

# Integrating Information Technology and Reading Teaching to Promote the Development of Students' Reading Ability

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**Abstract:** A survey was conducted among students from Class VI to VIII at Sarpang Middle Secondary School to understand their perception of the reading culture at the school. The survey also aimed to evaluate the impact of a recent reading program initiative during morning hours on their reading habits and how the development of ICT helped them inculcate reading habits. One hundred students were selected through multi-stage sampling and responded to reading-related questions using a questionnaire. The survey was conducted both before and after the intervention, and data collected were analysed using descriptive statistics and frequency distributions. This systematic review examines how information and communication technology (ICT) is used to teach reading in the classroom and its effect on students' behaviour and motivation. The results showed that most students spent 30 minutes to 1 hour on reading, with books and text provided through technology. Students understood 80% of what they read, and their teachers were reported as their primary source of inspiration for reading. Additionally, all respondents felt that the reading program using ICT was helpful in the post-test survey. Lack of interest and lack of time were the two main constraints students faced in cultivating reading habits, with fiction and non-fiction books, both print and digital, dominating their interests. Overall, the recent intervention of introducing a reading program using both e-readers and library books significantly impacted students' reading habits, with some slight negative differences observed.

**Keywords:** Reading habits, ICT, e-reading, library books.

## 1. Introduction

The world of education has undergone dynamic and strategic changes, with the teaching and learning process playing a significant role. While schools provide literacy, it should go beyond the classroom, textbooks, and exams to enable learning that expands students' horizons. According to Egong (2014), reading is an effective tool for academic progression, and there are no alternatives to excel academically if one cannot read well or not read at all. Schools also provide a platform for society to gain knowledge, fresh insights, and opportunities for a better life. However, academic structure and curriculum often limit learning in schools. In reality, many students find it challenging to explore and learn beyond the curriculum due to the additional effort required, such as proper time management and juggling multiple activities. Developing a daily reading habit could be a useful practice to enrich the learning process and enhance academic achievement. The reading habit complements classroom learning and provides an opportunity to undertake an incredible and cost-effective journey globally.

The internet is a remarkable technological advancement, defined as a global network of computers communicating via a recognized protocol. According to Jibrin et al. (2017), the internet provides an infinite supply of information resources available for people everywhere in the world to use simply. When used appropriately, the internet is a valuable tool for learning, teaching, and research. However, teenagers and secondary school students' reading culture is threatened by this technological advancement. Although technology is becoming more prevalent in modern Bhutanese society, the reading culture among secondary school students is rapidly declining. Students now consider reading a book or any other information resource in a quiet or peaceful corner of a library

or home an outdated concept. They would instead spend hours surfing the internet, playing games on mobile phones, chatting, and sending nonstop short message services (SMSs) instead of reading to learn new information. It is worrying when children, particularly those in secondary schools, lose interest in reading and spend more time online. To address this issue, action must be taken. However, unless there is empirical evidence, it may be wise to view the assertion that internet use is to blame for the declining reading culture as an assumption. The study "Students' perceptions towards the promotion of reading culture with the integration of ICT usage in school" is necessary to address this issue.

## 2. Broad Overview of the Topic

In the contemporary educational landscape, the promotion of a robust reading culture among secondary school students stands as a critical endeavour. The ability to read proficiently is not only a fundamental academic skill but also a gateway to a broader understanding of the world, fostering critical thinking and creativity. As educational paradigms evolve, the integration of Information and Communication Technology (ICT) into teaching and learning processes introduces new dynamics to the traditional concept of reading.

This research explores the complex interplay between students' reading habits, the influence of a school-based reading program, and the impact of ICT on these behaviours. Specifically conducted at Sarpang Middle Secondary School, the study engages students from Class VI to VIII, acknowledging the formative years of their academic journey. The investigation unfolds against the backdrop of a shifting paradigm where technological advancements, particularly the internet, pose both opportunities and challenges to traditional reading practices.

The introduction highlights the evolving role of schools in extending learning beyond prescribed curriculum boundaries. It underscores the importance of cultivating daily reading habits as a complementary practice to classroom learning, offering students a cost-effective means to broaden their intellectual horizons globally. The rise of the internet, portrayed as a valuable tool for learning when used appropriately, is simultaneously identified as a potential threat to the conventional reading culture among secondary school students.

