපනයේ දී සාම්ප්‍රදායික දේශනයක් සිදුවන ආකාරයටම ගුරුවරයා හා ශිෂ්‍යයා අතර සන්නිවේදනයක් සිදු වේ. ගුරුවරයා උගන්වන අතරතුර දී ම එම තොරතුරු හා දැනුම ශිෂ්‍යයා ග්‍රහණය කරගන්නා අතර ගැටලු හා ප්‍රශ්න සාකච්ඡා කිරීම ද සිදු වේ (සේනාධීර, 2020). Moodle" Blackboard" E-College, ETUDES-NG, Angel වැනි වෙබ් අඩවි (පාඨමාලා කළමණාකරණ පද්ධති) මෙන්ම Google classroom, Microsoft team, Google meet, ZOOM වැනි සජීවී වීඩියෝ සන්නිවේදන මෘදුකාංග මාර්ගගත ඉගෙනුම් ක්‍රියාවලිය කළමණාකරණ කිරීම සඳහා භාවිත වේ. දියුණු රටවල බොහෝ කලක පටන් අන්තර්ජාලය මත පදනම් වූ ඉගැන්වීම් ක්‍රමවලට යොමු වී ඇතත් ලාංකේය සමාජයට මෙම මාර්ගගත ඉගෙනුම් ක්‍රියාවලිය නවමු අත්දැකීමක් බවට පත් විය (යටිගම්මන, 2020). මේ සඳහා ධනාත්මක මෙන්ම සෘණාත්මක ප්‍රතිචාර පවතී.

මාර්ගගත ඉගෙනුම් ක්‍රියාවලිය සඳහා අවශ්‍ය ප්‍රධාන සාධක තුනක් හඳුනාගත හැකි ය. එම සාධක සම්පූර්ණ වීමෙන් මාර්ගගත අධ්‍යාපනය සඳහා අත්‍යවශ්‍ය මූලික අවශ්‍යතා සම්පූර්ණ වේ.

1. විධිමත් ඉගෙනුම් කළමණාකරණ පද්ධතියක් තිබිය යුතු ය.
2. වේගවත් අන්තර්ජාල පහසුකම් තිබිය යුතුය.
3. අන්තර්ජාලයට පිවිසීම සඳහා අවශ්‍ය තාක්ෂණික මෙවලම් තිබිය යුතු ය (සේනාධීර, 2020).

මාර්ගගත අධ්‍යාපනය ලැබිය හැකි ප්‍රවේශයන් රාශියක් වන අතර පහත දැක්වෙන්නේ වර්තමානයේ ජනප්‍රිය හා සුලභ ප්‍රවේශයන් කිහිපයකි. උසස් අධ්‍යාපන ආයතන විසින් කෝවිඩ්-19 සමයේ දී සිය ආයතනයන්හි අධ්‍යයන කටයුතු යාවත්කාලීන කොට පවත්වා ගෙන යාම සඳහා බෙහෝ සෙයින් මෙකී ප්‍රවේශ යටතේ අධ්‍යාපනය ලබා දීමේ වැඩසටහන් නිර්මාණය කිරීම නිරීක්ෂණය කළ හැකි විය.

- ඉගෙනුම් කළමණාකරණ පද්ධති (Learning Management System)
- WhatsApp, Viber, Zoom, Skype වැනි මෘදුකාංග
- සමකාලීක මාර්ගගත පාඨමාලා ක්‍රමය (Synchronous online courses)[1]
- සමකාලීක නොවන පාඨමාලා ක්‍රමය (Non synchronous courses.)[2]
- මිශ්‍ර මාර්ගගත පාඨමාලා (Blended Online courses) (සේනාධීර, 2020).

මාර්ගගත අධ්‍යාපනයේ පවත්නා වාසි හා අවාසි රාශියක් හඳුනාගත හැකි ය. පහසුවෙන් ප්‍රවේශ වීමේ හැකියාව, ස්වයං ඉගෙනුම, සංජානනය දියුණු කිරීම, පිරිවැය අවම වීම,

---

[1] සාම්ප්‍රදායික අධ්‍යාපන ක්‍රමවේදවලට විකල්පයක් ලෙස යොදා ගනී. මෙහි දී ඉගැන්වීම හා ඉගෙනීම යන ක්‍රියාවලිය තථ්‍යකාලීනව සිදුවිය යුතු ය. මෙය සජීවී ඉගෙනුම් ක්‍රියාවලියකි. රැස්වීම්, සාකච්ඡා, සම්මන්ත්‍රණ ආදියට ද මෙම තාක්ෂණය මත පදනම් වූ සන්නිවේදනය බහුලව යොදා ගනු ලැබේ. උප-දේශකවරයා හා ශිෂ්‍යයා එකවර මේ සම්බන්ධ වන අතර ක්ෂණික ප්‍රතිචාර සහිත වේ.

[2] මෙහි දී ඉගැන්වීම හා ඉගෙනීම යන ක්‍රියාවලිය තථ්‍යකාලීනව සිදුවිය යුතු නැත. සිසුන්ට පහසු අවස්ථාවල දී භාවිතය සඳහා ලිඛිත හා ශ්‍රව්‍ය දෘශ්‍ය ඉගෙනුම් සම්පත් තොරතුරු තාක්ෂණ පද්ධතිවල පවත්වගෙන යාම මෙහි දී සිදු වේ. මෙය බොහෝ දුරට ශිෂ්‍ය කේන්ද්‍රීය වේ. ස්වාධීන හා ස්වයං ඉගෙනුමකි.

පර්යේෂණශීලීත්වය ප්‍රවර්ධනය කළ හැකිවීම, මූලික පරිගණක දැනුම දියුණු වීම, සැමට සම අවස්ථා හිමි වීම, පුද්ගල ධාරිතාව අනුව ක්‍රියාත්මක වීමේ හැකියාව, ගෝලීයකරණ ප්‍රතිලාභ අත්විඳීමේ හැකියාව යනාදි වාසි රාශියක් මාර්ගගත අධ්‍යාපනයේ දී හඳුනාගත හැකි ය. දුර්වල සන්නිවේදනය, හුදෙකලා බව, මූල්‍යමය ඌනතාවයන්, ගුණාත්මක බව කෙරෙහි අහිතකර බලපෑම් එල්ල කිරීම, සන්නිවේදන පහසුකම් හිඟ ප්‍රදේශවලට ප්‍රවේශ වීමේ අපහසුව ආදී අවාසි රැසක් ද මාර්ගගත අධ්‍යාපනයේ හඳුනාගත හැකි ය. මනෝවිද්‍යාත්මක වශයෙන් ද මාර්ගගත අධ්‍යාපනය මගින් පුද්ගලයින්ට අහිතකර බලපෑම් එල්ල කරන බව පර්යේෂණවලින් අනාවරණය වී ඇත. තාක්ෂණික දෝෂ මත කලකිරීම, පරිගණක බිය, කාංසාව, ආතතිය, මානසික අවපීඩනය, ටෙක්නොෆෝබියාව, නින්ද නොලැබීම නිසා ඇතිවන මානසික අවපීඩනය, අධික දත්ත පරිහරණය මගින් ඇතිකරන මානසික අවපීඩනය, අහිතකර හා තාවකාලික මාර්ගගත මිතු සබඳතා වැනි මානසික ආබාධ රාශියක් ද හඳුනාගත හැකි ය (Dhull, 2019).

කොවිඩ්-19 සමයේ දී සෞන්දර්ය කලා විශ්වවිද්‍යාලයේ ඉන්දියානු හා ආසියානු නර්තන අධ්‍යයනාංශයේ අධ්‍යයන කටයුතු යාවත්කාලීන කොට පවත්වාගෙන යාම සඳහා මෙකී ප්‍රවේශ භාවිත කිරීම නිරීක්ෂණය කළ හැකි විය. මේ සම්බන්ධව ධනාත්මක මෙන්ම සෘණාත්මක ප්‍රතිචාර ද නිරීක්ෂණය කළ හැකි විය.

■ ප්‍රාසාංගික කලාවන් හා හරතනාට්‍යම් නර්තන ශෛලියේ ස්වභාවය

ගායනය, රංගනය වලනය පදනම් කරගෙන ශිල්පියාගේ පෞරුෂය මැනවින් හසුරුවා ගනිමින් රංග භූමියක කෙරෙන නිරූපණ කලාව ප්‍රාසාංගික කලාව ලෙසින් හැඳින් වේ (Coogan, 2020). මේ සඳහා නර්තනය නාට්‍ය හා සංගීත යන කලා මාධ්‍යයන් ප්‍රාසාංගික කලාවන් යන්නට අයත් වේ. අභිවාහකයා හෝ නළුවා ප්‍රාසාංගික කලාවේ මූලිකම සාධකය වන අතර ඔහුගේ ප්‍රධානතම මෙවලම සිය ශරීරය වේ. සතර අභිනය භාවිත කිරීම ප්‍රාසාංගික කලාවේ මූලික ලක්ෂණයකි. සජීවී රංගනයක් වීම හා සජීවී ප්‍රේක්ෂක සමූහයක් සිටීම ද ප්‍රමුඛ ලක්ෂණයක් ලෙස සැලකේ. එමෙන්ම නිශ්චිත වේදිකාවක් හෝ ස්ථානයක රඟ දැක්විය යුතුය. තම මාධ්‍යයට අදාළ ශිල්ප ධර්ම ශික්ෂණයකින් හා අපූර්වත්වයෙන් යුතුව ඉදිරිපත් කළ යුතුය. මනා ප්‍රාසාංගිකත්වයෙන් යුක්ත විය යුතුය. ප්‍රාසාංගික කලාව විනෝදාස්වාදය ලබා දෙන්නක් විය යුතුය (ජයතුංග, 2020).

හරතනාට්‍යම් නර්තනය භාරතීය සම්භවයක් සහිත නර්තන ශෛලියකි. දකුණු ඉන්දියාවේ තමිල්නාඩුව මූලික කොටගෙන ප්‍රභවය ලබා ඇති හරතනාට්‍යම් නර්තනය ලෝකය පුරා විද්‍යාර්ථීන් විසින් අධ්‍යයනය කරනු ලබන විශ්වීය නර්තන ශෛලියක් ලෙස වර්තමානය වන විට පත්ව ඇත. හරතනාට්‍යම් නර්තනයට භාව, රාග, තාල යන ත්‍රිවිධ අංගයම අයත් වන අතර ඒ සියල්ල නර්තන ශිල්පියෙකු විසින් ප්‍රගුණ කළ යුතු ය. එමෙන්ම සෑම විටම ගුරුවරයා අභිමුඛව ගුරුවරයා අනුකරණය කරමින් මෙම විෂයයන් ඉගෙනගත යුතු වේ. ශිෂ්‍යයා විසින් ගුරුවරයා අනුකරණය, අනුගමනය කරන ආකාරය හා ඇසුරු කරන ආකාරය ශිෂ්‍යයාගේ ශිල්පීය ශක්‍යතාව කෙරෙහි ප්‍රබල ලෙස බලපාන අතර අතීතයේ පටන්ම හරතනාට්‍යම් හා කථක් නර්තනයේ දී ගුරුවරයා ප්‍රමුඛ කොට සැලකීම සිරිතක්ව පැවතිණ.

ඉතා අලංකාර හා සංකීර්ණ චලන රටාවකින් යුත් මෙම නර්තන ශෛලිය දැඩි විනයක් යටතේ බොහෝ කාලයක් පුරා පුගුණ කළ යුතු නර්තනයකි. භාරතනාට්‍යම් නර්තනය හා බැඳි තට්ටඩව්, නාට්ටඩව්, දෘෂ්ටි භේද, පාද භේද, ගීුවා භේද, ශිරෝ භේද, සම්යුත හස්ත, අසම්යුත හස්ත, හස්ත විනයෝග, රස-භාව පුකාශන යනාදි විශාල වපසරියකින් යුත් තාක්ෂණික ශිල්ප කුම හා විෂය අන්තර්ගතයක් සහිත ය. එමෙන්ම පුෂ්පාංජලි, අලාරිප්පු, ජතිස්වරම්, ශබ්දම්, වර්ණම්, පදම්, තිල්ලානා, ශ්ලෝකම්, කීර්තනම්, කෞතුවම්, ජාවලි, අෂ්ටපදි, දිව්‍ය පුබන්ධම් ආදි නර්තනාංග හරතනාට්‍යම් නර්තනයේ ව්‍යවහාර වන අතර මෙම නර්තන ශෛලිය හදාරන සෑම විද්‍යාර්ථියෙකු විසින් ම මෙම සියලු නර්තනාංග උගත යුතුය.

ඡායාරූපය 1 - දක්ෂිණ භාරතීය හරතනාට්‍යම් නර්තනය
(සෞන්දර්ය කලා විශ්වවිද්‍යාලයේ 2014-2015 අධ්‍යයන කණ්ඩායමේ හරතනාට්‍යම් නර්තනය පිළිබඳ පුාසංගික කලාවේදී විශේෂ උපාධිය හැදෑරූ විද්‍යාර්ථීන්)

හරතනාට්‍යම් නර්තන ශෛලියේ දී මූලික රංග අනුපිළිවෙළ සඳහා පුෂ්පාංජලි, අලාරිප්පු, ජෙතිස්වරම්, ශබ්දම්, වර්ණම්, පදම්, තිල්ලානි, ශ්ලෝකම් යන නර්තන අංග ඇතුළත් වේ. මෙම නර්තනාංගයන්හි ස්වභාවය පහත පරිදි සංක්ෂිප්ත කොට දැක්විය හැකි ය.

