Data Analysis Method for Book Reading Preference: North Eastern Zone of India

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Abstract

This study explores the book reading preferences of individuals in the North Eastern zone of India, aiming to shed light on the literacy landscape and cultural inclinations of this unique region. Through surveys, interviews and data analysis, the research investigates the genres, themes and language preferred by readers in the north eastern zone of India. It also examines the impact of cultural diversity, local traditions, and historical influences on the reading choices of the populace. The findings of this study contribute to a better understanding of the reading habits in the north eastern zone and offer insights for publishers, educators and policymakers seeking to promote literacy and diverse literacy experiences in the region.

Keywords: North Eastern Zone, book, preference, gender, age, marital status, location.

Introduction

This research paper is designed to analyze and observe the preference of book and number of hours spent on reading books among north eastern zone of India. Five categories which is kept in mind while doing this survey are gender, age, marital status, number of hours spent and geographical area. Book Reading holds a significant importance for individuals and society as a whole. It increases knowledge acquisition, cognitive benefits, language development, enhanced imagination and creativity which develops artificial intelligence to machine learning algorithm.

The purpose of this research work is to find out which kind of book is preferred and number of hours spent by north eastern zone of India. As day-by-day population is depending on watching videos and e learning instead of developing a reading habit. This affects the memory system of human which results various type of mental illness. Therefore, this survey is performed.

Reading can be a form of escapism, providing a break from the stresses of daily life. Reading literature especially fiction helps the readers to step into the shoe of characters from diverse background and experience which helps to understand the neural network present in our mind. Books are the lifelong source of learning whether it's self-help, professional development or personal growth. Reading regularly contributes to continuous learning and self-improvement. It improves focus and concentration. Book provide a window into different cultures, traditions and historical periods. They contribute to cultural appreciation by exposing readers to diverse perspectives and experience. Reading habit increases the social connection that brings people together.

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Literature Review

In 2020, Sabri [1] used the bipartite configuration model and community detection that discovers the relationship among countries according to their book preferences. They conducted a large-scale cross-

country based on book preference and collected data from good reads. In 2019, Chin [2]. Studied the gendered reading habits and preference of Singapore adolescent students to explore their reading habits. They collected data from 4830 adolescents in five secondary schools and found that more girls enjoyed reading compared to boys. [3] studied the problem of reading and improve the reading culture of students-bachelors of elementary education in modern high institution in 2016 and identified the most effective methodological techniques of reading culture improvement of undergraduate students at the university.

During 2016,[4] investigated young children's book preferences over 142 children , their parents and teachers from 4 public kindergartens to read aloud. [5] Studied sex differences in reading preferences and indicated that sex differences in reading preferences related to cultural influences. In 2018 [6] studied the effect of presentation mode on children's reading preferences, performance and self-evaluations.

This [7] investigated the reading preferences of international students between electronic texts and printed texts and explored the influence of reading e-texts and p-texts as well as the purpose of students using these electronic devices (e-devices) by data were collected using a questionnaire. This study indicated that the students preferred using p-text over e-text and revealed that students preferred using electronic devices for personal uses rather than academic uses.[8] studied to identify the preferences print and electronic media activities of the net generation readers and to investigate the impact of e-books on the printed books. They compared readers' preferences between reading an electronic media and printed book. Most of the book readers believe that e-books will become more popular than printed books shortly.