As technology infiltrates daily lives, students' preferences and behaviours shift towards online activities, raising concerns about the declining interest in traditional reading. The study, titled "Students' perceptions towards the promotion of reading culture with the integration of ICT usage in school," is introduced as a crucial step towards validating assumptions about the impact of ICT on reading habits. The methodology involves a survey among one hundred students, strategically sampled, and employs both pre- and post-intervention assessments to gauge the influence of a reading program introduced during morning hours.

Key findings from the research indicate the duration students allocate to reading, their comprehension levels, and the sources of inspiration for their reading habits. Furthermore, the study delves into the students' reception of the reading program, incorporating e-readers and library books, and how these interventions influence their overall reading behaviours. While the findings highlight positive impacts, some nuanced negative differences are observed, emphasizing the need for a comprehensive understanding of the intricate relationship between technology and reading culture.

The research is situated at the intersection of educational psychology, information technology, and pedagogical strategies. Its implications extend beyond the confines of Sarpang Middle Secondary School, offering valuable insights for educators, policymakers, and researchers grappling with the challenge of rejuvenating reading cultures in the face of technological advancements. As societies navigate the digital age, understanding the symbiotic relationship between traditional reading practices and contemporary technological tools becomes paramount for fostering well-rounded, information-savvy individuals.

### 3. Research background

The landscape of education has evolved significantly in response to dynamic changes in teaching and learning approaches. While schools traditionally focus on imparting literacy within the confines of classrooms, textbooks, and examinations, the importance of fostering a culture of reading beyond these boundaries has gained recognition. Egong (2014) underscores the pivotal role of reading as an effective tool for academic progression, emphasizing that academic excellence is intricately linked to proficient reading skills. Despite the central role of schools in knowledge dissemination, academic structures often constrain learning within the defined curriculum. Many students face challenges in exploring knowledge beyond prescribed materials due to the demands of time management and multiple competing activities. Establishing a daily reading habit emerges as a valuable practice to enrich the learning process and enhance

academic achievement, offering students a cost-effective global journey of knowledge.

The advent of the internet, a global network facilitating communication among computers via recognized protocols, has revolutionized access to information. Jibrin et al. (2017) highlight the internet's role as an infinite repository of information resources, accessible globally with relative ease. When harnessed appropriately, the internet becomes a potent tool for learning, teaching, and research. However, this technological advancement poses a challenge to the reading culture among teenagers and secondary school students. Despite the prevalence of technology in modern Bhutanese society, the reading culture among secondary school students is on the decline. Traditional modes of quiet reading in libraries or homes are perceived as outdated, with students opting for internet browsing, mobile gaming, and continuous messaging, contributing to a diminishing interest in traditional reading practices.

The perceived threat to the reading culture necessitates a comprehensive investigation to validate claims and inform potential interventions. The study titled "Students' perceptions towards the promotion of reading culture with the integration of ICT usage in school" aims to bridge this gap in understanding. While assumptions suggest that internet use may be responsible for the decline in reading habits, empirical evidence is crucial to ascertain the true impact of Information and Communication Technology (ICT) on students' reading behaviours and motivations. The research specifically targets students from Class VI to VIII at Sarpang Middle Secondary School, utilizing a survey methodology to explore their perceptions of the existing reading culture, evaluate the influence of a recent reading program, and assess the role of ICT in shaping their reading habits. Through systematic data collection and analysis, the study seeks to provide insights that can guide interventions and strategies to rejuvenate the waning reading culture among secondary school students in the context of evolving technological landscapes.

In the subsequent sections, the study will delve into the methodology employed, key findings, and implications of the research, offering a comprehensive exploration of the intricate relationship between ICT, reading habits, and the broader educational landscape.

### 4. Situational Analysis

Sarpang Lower Secondary School, which accommodates a total of 1500 students, is situated 32 km from Gelephu town. Despite having a decent reading facility in the form of a library and good internet facilities in the e-library, the school has a weak reading culture. This could be due to the students' inability to develop the reading habit on their own, which necessitates motivation to fuel their drive. Therefore, the school believes that instilling motivation in students to cultivate a reading habit through the integration of ICT could be a vital factor.

In order to promote a reading culture and ensure that every student values reading as an essential activity, the school administration and teachers collaborated to launch a reading program for students in the 2022 academic year, alongside the introduction of an e-library in the school. This program

involved daily reading sessions during the morning assembly, and to promote ICT learning, the school provided access to e-learning and Wi-Fi on the school premises.

