

Influence of Gender and Stream on Digital Reading Practices among College Students of Kamrup (M) District of Assam

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Abstract

The present study titled "Influence of Gender and Stream on Digital Reading Practices among College Students of Kamrup (M) District of Assam" investigates how gender and academic stream shape students' engagement with digital reading in the contemporary learning environment. With the growing integration of technology in education, understanding students' digital reading behaviour and their preference for print or digital resources has become vital for effective academic planning and digital literacy initiatives. The study aimed to examine digital reading practices among college students of Kamrup (Metro) District, Assam, to identify the influence of gender and stream on digital reading practices; and to assess reading preferences on the basis of gender and stream toward print and digital resources. A descriptive survey method was employed, and data were collected from 500 undergraduate students drawn from five provincialized degree colleges of Kamrup (M) District of Assam. The sample comprised 137 boys and 363 girls, representing 85 Science, 60 Commerce, and 355 Arts students. A semi-structured questionnaire administered through Google Forms served as the data collection instrument. The data were analyzed using suitable statistical tools, including the Chi-Square test, to explore differences based on gender and academic stream. The findings revealed that digital reading has become an essential part of students' academic and personal learning practices, with smartphones emerging as the most preferred medium for accessing digital materials. The analysis indicated no significant gender-based difference in students' preference for digital or print resources, confirming the first hypothesis. However, a significant stream-wise difference was observed, leading to the rejection of the second null hypothesis.

Keywords: Digital Reading Practices, Gender, Academic Stream, College Students, Kamrup (Metro) District.

Introduction

In today's technology-driven era, digital devices such as laptops, smartphones, and tablets have become integral components of everyday life. Their pervasive use has not only transformed how individuals communicate and access information but has also revolutionized educational environments. The integration of technology into classrooms has led to a paradigm shift in teaching, learning, and assessment, with digital tools being increasingly adopted for instructional as well as evaluative purposes. The emergence of paperless classrooms and the growing dependence on online platforms such as Moodle, Google Classroom, and Microsoft Teams illustrate the extent to which technology has influenced educational practices. This transformation became particularly evident during the COVID-19 pandemic, when online learning became the sole mode of instruction across the world, compelling both teachers and students to adapt rapidly to digital platforms.

One of the most notable areas affected by this digital transformation is reading. Traditionally, reading has been associated with printed materials; however, the evolution of technology has redefined this activity, giving rise to digital or electronic reading. Digital reading involves the use of electronic devices to access and interpret text, often in combination with multimedia features such as hyperlinks, images, and videos. This form of reading requires a unique set of digital literacy skills that extend beyond mere comprehension of text to include navigation, evaluation, and integration of information across nonlinear, multimodal environments. As a result, students' reading habits and strategies have undergone significant changes, leading researchers to explore how reading comprehension, engagement, and performance differ between digital and paper-based modes.

Global initiatives such as the Progress in International Reading Literacy Study (PIRLS) have also recognized the growing importance of digital reading by introducing electronic assessments (ePIRLS) alongside traditional paper-based tests. These developments highlight the need to understand how learners interact with digital texts and how various factors influence their reading behaviour and proficiency. Studies have shown that while digital reading offers flexibility and accessibility, it may not always facilitate deep comprehension and sustained

attention, as compared to paper-based reading. Factors such as text type, reading purpose, and screen-related distractions can affect learning outcomes. Furthermore, research findings have been mixed—some studies indicate a performance advantage for paper reading, while others suggest that digital reading proficiency is increasing, particularly among digital natives who have grown up using electronic devices.

Beyond the technological aspects, individual differences play a crucial role in shaping digital reading practices. Variables such as gender, academic discipline, and socio-economic background have been found to influence students' reading preferences, strategies, and performance. For instance, gender differences often emerge in reading motivation and engagement, with females generally exhibiting higher reading interest and comprehension. Similarly, the academic stream or discipline may affect exposure to digital resources, as students in science or commerce streams might rely more heavily on digital platforms for technical and research-based materials, while arts students may engage differently with literary or theoretical content. Understanding these differences is essential to designing equitable digital literacy interventions and fostering inclusive digital learning environments.