In 2018, [9] did the largest study that explores the relationship between personality and book content preferences. [10]studied learners' reading preferences by building a multimedia e-book system and investigating various factors. The findings of their study contribute a deeper understanding of the relationship between human factors and the usage of e-books. [11] attempted to identify information preferences that readers are often concerned about solving by using data mining technology. According to the readers' preferences, they tried to create an automatic new book recommendation system.[12] Studied that a program promoting book reading in infancy - continues to have an impact well into kindergarten and it also improved children's home literacy environment. [13] investigate that the book reading habits and media literacy of students at the faculty of education, in terms of different variables like students' departments, grades, habits of using social media, academic grade point averages and educational background of their parents.[14] explores that there are significant positive predictors among reading motivation, reading self-efficacy, social support and reading satisfaction. Lenny[15] studied that the use of strategies to encourage reading, reading comprehension and gratification for learning through virtual tools applied to the initial level of cycles. [16] tells that the academic libraries are increasingly offering online e-books because they provide convenient access for students, cost savings, logistical advantages and significant portability. [17] This study the reading speed of the narration and the difficulty of the text was manipulated and links were explored with children's attention to the printed text in shared book reading.[18] This research aims to implement AR technology with traditional reading methods, optimize the reading experience of paper books, and enhance the interactivity and interest of paper book reading. [19] This study tells the effects of four indoor illuminations on e-book readers are investigated by HRV analysis. [20] E- book market would attract more and more older and to interact with technology and enjoy the reading pleasure. [21] This study formulates a comprehensive research framework for a future study that more accurately measures the difference between digital devices of various sizes and paper medium. **All the study done till now is for China, Bangladesh and other European Countries. This study is focused for one zone of India**.

Material and Methods

The aim of this research is to find out the book preference of north eastern zone of India. For this survey, an online questionnaire is developed through google form. In the questionnaire, there are six research questions.

A well-structured survey questionnaire was developed with clear, concise and unbiased question. This survey was carried out in October 2023. This is an online questionnaire – based data collection and analysis work. This work focused on the choice of books based on five matrices.

RQ1: what is your age? In response to this question, the surveyed people choose one option. Options are under 25, 25-50 and above 50.

RQ2: What is your gender? In response, the surveyed person must choose male, female, others.

RQ3: What is your marital status? In response the surveyed person must choose unmarried, married and others.

RQ4: What is your geographical area (City & State)? Surveyed people have to write their city and state

RQ5: Which kind of book do you like for reading? In response to this question the surveyed person can choose multiple options from literature books, text books, science fiction, action and adventure, religious book, Mystery/Horror and don't like to read.

RQ5: How much time you spent on book reading in a week? In response to this, surveyed people write no. Of hours they spent on reading in a day.

Besides these five questions, there were two basic questions to avoid redundancy and get unique data. The first one is what is your name? And second one is what your email id is? The purpose of these two questions is to get unique and real data from real people. The primary key of this datasets is googled form which is linked to their email, so that no one can submit more than one dataset.

Proposed System

The target population is student of Government College, teachers and retired professionals of north eastern zone of India. Google form was selected to host these questionnaires. The survey link was distributed via WhatsApp message within a limited period of time. Data collection process aligns with ethical standards and privacy regulations.

All the collected data has been cleaned and well organized by using some formulae. This involves open-ended responses and checking for outliers. For statistical analysis, Microsoft Excel has been chosen as tool.

Table 1   Number of hours vs age group

Number of hours spent in reading vs Age group	
Age Group	Hours Spent (in one week)
Under 25	146
25-50	47
Above 50	101
Grand Total	**294**

Table 2 Number of hours spent vs marital status

No. of Hours spent vs Martial Status	
Age Group	**No. of Hours Spent**
Under 25	146
Married	1
Unmarried	144
Others	1
Between25-50	101
Married	81
Unmarried	19
Others	1
Above 50	47
Married	43
Unmarried	1
Others	3

Maximum among young participants who are under 25. In more elaborate sense unmarried person who are under 25 have spent 144 hours in week jointly.

Table 3   Number of hours vs Gender

No. of Hours spent vs Gender	
Gender	No. of Hours Spent
Female	187
Married	61
Unmarried	123
Others	03
Male	107
Married	64
Unmarried	41
Others	02
Grand Total	**294**

It tells unmarried females spent more time in reading in comparison to unmarried males

Table 4   Book Preference based on Age

Book Preference Based on Age	
Book Type	Text Book
Row Labels	Time Spent in Book Reading
Under 25	80
Female	12
Male	68
Between 25 -50	69

Female	42
Male	27
Above 50	27
Female	05
Male	22

It depicts that Text books are mostly preferred by students of under 25 ages. It is more in demand among female rather than male students.