## 5. Literature Review

Acquiring knowledge through reading is vital, and successful reading can enhance the quality and quantity of one's knowledge, as well as improve their ability to handle various academic subjects efficiently (Rraku, 2013). The issue of students' reading habits has received significant attention since the emergence of ICT. According to Yusuf (2015), this issue is critical as it is necessary to prepare school-age children to handle the demands of the modern world. Saka et al. (2012) suggest that children should be exposed to a culture of reading from a young age, as early encouragement can shape them into lifelong readers. Developing a reading culture takes time, and the aim is to instil in them the value of reading, so it is equally cherished with sports and other leisure activities. This can help mitigate the negative impact of bad media.

Kolawole (2005) reported that the impact of super reading skills on students' grades and career prospects is inconsistent. Saka et al. (2012) observed that most students primarily read to complete assignments and pass exams, implying that they may lose interest in reading when not compelled to do so. The Internet has become a popular alternative to reading, as noted by Chen et al. (as cited in Almasi et al., 2017), which can be detrimental to the reading habits of secondary school students. However, the same study revealed that internet usage among students can have both positive and negative effects on their academic and personal lives. Some studies have also suggested that using the internet can lead to better academic outcomes for students.

Research conducted by Davis (2001), Widyanto and Griffiths (2006), Odaci and Kalkkan (2010), and Odaci (2011) suggests that the use of the Internet can have either negative effects or no significant impact on students' learning outcomes. Young (as cited in Almasi et al., 2017) argued that students' academic progress can suffer due to their excessive use of the Internet. However, Olatokun (2008) and Nwagwu et al. (2008) found that students primarily use the Internet for academic purposes, such as studying for tests and assignments, rather than for recreation. Despite some students using the Internet more than their school libraries, it helps them develop good reading habits and enhances their academic performance by providing them with access to general knowledge. Tarimo and Kavishe (2017) suggest that giving Internet access and promoting its use in schools can increase students' access to vast amounts of knowledge available online, thus boosting their learning. While the Internet has given students access to new opportunities, as noted by Chen and Fu (2009), excessive use for networking and gaming can negatively impact reading habits, exam scores, academic achievements, and personal development. Therefore, it is important for students to use the Internet wisely and avoid excessive usage that can lead to distraction and poor academic performance.

Chalukya (2021) suggests that utilizing ICT gadgets for reading can offer a way for individuals to expand their knowledge, curiosity, and understanding of themselves,

others, and the environment. In today's highly educated culture, internet reading has become a crucial means of communication and education. Schools, as social educational institutions, are designed to prepare citizens for national development. Regardless of the level of education, reading is a fundamental aspect that characterizes a student's life.

Yebowaah (2018) and Akande and Bamise (2017) conducted studies similar to Adedotun's (as cited in Yebowaah, 2018) and found that secondary school students' academic performance is affected by their access to information through the Internet. According to Sahin et al. (2010) and Yebowah (2018), the use of reliable Internet sources is especially important for academic activities, particularly in high-level courses that require a review of academic literature. This is supported by Kim's (as cited in Yebowaah, 2018) claim that the Internet is crucial for academic success among adolescents as it enables easy communication with other academics and broadens subject matter knowledge. Almasi et al. (2017) cited Chen et al. who highlighted that while the Internet is beneficial to students, excessive use of chat and pornography addiction among secondary school students can negatively impact their academic performance and life after school. Appropriate direction of Internet use is important to achieve academic success among secondary school students, according to Fuchs and Woessmann (2004) and Kuhlemeier and Hemker (2007). Downes (2002) suggested that secondary school teachers should be aware of their students' access to and use of the Internet at home to personalize their curriculum. Furthermore, Campagna (as cited in Almasi et al., 2017) recommended that teachers should help students develop independent reading strategies as a result of their reading habits.

### Problem Statement

An increasing number of individuals are opting for digital materials in lieu of print books. The advent of the digital age has made online or digital reading more accessible, bringing it closer to people and reducing the expense of purchasing conventional books. This has resulted in a decline in library usage and quietness, as noted by Balan et al. (2019), who revealed that technology and social media distractions have contributed to a decrease in reading habits and enthusiasm among students. Despite the widespread use of digital reading, there are several issues or factors that negatively impact individuals' reading habits, particularly among students, including demographics, the influence of digital media and ICT, a lack of interest in reading, and new reading standards during emergencies. This study aims to examine how students' reading behaviours, especially those attending vision schools, impact their academic achievement.