A review of existing literature on students' digital reading habits reveals a marked shift in reading behaviours driven by the rapid expansion and accessibility of digital media. Studies by Deval (2011), Shabani, Naderikharaji, and Abedi (2011), Ramesh (2012), Kala, Betageri, and Chandrapa (2013), Bajpai (2013), and Divya P. (2018) collectively highlight that while traditional print materials continue to hold value, students are increasingly inclined toward digital formats, particularly through mobile phones and laptops. Research further indicates that students from technical and engineering backgrounds are the most frequent users of e-resources, with those in IT-related fields demonstrating greater dependence on online materials compared to their peers in the arts (Abdul Karim et al., 2007). Investigations by Shen (2006), Saravanan and Mary (2007), and He et al. (2012) emphasize that students employ a wide range of digital resources for academic purposes, although social media platforms are seldom utilized for scholarly engagement. Findings from Singh (2009) and Jeong (2012) suggest that digital resources contribute positively to academic performance and learning efficiency; however, print materials still maintain a strong presence in students' academic routines. Several researchers have also underscored the importance of institutional initiatives—such as digital literacy training, enhanced access to e-journals, and the creation of supportive learning environments—to optimize digital reading practices. Overall, the literature indicates that digital reading is steadily gaining prominence, yet students' preferences and practices continue to vary across disciplines, devices, and educational contexts.

In the context of Assam, particularly the Kamrup (Metro) district—an educational hub that accommodates diverse student populations—the rapid digitalization of education presents both opportunities and challenges. While many students are proficient in using digital devices, the extent and nature of their digital reading practices remain underexplored. There is limited empirical evidence on how gender and academic stream influence the frequency, purpose, and effectiveness of digital reading among college students in this region.

Hence, the present study titled “Influence of Gender and Stream on Digital Reading Practices among College Students of Kamrup (M) District of Assam” seeks to investigate how these demographic and academic factors shape students' digital reading behaviours. By examining the interaction between gender and stream in the context of digital literacy, this research aims to contribute to a better understanding of contemporary reading patterns and their implications for higher education in the digital age.

Statement of the Problem

Influence of Gender and Stream on Digital Reading Practices among College Students of Kamrup (M) District of Assam.

Objectives of the Study

1. To study digital reading practices among the college students of Kamrup (M) District of Assam;
2. To identify influence of Gender and Stream on Digital Reading Practices among College Students of Kamrup (M) District of Assam; and
3. To assess the reading preferences of students on the basis of their Gender and Stream towards using print and digital resources.

Hypothesis of the Study

1. There is no significant gender-wise difference in the preference for using print and digital resources.
2. There is no significant stream-wise difference in the preference for using print and digital resources.

Methodology

This study adopted the descriptive survey method to examine the digital reading habits and preferences of undergraduate college students in Kamrup (Metro) District, Assam. The independent variables considered were gender and academic discipline (Arts, Commerce, and Science), while the dependent variables were digital reading habits and digital reading preferences. The study covered five provincialized general degree colleges of Kamrup (Metro) District — Radha Govinda Baruah College, Pandu College, Karmashree Hiteswar Saikia College,

Pragjyotish College, and B. Borooh College. A total of 500 students participated in the study, comprising 137 boys and 363 girls. Among them, 85 were from the Science stream, 60 from Commerce, and 355 from Arts. The sample was drawn proportionally to ensure adequate representation across gender and academic disciplines. Data were collected through Google Forms using semi-structured schedules specifically designed for the study. The collected data were analyzed using appropriate statistical techniques, including Chi Square test is used to determine whether there is significant to examine gender-based differences and variations across the academic streams.