වගුව අංක 1 : හරතනාට්‍යම් නර්තනයේ මූලික නර්තනාංග හා එහි ස්වභාවය

නර්තනාංගය	නෘත / නෘත්‍ය ගණය	නර්තනයේ ස්වභාවය
පුෂ්පාංජලි	නෘත හා නෘත්‍ය ලක්ෂණ සහිතය	නර්තන ශිල්පියා වේදිකාවට පිවිසෙන නර්තනාංගය මෙය වේ. පුෂ්ප සමුහයක් දෑතින් ගත් නර්තන ශිල්පියා නර්තනය කරමින් වේදිකාවට පිවිස නෘත කොටස් කිහිපයක් නර්තනය කොට දෑතින ගත් පුෂ්ප දෙවියන් වෙත පිදීම මෙම නර්තනය මගින් සිදු වේ.

අලාරිප්පු	නෘත	මෙම නර්තනය මගින් සිදු වනුයේ නර්තන ශිල්පියා සිය ශරීරය දෙවියන් වෙත පුද කිරීම යි. දොහොත් මුදුන් බැඳ ශිල්පියා නර්තනය ආරම්භ කරයි.
ජෙතීශ්වරම්	නෘත	ස්වර සංගීත සංයෝජනයන්ට අනුව ජති හෙවත් නර්තන මාතුා නර්තනය කිරීම මෙම නර්තනයේ ස්වාභාවය යි.
ශබ්දම්	නෘත්‍ය ලක්ෂණ බහුල වේ	දේව සංකල්ප (උදා: කිෂ්ණ දෙවියන්) සහිත කතා තේමාවක් පාදක කරගනිමින් එම කථා පුවත අභිනයානුසාරයෙන් ඉදිරිපත් කිරීම මෙම නර්තනයේ ස්වාභාවය යි. රස හා භාව පුකාශනයෙහිලා මෙම නර්තනයේ දී පුමුඛත්වය දෙනු ලැබේ.
වර්ණම්	නෘත හා නෘත්‍ය ලක්ෂණ සහිතය	හරතනාටා‍ම් නර්තනයේ දීර්ඝතම හා සංකීර්ණතම නර්තන විශේෂය වර්ණම් ය. විනාඩි හතළිහක් පමණ නොකඩවා නර්තනයේ යෙදීමත් ශිල්පියා දක්ෂතා පුදර්ශනය කිරීමටත් මෙම නර්තනාංගයේ දී සිදු වේ. දෙවියන් පාදක කතා පුවතක් අභිනයානුසාරයෙන් ඉදිරිපත් කිරීමත් අතරතුර දීර්ඝ ජති නර්තනය කිරීමත් මෙම නර්තනයේ දී සිදු වේ.
පදම්	නෘත්‍ය	දෙවියන් පාදක කතා පුවතක් අභිනයානුසාරයෙන් ඉදිරිපත් කිරීම මෙහි දී සුදුසු වන අතර භාව පුකාශනයෙහිලා පුමුඛත්වය හිමි වේ.
තිල්ලානා	නෘත ලක්ෂණ බහුල වේ	වේගවත් වුත් සංකීර්ණ වුත් වලන සහිත මෙම නර්තනය මගින් නෘත වලන සුන්දරත්වය ඉදිරිපත් කරනු ලැබේ.
ශ්ලෝකම්	නෘත්‍ය	හරතනාටා‍ම් රංග අනුපිළිවෙළෙහි අවසන් අංගය මෙය වන අතර දෙවියන්ට ස්තුති කිරීම හා ආචාර කිරීම පිළිබිඹු කරයි.

භාරතීය නාට්‍ය ශාස්තු සිද්ධාන්තයන්ට අනුව නර්තනය නෘත, නෘත්‍ය, නාට්‍ය යන තිුවිධාංගයෙන් සමන්විත වේ. නෘත යනුවෙන් හැඳින්වෙන්නේ හුදු නර්තනය හෙවත් රිද්මයානුකූල ගාතා වික්ෂේපයන් ය. නෘත්‍ය යනුවෙන් හැඳින්වෙන්නේ ආංගිකාභිනය මාර්ගයෙන් කිසියම් භාවයක් පුකාශ වන නර්තනාංගයන් ය. සතර අභිනයෙන් යුක්ත වූ කල නාට්‍ය වශයෙන් හඳුන්වනු ලැබේ (සරච්චන්දු, 2019).

හරතනාටා‍ම් නර්තන ශෛලිය දේවදාසි නර්තන සම්පුදායයෙන් පුභවය වුවකි. පුරාණයේ පටන්ම ගුරුකුල අධ්‍යාපනය ඔස්සේ විකාශය වූ හරතනාටා‍ම් නර්තනය වර්තමානය වන විට භාරතය ඉක්මවා ගොස් ලෝකයේ විවිධ ජාතීන් විසින් අධ්‍යයනය කරනු ලබන ගෝලීය නර්තන ශෛලියක් බවට පත්ව ඇත. ගුරු ගෝල සම්බන්ධතාව කෙරෙහි විශේෂ අවධානයක් යොමු කරන මෙම නර්තන ශෛලියේ දී ගුරුවරයා දෙවියන් සේ සලකා නර්තනය හා සම්බන්ධ සිරිත් විරිත් සංස්කෘතික ලක්ෂණ ආදී සමස්ත දැනුම් සම්භාරය ගුරුවරයා වෙතින් ඉගෙන ගනී.

- **සාම්ප්‍රදායික භරතනාට්‍යම් නර්තන ඉගෙනුම් ඉගැන්වීම් ක්‍රියාවලිය කොවිඩ්-19 වසංගත සමයේ දී මාර්ගගත ඉගෙනුම් ක්‍රියාවලියක් දක්වා යාවත්කාලීන වීම**

ශ්‍රී ලංකාවේ සෞන්දර්ය කලා විශ්වවිද්‍යාලයේ ඉන්දියානු හා ආසියානු නර්තන අධ්‍යයනාංශය මඟින් භරතනාට්‍යම් නර්තනය පිළිබඳ විශේෂවේදී උපාධි පිරිනමනු ලබන අතර වර්තමානයේ දී එහි ශිෂ්‍යයන් 20 දෙනෙකු පමණ භරතනාට්‍යම් නර්තනය හදාරනු ලබයි. විශ්වවිද්‍යාල අධ්‍යාපන පද්ධතියේ දී සාම්ප්‍රදායික ලෙස දේශන ශාලාව තුළ දී ගුරුවරයා යටතේ දැඩි විනයක් පවත්වා ගනිමින් භරතනාට්‍යම් නර්තනය හදාරනු ලබ යි. භරතනාට්‍යම් නර්තනය ඉගැන්වීමේ දී බහුලව භාවිත කරනු ලබන ඉගෙන්වීම් ක්‍රමවේදයන් වන්නේ අනුකරණ ක්‍රමය, පියවර ක්‍රමය, දේශන ක්‍රමය හා කැඩපත් ක්‍රමය යි. අනුකරණ ක්‍රමය යටතේ දී ගුරුවරයා විසින් අදාළ නර්තන කොටස පියවරෙන් පියවර නර්තනය කර දැක්වීමෙන් අනතුරුව ශිෂ්‍යයා විසින් එය අනුකරණය කරමින් පියවරෙන් පියවර අධ්‍යයනය කරමින් ඉගෙන ගනී. ගුරුවරයා විසින් ශිෂ්‍යයාගේ හස්ත පාද පිහිටීම්වල නිශ්චිත ප්‍රමාණයන් හා ඒවාහි නිරවද්‍යතාව පිළිබඳ වැඩි අවධානයක් යොමු කරමින් නිරන්තරයෙන් තත්ත්ව පාලනයක් සිදු කරනු ලබ යි. තවත් අවස්ථාවක දී ගුරුවරයා ශිෂ්‍යයන් ඉදිරියේ කැඩපතක් මෙන් සිටිමින් ශිෂ්‍යයන් සමඟ අදාළ නර්තන කොටස රඟ දක්වනු ලැබේ. එවිට ශිෂ්‍යයන් ස්වකීය ශිල්පීය කුසලතා වර්ධනය කර ගනිමින් අඩුපාඩු මගහරවා ගනිමින් නර්තනය ඉගෙන ගනු ලැබේ. සාම්ප්‍රදායික පංති කාමරයේ දී ශිෂ්‍යයාට සිය හස්ත පාද නිවැරදිව සකස් කරගත යුතු ආකාරය පිළිබඳව භෞතික පරිසරයක සිට උපදෙස් ලැබේ. එමෙන්ම ගුරුවරයා විසින් ම ශිෂ්‍යයාගේ හස්ත පාද පිහිටිය යුතු ආකාරය සකස් කිරීම ද සාම්ප්‍රදායික දේශන ශාලාවේ දී සිදු වේ. සාම්ප්‍රදායික දේශන ශාලාව නර්තන පුහුණුවීම් වෙනුවෙන් ම කැඩපත් සවිකරන ලද පුවරු, විද්‍යානුකූලව සකස් කරන ලද දව ඇතිරූ පොළ, බාහිර ශබ්ද ඇතුල්වීම වළක්වන බිත්ති (Soundproof wall), ශබ්ද විකාශන පහසුකම්, බහු මාධ්‍ය ප්‍රක්ෂේපන යන්ත්‍ර, පරිගණක සහ අන්තර්ජාල පහසුකම් ආදියෙන් සමන්විත ය. එමෙන්ම භරතනාට්‍යම් නර්තන නිර්මාණ අත්හදා බැලෙන අති නවීන ආලෝකකරණ මෙවලම් හා තාක්ෂණයෙන් පරිපූර්ණ වේදිකා පහසුකම් ද සෞන්දර්ය කලා විශ්වවිද්‍යාලයේ විද්‍යාර්ථීන්ට හිමි වේ.

කොවිඩ්-19 සමයේ දී මාර්ගගත ප්‍රායෝගික දේශන පවත්වනු ලැබුවේ දේශකවරයාට පහසු ස්ථානයක සිට දේශනය පවත්වන අතරතුර ශිෂ්‍යයන් සිය නිවෙස්වල දී අවශ්‍ය ඉඩ පහසුකම් සකස් කරගනිමින් දේශනයට සහභාගී වන ආකාරයට ය. දේශකවරයා සාම්ප්‍රදායික දේශනශාලාවේ දී දේශන සිදු කිරීමේ දී භාවිතයට ගන්නා ලද පියවර ක්‍රමය (සම්පූර්ණ නර්තන පද බණ්ඩයක් කොටස් වශයෙන් අධ්‍යයනය කර පසුව සම්පූර්ණ නර්තන බණ්ඩය ඉදිරිපත් කිරීම) බොහෝ දුරට සිය දේශන සඳහා භාවිතයට ගන්නා ලදි. එමෙන්ම අනුකරණය සහ කැඩපත් ක්‍රමය ද භාවිතයෙන් ප්‍රායෝගික දේශන ඉදිරිපත් කරන ලදි. පුහුණුවීම් නිවැරදි දැයි පරීක්ෂා කිරීම සඳහා දේශන පවත්වන අතරතුර ඒකල වශයෙන් ශිෂ්‍යයන්ට තමන් උගත් නර්තන කොටස ඉදිරිපත් කිරීමට අවස්ථාව ලබා දෙමින් ඒ මොහොතේම එය ඇගයීමත්, ශිෂ්‍යයන්ගේ නර්තන පුහුණුවීම් සහිත විද්‍යුත්පට ඉගෙනුම් කළමනාකරණ පද්ධතිය හරහා ලබා ගනිමින් ඇගයීමට ලක් කර ප්‍රතිපෝෂණ ලබා දීමත් සිදු විය.

මාර්ගගත දේශන ශිෂ්‍යයන් වෙත රැගෙන යාම සඳහා ZOOM, GOOGLE MEET යන මාධ්‍යාංග භාවිත කරන ලද අතර සෞන්දර්ය කලා විශ්වවිද්‍යාලයේ ඉගෙනුම් කළමනාකරණ පද්ධතිය ද භාවිතයට ගන්නා ලදී. ඉගෙනුම් කළමනාකරණ පද්ධතිය ඔස්සේ දේශනවලට අදාළ විද්‍යෝපපට, ශ්‍රව්‍ය ආධාරක සහ පාඩම් සටහන් පත්‍රිකා ආදී ඉගෙනුම් ආධාරක ශිෂ්‍යයන්ට ලබා දෙන ලදී.

දත්ත විශ්ලේෂණය

සමස්තයක් ලෙස මෙම මාර්ගගත නර්තන ඉගෙනුම් ක්‍රියාවලිය ඉන්දියානු හා ආසියානු නර්තන අධ්‍යයනාංශයේ සිසුන් ලද ප්‍රථම මාර්ගගත ඉගෙනුම් අත්දැකීම වූ අතර ආගන්තුක ඉගෙනුම් ක්‍රමයක් වීම හා එහි ඇතැම් අංග නර්තන විෂයට ගලපා ගැනීම අසීරු බැවින් ශිෂ්‍යයන් විවිධ සංකුලතාවන්ට මුහුණ දුන් බව හඳුනාගත හැකි විය. මාර්ගගත හරතනාට්‍යම් නර්තන අධ්‍යයන ක්‍රියාවලිය පිළිබඳ ශිෂ්‍යයන්ගේ තෘප්තිමත්භාවය හා ඔවුන් මුහුණු දුන් ගැටලු අනාවරණය හා තහවුරු කර ගැනීම පිණිස නර්තනය හා සම්බන්ධ විවිධ ක්ෂේත්‍ර අළලා ප්‍රශ්නාවලියක් ඉදිරිපත් කරන ලද අතර එහි ඇතුළත් වූ ප්‍රශ්න හා ප්‍රතිචාර පිළිබඳ සංක්ෂිප්ත වාර්තාව පහත පරිදි වේ.