### Research Objective

The objectives of this study are to:

- 1) To find out time spent in reading by the student of Sarpan LSS.
- 2) Different aspects of reading experienced by the students.
- 3) Challenges face by the student in developing reading habits.
- 4) Assess the impact of digital use in promoting reading habit on students' reading behaviours.

### Research questions

- 1) To what extent has the recent reading program, incorporating e - readers and library books during morning hours, influenced the reading habits of secondary school students (Class VI to VIII) at Sarpang Middle Secondary School?
- 2) How do Information and Communication Technology (ICT) tools, particularly the use of the internet, influence the reading preferences and behaviours of secondary school students in the digital age, and what role do teachers play as inspirations for reading?
- 3) What are the perceived constraints and challenges faced by secondary school students at Sarpang Middle Secondary School in cultivating reading habits, and how do these factors differ between print and digital reading materials?

### Significance of the study

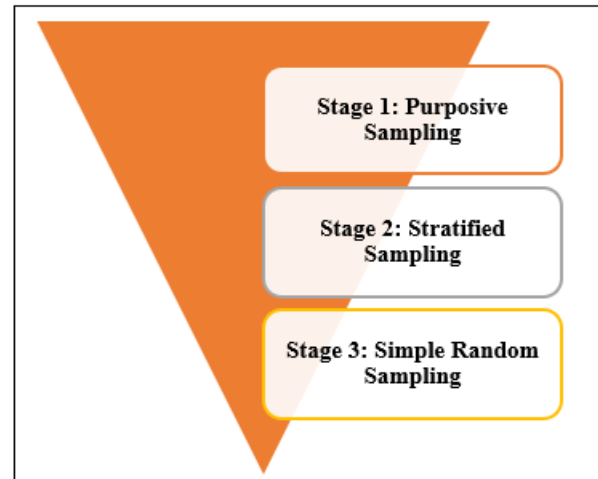
The study's importance can benefit various communities, including students, educators, publishers, and future researchers. The school has implemented a reading program that has been well - received, but there is a lack of scientific documentation to determine its overall impact. This research would be particularly beneficial to students who must recognize the significance of reading and its effect on academic progress. To meet the requirements of independent reading, students require support from school and home and encouragement to engage in reading - related activities. With the shift to digital technology, teachers, publishers, and software developers may collaborate to create engaging and cost - effective digital materials based on data on student reading habits and behaviours. Consequently, educational institutions need to adapt their procedures to create an inviting environment that encourages students' digital reading habits.

Teachers should encourage their pupils to read and serve as role models for reading. This study provides extensive data on the development of digital reading habits that can benefit future researchers. Balan et al. (2019) recommend that further studies be conducted at other universities to examine practical strategies for promoting college students' reading habits, which have an impact on their academic success.

## 6. Methodology

### Data analysis

The research design of this study utilized the mixed - mode method, which involved the collection and analysis of both qualitative and quantitative data. To gather data, survey questionnaires was employed as the primary tool. Pre - test and post - test surveys were carried out using the same set of questionnaires to compare the data obtained before and after the implementation of the reading program in the school. A multi - stage sampling method utilized during the survey process, as described below:



**Figure 1:** The study utilized visual aids to depict the multi - stage sampling methods employed.

### Participants

In the first stage of sampling, the study intentionally selected only Classes V to VIII in order to obtain precise information relevant to the survey questions, as it was assumed that the younger classes may not fully comprehend the questionnaire. As Class VII were divided into two sections, A and B, there were a total of five sections involved in the survey: Classes V, VI, VII A, VII B, and VIII.

In the second stage of sampling, a stratified sampling technique was employed to ensure that an equal percentage of male and female students were represented from every class. Each class were divided into two separate homogeneous groups consisting of male and female participants.

During the final stage of sampling, 10 male and 10 female students were randomly selected from each class, resulting in a total of 20 participants per class with an equal male - female ratio. Consequently, 100 students participated in the survey, as shown in Table 1.

**Table 1:** Characteristics of the respondents

Category	Particulars	Subcategory	Count	% by gender across each Standard
Standard	V	Male	10	50
		Female	10	50
	VI	Male	10	50
		Female	10	50
	VII A	Male	10	50
		Female	10	50
	VII B	Male	10	50
		Female	10	50
	VIII	Male	10	50
		Female	10	50
Total	5		100	50%

The data collection parameters will include the number of hours spent reading, the source of reading inspiration, the perceived usefulness of reading time, the level of understanding of the material, the types of books read, and reading challenges.