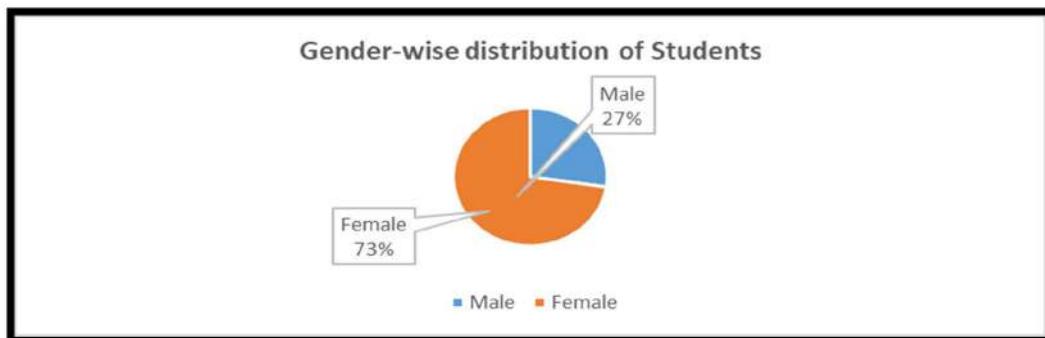
Result and Discussion

The collected data was compiled and analysed using MS Excel, for both descriptive analysis of quantitative data. The findings of the study are outlined below:

Table No. 1: Gender-wise distribution of Students

Gender	Frequency	Percentage
Male	137	27%
Female	363	73%

Figure No. 1: Gender-wise distribution of Students

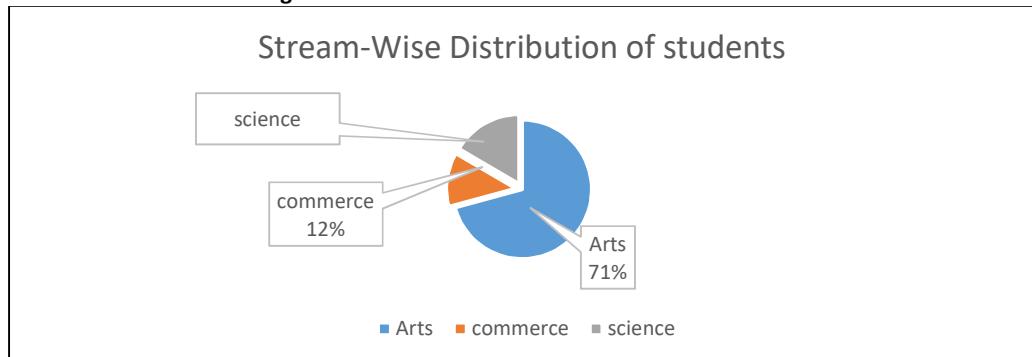


From the above Table-1 it is clearly observed that majority of the students are female (73%) while males form a minority in student sample (27%).

Table No. 2: Stream-wise distribution of students

Streams	Frequency	Percentage
Arts	355	71%
Science	85	17%
Commerce	60	12%

Figure No. 2: Stream-wise distribution of students

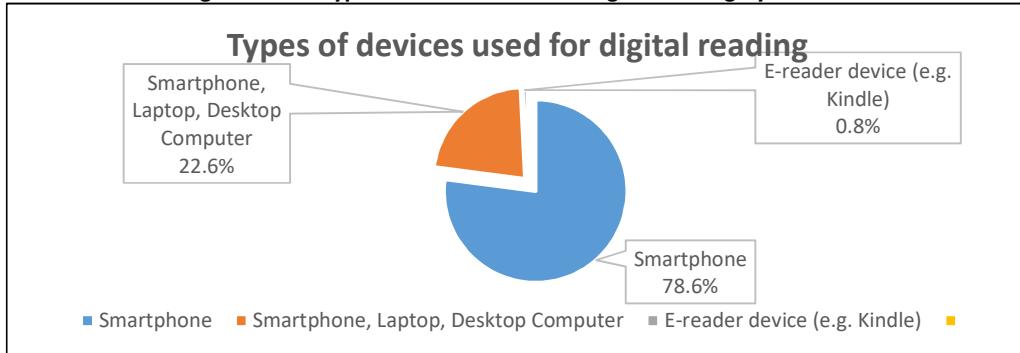


From the above table, it is observed that majority of the respondents belongs to the arts stream (71%) followed by science stream (17%) and commerce stream (12%).