වගුව අංක 2 ඃ හරතනාට්‍යම් නර්තනය මාර්ගගතව හදාරණ ලද ශිෂ්‍යයන්ට ඉදිරිපත් කරන ලද ප්‍රශ්න සහ ප්‍රතිචාර

ප්‍රශ්න අංකය	ප්‍රශ්නය	ඔව්	නැත
01	මාර්ගගත ක්‍රමයේ දී ශාරීරිකව හා භෞතික වශයෙන් ගුරුවරයා හා ශිෂ්‍යයා අතර සම්බන්ධතාවක් නොපවතින හෙයින් විද්‍යාර්ථීයාගේ ශාස්ත්‍රීය දැනුමෙහි ගුණාත්මක බවට බලපෑම් එල්ල වේ ද	80%	20%
02	හරතනාට්‍යම් නර්තනයේ දී හස්ත පාද දෘෂ්ටි ආදී ශරීරාංග අතර පවත්වාගත යුතු සම්බන්ධතාව දෘෂ්ටි භේද, පාද භේද, ග්‍රීවා භේද, ශිරෝ භේද, සම්යුත හස්ත, අසම්යුත හස්ත, හස්ත විනයෝග, රස-භාව ප්‍රකාශන පිළිබඳ උපදෙස් මාර්ගගත ක්‍රමයට ලබා දීම ප්‍රායෝගික ගැටලු ඇති වේ ද?	80%	20%
03	රස භාව ප්‍රකාශ කිරීම සජීවී පරිසරයක සිට පුහුණු විය යුතු අතර මාර්ගගත පුහුණු වීමේ දී පරිගණක තිරය මගින් එය පැහැදිලි ලෙස දිස් නොවීමේ ගැටලු ඇති වේ ද?	70%	30%
04	හරතනාට්‍යම් නර්තනය හා බැඳි සංස්කෘතික ලක්ෂණ ශිෂ්‍යයින්ට පවරා දීම මාර්ගගත හා අතත්‍ය ඉගෙනුම් පරිසරයක දී ප්‍රායෝගිකව ගැටලු ඇති වේ ද?	90%	10%
05	වර්ණම් වැනි දීර්ස හා සංකීර්ණ නර්තනාංග සහිත දේශන ක්‍රියාත්මක කිරීමේ ප්‍රායෝගික ගැටලු ඇති වේ ද?	100%	

06	හරතනාට්‍යම් නර්තනය වැනි ප්‍රායෝගික විෂයක් මාර්ගගත දේශන ඔස්සේ	100%	
07	හරතනාට්‍යම් නර්තන විෂය මගින් ඇති කිරීමට අපේක්ෂිත මෘදු කුසලතා මාර්ගගත අධ්‍යාපනයේ දී ශිෂ්‍යයා තුළ ස්ථාපිත කිරීමට බාධාවක් සිදු වේ ද?	90%	10%
08	ප්‍රාසාංගික කලාවන් ආශ්‍රිත ඉගැන්වීම් ශිල්ප ක්‍රම භාවිත කිරීමේ දුෂ්කරතාවන් ඇති වේ ද?	80%	20%
09	නර්තන පුහුණුවීම් සඳහා විශේෂයෙන් සකස් කළ දේශනශාලාවල පුහුණුව අහිමි වේ ද?	100%	
10	ටෙක්නොලෝජියා හා මානසික ආතතිය හා සන්නිවේදන ගැටලු ඇති වේ ද?	100%	
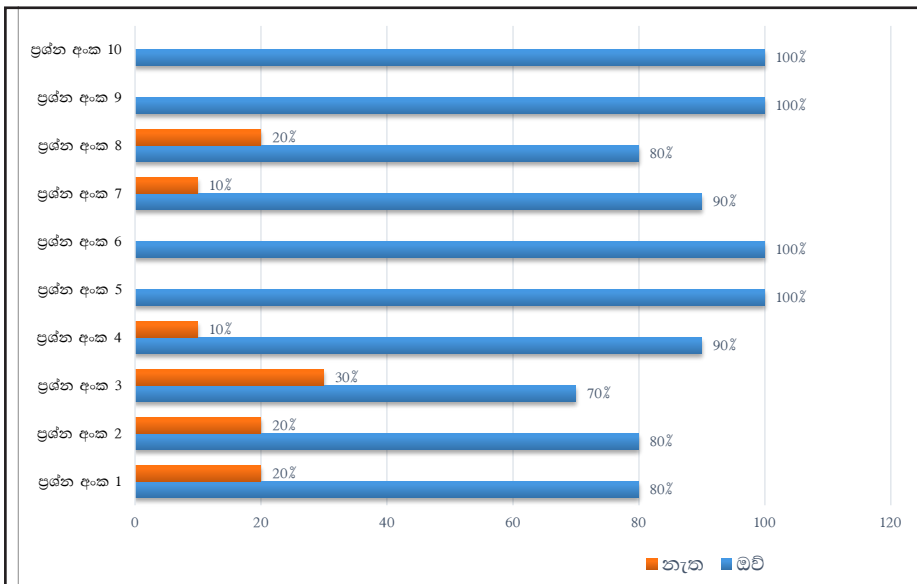
ප්‍රස්තාර අංක 1 : හරතනාට්‍යම් නර්තනය මාර්ගගතව ඉගෙනීමේ දී ඇතිවන ප්‍රායෝගික ගැටලු විශ්ලේෂණය

■ හරතනාට්‍යම් නර්තනය මාර්ගගතව ඉගෙනීමේ දී ඇතිවන ප්‍රායෝගික ගැටලු විශ්ලේෂණය

අප විසින් මෙම පර්යේෂණයේ දී ශිෂ්‍යයන්ට ලබාදුන් ප්‍රශ්නාවලිය හා ඔවුන් අතරින් අහඹු ලෙස තෝරාගත් විද්‍යාර්ථීන් තිදෙනකු සමග සිදු කළ සම්මුඛ සාකච්ඡා මෙන්ම මෙම මාර්ගගත නර්තන අධ්‍යයන ක්‍රියාවලියට සහභාගී වෙමින් ලද සහභාගීත්ව නිරීක්ෂණ මගින් එක්රැස් කරගන්නා ලද දත්ත උපයෝගී කර ගනිමින් ශිෂ්‍යයන් මුහුණ දෙන ගැටලු දහයක් හඳුනාගන්නා ලද අතර එම ගැටලු හේතුවෙන් ප්‍රාසාංගික කලා විෂය ක්ෂේත්‍රයේ උද්ගත වන අභියෝග පහත පරිදි විශ්ලේෂණය කරනු ලැබේ.

■ මාර්ගගත ක්‍රමයේ දී ශාරීරිකව හා භෞතික වශයෙන් ගුරුවරයා හා ශිෂ්‍යයා අතර සම්බන්ධතාවක් නොපවතින හෙයින් විද්‍යාර්ථියාගේ ශාස්ත්‍රීය දැනුමෙහි ගුණාත්මක බවට බලපෑම් එල්ල කිරීම

මාර්ගගත භරතනාට්‍යම් නර්තන ඉගෙනුමට සහභාගී වූ ශිෂ්‍යයන්ගෙන් 80%කට මෙම ගැටලුව උද්ගත වූ බව ඔවුන් ප්‍රශ්නාවලියට දක්වන ලද ප්‍රතිචාරයන්ගෙන් තහවුරු වේ. භරතනාට්‍යම් වැනි සංකීර්ණ ශාස්ත්‍රීය පදනමක් සහ සියුම් ලක්ෂණ සහිත නර්තන ශෛලියක් ඉගෙනීමේ දී ගුරුවරයා යටතේ දැඩි විනයක් පවත්වා ගනිමින් උගත යුතු අතර ගුරුවරයා හා ශිෂ්‍යයා අතර පවතින අන්‍යෝන්‍ය සබඳතාවෙහි ප්‍රබලත්වය නර්තනයේ ගුණාත්මක බව කෙරෙහි සෘජුවම බලපායි. භරතනාට්‍යම් වැනි නර්තන ශෛලියක් ඉගෙනීමේ දී අනුකරණය යන ශිල්ප ක්‍රමය ඉතා වැදගත් වන අතර ශිෂ්‍යයා විසින් සිය ගුරුවරයා අධ්‍යයනය කරමින් ගුරුවරයාගේ නර්තන හැඩතල ශාස්ත්‍රීය අවේණිකත්වයන් තමා තුළ ස්ථාපිත කරගත යුතු ය. මෙය භරතනාට්‍යම් වැනි සම්භාව්‍ය නර්තන ශෛලියක පැවැත්ම කෙරෙහි ද ඉතා ප්‍රබල වශයෙන් බලපානු ලබ යි.

■ භරතනාට්‍යම් නර්තනයේ දී හස්ත පාද දෘෂ්ටි ආදි ශරීරාංග අතර පවත්වාගත යුතු සම්බන්ධතාව දෘෂ්ටි හේද, පාද හේද, ග්‍රීවා හේද, ශිරෝ හේද, සම්‍යුත හස්ත, අසම්‍යුත හස්ත, හස්ත විනියෝග, රස-භාව ප්‍රකාශන පිළිබඳ උපදෙස් මාර්ගගත ක්‍රමයට ලබා දීම ප්‍රායෝගික නොවීම

මාර්ගගත භරතනාට්‍යම් නර්තන ඉගෙනුමට සහභාගී වූ ශිෂ්‍යයන්ගෙන් 80%කට මෙම ගැටලුව උද්ගත වූ බව ඔවුන් ප්‍රශ්නාවලියට දක්වන ලද ප්‍රතිචාරයන්ගෙන් තහවුරු වේ. භරතනාට්‍යම් නර්තනයේ යෙදෙන මෙවැනි ප්‍රායෝගික විෂය කොටස් සාම්ප්‍රදායික පන්ති කාමරයේ දී ගුරුවරයා ශිෂ්‍යයන් ඉදිරියේ නර්තන කොටසට අදාළ මාර්ගෝපදේශයන් හා උපදෙස් සජීව ලබා දෙන අතර එම කොටස නර්තනය කර දක්වයි. පසුව ශිෂ්‍යයන් විසින් එය නැවත ඉදිරිපත් කිරීමෙන් නර්තනය ඉගෙන ගනී. එහෙත් මාර්ගගත ක්‍රමයේ දී ගුරුවරයා හා ශිෂ්‍යයා වෙන්ව සිටීම හේතුවෙන් මෙම උපදෙස් ලබා දීමේ හා ලබා ගැනීමේ ක්‍රියාවලිය නිසි ආකාරයෙන් සිදු නොවීමෙන් ශිෂ්‍යයා තුළ වැරදි ඉරියව් නිර්මාණය විය හැකි අතර මෙය ප්‍රාසාංගික කලා විෂයන්ගේ ශාස්ත්‍රීය ආවේණිකත්වය හා පැවැත්මට අහිතකර විය හැකි ය.

■ රස භාව ප්‍රකාශ කිරීම සජීවී පරිසරයක සිට පුහුණු විය යුතු අතර මාර්ගගත පුහුණු වීමේ දී පරිගණක තිරය මගින් එය පැහැදිලි ලෙස දිස් නොවීම

මාර්ගගත භරතනාට්‍යම් නර්තන ඉගෙනුමට සහභාගී වූ ශිෂ්‍යයන්ගෙන් 70%කට මෙම ගැටලුව උද්ගත වූ බව ඔවුන් ප්‍රශ්නාවලියට දක්වන ලද ප්‍රතිචාරයන්ගෙන් තහවුරු වේ. භරතනාට්‍යම් නර්තනයේ දී රස-භාව ප්‍රකාශ කිරීමේ ක්‍රියාවලියට, මුහුණ ප්‍රධාන තැනක් ගන්නා බැවින් රස-භාව ප්‍රකාශ කිරීමේ දී මුහුණේ සිදුවන කෙටි මාංශ පේශි වලනයක් වුව ද ශිෂ්‍යයා විසින් නිසි ආකාරයෙන් උගත යුතුය. එහෙත් මාර්ගගත ඉගෙනුමේ දී පරිගණක තිරය හෝ ස්මාර්ට් ජංගම දුරකථනයේ තිරය මගින් එය සිදු

කිරීම අපහසු කාර්යයකි. සන්නිවේදන දුර්වලතා හේතුවෙන් රූප රාමු අපැහැදිලි වීම, වරින් වර සිදුවන සන්නිවේදන බිඳවැටීම් හේතුවෙන් රස-භාව ක්‍රියාවලිය ඒකීයව පවත්වා ගැනීමේ අපහසුතාව යන ගැටලු මාර්ගගත හරතනාට්‍යම් ඉගෙනුමේ දී සිදු වේ.