Table 5   Time spent on reading religious book vs age group and gender.

Time Spent in Reading Religious Book	
Book Type	Text Book
Row Labels	Time Spent in Book Reading
Under 25	12
Female	10
Male	02
Between 25 -50	15
Female	11
Male	04
Above 50	12
Female	03
Male	09
Grand Total	**39**

Table 6   weekly Time spent vs Age Group

Time Spent in Reading Literature Book	
Book Type	**Text Book**
Row Labels	Time Spent in Book Reading
Under 25	57
Female	47
Male	10
Between 25 -50	59
Female	34
Male	25
Above 50	22
Female	04
Male	18
Grand Total	**176**

Table 7   Time spent in Reading Literature Book

Less than 8 hours spent by different age group	
Weekly Time Spent	Less than 8 hours

Age Group	Count of Weekly Time spent
Under 25	100
25-50	73
Above 50	26
Grand Total	**199**

It tells that female of age group under 25 are more interested in reading literature book than male who are under 25. Above 50 males are more reading literature books than female. More than 20 hours in a week are devoted by mostly who are youngster of aged under 25. Very few are those who devote more than 20 hours in reading of aged above 50.

Table 8 Literature books are more preferred by married person of age 25-50 years.

Literature Books preferred by different Martial Status	
Book Type	Literature Book
Under 25	57
Married	01
Unmarried	56
Others	00
25-50 Age	59
Married	45
Unmarried	13
Others	01
Above 50	22
Married	21
Unmarried	00
Others	01

Table 9   Book Type based on Gender and Age group

Preference of Book Type based on their Gender and Age Group	
Age Group	Count of Book Type
Under 25	38
Female	34
Male	04
Between 25-50	32
Female	21
Male	11
Above 50	13
Female	02
Male	11
Grand Total	**83**

Literature books are more preferred by married person having age 25 -50. Text books are maximum preferred by under 25 or in between 25-50 years. But male who are below 25 don't like much to read text book.

Table 10 Preference of book based on their location

Preference of Book Reading Based on their location	
Gender	Location: Bihar
Female	140
Under 25	110
25-50	26
Above 50	04
Male	72
Under 25	26
25-50	24
Above 50	22
Grand Total	**212**

Females of Bihar are more dedicated towards reading book as compared to male of Bihar. Other north eastern part has not much inclination.

Table 11 Weekly time spent by different age groups vs their marital status.

Weekly Time Spent by different age group vs Martial Status	
Age Group	Hours Spent
Under 25	146
Unmarried	144
Married	01
Others	01
Between 25-50	101
Unmarried	19
Married	81
Others	01
Above 50	47
Unmarried	01
Married	43
Others	01
Grand Total	**294**

Implementation and Results

Time Spent on Reading - The majority of female participants reported spending a significant amount of time in reading books each week. They mostly preferred literature books and text books. Varied preferences emerged with some dedicating specific time slots daily, while others preferred more extended reading session on weekends.

Influence of Age and Martial Status - Younger participants tended to allocate more time to reading, with a notable decline in older age group in north eastern zone of India. Marital Status had a moderate impact with single participants consistently spending more time on book reading compared to married individuals. Preferred Genres - Identified popular genres among female readers including literature, text book and religious book. Participants exhibited diverse tastes, indicating a rich literacy landscape within the female reading community.

Conclusion

This report provides insights into the reading habits of female, emphasizing the significant amount of time many women dedicate to book reading. The findings underscore the multifaceted nature of female readership, influenced by factors such as age, marital status and genre preferences. This knowledge can inform publishers, educators, and policymakers about the diverse needs and interests of female readers, potentially shaping future literacy initiatives. This research is initial work, further it will be investigated as number of hours spent on reading book affects the individual memory. Further author will find out that impact of artificial intelligence on human memory.

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