Table No. 3: Types of devices used for digital reading by students

Types of Device	Frequency	Percentage
Smartphone	393	78.6
Smartphone, Laptop, Desktop Computer	113	22.6
E-reader device (e.g. Kindle)	4	0.8

Figure No. 3: Types of devices used for digital reading by students

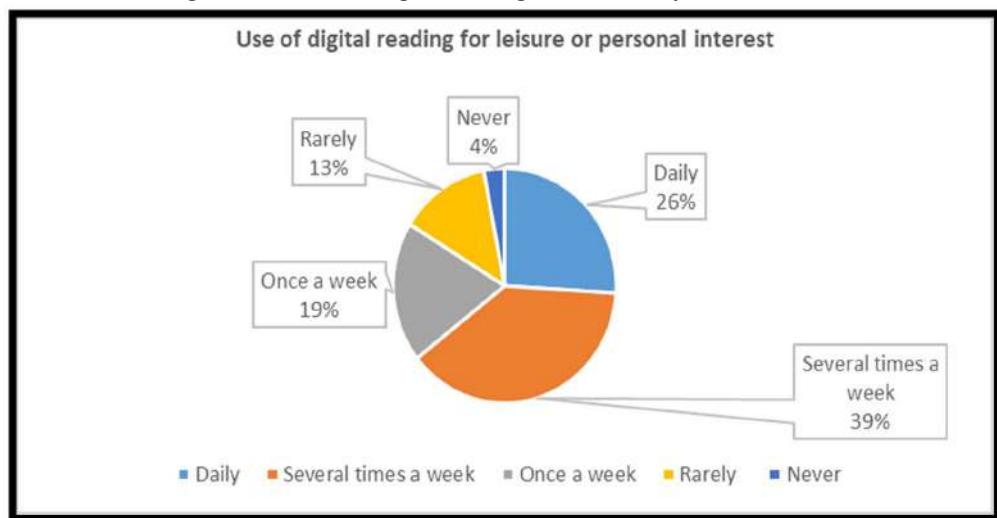


The above data presented in the Table No. 3 reveals the fact that majority of the students (78.6%) use smartphone for digital reading while 22.6% of the students used either smartphones, laptop or desktop computers for digital reading.

Table No. 4: Use of digital reading for leisure or personal interest

Response	Frequency	Percentage
Daily	130	26
Several times a week	192	38
Once a week	97	19
Rarely	66	13
Never	15	4

Figure No. 4: Use of digital reading for leisure or personal interest



From the above Table No. 4, it is observed that 38.4% of students do digital reading for leisure or personal interest several times a week, while 26% of the students do digital reading on a daily basis, 19.4% do once a week, 13.2% do rarely while 3% of students never engage in digital reading for leisure.

Table No. 5: Types of digital reading materials mostly used (textbooks, academic articles, novels and fictions, news articles, blogs or online articles, social media posts)

Types of materials used	Number of respondents	Percentage
Only one	113	22.6
Only two	93	18.6
Any three	67	13.4
Any four	50	10
All of the given options	33	6.6

From the above Table No. 5, it is observed that majority of the students 22.6% use only one material, 18.6% use only two type of materials, 13.4% use any three types, 10% use any four methods while 6.6 % use all of the given types. Remaining students did not respond to this question.

Table No. 6: Preferred modes of digital reading

Most Preferred Modes	Frequency	Percentage
Online	279	55.8
Offline	39	7.8
Both Offline & Online	64	12.8
By printout	13	2.6
All of the above	105	21

From the above Table No. 6, it can be observed that, majority of the students preferred online modes for reading digital material 55.8%, while 7.8% prefer offline mode, 12% both online and offline, 2.6 % by printout while 21% preferred all of the given methods.

Table No. 7: How frequently students take notes or annotate while reading digital content

Type of response	Number of Response	Percentage
Yes, frequently	196	39.2
Yes, occasionally	210	42
No, rarely	77	15.4
No, Never	17	3.4

The data above shows that the majority of students annotate while they read digitally. Although 39.2% of students annotate often and 42% annotate occasionally, 3% of students never take notes or annotate at all. But 16% of students rarely ever annotate.

Table No. 8: How students usually take notes or annotate while reading digital content

Most Preferred Modes	Frequency	Percentage
Highlighting within the digital document	123	24.6
Typing notes in a separate document	126	25.2
Using note-taking apps	70	14
Printing the content and writing by hand	181	36.2

From the above Table No. 8, it is observed that students annotate mainly by printing the content or writing it by hand (36.2%). While another fraction (25.2%) of students highlights the digital documents or type the notes in separate documents. Using note-taking app is the least chosen option for the students (14%).