- හරතනාට්‍යම් නර්තනය හා බැඳි සංස්කෘතික ලක්ෂණ ශිෂ්‍යයින්ට පවරා දීම මාර්ගගත හා අතථ්‍ය ඉගෙනුම් පරිසරයක දී ප්‍රායෝගිකව සිදු නොවේ

මාර්ගගත හරතනාට්‍යම් නර්තන ඉගෙනුමට සහභාගී වූ ශිෂ්‍යයන්ගෙන් 90%කට මෙම ගැටලුව උද්ගත වූ බව ඔවුන් ප්‍රශ්නාවලියට දක්වන ලද ප්‍රතිචාරයන්ගෙන් තහවුරු වේ. හරතනාට්‍යම් නර්තනය හා බැඳි ආගමික පසුබිම, සදාචාරාත්මක ලක්ෂණ, සාරධර්ම ආචාරධර්ම යනාදි අගයන් මෙන්ම නර්තන ගුරුකුලයේ පවත්නා සංස්කෘතිය පවරා දීමට මාර්ගගත අධ්‍යාපනය බාධා ඇති කරයි. ගුරු-සිසු සබඳතාව බිඳ වැටීම, ගුරු ගෞරවය බිඳ වැටීම, අනොන්‍ය වශයෙන් එකිනෙකා අතර පවතින සුහදතාව, ඒකීයත්වය, අනොන්‍ය ගෞරවය වැනි සංකල්ප මාර්ගගතව ක්‍රියාත්මක නොවන බැවින් සංස්කෘතික ලක්ෂණ පවරා දීමේ දී මාර්ගගත ඉගෙනුම සුදුසු නොවේ.

- වර්ණම් වැනි දීර්ඝ හා සංකීර්ණ නර්තනාංග සහිත දේශන ක්‍රියාත්මක කිරීමේ ප්‍රායෝගික ගැටලු

මාර්ගගත හරතනාට්‍යම් නර්තන ඉගෙනුමට සහභාගී වූ ශිෂ්‍යයන් සියලු දෙනාට ම මෙම ගැටලුව උද්ගත වූ බව ඔවුන් ප්‍රශ්නාවලියට දක්වන ලද ප්‍රතිචාරයන්ගෙන් තහවුරු වේ. වර්ණම් නර්තනාංගයක් විනාඩි 30-40ක් වැනි කාල පරාසයක් දක්වා නර්තනය කරන අතර හරතනාට්‍යම්හි අනෙකුත් නර්තන අංග ද අවම විනාඩි 20 පමණ රග දක්වනු ලැබේ. එබැවින් එම නර්තනාංග මාර්ගගත ඉගෙනීම සඳහා බොහෝ වේලාවක් ගතවන බැවින් සන්නිවේදන පහසුකම් සපයා ගැනීමේ දී අධික පිරිවැයක් දැරීමට සිදු වනවා සේම කාල කළමණාකරණයේ ගැටලු ඇතිවිය හැකි ය. සාමාන්‍යයෙන් එක් නර්තන අංගයක්/විෂය ඒකකයක් සඳහා අවම පැය 6ක කාලයක් පාඨමාලාව සඳහා ඇතුළත් කර ඇති අතර එම විෂය ඒකකය මාර්ගගතව හැදෑරීමේ දී ඊට වඩා වැඩි කාලයක් ගතවන බැවින් (දීර්ඝ උපදේශන ක්‍රියාවලිය, සන්නිවේදන බාධා ඇති වීම මගින් විටින් විට සබඳතාව ඇණ හිටීම ආදි හේතුන් මත) හරතනාට්‍යම් නර්තනය මාර්ගගතව හැදෑරීමේ ප්‍රායෝගිකතාව අවම වේ.

- හරතනාට්‍යම් නර්තනය වැනි ප්‍රායෝගික විෂයක් මාර්ගගත දේශන ඔස්සේ ඉගෙනීමේ දී යොදා ගනු ලබන තාක්ෂණික මෙවලම්හි (ජංගම දුරකථන, පරිගණක) දර්ශන තලවල ප්‍රමාණය පටුවීම හේතුවෙන් මාර්ගගත ප්‍රායෝගික දේශනවල දී දේශකයා පැහැදිලි ලෙස දිස්වීම සිදු නොවේ

මාර්ගගත හරතනාට්‍යම් නර්තන ඉගෙනුමට සහභාගී වූ සියලු ම ශිෂ්‍යයන්ට මෙම ගැටලුව උද්ගත වූ බව ඔවුන් ප්‍රශ්නාවලියට දක්වන ලද ප්‍රතිචාරයන්ගෙන් තහවුරු වේ.

නර්තනයේ දී අවකාශය තුළ විවිධ දිශාවන්ට හස්ත පාද පැතිරෙන බැවින් දර්ශන තලයේ පටු බව දේශකයාගේ ඉදිරිපත් කිරීම හා හස්ත පාදවල පිහිටීම තාක්ෂණික මෙවලම් ඔස්සේ මනාව ශිෂ්‍යයා වෙත ගුහණය නොවීමට හේතු විය හැකි ය. ශිෂ්‍යයා භාවිත කරන පරිගණක හෝ දුරකථනයේ දර්ශන තලය තුළ දේශකයාගේ හස්තයෙහි එක් කොටසක් පමණක් පෙනීම, දේශකයාගේ පාදයෙහි පිහිටීම ඔහු භාවිත කරන පරිගණකයේ කැමරාවට නාභිගත නොවීම යනාදි බාධාවන් මෙමගින් අවධාරණය කෙරේ. මෙමගින් ශිෂ්‍යයා හා දේශකයා අතර සිදුවන සන්නිවේදන ක්‍රියාවලියට බාධා පැමිණිය හැකි ය.

- **හරතනාට්‍යම් නර්තන විෂය මගින් ඇති කිරීමට අපේක්ෂිත මෘදු කුසලතා හා මාර්ගගත අධ්‍යාපනයේ දී ශිෂ්‍යයා තුළ ස්ථාපිත කිරීමට බාධාවක් වීම හා පෞරුෂ සංවර්ධන ගැටලු ඇති වීම වන බව හඳුනාගත හැකි ය**

මාර්ගගත හරතනාට්‍යම් නර්තන ඉගෙනුමට සහභාගී වූ ශිෂ්‍යයන්ගෙන් 90%කට මෙම තත්ත්වය ඇති විය හැකි බව පිළිගන්නා ලදි. ප්‍රාසාංගික කලා පාඨමාලාවන් මගින් විද්‍යාර්ථීන් තුළ ස්ථාපිත කිරීමට නියමිත ඉගෙනුම් එල රාශියකි. නිර්මාණශීලත්වය, ගැටලු නිරාකරණය, තර්කානුකූල චින්තනය, විචාරශීලීත්වය, සාමූහිකත්වය, ඉවසීම, වගකීම, වගවීම, මානවාහිමානයට ගරු කිරීම, සංවේදීතාව, චිත්තවේගීය බුද්ධිය, සන්නිවේදන ශක්‍යතා වැනි කුසලතා හා වටිනාකම් වර්ධනය ඒ අතර වේ (අබේපාල, 2019). මෙම කුසලතා වර්ධනය කර ගත යුත්තේ එම විෂයයන් නිශ්චිත ස්ථානයක එනම් නර්තන ශාලා, වේදිකා හෝ නර්තන පර්යේෂණාගාරවල සාමූහික හැදෑරීමෙන් ය. මාර්ගගත අධ්‍යාපනයේ දී භෞතික වශයෙන් සාමූහිකව කටයුතු කිරීමක් හෝ එකිනෙකා අතර අන්තර් ක්‍රියාකාරීත්වයක් සිදු නොවන බැවින් යථෝක්ත ඉගෙනුම් එල අත්පත් කර ගැනීම දුෂ්කර වේ (Liyanage, 2020). මෙමගින් දීර්ඝ කාලීනව පෞරුෂ සංවර්ධන ගැටලු ඇති විය හැකි ය.

- **ප්‍රාසාංගික කලාවන් ආශ්‍රිත ඉගැන්වීම් ශිල්ප ක්‍රම භාවිත කිරීමේ දුෂ්කරතාවය**

මාර්ගගත හරතනාට්‍යම් නර්තන ඉගෙනුමට සහභාගී වූ ශිෂ්‍යයන්ගෙන් 80%කට මෙම ගැටලුව උද්ගත වූ බව ඔවුන් ප්‍රශ්නාවලියට දක්වන ලද පුතිචාරයන්ගෙන් තහවුරු වේ. ප්‍රාසාංගික කලාවන් ඉගැන්වීම සඳහා භාවිත කරනු ලබන නිදර්ශන ආශ්‍රිත ක්‍රම ශිල්ප, අනුකරණාත්මක ක්‍රම ශිල්ප, වාචික හෙවත් දේශනාත්මක ක්‍රම ශිල්ප, කණ්ඩායම් ක්‍රමය, පියවර ක්‍රමය, කැඩපත් ක්‍රමය, අභ්‍යාස ක්‍රමය (අබේපාල, 2019) යනාදි ඉගැන්වීම් ක්‍රමවේද මාර්ගගත ඉගෙනුමේ දී භාවිතය දුෂ්කර ප්‍රායෝගිකත්වය අවම වන හෙයින් සාර්ථක ලෙස විෂය කරුණු විද්‍යාර්ථියාට ගුහණය කරගැනීම දුෂ්කර විය හැකි ය.

- ■ **නර්තන පුහුණුවීම් සඳහා විශේෂයෙන් සකස් කළ දේශන ශාලාවල පුහුණුව අහිමි වීම**

මාර්ගගත හරතනාට්‍යම් නර්තන ඉගෙනුමට සහභාගී වූ සෑම ශිෂ්‍යයෙකුට ම මෙම ගැටලුව උද්ගත වූ බව ඔවුන් ප්‍රශ්නාවලියට දක්වන ලද ප්‍රතිචාරයන්ගෙන් තහවුරු වේ. හරතනාට්‍යම් නර්තනය පුහුණු වීමට යෝග්‍ය නර්තන පුහුණු ශාලා භාවිත කළ යුතුය. එමෙන්ම එම නර්තනයන් වේදිකාවට උචිත පරිදි නිර්මාණය කිරීම සඳහා ද (අරංගේත්‍රුම් ප්‍රසංග) විෂය අන්තර්ගතයේ ඇතැම් ඒකක නිර්මාණය කර ඇති අතර නර්තන පුහුණු ශාලා, නර්තන පර්යේෂණාගාරවල, වේදිකාවලින් බැහැරව මාර්ගගත හා අත්‍යර්ථ ඉගෙනුම් පරිසරයක් තුළ එම පුහුණුවීම් සිදු කිරීමෙන් විද්‍යාර්ථීන්ට එම අත්දැකීම් අහිමි වීම සිදු වේ (Liyanage, 2020).

- ■ **ටෙක්නොෆෝබියා හා මානසික ආතතිය හා සන්නිවේදන ගැටලු**

මාර්ගගත හරතනාට්‍යම් නර්තන ඉගෙනුමට සහභාගී වූ සෑම ශිෂ්‍යයෙකුට ම මෙම ගැටලුව උද්ගත වූ බව ඔවුන් ප්‍රශ්නාවලියට දක්වන ලද ප්‍රතිචාරයන්ගෙන් තහවුරු වේ. මාර්ගගත අධ්‍යාපනයේ භාවිත තාක්ෂණය ආගන්තුක වීම, පරිගණක සාක්ෂරතාව නොමැති වීම, තාක්ෂණික ක්‍රම ඔස්සේ සිදු කරනු ලබන ඇගයීම් කටයුතු පිළිබඳ විශ්වසනීයත්වයක් නොමැති වීම, ඉංග්‍රීසි භාෂා සාක්ෂරතාව අවම මට්ටමක පවතින සිසුන්ට ඇතිවන භාෂාමය ගැටලු හා ටෙක්නොෆෝබියා හෙවත් තාක්ෂණයට දක්වන අනිසි බිය තත්ත්වයන් ද මෙම මාර්ගගත හරතනාට්‍යම් පාඨමාලාව සඳහා බාධා ඇති කරනු ලැබූ සාධකයන් ලෙස මෙම අධ්‍යයනයේ දී හඳුනාගනු ලැබීය. වරින් වර සන්නිවේදන බාධා ඇතිවීම සම්බන්ධතාව ඇණහිටීම වැනි සන්නිවේදන ගැටලු කිහිපයක් ද මේ සඳහා බලපෑම් කළ බව මෙම අධ්‍යයනයේ දී අනාවරණය විය. එම නිරන්තර සන්නිවේදන බිඳ වැටීම් හේතුවෙන් ඇතිවන අපේක්ෂා හංගත්වය මානසික ආතතියක් දක්වා ව්‍යාප්ත විය හැකි බව මෙම අධ්‍යයන ක්‍රියාවලිය පිළිබඳ සම්මුඛ සාකච්ඡාවල දී අනාවරණය විය. විශේෂයෙන්ම ශ්‍රී ලංකාවේ අන්තර්ජාල සේවා සපයන ආයතනවලින් ප්‍රමාණවත් සේවාවක් නොලැබීමෙන් අබණ්ඩව සිදුවන සන්නිවේදන බිඳවැටීම් මේ සඳහා ප්‍රමුඛව බලපාන බව විද්‍යාර්ථීන්ගේ අදහස යි. ස්ථාවර හා අධිවේගී අන්තර්ජාල ප්‍රවේශයක් නොමැති වීම හේතුවෙන් කෝවිඩ්-19 වසංගත කාල සීමාවේ දී තෘතීයික අධ්‍යාපනය අබණ්ඩව පවත්වාගෙන යාම කෙරෙහි ඇති වූ ප්‍රමුඛතම අභියෝගය විය (Hayashi, R., Maddawin, A., Garcia, M., Hewagamage, K. P., 2020).

