Effect of Digital Digital usage on Study Habits among Student Teachers

VISHMITHA R K

24PED014

A THESIS SUBMITTED TO

AVINASHILINGAM INSTITUTE FOR HOME SCIENCE AND HIGHER EDUCATION FOR WOMEN
COIMBATORE- 641043

In Partial Fulfilment of the Requirements
for the Degree of
MASTER OF EDUCATION

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UNDER THE GUIDANCE OF

Ms. T. PREMALATHA

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CERTIFIED AS BONAFIED RESEARCH WORK

Signature of Guide	**Signature of the Head of the Department**	**Signature of Dean**

DECLARATION

DECLARATION

I, **VISHMITHA R K**, hereby declare that the thesis entitled **"Effect of Digital Device usage on Study Habits among Student Teachers"** submitted to Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, in partial fulfillment of the requirements for the award of the **Degree of Master of Education,** is a record of original and independent research work done by me during the period under the supervision and guidance of **Mrs . T. Premalatha, Assistant Professor , Department of Education,** Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, and it has not formed the basis for the award of any Degree/ Diploma/ Associateship/ Fellowship or other similar title to any candidate of this or any other University.

Vishmitha R.K.
Signature of the Student

T. Premalatha
Signature of the Guide

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INTRODUCTION

CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

Education has always been considered one of the most powerful tools for the development of individuals as well as society. Through education, people gain knowledge, develop different skills, and build values that guide their personal and professional lives. Over the years, the educational system has changed considerably, mainly because of the rapid growth of science and technology. In the present digital era, learning is no longer restricted to classroom walls, textbooks, or traditional teaching methods. Instead, technology has become an important part of the educational process.

Digital devices such as smartphones, laptops, tablets, and desktop computers are now widely used by students and teachers. These devices make it easier to access information quickly and allow learners to explore a wide range of educational resources available on the internet. Students can participate in online classes, watch educational videos, download learning materials, and communicate with teachers and classmates through digital platforms (Selwyn, 2016).

For student teachers, digital devices serve multiple purposes. On the one hand, they support academic activities such as attending virtual lectures, preparing assignments, designing lesson plans, and accessing academic articles or e-books. On the other hand, digital technologies also help them develop professional competencies. For example, student teachers can learn to use presentation tools, educational software, and digital teaching resources that may later help them in their teaching careers.

However, the use of digital devices also raises certain concerns. While these devices are useful for academic purposes, they are also frequently used for entertainment activities such as social networking, video streaming, and gaming. When students spend excessive time on such activities, it may lead to distraction and reduced focus on academic work (Rosen, Lim, Carrier, & Cheever, 2011).

Study habits play a crucial role in determining students' academic performance. Study habits include various practices such as organizing study time, taking effective notes, revising lessons regularly, preparing for examinations, and maintaining concentration during learning activities. Students who develop systematic study habits are more likely to achieve better academic results (Credé & Kuncel, 2008).

Digital devices can support good study habits when they are used appropriately. For example, students can access online libraries, educational applications, and digital study materials that enhance learning. At the same time, excessive use of digital devices may negatively affect concentration, time management, and academic engagement.

Digital device usage has become an integral part of modern education, especially among student teachers. The increasing reliance on smartphones, laptops, and tablets has significantly transformed the way students access information, communicate, and manage their academic responsibilities. While these devices provide numerous educational benefits such as quick access to online resources, digital libraries, and interactive learning platforms, they also pose challenges in maintaining disciplined study habits.

Excessive use of digital devices can lead to distractions, reduced concentration, and poor time management, which may ultimately affect academic performance. Therefore, it is essential to understand both the positive and negative implications of digital device usage in order to promote effective study practices among student teachers.

Student teachers represent the future teaching community. Therefore, their study habits and learning behaviors are particularly important. The way they manage their learning and use digital technology will influence not only their own academic success but also the learning environment they create for their future students.

1.2 BACKGROUND OF THE STUDY

The influence of digital technology on education has increased significantly in recent years. Many educational institutions now integrate digital tools into their teaching and learning processes. Online classes, electronic learning materials, and digital educational platforms have become common features of modern education. Students frequently use digital devices to access

course materials, submit assignments, conduct research, and communicate with teachers and peers (Prensky, 2010).