Table No. 9: Preference for reading short form or long from content.

Response	Frequency	Percentage
Short-form	178	35.6
Long-form	54	10.8
Both short & long form	268	53.6

From the above Table No. 9, it is observed that majority of the students (53.6%) prefer both short and long form contents for the reading, while 35.6% of the students prefer short form content and 10.8% students prefer long form content.

Table No. 10: Types of content read digitally by students

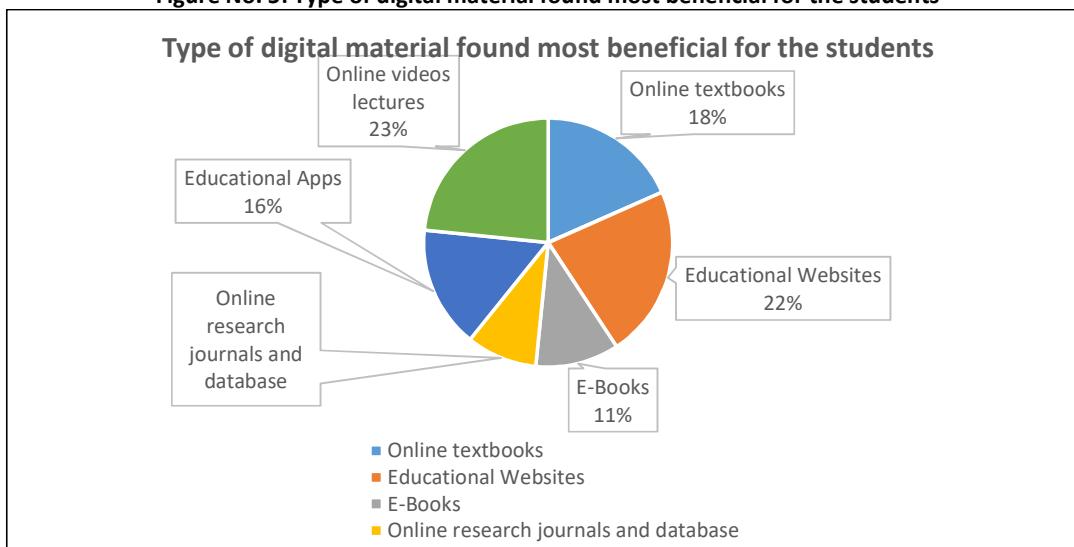
Types of materials used	Number of respondents	Percentage
Only one	113	22.6
Only two	93	18.6
Any three	67	13.4
Any four	50	10
All of the given options	33	6.6

From the above Table No. 10, it is observed that majority of the students 22.6% use only one material, 18.6% use only two type of materials, 13.4% use any three types, 10% use any four methods while 6.6 % use all of the given types. Remaining students did not respond to this question.

Table No. 11: Type of digital material found most beneficial for the students

Type of Digital Material	Respondents	Percentage
Online textbooks	90	18
Educational Websites	110	22
E-Books	55	11
Online research journals and database	50	10
Educational Apps	80	16
Online videos lectures	115	23

Figure No. 5: Type of digital material found most beneficial for the students



From the above table it is observed that online videos are the most beneficial digital material for the students (23%), followed by educational websites (22%), online textbooks (18%), educational apps (16%), E-books (11%), online research journals and database (10%) which is the least beneficial material for students.