සමස්තයක් ලෙස මාර්ගගත හරතනාට්‍යම් නර්තන ඉගෙනුම සඳහා සහභාගී වූ සියලු ශිෂ්‍යයන්ට විවිධ ගැටලු හා අභියෝගවලට මුහුණ දීමට සිදු වී ඇති බව යථෝක්ත දත්ත විශ්ලේෂණයට අනුව පැහැදිලි වේ. එමෙන්ම සමස්ත මාර්ගගත ඉගෙනුම් ක්‍රියාවලිය පිළිබඳව ඔවුන්ගෙන් 80%ක් මධ්‍යස්ථ වශයෙන් තෘප්තිමත් වී ඇති අතර 20%ක් මාර්ගගත ඉගෙනුම් ක්‍රියාවලිය පිළිබඳ තෘප්තිමත් වී නොමැත.
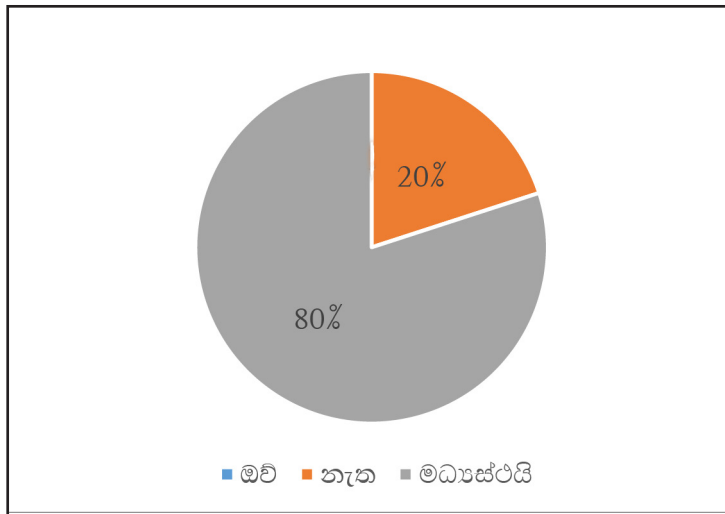
ප්‍රස්තාර අංක 2 ඃ කොවිඩ්-19 වෛරසය ව්‍යාප්ති සමයේ දී මාර්ගගත ක්‍රමයෙන් හරතනාට්‍යම් නර්තනය හැදෑරීම පිළිබඳ ශිෂ්‍යයන්ගේ තෘප්තිමත් භාවය

■ **මාර්ගගත අධ්‍යාපනය සමග ඉන්දියානු හා ආසියානු නර්තන අධ්‍යයනාංශයේ ඇති වූ නව ප්‍රවණතා**

මාර්ගගත අධ්‍යාපනයත් සමග සෞන්දර්ය කලා විශ්වවිද්‍යාලයේ ඉන්දියානු හා ආසියානු නර්තන අධ්‍යයනාංශයේ හරතනාට්‍යම් පාඨමාලාවේ සිදු වූ නව ප්‍රවණතාවයන් කිහිපයක් ද හඳුනාගත හැකි ය. මෙහි දී හරතනාට්‍යම් නර්තන පාඨමාලාවට අදාළ ඉගෙනුම් උපකාරක (විද්‍යෂ්‍යපට, ශ්‍රව්‍යපට, පාඩම් සටහන්) ඉගෙනුම් කළමණාකරණ පද්ධතිය හරහා මාර්ගගතව ලබා දීම සිදු විය. එමෙන්ම හරතනාට්‍යම් නර්තන පාඨමාලාවට අදාළ ප්‍රායෝගික ඇගයීම් සහ ලිබිත පැවරුම් මාර්ගගත ක්‍රමවේද ඔස්සේ පැවැත්වීම ද මෙම සමයේ සිදු වූ නව ප්‍රවණතාවන් ලෙස හඳුනාගත හැකි ය. තවද කොවිඩ්-19 වෛරස් ව්‍යාප්ති සමයේ දී අවසන් වසර පර්යේෂණ නිබන්ධන රචනා කිරීම සඳහා නිබන්ධන අධීක්ෂකවරුන් හමුවිය නොහැකි වූ බැවින් සියලු අධීක්ෂණ සහ උපදෙස් කටයුතු මාර්ගගතව සිදු කිරීම ද සුවිශේෂ කරුණක් ලෙස දැක්විය හැකි ය.

■ **මාර්ගගත අධ්‍යාපනය මගින් හරතනාට්‍යම් හා කථක් නර්තනය හදාරණ සිසුන්ගේ ශක්‍යතාවයන් අභිවර්ධනය කළ හැකි ආකාරය**

හරතනාට්‍යම් වැනි ජාත්‍යන්තර නර්තන ශෛලියක් ඉගෙනීමේ දී ඒ සඳහා භාරතිය නර්තනාචාර්යවරුන්ගේ සේවය ලබා ගැනීම මගින් ශ්‍රී ලංකාවේ එම නර්තනය හදාරන විද්‍යාර්ථීන්ගේ ශිල්පීය ගුණාත්මකභාවය ඉහළ නැංවීමට බෙහෙවින් ඉවහල් වේ. භූගෝලීය සීමාවන් අතික්‍රමණය කරමින් ඉතා කඩිනම් හා එලදායී ලෙස භාරතිය ආචාර්යවරුන්ගේ සේවය මාර්ගගත සම්මන්ත්‍රණ සහ දේශන ඔස්සේ ලබා ගැනීමේ හැකියාවක් පවතී. හරතනාට්‍යම් වැනි නර්තන ශෛලියක් ඉගෙනීම සඳහා අවස්ථාවන්

සුලබ නොවන අතර ඒ සඳහා භූගෝලීය සීමාවන් හේතුවෙන් පන්ති කාමරයේ පාඩම් සඳහා සහභාගී විය නොහැකි වීම, තමන් තෝරාගත් ආයතනයේ සිය අභිමත පාඨමාලා නොමැති වීම, පූර්ණකාලීන රැකියාවල නියැලෙන එහෙත් හරතනාට්‍යම් නර්තනය ඉගෙනීමේ අවශ්‍යතාව පැවතීම වැනි හේතු කිහිපයක් බලපා ඇත. එවැනි පුද්ගලයන්ට ස්වාධීනව තමා සිටින ස්ථානයේ සිටම නර්තනය ඉගෙන ගැනීමේ අවස්ථාව මාර්ගගත අධ්‍යාපනය මඟින් ලබා දිය හැකි ය (Samarasinghe, 2012).

තවද පර්යේෂණශීලී විද්‍යාර්ථීන් බිහිකිරීම සඳහා මාර්ගගත මූලාශ්‍රය භාවිතයෙන් පර්යේෂණ හා ගවේෂණ පැවැත්වීමට දිරිමත් කිරීම සිදු කළ හැකිය. වර්තමානයේ දී අන්තර්ජාලය තුළ නර්තන හා ඒ ආශ්‍රිත විෂයයන් පිළිබඳ පර්යේෂණ ලිපි නිබන්ධන හා මූලාශ්‍ර විශාල ප්‍රමාණයක් පවතින බැවින් ඉතා සාර්ථක ලෙස මෙය ක්‍රියාවට නැංවිය හැකි ය. මෙතුළින් විද්‍යාර්ථීන්ට නර්තන කලා ක්ෂේත්‍රයේ යාවත්කාලීන වන දැනුම අත්පත් කර ගැනීමට හැකියාව ලැබෙන අතර තර්කානුකූල බුද්ධියකින් යුත් විද්‍යාර්ථීන් බිහිවීම ද සිදු වේ.

අතථ්‍ය නර්තන ප්‍රසංග (Virtual Performance) සංවිධානය කිරීමට අවස්ථාව ලබා දීම මඟින් විද්‍යාර්ථීන්ට සිය ඉදිරිපත් කිරීම් නව මාධ්‍ය යොදා ගනිමින් සමාජගත කිරීමේ නවමු පිළිවෙත් අත්හදා බැලීමේ අවස්ථාව ලබා දිය හැකි ය.

ශිෂ්‍ය කේන්ද්‍රීය ඉගෙනුමක් සඳහා වඩාත් ඵලදායී ප්‍රවේශයක් ලෙස මාර්ගගත අධ්‍යාපනය හැඳින්විය හැකි බැවින් නර්තනය හදාරණ උදාසීන සිසුන්ගෙන් වඩාත් ක්‍රියාකාරී අන්තර් ක්‍රියාකාරීත්වයක් ලබා ගත හැකි ය. මෙයින් උදාසීන ශිෂ්‍යයන් වඩාත් ඵලදායී ලෙස තොරතුරු ග්‍රහණය සඳහා බලගන්වයි. පසුගාමී ශිෂ්‍යයන් ප්‍රගතිගාමී ශිෂ්‍යයන් බවට පත් කළ හැකි ය. මෙම ප්‍රවේශය මඟින් ශිෂ්‍යයන් ක්‍රියාකාරී ශිෂ්‍යයන් ලෙස සවිබලගන්වයි. මෙමගින් ශිෂ්‍යයන් ඉගෙන ගැනීම පිළිබඳ සිය වගකීම ඉහළ නංවයි.

මාර්ගගත ඉගැන්වීම් ක්‍රියාවලියේ දී සාම්ප්‍රදායික පන්ති කාමරයේ නර්තනය ඉගැන්වීමට භාවිත කරනු ලබන අනුකරණාත්මක ක්‍රම ශිල්ප වෙනුවට ආදර්ශන ආශ්‍රිත ක්‍රම ශිල්ප, වාචික හා දේශනාත්මක ක්‍රම ශිල්ප, දෘෂ්‍යමය හා ශ්‍රව්‍යමය තාක්ෂණය ඔස්සේ ඉගෙනුම් ආධාරක සැපයීම, නර්තන විෂය සඳහා අත්‍යාවශ්‍ය සතතාභ්‍යාස කෙරෙහි ශිෂ්‍යයා කේන්ද්‍රගත වන ක්‍රමශිල්ප භාවිතය මඟින් ඉගෙනුම් ඉගැන්වීම් ක්‍රියාවලිය යාවත්කාලීන කළ යුතු ය (දිසානායක, 2021).

විෂයානුබද්ධ අවබෝධය, නිර්මාණශීලීත්වය, රචනය, කාල කළමනාකරණය, තොරතුරු භාවිතය ප්‍රස්තුතිකරණ හා සන්නිවේදන කුසලතා මාර්ගගත ඉගෙනුමෙන් ලැබිය හැකි අතර ඉගෙනුම්ලාභියාගේ භූමිකාව අක්‍රීය (Pasive Learner) සිට සක්‍රීය (Active Learner) දක්වා විපරිවර්තනය කළ හැකි ය (වීරක්කොඩි, 2021). එමෙන්ම නර්තනය හදාරණ විද්‍යාර්ථීන්ගේ පරිගණක සාක්ෂරතාව හා තාක්ෂණික කුසලතා සංවර්ධනය, පරිගණක යතුරු ලියනය, වෙබ් සෙවුම් යනාදී කුසලතාවන් මෙන්ම ආත්ම විශ්වාසය, ස්වයං අධීක්ෂණය, ස්වයං ආරම්භක ශක්තිය, අභිප්‍රේරණය, ඵලදායී සංවිධානාත්මක බව, ස්වාධීනත්වය හා ස්වයං විනය වැනි පුද්ගල කුසලතා වර්ධනය කිරීම සඳහා මාර්ගගත අධ්‍යාපනය ඉවහල් වේ.

හරතනාට්‍යම් නර්තනය හදාරණ විද්‍යාර්ථීන්ගේ දේශනවලට අදාළ කාල සටහන්, පාඩම් සැලසුම්, නිවේදන, විෂය නිර්දේශ, මොඩියුල, පැවරුම්, ඇගයීම්, ප්‍රශ්නාවලි, සාකච්ඡා ප්‍රතිචාර හා ප්‍රතිපෝෂණ සටහන් හා ඉගෙනුම් ආධාරක වැනි දෑ මාර්ගගතව ඉතා ක්‍රමානුකූලව හා පහසුවෙන් පරිශීලනය කළ හැකි පරිදි ඉගෙනුම් කළමනාකරණ පද්ධතිවල පවත්වාගෙන යා හැකි ය. මේ තුළින් විද්‍යාර්ථීන්ට සිය අධ්‍යයනය කටයුතු පහසුවෙන් හා ආකර්ශණීය ලෙස සිදුකරගෙන යා හැකි ය (Stern, 2020).

අනාගතයේ දී වසංගත, ස්වාභාවික ආපදාවන්, රට අභ්‍යන්තරයේ පවත්නා ගැටුම්, දේශපාලන අස්ථාවරත්වයන් ආදී අනපේක්ෂිත පරිසර තත්ත්වයන් හමුවේ අධ්‍යාපනයට සිදු විය හැකි බාධාවන් අවම කර ගනිමින් ඉගෙනුම්-ඉගැන්වීම් ක්‍රියාවලිය අඛණ්ඩව පවත්වාගෙන යාම සඳහා ද මාර්ගගත අධ්‍යාපනය වැදගත් වේ (Haththotuwa and Rupasinghe, 2021).