### Research tools

This research utilized questionnaires and written tests as data - collection tools. The questionnaire was adapted from two prior studies (Clark & Foster, 2005; Long et al., 1984) that

examined reading habits and was subsequently adjusted to align with the objectives of this study. The questionnaire was designed using a Five - point Likert scale and comprised 56 items covering aspects such as reading materials, motivation, location, duration, time allocation, and reading activities. This comprehensive approach was chosen because reading habits are quantifiable through various facets, including the types of reading materials, reading frequency, time spent on reading, duration of reading sessions, and the motivation behind reading (Wagner, 2002). The array of reading materials encompassed newspapers, magazines, books, and online resources. The participants were instructed to complete the questionnaire within a timeframe of 15 - 20 minutes, with a clear explanation of the concept of reading habits and the study's objectives provided to them. Descriptive statistics were used to analyse the data collected from the participants, and SPSS tool was used for this analysis.

**Reliability and validity**

To ensure the reliability and validity of the research instruments, researcher conducted an evaluation to determine their relevance and practicality, subsequently refining the questionnaire items. As per the definition provided by Airasian and Gay (2003), validity refers to an instrument's capability to measure the intended research variables accurately. Following this evaluation, the questionnaire items were assessed using the Cronbach Alpha formula, originally developed by Cronbach (1951).

The questionnaire was then administered to a selected sample of 100 students of grade V - VIII. The analysis revealed a Cronbach Alpha coefficient of 0.791 concerning the assessment of students' reading habits, indicating a high degree of reliability, as described by Wiersma (2000). Cronbach Alpha is calculated based on the average inter - correlation among items.

Additionally, this study will employ a Normal V - VIII plot to assess whether the data exhibited a normal distribution, a crucial prerequisite for parametric analyses like objective testing, as explained by Abu Bakar (2007) and Park (2008). In this context, normal distribution is indicated when data

points align along straight lines. The data under scrutiny in this study demonstrated consistent variance, devoid of discernible patterns. Consequently, linearity and homoscedasticity were assumed as part of the analysis.

**7. Results and Discussion**

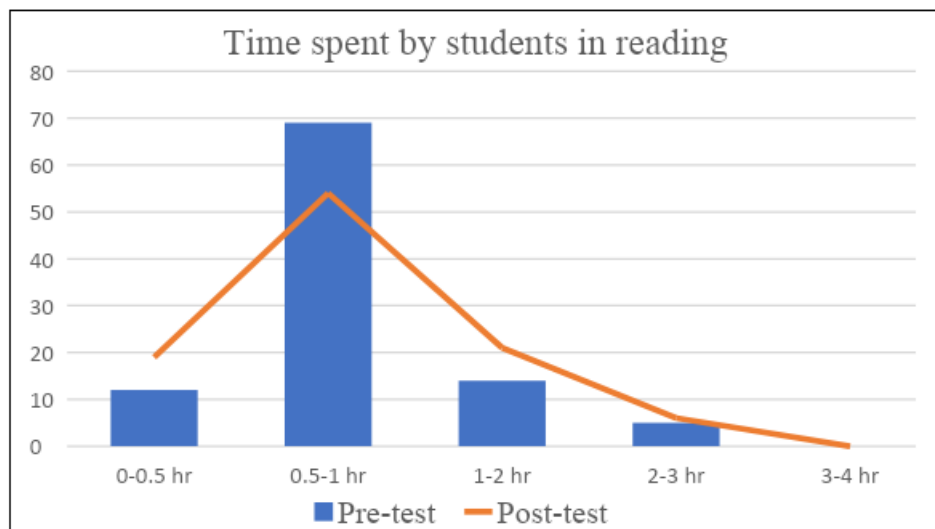
**Objective 1: Time spent in reading by student of Sarpang MSS**

The study's findings revealed that the majority of students (69%) spent between 30 minutes to one hour on reading, with only a small percentage (5%) reading for 2 - 3 hours, and none exceeding three hours (as shown in Table 2). It is noteworthy that after the implementation of the reading program in the school, the pattern of time spent reading remained consistent, as minimal differences were recorded between the pre - test and post - test data (as illustrated in Fig.2). However, there was an increase in the number of students who read for 0 - 30 minutes and 1 - 2 hours, with a rise of 58.3% and 50%, respectively.