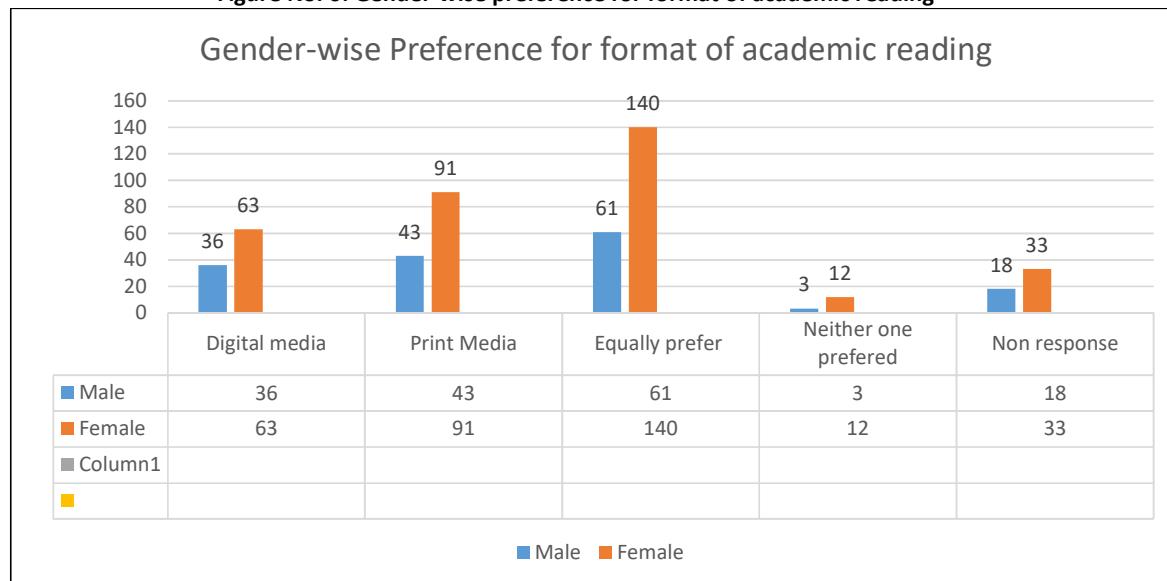
Table No. 12: The frequency in which students engage in digital reading

Frequency	Response	Percentage
Daily	130	26
Several times a week	195	39
Once a week	85	17
Rarely	65	13
Never	25	5

From the above table, it is observed that majority of the students (39%) engage in digital reading several times a week, while 26% of the students use for a daily basis, 17% once a week, 13% rarely and only 5% students who never engage in digital reading.

Hypothesis No. 1: There is no significant gender-wise difference in the preference for using print and digital resources.

Figure No. 6: Gender-wise preference for format of academic reading



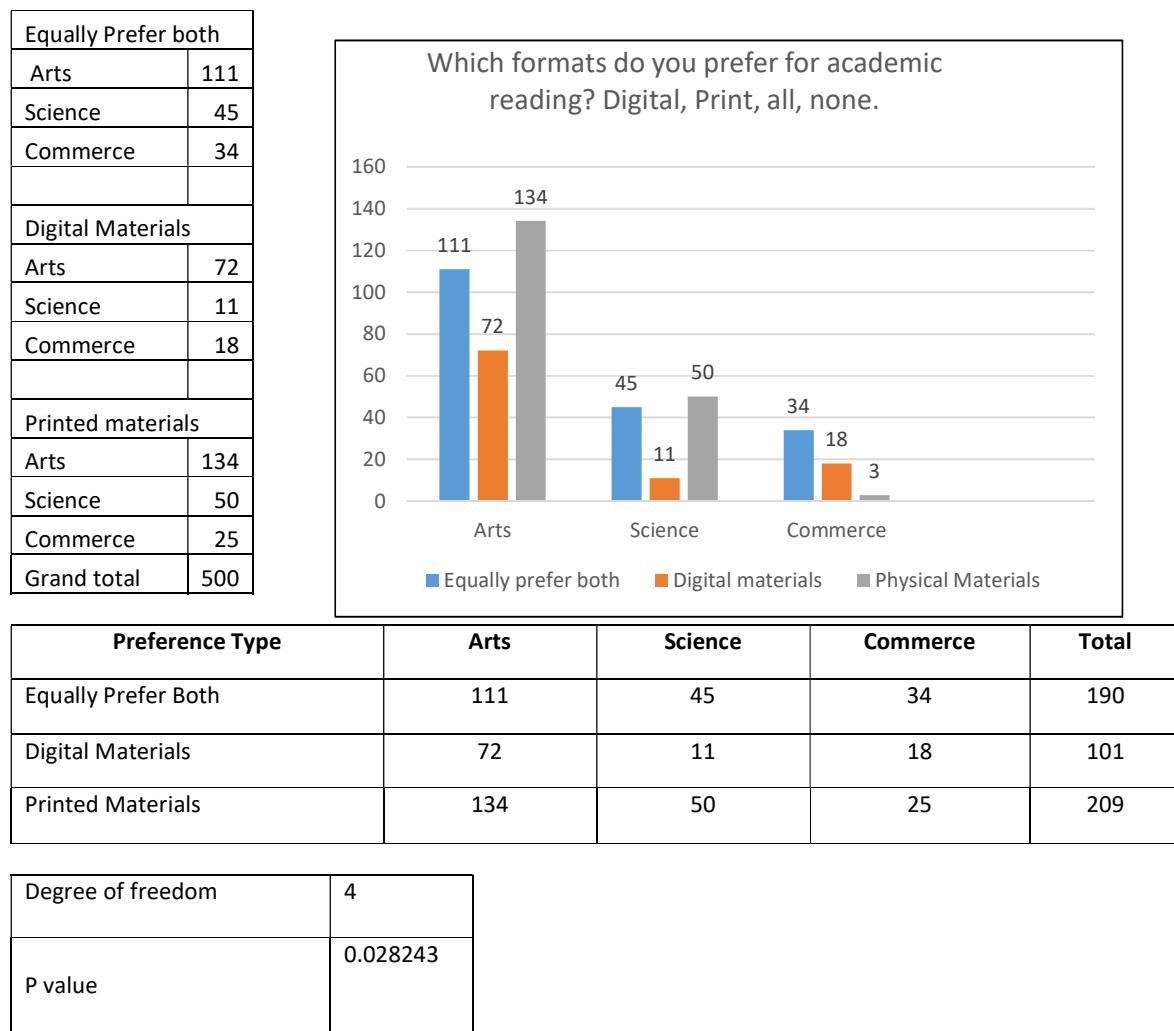
		Type of the material	
Type of Respondents		Digital	Print
Male		66	73
Female		133	161