මෙම අධ්‍යයනයේ දී රැස් කර ගන්නා ලද සියලු දත්ත පදනම් කරගනිමින් සෞන්දර්ය කලා විශ්වවිද්‍යාලයේ ඉන්දියානු හා ආසියානු නර්තන අධ්‍යයනාංශයේ හරතනාට්‍යම් නර්තන පාඨමාලාව මාර්ගගත ක්‍රමයෙන් යාවත්කාලීන කිරීම පිළිබඳ ශක්තීන් දුර්වලතා අවස්ථා හා තර්ජන (ශදුඅත) පිළිබඳ අවධානය යොමු කරමින් පිළියෙළ කරන ලද ශදුඅත විශ්ලේෂණ වාර්තාව (SWOT analysis) පහත පරිදි සම්පිණ්ඩනය කර දැක්විය හැකි ය.

1 රූප සටහන : සෞන්දර්ය කලා විශ්වවිද්‍යාලයේ ඉන්දියානු හා ආසියානු නර්තන අධ්‍යයනාංශයේ භරතනාට්‍යම් හා නර්තන පාඨමාලාව මාර්ගගත ක්‍රමයෙන් ඉගැන්වීම පිළිබඳ ශ්වෝත විශ්ලේෂණ වාර්තාව.

සෞන්දර්ය කලා විශ්වවිද්‍යාලයේ ඉන්දියානු හා ආසියානු නර්තන අධ්‍යයනාංශයේ භරතනාට්‍යම් නර්තන පාඨමාලාව මාර්ගගත ක්‍රමයෙන් ඉගැන්වීම පිළිබඳ ශ්වෝත විශ්ලේෂණය	**ශක්තීන්**	කාලය කළමණාකරණය කරමින් ඉගෙනුම් ක්‍රියාවලියේ නිරත විය හැකිය
		හුගෝලීය සීමාවන් බාධාවන් නොවීම
		අධ්‍යාපන කටයුතු අබණ්ඩව පවත්වාගෙන යා හැකිවීම
		ආකර්ෂණීය ඉගෙනුම් මෙවලමක් වීම
		ඉගෙනුම් ආධාරක විධිමත්ව ලැබීම
	දුර්වලතා	තාක්ෂණික පහසුකම් ඌණතාව
		ප්‍රතිපෝෂණය ප්‍රමාද වීම
		නිතර අන්තර්ජාල සම්බන්ධතාව ඇණ හිටීම
		තාක්ෂණික මෙවලම් භාවිතය පිළිබඳ දැනුම අවම වීම
		ඇගයීම් ක්‍රියාවලිය විධිමත්ව සිදු නොවීම
		ඇතැම් නිපුණතා සංවර්ධනය නොවීම (කණ්ඩායම් ක්‍රියාකාරකම්, සාමූහිකත්වය, නායකත්වය)
	අවස්ථා	ගුරුවරුන් හා ශිෂ්‍යන් නව තාක්ෂණය සමග මුසුවීම
		ටෙක්නොෆෝබියාව දුරු වීම
		නව ඉගෙනුම් ක්‍රමවේද අත්හදා බැලීමේ අත්දැකීම
		නව තාක්ෂණය මඟින් අධ්‍යාපනය ලැබීම අත්හදා බැලීමට අවස්ථාව හිමි වීම
		නව ඉගෙනුම් ක්‍රමවේද අත්හදා බැලීමේ අත්දැකීම
	තර්ජන	සම ඉගෙනුම් අවස්ථා අහිමි වේ යන අනියත බිය
		ඇතැම් සිසුන් තාක්ෂණික මෙවලම් භාවිතා කිරීම
		ආර්ථික පහසුකම් ඌණතාව
		අන්තර්ජාල සම්බන්ධතා ඌණතාව
		සිසු ආකල්ප ඌණතාව (තාක්ෂණික ක්‍රම සමග සම්බන්ධ වීමට ඇති අකමැත්ත)

- **හරතනාට්‍යම් නර්තනය මාර්ගගතව ඉගෙනීමේ දී ඇතිවන ප්‍රායෝගික ගැටලු මගහරවා ගැනීම සඳහා වන යෝජනාවන්**

හරතනාට්‍යම් නර්තනය මාර්ගගතව හැදෑරීම පිළිබඳ සිදු කරනු ලැබූ මෙම පර්යේෂණයේ දී හඳුනාගත් ගැටලු නිරාකරණය කර ගැනීම සඳහා යෝජනා කිහිපයක් ද ඉදිරිපත් කරනු ලැබේ. එමගින් පවත්නා ගැටලු බොහෝ දුරට අවම කර ගත හැක.

- සමකාලීන නොවන ආකාරයට පටිගත කරන ලද ප්‍රායෝගික දේශන පරිහරණය කිරීමේ පහසුව සලසා දීම. මෙහි දී සිසුන්ට පහසු අවස්ථාවල දී භාවිතය සඳහා ලිඛිත හා ශ්‍රව්‍ය දෘශ්‍ය ඉගෙනුම් සම්පත් තොරතුරු තාක්ෂණ පද්ධතිවල පවත්වගෙන යාම මෙහි දී සිදු වන නිසා සතතාභ්‍යාසයේ යෙදීම පහසු වේ.

- මාර්ගගත නර්තන ඉගැන්වීමේ විකල්ප ආධාරකයක් ලෙස විඩ්‍යෝපට භාවිතයට සුදුසු වන අතර විඩ්‍යෝපටයේ නිරූපණය කරන ශිල්පියාගේ ඉදිරිපස පෙනුම මෙන්ම පසුපස පෙනුම ද ලබා දීම මගින් ශිෂ්‍යයන්ගේ ඉගෙනුම් කාර්යය සාර්ථක වීමට හේතු වේ (රූජ්ජේගොඩ ජී. එස්., විජේගුණසේකර, එල්. එන්. ජී. ඩී. එස්., සහ රණවීර, ආර්. බී., 2021).

- පියවර ක්‍රමය අනුව පාඩම් සැලසුම් කිරීම.

- කැඩපත් ක්‍රමයට සකස් කරන ලද ප්‍රායෝගික දේශනයට අදාළ වීඩියෝ ලබා දීම.

- නිර්මාණශීලී හා ආකර්ෂණීය ඉගැන්වීම් ක්‍රම භාවිතය

- දේශනවලට අයත් ගායනය හා බෙර වාදනය ඇතුළත් සුපැහැදිලි හඬපට විද්‍යාර්ථීන්ගේ පරිහරණය සඳහා ලබා දීම.

- මාර්ගගත ක්‍රමයට අනුව සාමූහික පුහුණු සැසි ප්‍රවර්ධනය, පුහුණු සැසි අබණ්ඩව තත්ත්ව පාලනය හා නියාමනය කිරීම.

- අනොන්‍ය අදහස් හුවමාරු වන ආකාරයේ පැවරුම් ලබා දීම.

- පුද්ගලිකව ප්‍රතිචාර හා ප්‍රතිපෝෂණ ලබා ගැනීම.

- මාර්ගගත ඉගෙනුම සඳහා භාවිත මෘදුකාංග පිළිබඳ තාක්ෂණික උපදෙස් හා පුහුණුව ලබා දීම.

නිගමනය

කොවිඩ්-19 වෛරස ව්‍යාප්ති සමයේ දී සෞන්දර්ය කලා විශ්වවිද්‍යාලයේ ඉන්දියානු හා ආසියානු නර්තන අධ්‍යයනාංශයේ 2014-2015 අධ්‍යයන කණ්ඩායමේ අවසන් වසර දේශන මාර්ගගත ක්‍රමයෙන් යාවත්කාලීන කිරීමත් සමග විද්‍යාර්ථීන් මාර්ගගත ඉගෙනුමට විතැන්වීම පිළිබඳ ධනාත්මක හා සෘණාත්මක ප්‍රතිචාර හඳුනාගත හැකි ය. සමස්ත මාර්ගගත ඉගෙනුම් ක්‍රියාවලිය පිළිබඳව ඔවුන්ගෙන් 80%ක් මධ්‍යස්ථ වශයෙන් තෘප්තිමත් වී ඇති අතර 20%ක් මාර්ගගත ඉගෙනුම් ක්‍රියාවලිය පිළිබඳ තෘප්තිමත් වී නොමැත. මේ අනුව හරතනාට්‍යම් නර්තනය සාම්ප්‍රදායික ඉගෙනුම් ඉගැන්වීම් ක්‍රියාවලියෙන් බැහැරව මාර්ගගත හා අතත්‍ය ඉගෙනුම් පරිසරයක් තුළ නිර්මාණය

කරන ලද සීමිත ප්‍රවේශයක් යටතේ සිදු කිරීමෙන් අපේක්ෂිත ශක්‍යතා මට්ටම් කරා ළඟා වීම දුෂ්කර වන බව විද්‍යාමාන වේ. මෙහි පවත්නා දුර්වලතා මඟහරවා ගත් විට හරතනාට්‍යම් වැනි විශ්වීය නර්තන ශෛලියක් හැදෑරීම සඳහා පවත්නා භූගෝලීය සීමාවන් අතික්‍රමණය කළ හැකි බව හරතනාට්‍යම් මාර්ගගතව හැදෑරීම පිළිබඳ සිදු කරනු ලැබූ මෙම පර්යේෂණයේ නිගමනය වේ. කොවිඩ්-19 සඳහා ස්ථීර එන්නතක් සොයා ගෙන එය සංවර්ධනය කිරීම සඳහා බොහෝ කලක් ගතවන බැවින් කෝවිඩ්-19 කාල සීමාවේ දී හා ඉන් ඔබ්බට තෘතීයික අධ්‍යාපනය කළමනාකරණය කිරීම සඳහා මිශ්‍ර ඉගෙනුම් ක්‍රමවේදයන් ඒකාබද්ධ කිරීම වඩාත් යෝග්‍ය වේ. එමෙන්ම මිශ්‍ර ඉගෙනීම සාමාන්‍ය විෂය මාලාවට ඇතුළත් කිරීම මඟින් විෂය සංවර්ධන පරමාර්ථ සපුරාගත හැකි ය. මෙම අර්බුදයේ දී උගත් පාඩම් මත ශ්‍රී ලංකාව අඛණ්ඩව ගොඩනැගෙන්නේ නම් මෙම බාහිර කම්පනය මිශ්‍ර ඉගෙනුම කෙරෙහි වඩාත් විවෘත මනසකින් හා ආකල්පයක් ඇති කිරීමට උත්ප්‍රේරකයක් විය හැකි ය.

ආශ්‍රිත ග්‍රන්ථ නාමාවලිය

අතුකෝරළ, සී. ඒ. (2019). මාර්ගගත අධ්‍යාපනය, Retrieved from https://lankavirtualacademy.com/blog-details.php? blogid=7

අබේපාල, ආර්. (2019). සෞන්දර්ය අධ්‍යාපන විවිර‍ණ. සාර ප්‍රකාශන.

කෝට්ටගොඩ, ජයසේන. (2009). භාරතීය සම්භාව්‍ය නර්තන කලාව. ජේ. කේ. පබ්ලිකේෂන්ස්.

ජයතුංග, එම්. (2020). ප්‍රාසංගික කලාව. ලොකුපෝතාගම ප්‍රකාශකයෝ.

දිසානායක, අසෝකා. (2021). මාර්ගගත දේශන මඟින් ප්‍රායෝගික නර්තනය ඉගැන්වීම ශිෂ්‍ය කේන්ද්‍රීය ඉගැන්වීමේ ක්‍රියාවලිය කෙරෙහි බලපාන ආකාරය පිළිබඳ විමර්ශනයක්. PATOC 2020 - Conference Proceedings, Faculty of Dance and Drama, University of the Visual and Performing Arts, Sri Lanka.

යටිගම්මන, කේ. (2020). අන්තර්ජාලයෙන් ඉගෙනීමේ දිග පළල. Retrieved from http://epaper.aruna.lk/Home/ShareArticle?OrgId=fe81166f&fbclid=

රූප්පේගොඩ. ජී. එස්., විජේගුණසේකර, එල්. එන්. ජී. ඩී. එස්., සහ රණවීර, ආර්. බී., (2021). නර්තනය මාර්ගගත ක්‍රමවේදය ඔස්සේ ඉගැන්වීමේ දී විද්‍යශ්‍ය පට පරිහරණයෙහි සුවිශේෂතා. PATOC 2020 - Conference Proceedings, Faculty of Dance and Drama, University of the Visualand Performing Arts, Sri Lanka.

වීරක්කොඩි, ඉරංගා. (2021). ගෝලීය වසංගතය ; සංගීත විද්‍යා අධ්‍යයනාංශයෙහි මාර්ගගත ඉගෙනීම පිළිබඳ සංසිද්ධි විද්‍යාත්මක අධ්‍යයනයක්. PATOC 2020 - Conference Proceedings, Faculty of Dance and Drama, University of the Visual and Performing Arts, SriLanka.

සරච්චන්ද්‍ර, එදිරිවීර. (2019). සිංහල ගැමි නාටකය. ගොඩගේ සහ සහෝදරයෝ පුද්. සමාගම.