Following the intervention, there was a notable 21.7% decrease in the number of students who read for half an hour to an hour. This could be due to the possibility that more students have opted to read during the designated reading hour in the morning, leading them to stop reading during their free time.

**Table 2:** The table below illustrates the frequency of pre - test and post - test data regarding the amount of time spent on reading.

Category	Subcategory	Pre - intervention		Post - intervention	
		Count	Percentage	Count	Percentage
Reading hours	0 - 30 mins	12	12	19	19
	30mins-1hr	69	69	54	54
	1 - 2 hrs	14	14	21	21
	2 - 3 hrs	5	5	6	6
	3 - 4 hrs	0	0	0	0



**Figure 2:** A comparison was made between the pre - test and post - test data regarding the amount of time spent on reading

**Objective 2: Different aspects of reading experienced by the students.**

**Source of Inspiration for reading**

In the pre - test survey, almost an equal proportion of students reported that their inspiration for reading came from parents, teachers, friends, and other sources, with little variation. However, the survey revealed that teachers were the primary source of inspiration for reading among the students. The post - test data showed similar results, with minimal changes observed. Nonetheless, the percentage of students who

reported their parents as their source of inspiration declined from 27% to 5%.

**Was reading program useful?**

During both the pre - test and post - test surveys, the majority of students expressed agreement that the reading program was beneficial to them. While the percentage of agreement reached 100% in the post - test survey, the difference between the two surveys was minimal. Therefore, it can be assumed that the reading program had little impact on the students' perception of its usefulness.

**Table 3:** The table below displays the frequency of pre - test and post - test data regarding different aspects of reading.

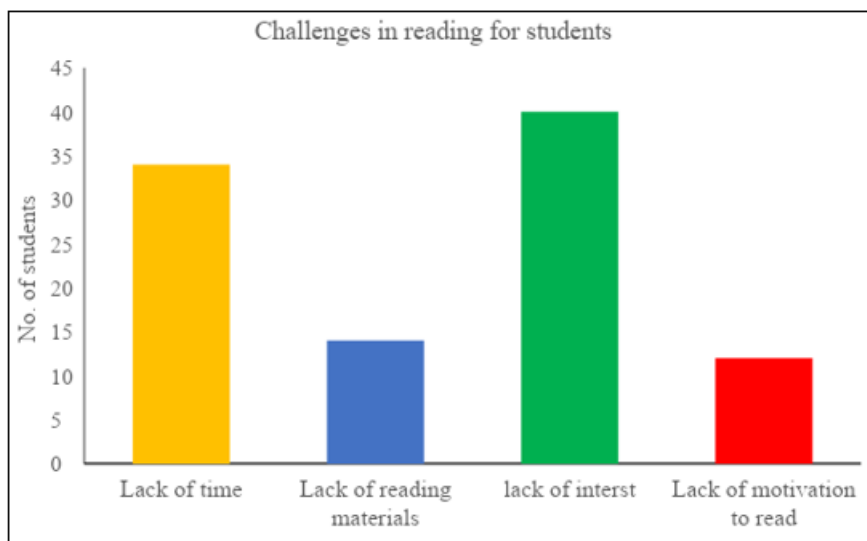
Category	Subcategory	Pre - intervention		Post - intervention	
		Count	Percentage	Count	Percentage
Source of inspiration	Parents	27	27	5	5
	Teachers	30	30	36	36
	Friends	23	23	26	26
	Others	20	20	4	4
Usefulness of Reading hour	Yes	98	98	100	100
	No	2	2	0	0
Level of understanding in what they read	100%	13	13	15	15
	80%	60	60	66	66
	50%	25	25	7	7
	< 30%	2	2	5	5

**Level of understanding what students read**

In the pre - test survey, the majority of students reported understanding 80% of what they read, while only a small percentage of students understood less than 30%. The post - test data showed similar results, with a 15.38% increase in the number of students who understood 100% of what they read and a 10% increase in the number of students who understood 80%. After the introduction of the reading program, the

percentage of students who understood 50% of what they read decreased to 7%. However, overall differences were minimal, and the general trend of the observations remained consistent even after the intervention.