The widespread availability of internet connectivity has also changed the daily routines of students. Today, students often spend a large portion of their time using mobile devices. Social media platforms, online entertainment services, and gaming applications are among the most commonly used digital activities. While these platforms may offer certain benefits, excessive engagement can reduce the time available for academic work.

Research suggests that prolonged exposure to digital media may affect students' attention span, sleep patterns, and overall academic motivation (Twenge, 2017). When students spend excessive time on their devices, they may experience difficulty concentrating on their studies or maintaining consistent study schedules.

Good study habits generally involve careful planning, regular study routines, effective note-taking, and periodic revision of academic materials. Students who adopt these habits tend to understand subject concepts more clearly and retain information for longer periods. In contrast, poor study habits may include irregular study patterns, procrastination, lack of focus, and last-minute exam preparation.

For student teachers, the development of strong study habits is especially important. As future educators, they are expected to demonstrate discipline, responsibility, and effective learning strategies. Their ability to manage academic tasks efficiently will influence how they guide and motivate their own students in the future.

Teacher education programs are increasingly adopting blended learning approaches that combine traditional classroom instruction with digital learning methods. Learning management systems, online resources, and digital teaching tools are often used in teacher training courses. Student teachers may use digital devices to prepare teaching demonstrations, design presentations, or explore instructional resources.

At the same time, the constant availability of digital devices can sometimes lead to overuse. Many students rely on their smartphones throughout the day, using them for communication, entertainment, and academic activities. While moderate use of digital

technology can support learning, excessive usage may reduce the time and attention devoted to focused study.

In addition, extended screen time may lead to physical and psychological effects such as eye strain, fatigue, and decreased motivation. These concerns highlight the importance of examining how digital device usage influences the study habits of student teachers.

1.3 NEED AND SIGNIFICANCE OF THE STUDY

The rapid increase in the use of digital devices among students has created a need to understand how these technologies influence learning behavior. Although digital tools offer several educational advantages, they may also create distractions that affect students' academic performance.

One important reason for conducting this study is to understand how frequently student teachers use digital devices and for what purposes. By examining their patterns of technology use, it becomes possible to gain insights into how digital tools are integrated into their academic lives.

Another reason for the study is to examine whether digital device usage contributes positively or negatively to the development of study habits. If technology is used effectively, it may improve access to knowledge and support independent learning. However, if it is used excessively for non-academic purposes, it may interfere with students' study routines.

The findings of this study may also be useful for teacher educators and curriculum planners. If digital device usage is found to influence study habits significantly, educational institutions can introduce training programs that promote responsible technology use, digital literacy, and effective time management.

In addition, the study can help student teachers become more aware of their own learning behaviors. Awareness of technology usage patterns may encourage them to reflect on their study practices and develop healthier academic habits. Understanding both the benefits and the potential risks associated with digital device usage can help students maintain a balanced approach to technology.

This study is also significant because student teachers will eventually become educators. Their attitudes toward technology and their study habits may influence the way they integrate digital tools into their teaching practices. Therefore, examining the relationship between digital device usage and study habits is important for the improvement of teacher education programs.

Furthermore, the results of this research may contribute to the broader field of educational research by providing insights into how technology affects learning behavior. Educational institutions may use the findings to develop policies that encourage responsible and productive use of digital devices in academic environments.

1.4 STATEMENT OF THE PROBLEM

The increasing use of digital devices in education has raised important questions regarding their impact on students' learning behavior. While digital technology offers many advantages, excessive use may also influence students' concentration, time management, and study patterns.

Student teachers, as future educators, need to develop strong and disciplined study habits. Understanding how digital device usage affects these habits is therefore an important area of investigation.

The present study is undertaken to examine the relationship between digital device usage and the study habits of student teachers.

The problem of the study is stated as:

"Effect of Digital Device Usage on Study Habits of Student Teachers."

1.5 OBJECTIVES OF THE STUDY

The main objectives of the study are:

1. To examine the level of digital device usage among student teachers.
2. To assess the study habits of student teachers.
3. To determine the effect of digital device usage on study habits of student teachers.

4. To compare the study habits of student teachers based on different levels of digital device usage.
5. To identify whether digital device usage and study habits differ with respect to gender, age and locality.