Andrew, K., & Mickel, H. (2016). Higher Educational and the Digital Revolution: MOOCS/SPOC/Social Media and the cookie Monster. Business Horizons. 59(4).

Coogan, A. (2020). What is Performing Arts. Ireland, Irish Museum of modern art.

Dhull, I. (2019). ONLINE LEARNING. Retrieved from https://www. researchgate.net/publication/332833360_Online_Learning

Haththotuwa, P. M. P. S. L & Rupasinghe, R. A. H. M. (2021). Adapting to Online Learning in Higher Education System during the Covid-19 Pandemic: A Case Study of Universities in Sri Lanka. Sri Lanka Journal of Social Sciences and Humanities, Sabaragamuwa University of Sri Lanka. 1(2), : 147-160p, Retrieved from http://doi.org/10.4038/sljssh.v1i2.46

Hayashi, R., Maddawin, A., Garcia, M., & Hewagamage, K. P. (2020). Online Learning in Sri Lanka's Higher Educations during the COVID-19 Pandemic, Retrieved from http://dx.doi.org/10.22617/BRF200260-2

Keegan, D. (1988). On defining distance education. In Distance Education: International Perspectives.

Liyanage, S. (2020). Current Crisis of Performing Arts Education in Sri Lankan Universities. Retrieved from https://island.lk/current-crisis-of- performing-artseducation-in-sri-lankan-universities/,

Liyanage, A. (2020). Teaching Liberal Arts: In The Time of Corona & The Job Market.Retrieved from https://www.colombotelegraph.com/index.php/teaching-liberal-arts-in-the-time-of-corona-the-,

Paulsen, M. F. (2020). Online Education Systems: Discussion and Definition of Terms. Retrieved from http://home.nettskolen.com/~morten

Samarasinghe, K. C. (2012). Incorporating E-Learning into Performing Art undergraduate education in Sri Lanka, University of the Visual & Performing Arts.

Stern, J. (2020). Introduction to Online Teaching and Learning.Retrieved from https://www.researchgate.net/publication/267221087,

Tehrani, M.S. (2008). The Resuts of Online Teaching. Retrieved from https://www.researchgate.net/publication/267221087.

UNESCO. (2020). UNIESCO Education from disruption to recovery, Retrived from Retrieved from https://en.unesco.org/covid19/educationresponse

United Nations. (2020). Policy Brief: Education during COVID-19 and Beyond. Retrieved from https://unsdg.un.org/resources/policy-brief-education-during-covid-19-and-beyond.

India Education. (2020). What is online education. (2020). indiaeducation.net, Retrieved from https://www.indiaeducation.net/online-education/articles/what-is-onlineeducation.html.

ABSTRACTS

Views of the Group of Speech and Language Therapists on Reliability of Penetration and Aspiration Scale (PAS) in Patients with Stroke Related Dysphagia in Sri Lankan Context

D. M. K Bandara[1] , S. P. Rathnayaka[2]

ABSTRACT

Dysphagia is life-threatening condition, which needs early and accurate detection to prevent many complications such as aspiration pneumonia or malnutrition. In Sri Lankan (SL) context, no reliable measures were used to identify aspiration and penetration in dysphagia, where current study provided the relevant evidenced to use Penetration and Aspiration Scale (PAS) (Rosenbek et al.,1996) in Sri Lankan context using Mix methodology. Methodology of Self- administered web based questionnaire was used to identify the views of 21 Speech and Language Therapists (SLT) (5+years of experience in dysphagia) about the applicability of PAS to SL context. The reliability of the PAS tool was analyzed based on videos of 160 views, of Video Fluoroscopy Study of Swallow (VFSS) and Fibro Endoscopy Evaluation of Swallow (FEES) videos on 16 cases. Results of the study show that ICC scores of 0.964(P<0.001) for the PAS for the given cases of post stroke dysphagia among SLTs. Due to limited participants the results cannot be generalized to Sri Lankan context where it indicated the importance of extended meta-analysis in future studies. However, all the SLT participants (100%) were in favour of the reliability of using PAS tool in accurate detection of aspiration in early stage and to minimize the complication of post stroke dysphagia.

Keywords: Dysphagia, Penetration, Aspiration, Penetration and Aspiration Scale

---

[1,2] Faculty of Medicine , University of Kelaniya, Sri Lanka

Email : saumra@gmail.com

Books to Support Mental Well-Being: A Study on the Possible Challenges in Implementing Bibliotherapy in the Sri Lankan Context

R. A. P. S. Senevirathna[1] , L. H. M. D. S. Lansakara[2]

ABSTRACT

This ongoing research examines the Bibliotherapy in several aspects. Bibliotherapy is the "process of dynamic interactions between the personality of the reader and literature as a psychological field which may be utilized for personality assessment, adjustment and growth" (Shrodes, 1949). The focus of the study was on defining the concept, determining the capacity of Bibliotherapy to support mental well-being and discuss the possible challenges in applying Bibliotherapy to the Sri Lankan context. The study involved a thematic analysis concerning the selected areas identified during the literature review. The study revealed that Bibliotherapy is a therapeutic approach which is assisted by the healing power of books; the reading therapy. The previous studies revealed that this concept is new to Sri Lanka, compared to several other countries which practise this method competently. According to the statistics of secondary data sources, the necessity of counselling and psychological support for the individuals in Sri Lanka is increasing day by day. In such a context, this can be a solution for the pressing psychological issues faced by the individuals. Sources of reading materials are found everywhere in Sri Lanka and the implementation of the therapy within the country appreciably can stand as a slayer of the psychosocial insecurities faced by the public. It was interpreted that this therapy is more effective for those that display an inborn preference for reading. Approaching diverse psychological issues with focused Bibliotherapeutic approaches is vital. Accordingly, a well-trained group of bibliotherapists is a necessity. In implementing this service in Sri Lanka, inadequate number of professionally qualified bibliotherapists will be a challenge. Moreover, in training bibliotherapists, the government will need a stable financial provision along with the assistance of professionals representing foreign countries. Enlightening the relevant authorities about the importance of this concept and introducing it to the Sri Lankan library system can also be suggested.

Keywords; Bibliotherapy, Reading Therapy, Mental Well-being, Psychology, Sri Lankan Library System

---

[1,]Main Library, University of Ruhuna, Matara, Sri Lanka
[2]Sri Lanka Institute of Advanced Technological Education, Anuradhapura, Sri Lanka
Email : saku@lib.ruh.ac.lk

Libraries: A Place to Promote, Enforce and Monitor Gender Equality and Democracy

H. L. N. S. Chandrasiri[1]

ABSTRACT

Human is one part out of many species in the biosphere. Many favourable for collective choice of majority where people govern by people. Freedom, equity, and dignity are seeking for sake of decent living the utmost essential components. Seventeen integrated visions under 2030 sustainable goals bring back the refreshing memories of the traditional green economy connected to responsible and reasonable consumptions. This research focuses on a r comparative analyses of libraries how knowledge resources, access equipment, and data in safe environment properly and adequately support to enhance gender equality and democracy. Evaluate vigilantly on validity and reliability of collected sources. Due to pandemic situation some of few primary data were collected via online platforms and telephone conversations. Secondary data were collected from authentic online library resources on computer literacy programmes, coding clubs, and entrepreneurship pieces of training. However, methods used to gather and select material on knowledge-based informative education from successful stories originally available on official websites as a refreshment to quench the quality of research. Thus, women and girls' rights to information and health seek more proactive judicial interpretation definitely on data and information technology in this digital era through the advocates of librarians and libraries. 2030 sustainable development goals bring supervisory look on 4, 5, 8, 10, 12, and 16 goals as an oasis to embrace libraries. The conclusion of this paper going to be an admiration of hypotheses and recommendations with timely and relevant support to improve health, culture, research, innovation, quality education as well as eradicate poverty and inequality.

Keywords: Library, Gender equality, Gender democracy, SDGs, UN

[1]Centre for the study of Human Rights, Faculty of Law, University of Colombo, Sri Lanka
Email : nadeeshahl@yahoo.com

Utility of Using Mobile Technology to Enhance Undergraduates' Digital Information Literacy Skills : Special Reference to Selected Sri Lankan National University System

K. M. D. S. Karunarathna[1]

ABSTRACT

Communication through mobile technology is one of the most prevalent trends globally today and the emergence of mobile phone use to learn about information literacy skills can be described as an innovative learning methodology. Furthermore, access to digital literacy skills and ingenuity is a highlight of mobile information literacy. The skills in digital and information literacy are important to fully understand the potential of technology in order to reap the full betterment of information and communication technology. In particular, the level of digital information technology skills of undergraduates pursuing higher education in the Sri Lankan state university system was analyzed. Accordingly, the main objective of the research is to study the utility of mobile technology to enhance the digital information literacy skills and learning experience of undergraduates pursuing their studies within the Sri Lankan state university system. Was mobile technology used to enhance the digital information literacy skills of undergraduates? This was chosen as the research problem here. Moreover, the research methodology was used mix methodology (quantitative and qualitative) and scientific statistics method. A team of 500 university students in 5 national universities in Sri Lanka was selected as the research sample and observations, questionnaire (online), formal interviews (Zoom) and informal discussions were used to collect data. The results of the research revealed that 78% of undergraduates in the selected sample used mobile technology to increase their digital information literacy skills (DILS). Therefore, the results of this research confirmed that the mobile technology used to enhance the digital information literacy skills of undergraduates.Moreover, the research may also suggest innovations in mobile information literacy and the introduction of new mobile lessons, the enhancement of information literacy skills of university student community through interactive exercises, and the introduction of an effective e-learning method for mobile information literacy into the entire university system.

[1]Department of Mass Media, University of Colombo, Sri Lanka
Email : sandamalikarunarathna7@gmail.com

Teaching Experience of the Primary Teachers of English in Using Digital Tools to Improve Quality Education during the COVID-19 Pandemic

K. L. S. Sewwandi[1], U. R. Alawatte[2]

ABSTRACT

The COVID-19 pandemic can be identified as the greatest health issue in the present world which has created negative consequences that have directly and indirectly affected the key sectors of every country. Education is one such key sector which has faced the challenge of adapting to the 'new normal'. With the implementation of virtual classrooms, the extensive use of digital tools has come to the fore as like never before. The objective of the present study was to investigate the teaching experience of the primary teachers of English in using digital tools to improve quality education during the COVID-19 pandemic which equally contributes to Goal 04 of SDGs. Under the purposive sampling method, a sample of 60 English teachers of primary education in Southern province was selected with 20 teachers from each district. The required data for the study were gathered using interviews. Accordingly, it was identified that around 72% of the teachers have never integrated digital tools in teaching primary students before the outbreak of COVID-19. Currently, 85% of the teachers are employing digital tools when teaching primary students to improve the quality of online education. It was identified that the majority (76%) of the teachers employ video conferencing and productivity tools in the teaching process while the remaining 24% of the teachers highlighted the positive engagement of primary students in learning process when using creativity platforms. Furthermore, 75% of the respondents emphasized the necessity of training programmes that facilitate the enhancement of their digital literacy and 68% of the teachers are willing to use digital tools when teaching English to primary students. The results showed that the teachers' perceptions in using digital tools are positive and that the practical exposure of teaching English for the Primary Students guaranteed a high-quality assurance upon the remarks and the feedback taken by the students.

Keywords: Digital tools, Primary education, Quality education, Teaching English, Virtual classroom, COVID-19

[1] Aquinas College of Higher Studies, Sri Lanka
[2] National Institute of Business Management, Sri Lanka
Email : suzan.liyanage@gmail.com

The Impact of the Sri Lankan Culture towards Online Education during COVID-19 Pandemic Period

B. L. D. W. K. Martinus[1], P. R. B. D. Wimukthi[2]

ABSTRACT

Sri Lanka is a multicultural country. Across the country there are various cultures based on ethnicity, attitudes, and beliefs. Online education methods introduced during the COVID-19 pandemic period have resulted in both positive and negative impacts on Sri Lankan students. The research problem of this study was how Sri Lankan culture impacted online education within Sri Lanka. This paper examines the direct and indirect effects of various cultural backgrounds on Sri Lankan online education. The specific objectives of this study were; to find the conflict between traditional attitude bonds towards the previous education system versus current online education system and to further explore the enthusiasm level of students to accept e-resources to further their education. Additionally the research looked into the accessibility of e-resources and devices for students and how that accessibility trends are present across different cultural backgrounds. The target population of this study was university students from 05 provinces of the country; Southern, Western, Eastern, Northern and Central provinces. The sample size of this study was 75 participants from the above mentioned provinces. The study was done as an online research using open ended questionnaires & close ended questionnaires via Zoom meetings, telephone discussions and Google forms. It was revealed through this study that the majority of students did not prefer this online education approach. Considering the findings, authors conclude that the majority of students prefer physical education systems because they believe that the traditional education system offers a superior learning experience compared to the online system. Considering the cultural normative that has been embedded in Sri Lankan society, it is visible that students do not show keen interest in the new technological concept of online education.