**Objective 3: Challenges face by the student in developing reading habits**



**Figure 3:** The following are the challenges in reading based on the survey conducted at Sarpang school

The survey revealed that students face various challenges in adopting reading as a daily habit, including lack of interest, lack of time, lack of reading materials, and lack of motivation (as shown in Fig.3). The majority of students reported lack of interest (40%) and lack of time (34%) as reasons for not being able to adopt the reading habit. The results also indicated that lack of reading materials and motivation to read were less significant reasons for the poor reading culture in the school. This may be due to the presence of reading materials and a

well - stocked library in the school, as well as the constant motivation provided by teachers, who emphasize the importance of reading in developing various skills.

**Objective 4: Assess the impact of digital use in promoting reading habit on students' reading behaviours**

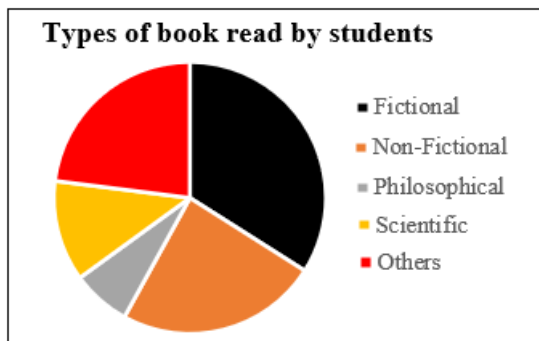


Figure 4: Types of book students read

According to the survey, the majority of students (34%) enjoy reading fictional books, while 24% prefer non-fictional books. On the other hand, philosophical (7%) and scientific (12%) books are the least preferred genres. This suggests that students are more interested in reading books that offer fictional stories rather than those related to their regular academic subjects, such as science. This could be due to the fact that students often seek new and diverse material that deviates from their daily academic routine.

Table 4: Students' reasons for use of the internet (N - 100)

S/N	Items Statement	SA	A	D	SD	Mean	Decision
1	I use the internet for study purpose	19	41	18	22	2.69	Agreed
2	To prepare for examination	17	35	22	26	2.79	Agreed
3	To do my assignment	39	31	20	10	2.67	Agreed
4	To chat with friends	36	24	21	19	3.23	Agreed
5	To watch movies	40	23	15	22	2.65	Agreed
6	To get information	25	38	22	15	2.69	Agreed
7	To meet new friends	25	41	14	20	3.12	Agreed
8	To improve my reading habits	26	22	20	32	1.94	Disagreed
9	To improve my grades in school	23	17	23	37	2.09	Disagreed
10	To be like others	17	40	22	21	2.33	Agreed

Source: Researcher's Field Survey

Key: SA – Strongly Agreed; A – Agreed; D – Disagreed; SD – Strongly Disagreed

Table 4 displays the findings from the survey conducted at Sarpang School, which aimed to understand the reasons why students use the Internet. The results indicate that the majority of students use the Internet for various purposes such as research (2.99), test preparation (2.79), and assignment completion (2.67). Other common uses include chatting with friends (3.23), watching movies (2.65), and gathering information (2.97). Some students also reported using the Internet to make new friends (3.08) and imitate others (2.33). However, only a few respondents (1.94 and 2.09, respectively) stated that they used the Internet to improve their academic achievement and expand their reading habits.

Based on the means obtained from the aforementioned findings, it can be concluded that the students at Sarpang MSS use the Internet for various reasons other than enhancing their reading skills and academic performance. Test preparation emerged as the purpose with the highest mean score (2.79). These results are somewhat consistent with the findings of Luambano and Nawe (2004) who found that the duration of time students spend online is greatly influenced by the tasks that require internet usage. The study further revealed that students only resort to using the Internet when their teachers assign tasks that necessitate online research.

Table 5: The impact of students' use of the Internet on their reading habits (sample size: 100).

S/N	Items Statement	SA	A	D	SD	Mean	Decision
1	It enhances my reading ability	20	12	52	16	1.07	Disagreed
2	It makes me active in class	24	34	26	16	3.96	Agreed
3	It increases my reading attention span	16	29	39	18	1.16	Disagreed
4	It helps me to have a better understanding of what I am reading	25	43	10	22	3.12	Agreed
5	Chatting with friends keeps me awake to read what I am reading	24	35	25	16	2.71	Agreed
6	Internet articles motivate me to read	17	40	23	20	2.37	Agreed
7	The internet distracts my reading	17	50	13	20	2.24	Agreed
8	The internet exposes me to unimportant articles and write - ups	24	25	14	37	3.12	Disagreed