1.6 HYPOTHESES OF THE STUDY

The study is guided by the following hypotheses:

$H_0$1: There is no significant difference (correlations) between digital device usage and study habits among student teachers.

$H_0$2: There is no significant difference in digital device usage among student teachers with respect to age.

$H_0$3: There is no significant difference in digital device usage among student teachers with respect to gender (male and female).

$H_0$4: There is no significant difference in digital device usage among student teachers with respect to locality (rural and urban).

$H_0$5: There is no significant difference in study habits among student teachers with respect to age.

$H_0$6: There is no significant difference in study habits among student teachers with respect to gender (male and female).

$H_0$7: There is no significant difference in study habits among student teachers with respect to locality (rural and urban).

1.7 VARIABLES OF THE STUDY

The variables considered in the present study are classified as follows:

Independent Variable

Digital Device Usage.

Dependent Variable

Study Habits.

Demographic Variables

Gender ,Locality and Age.

1.8 OPERATIONAL DEFINITIONS

Digital Device Usage

Digital device usage refers to the extent and manner in which student teachers use electronic devices such as smartphones, laptops, and tablets in their daily activities.

Study Habits

Study habits refer to the regular practices and strategies adopted by students while engaging in academic learning activities.

Student Teachers

Student teachers are individuals who are enrolled in teacher education programs and are undergoing training to become professional teachers.

1.9 LIMITATIONS OF THE STUDY

limitations refers to the boundaries or restrictions that are intentionally set by the researcher while conducting the study. These boundaries help in narrowing the scope of the research so that the investigation can be conducted in a focused and manageable manner by clearly starting the delimitations the research of defines the extent to which the results of the study can be generalized.

The present study has the following limitations:

1. The study is limited to the student teachers studying in teacher education institutions; only other categories of students are not included in the investigation.

2. The researcher focuses specifically on the effect of digital device use on study habits Other factors that may influence student habits ,family,environment, teaching methods and socio-economic status are not examined in detail.
3. The data for the study were collected using the questionnaire method therefore that you receive the data depends largely on the honest understanding and cooperation of the respondents.
4. The study is limited to a specific sample size of student teachers and therefore the findings may not fully represent all student teachers in different regions or educational contexts.
5. The research mainly considered commonly used digital devices such as smartphones, laptops,tablets and computers which are widely used by students for academic and personal purposes.

These limitations are necessary in order to make the study more focused and feasible within the available time and resources.

1.10 ORGANIZATION OF THE THESIS

The thesis is organized into five chapters.

Chapter I presents the introduction, background of the study, need and significance, statement of the problem, objectives, hypotheses, variables, operational definitions, and delimitations of the study.

Chapter II includes a review of related literature and identifies the research gap.

Chapter III explains the research methodology adopted for the study.

Chapter IV presents the analysis and interpretation of the collected data.

Chapter V summarizes the major findings, draws conclusions, discusses educational implications, and provides suggestions for further research.

CHAPTER II

REVIEW OF RELATED LITERATURE

CHAPTER II

REVIEW OF RELATED LITERATURE

2.1 INTRODUCTION

Review of related literature is an essential part of any research study because it provides a theoretical background and context for the investigation. It helps the researcher understand the existing knowledge related to the topic, identify gaps in previous studies and justify the needs for the present research. In the field of teacher education digital technology and devices such as smart phone tablets, laptops and computers have become integral components of the learning process with the increase in integration of Information and Communication Technology on digital devices to access information, complete assignments, participate in online classes and communicate with peers and instructors.

A literature review is a comprehensive overview of published works on a specific topic, often referred to as a full scholarly paper or a section of a book or article. It provides the researcher and audiences with a general understanding of the existing knowledge on the topic. It is a piece of academic writing that demonstrates knowledge and understanding of the academic literature on a specific topic, involving a thorough and systematic search and analysis of relevant sources such as academic journals, books, and conference proceedings.

It requires critical evaluation of the quality, validity, and reliability of the literature, and synthesizes the findings to provide a coherent overview of the current knowledge on the topic. This review is a crucial step in the research process, laying the groundwork for the study and guiding the development of research questions, hypotheses, and methodology.

In this review of literature, the researcher will explore and analyze the existing body of research and scholarly works related to dietary behaviour of prospective teachers. By examining the T current state of knowledge, identifying gaps and inconsistencies, and synthesizing the findings, this review of literature will contribute to the understanding of dietary behaviour of prospective teachers and provide a solid foundation for the research study.