Keywords: Online Education, Universities, Sri Lankan Culture, Attitudes, COVID-19

[1]University of Ruhuna, Sri Lanka
[2]Rajarata University of Sri Lanka
Email : martinsan722@gmail.com

Activities in the Orientation of Library Literacy Education and Information Literacy in Postgraduate Researchers in Sri Lanka

B. M. R. H. K. Basnayake[1]

ABSTRACT

In today's society, it can be observed that a rapid advancement in information technology, and acquiring information literacy skills in society as a serious matter. Therefore, the purpose of this study is to examine the level of information literacy among postgraduate researchers in the Sri Lankan university context. As a result, information literacy is an essential part of a library user's education and background for a variety of literacy practices. Postgraduate scholars solve social problems through research findings that make a difference in society. It also leads to their research authority and domain innovation. Hence, they have information literacy skills and external verification. This is related to their knowledge of recent developments in their field of study. A sample of 300 postgraduate students from 5 universities was selected to collect data for this study. University of Colombo, University of Kelaniya, University of Peradeniya, University of Rajarata, and University of Ruhuna are the five universities chosen for the study. The study was conducted having interviews with 30 randomly selected scholars from the population. Interviews were conducted via Zoom platform. The final data were thematically analyzed to obtain results. These results showed that the majority of postgraduate researchers are aware of how to identify concepts and many of them had no specialized awareness of search strategies, search tools, and information evaluation. The study recommends that information literacy education be included in the university curriculum. Furthermore, information literacy should be included in the research methodology courses offered by each department.

Keywords: Information Technology, Information Literacy, Literacy Education, Literacy skills, Postgraduate Researchers

---
[1]University of Peradeniya, Sri Lanka
Email : randimahansani@gmail.com

Academics under pandemic: Adverse Effects of Closing Libraries in the Pandemic Situation towards Academia

W. Susith Nimantha Siriwardhana[1], Imasha Madushani Dissanayaka[2]

ABSTRACT

Academic libraries play a significant role as a social institution in providing information services. During the pandemic period, most of the academic libraries and physical library facilities available in the University environment were curtailed and restricted. This study focuses on finding out the adverse effects of closing libraries during pandemic situation towards academia and suggestions of the academics to overcome from those issues. The purposive sample of the research was 32 academics who represented 11 departments and 05 affiliated units, who are enrolled in teaching process in Faculty of Arts, University of Colombo. Using Zoom platform, interviews were conducted to collect data from respondents. The research outcomes revealed that the academic importance of the usage of academic libraries has remained static in spite of the physical closure of libraries. Lecture organizing, research work and new knowledge generating process have been affected adversely due to the restrictions. The digital library usage was unable to fulfill the situation absolutely. The responses indicated the need for integrating the library facilities through a digital platform in a well-organized manner. The need of digitalizing for enhancing the access to the permanent references, non – lending documents and periodical collection were highlighted by the respondents. Organizing the local language references in to digital mode was encouraged as the current sources in English were unable to fulfill some areas, especially in fine arts and linguistics. In conclusion authors suggest to develop an easy access digital library platform to overcome the negative effects.

Keywords: Academic Libraries, Academia, Digitalization, COVID-19 Pandemic, Online Information Services

[1]Department of Sociology, Faculty of Arts, University of Colombo, Sri Lanka
[2]Department of Demography, Faculty of Arts, University of Colombo, Sri Lanka
Email : wsnsusi@gmail.com

The Need of a National Digital Library in Overcoming the English Language Barriers by Professionals in Sri Lanka

K. M. N. N. Konara[1]

ABSTRACT

English has always been an important aspect for all the professionals in every field. While accessing to language practicing books or printed dictionaries may not be easy due to their working space and schedules, as they cannot always use Internet. Digital libraries are recognized as a link to number of credible and up to date scholarly resources. This study investigates the competencies that the participants have gained through internet sources and if they are focused on academically credible sources. Plenty of researches have alarmed the importance of a digital library and only a few have shown its importance for the English language learning. Thus, to scrutinize the above fact, a quantitative data analysis is used to present a systematic review. A questionnaire has been distributed among 50 professionals under varying employment categories with a simple task on English language to measure their competencies. Accordingly, 90% of professionals use websites to avoid their language barriers. Yet, 84% are not having satisfactory competency levels. In terms of the reliability of the websites they use, 90% of the respondents are not concerned about the author of the source, date published or updated and where it's published etc. 94% of the participants prefer a proper learning platform which is up to date and enhance access to free eBooks, Pdf or downloadable content. In this case, a relationship can be created between the lower competency level of the respondents and the non-reliable sources that they are using. Ultimately, 16% of the respondents whose competency level is high also tend to use these random sources in order to confirm their accuracy. But they face difficulties in referring to academically reliable sources. Thus, a national digital library with credible and up to date metadata has become the absolute need to increase the competencies in the long term.

Keywords: English Language, Professionals, Credible Sources, Digital Library

[1]Post Graduate Institute of Humanities and Social Sciences, University of Peradeniya, Sri Lanka
Email : nipu.konara@gmail.com

Effects of the Green Library Concept to Achieve the Development of the University Library System in Sri Lanka

K. D. H. Y. Gunawardana[1]

ABSTRACT

The Green library, also known as a sustainable library, is built with environmental concerns in mind. The formation of the green library concept is proceeding towards a turning point, giving rise to libraries, especially in developing countries. This new concept is gaining popularity among library professionals. The main objective of this research is to identifying green library systems in University Libraries in Sri Lanka and its attempt to inculcate green library concept for other university libraries as well. The study mainly highlights the importance of the green library concept for Sri Lankan universities, the impact of the green library system on library users and gives an overview of new green library programmes and courses. The research method used is a survey method and the research tool used was a questionnaire. The study sample was selected from university librarians and library users from 5 government universities and 3 private universities. The study identified some green library practices of Sri Lankan Universities such as Solar systems, using recyclable materials etc. The study examined that main challenge of a library to establish green concept was improper use of modern technology in a library to reduce energy and expenses. The other challenges revealed were limitation of spaces for expansion of library and limited knowledge about green concept among library community. The results concluded that the green library concept in Sri Lankan universities are still not in a satisfactory level because of the lack of awareness on green library concept of the library staff and the lack of physical resources.

Keywords : Green Library, University Libraries, Green Library Practices, State Universities, Private Universities

[1]Department of Economics, Rajarata University of Sri Lanka
Email : fhimashie@gmail.com

Public Library Service: Challenges Due to COVID-19 Pandemic : with Special Reference to Colombo Public Library

H. A. S. Sandamali[1], N. H. C. P. Gunasena[2]

ABSTRACT

Public libraries are the local gateway to knowledge to general public regardless of age, economic or social status. The public libraries are also one of the institutions closed due to the lockdown of the country. Although the library is physically closed, almost all the library services are carried out in different online modes. Aims of this study were to identify the challenges faced to communicate user groups during the closure, to identify different programmes conducted by the Colombo Public Library and to find out the patterns of participation of the readers. The data was collected from the daily statistics, monthly statistics, progress reports, staff of the library, and feedback from participants using structured interviews. At the beginning of the closure it was very difficult to initiate the services due to unavailability of contact details of the user groups. However, library was able to use popular social media to create user groups. Different groups were created based on age and purposes, ex. Kid's group, Children's group, Adults group, Environmental friends etc., Initially, requested information distributed among user groups and later on online interactive sessions on different areas were conducted. The storytelling sessions, literary competitions, speech competitions, book reviews, meeting with an author, maintaining physical and mental well-being, craft workshops, educational support and activities related to library's maker space are some of the examples. In addition free e-Books, audio books and web resources are circulated among the users. The social media used were facebook, WhatsApp. Telegram, Blog spot and YouTube. Another major activity engaged was upgrading the library automation software and make the remote logging facility of the server which facilitate the staff to do their works from home. Finally it was able to create a public librarians group across the country and share the experiences among the other librarians. A workshop was held in collaboration with Sri Lanka Library Association and series of experience sharing sessions planned to be carried out in future. The Colombo Public library delivered services through social media directly and able to conduct interactive sessions via online platforms. Thereby library was able to connect with its user groups as well as with other public librarians.

Keywords: Public library, COVID-19, Colombo public library, eBooks, Online Information Services

[1,2]Colombo Public Library, Colombo Municipal Council

Email : childrenslib.cpl@gmail.com

Challenges of the Legal Deposit Process in Sri Lanka for the Development of a Comprehensive National Collection in the Digital Age

Nimmi Deshapriya[1]

ABSTRACT

Documentary heritage of intellectual value has been widely recognized as critical to national development. Strengthening the awareness creation on intellectual information published in the country and facilitate the use of them for the education and information needs of citizens through a formal mechanism is very important for the sustainable development of that country. The legislation introduced for this purpose is known as legal deposit law. In Sri Lanka, it was adopted with the Printers and Publishers Ordinance enacted in 1885. Legal deposit is crucial for maintaining national intellectual and cultural heritage, disseminating information and knowledge to coming generations, and establishing national and international bibliographic control by creating and sustaining a nation's publication collection, which contributes to immense research information. The existing legal deposit laws of Sri Lanka are not adequate in respect of acquiring all publications in Sri Lanka in various formats as print and non-print. It has been the problem identified. The study was designed to investigate this problem. The main objective of this study was to evaluate the process of legal deposit in Sri Lanka with special reference to Printers and Publishers Ordinance in 1885. The specific objectives were to identify role of various stakeholders, their interest, and working consensus towards legal deposit process in Sri Lanka and to initiate investigation of the necessary legislative revisions to meet the new trends in publication field of modern electronic and digital age. Data were obtained through secondary sources and structured interviews via Google form from the staff members attached to respective departments in five depository libraries in Sri Lanka and printers registered at the Department of National Archives. Five staff members were selected from each depository library representing executive and non-executive levels. Five printing companies were selected randomly to represent each province from the printers register book of Department of National Archives for the study. Response rate for the questionnaire was 78%.

[1]Reader Services, National Library of Sri Lanka
Email : nimmideshapriya77@gmail.com

This study revealed that depository libraries were not able to develop comprehensive national collection at present due to various reasons. Lack of training facilities on new technologies and trends and lack of knowledge on current legal deposit legislation were highlighted. In addition, lack of modern technologies and devices to store non printed publications is also a cause. The study further revealed that due to increase of production cost the printers were reluctant to provide five copies of each publication. Interviewees suggested to establish provincial book collection counter at the district secretariat to hand over the books for those who are away from Colombo. In conclusion, the existing legal deposit law of Sri Lanka is not strong enough in respect of print and non-print as electronic publications generated in digital environment at present. The author emphasizes that a productive and efficient management of legal deposit procedure is needed to ensure the necessary revisions of the present ordinances complying with the digital age.

Utilization of Traditional Communication Methods for Forest Conservation
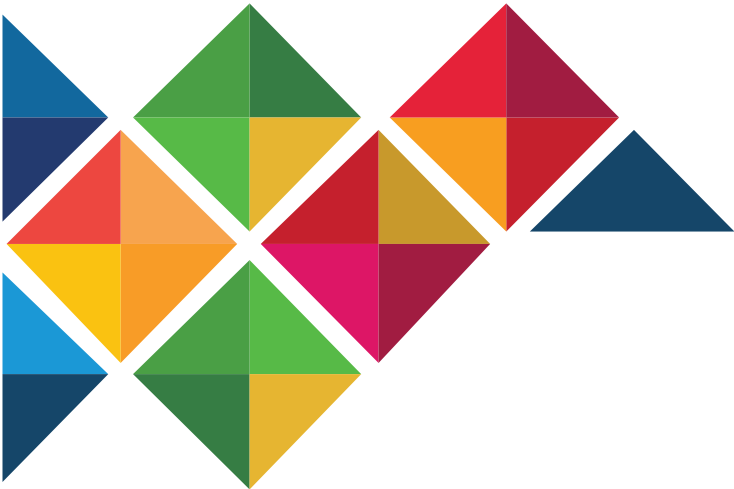
Sajanthi M. Bopitiya[1]

ABSTRACT

The study covers the traditional communication methods used by the villagers of Lankagama (situated in the Southern province bordering the Sinharaja rainforest). The study employs comparative and combined research methods as the research methodology. Data was collected from villagers and scholars in Deniyaya, Pallegama, Kiriella, and Lankagama via interview method, participant and non-participant observation methods, in addition to review of existing literature. A number of such traditional communication methods were identified from this study. It can identify a model for the village, one that covers mainly faiths and beliefs related to the forest (such as exorcism, worship and rituals) as well as traditional communication methods. We can observe the nature of the forest conservation. In this context this includes faith and belief, beliefs in Gods, as well as folk poems. In the technological world of communication, traditional communication methods do not take a prominent place. A scarcity of studies conducted concerning this geographic area has led to a rather ignorant state about traditional communication methods and folklore. In their folklore, inanimate objects like the sun, the moon, trees are considered as the origin of the mankind. Natural Environment assisted their daily life. Thus, a remarkable mutualism existed between the humankind and the nature. The underlying idea of nature-worshiping – including worshiping inanimate objects like the sun and the moon – is that such activities helped to protectthe environment and humankind. However, with the influx of developed religions, beliefs and rituals were rooted out of their society. Thus, nature-worship too has all but vanished from the society. Nevertheless, tree-worshipping has survived in different guises, transmuted from its primary forms of worship and belief. Our ancestors believed the tree-gods inhabited huge trees. The villagers feared to even cut branches lest they incur the wrath of tree-gods. The effects of such activities, they believed, could harm entire countries. Thus, the conservation of forests through traditional methods was far more effective that the current legislation and law does.

Keywords : Traditional Communication Methods, Forest Conservation, Beliefs, Rituals

[1]Publication Division, National Library of Sri Lanka
Email : sajanthimaco@gmail.com

Sponsored by