Source: Researcher's Field Survey

Key: SA – Strongly Agreed; A – Agreed; D – Disagreed; SD – Strongly Disagreed

Table 5 presents the responses received from Sarpang School students regarding the effects of Internet use on their reading habits. The results indicated that six out of eight perceived influences had a significant impact on the students, with mean scores of 3.96, 3.12, 2.71, 2.37, 2.24, and 3.12, respectively. These impacts include keeping students up at night to read, motivating them to read, exposing them to unimportant articles and write-ups, and helping them comprehend what they are reading better. However, the majority of respondents disagreed with item statements 1 and 3, which claim that the

Internet improves their reading ability and attention span. The study found that the negative effects of Internet use outweigh the positive effects, as it distracts students from reading and fails to improve their reading skills and focus. These findings are consistent with previous studies that showed a negative impact of Internet use on students' learning outcomes. The authors suggest that if students have access to education, they will use the Internet more for research and learning, leading to an improvement in their study and reading habits.

## 8. Conclusions and Recommendations

According to the study, the reading program implemented in the school did not have a significant impact on the students' reading habits, as there were minimal differences in the observations before and after the intervention. However, it was found that the students' use of ICT had a positive effect on reading and boosted their reading habits. Therefore, it is crucial to address the challenges students face in reading, as observed, rather than implementing random solutions. Lack of time and interest remained significant challenges even after the reading program was introduced, indicating the need for further strategic interventions. Further studies may also be conducted to investigate how these challenges affect students' attitudes towards reading as a learning method. Through such investigations, strategies that allow students to read more while also handling academic subjects could be developed.

The results of the survey align with a previous study that investigated Sarpang School students' use of the Internet and found that a large proportion of them utilized it for social media and email rather than for educational purposes. In addition, the survey highlighted that some students were misusing the Internet by playing electronic games during school hours, which had a detrimental effect on their reading habits and academic performance overall. Manda's (2005) findings suggest that many students are unaware of the Internet's potential for academic research and instead use it for less important reasons, which may explain the negative effects observed in previous studies. The study also found that teachers and parents played a significant role in promoting online reading among students. Therefore, continued support and guidance from educators and parents could aid in encouraging students to incorporate ICT reading into their daily learning and self-improvement routines. For instance, teachers could deliver inspirational talks between academic periods to boost students' enthusiasm towards technology-based reading, fostering a sense of responsibility towards becoming successful individuals in the future. Although a lack of library reading materials was one of the least significant challenges, it would be wise to update the resources and ensure diversity so that students have access to a range of reading materials that match their preferences.

A suggestion that could be made is to offer guidance to students during their reading sessions to aid them in comprehending the material they read, as well as directing them to beneficial e-reading resources. When students lose track of the meaning and overall context of the material, they may become less engaged. Furthermore, clarifying unfamiliar phrases, sentences, or words could motivate them to continue reading and enhance their vocabulary through both e-reading and traditional book reading.

According to the study, the reading program was found to be very useful, and all respondents approved of the intervention. As a result, it may be suggested that reading periods be held in all classes throughout the academic year to highlight the importance and advantages of reading and to foster a strong reading culture in the school.

Based on all the observations from the study, several actions may be taken to foster a reading culture in the school, including:

- To foster reading habits in the school, the following actions could be considered:
- Scheduling the first hour of the morning for a reading period instead of an assembly
- Teaching reading strategies to students to help them develop good reading habits
- Motivating students through talks given by their class teacher or other teachers
- Guiding and assisting students during the reading period
- Encouraging students to allocate 15 minutes of compulsory reading time after school, both from online sources and books from the library
- Keeping track of reading progress by recording the number of pages read per day, whether online or from a book (as first initiated during the 2019 lockdown period by the Voluntary Teachers of Bhutan/VTtoB)
- Offering counselling services to students who struggle to adopt reading as a habit
- Providing a web link to access online books
- Creating a Telegram group to share selected reading materials as resources
- Sharing e-books with friends.

## 9. Limitations

The research was carried out by collecting students' responses through a survey questionnaire and observations were made to establish a baseline understanding of the reading program's effectiveness. However, the conclusions derived from the findings should not be considered absolute as there could be several other factors that influence students' attitudes towards learning from books and the internet. It is crucial to note that this study is specific to students in grades V - VIII of Sarpang School and cannot be generalized to other schools or communities. Furthermore, there is a need for additional research that utilizes comprehensive research designs and methodologies to clarify the results.

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