Degrees of freedom	1
P value	0.661807

In the above, Chi Square test is used to determine whether there is significant gender-wise difference in the preference for using print and digital resources. Since P value = 0.661807 > 0.05, hence, the null hypothesis is accepted.

Hypothesis No. 2: There is no significant stream-wise difference in preference for using print & digital resources.

Figure No. 7: Which formats do you prefer for academic reading (digital, print, all, none)?



It is observed that majority of the students prefer to read both digital and physical materials (190) while physical materials is too of great choice for students (187). Digital materials are relatively less preferred. Using Chi Square test in the above distribution the P value calculated is found to be $p=0.028243$. The degree of freedom is 4. Therefore, at $\alpha=0.05$ significance level the null hypothesis is rejected. Thus, there is a significant difference between stream-wise preference for the given categories (digital and print materials).

Conclusion

The present study examined the influence of gender and academic stream on the digital reading practices of undergraduate students in the Kamrup (Metro) District of Assam. The investigation revealed that digital reading has become an integral component of students' academic and personal learning routines, with smartphones emerging as the most preferred medium for accessing digital content. Students frequently engage with a range of digital materials such as e-books, lecture notes, journals, and educational videos, reflecting a flexible and adaptive approach toward technology-enabled reading.

While gender did not appear to significantly influence digital reading habits or preferences, the study uncovered a stream-wise difference in students' inclination toward print and digital resources. Furthermore, the significant positive correlation observed between digital reading habits and preferences highlights that students who engage more frequently with digital platforms tend to develop stronger preferences for digital modes of learning. This relationship emphasizes the dynamic interplay between practice and preference, suggesting that habitual engagement can shape reading orientations over time.

The findings collectively suggest that digital reading is now a mainstream practice among college students in Kamrup (Metro), cutting across gender boundaries but showing discipline-specific tendencies. Educational institutions, therefore, must adopt a differentiated yet inclusive approach—strengthening digital infrastructure, expanding access to e-resources, and enhancing digital literacy training—while also preserving essential print resources to accommodate diverse learner needs.

In conclusion, this study contributes to the growing body of research on digital reading behaviour in higher education, offering actionable insights for educators, librarians, and policymakers. By understanding the nuanced patterns of students' reading practices, stakeholders can develop informed strategies to optimize digital learning environments, enrich academic engagement, and nurture lifelong, self-directed learners in an increasingly digital academic landscape.

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