Digital devices have transformed the learning environment on students study habits and time management and academic performance studies have indicated that while digital tools enhance learning opportunities and engagement, Excessive use mainly to distraction and multitasking that negatively affect learning outcomes for example research on digital device uses in lecture environment suggest that sudden of an engage in multitasking behaviours that can interfere with their ability to concentrate on academic tasks.

Teacher education programs emphasize the importance of digital computers among cutie teachers, as they are expected to integrated Technology effectively in classrooms research indicates the digital technology can enhance student motivation, collaboration and Independence learning when used appropriately however the success of Technology integration depends on student digital literacy attitude towards technology and the way of digital device or used for academic purposes.

In this context ,reviewing previous research on digital device usage and study among student teachers is crucial to understand the extent to which digital technology influences learning behaviours. The following sections present a review of international studies related to the effect of digital device usage on the study habits of student teachers.

2.2 REVIEW OF STUDIES

INTERNATIONAL REVIEWS

Alrasheedi, Capretz and Raza (2015) conducted a systematic literature review on the factors affecting the success of mobile learning in higher education institutions. The study exam in 30 research studies conducted across 17 countries to identify the critical success factors influencing mobile learning adoption the research is used as systematic review methodology to analyse existing research findings related to mobile learning environment.The findings revealed that accessibility to digital literacy learning and motivation and instructions about where among the most important factors influence in the success of mobile learning facilitate flexible learning and

have a student to cross learning material however the research is also that lack of digital literacy and poor self regulation may negatively affect students study habits.

Barack (2014) conducted a comparative study on pre-service teachers' attitudes toward digital technology and its integration into the teaching–learning process. The study involved multiple cohorts of pre-service teachers and examined how their perceptions evolved over time. Data were collected using questionnaires and classroom observations. The findings revealed that initially, student teachers perceived digital devices as distractions; however, over time, they recognized their value in supporting independent learning, creativity, and collaboration. The study concluded that digital technology positively influences study habits and helps students develop technological skills and effective learning strategies.

Chen, Dalby, and Swan (2020) examined the use of digital response systems among pre-service teachers in higher education institutions in the United States. The study adopted a mixed-method research design with a sample of approximately 180 pre-service teachers. Data were collected through structured questionnaires and observation checklists, and analyzed using statistical techniques and thematic coding. The findings indicated that digital devices enhanced student participation, interaction, and collaborative learning. However, some participants reported difficulties in maintaining concentration due to multitasking on smartphones during lectures.

Limniou (2021) conducted a quantitative study to examine the impact of digital device usage on students' academic performance and study behavior in lecture environments. The study involved 361 university students, and data were collected using online questionnaires. The results revealed that students who used digital devices primarily for academic purposes performed better than those who used them for non-academic activities such as social media browsing. Additionally, the study found that multitasking negatively affected concentration and learning outcomes.

Orlando and Attard (2016) explored the challenges faced by pre-service teachers in integrating digital technology into classroom teaching. The study used qualitative interviews and classroom observations involving student teachers from Australian teacher education institutions. The sample included 300 student teachers selected from five universities.The findings showed that while digital devices offer opportunities for interactive learning, many pre-service teachers lack

adequate training to use technology effectively. The study emphasized the need to develop digital competence during teacher training programs.

Starkey (2019) investigated the development of digital competency among pre-service teachers and its influence on study habits. The study adopted a mixed-method approach with a sample of 150 student teachers. Data were collected through questionnaires and reflective journals. The findings revealed that students with higher digital competency demonstrated better study habits, including efficient information searching, collaborative learning, and effective time management.

Kay and LeSage (2009) investigated the use of classroom response systems in teacher education programs. The study adopted an experimental research design with a sample of 100 pre-service teachers. Data were collected using attitude scales and achievement tests. The results showed that digital devices increased student engagement and promoted active learning during lectures.

Wang and Cheng (2020) conducted a quantitative study on the relationship between technology use and student engagement in higher education. The sample consisted of 250 university students, including pre-service teachers. Data were collected through questionnaires and analyzed using structural equation modeling. The findings indicated that digital devices enhanced self-regulated learning and improved access to educational resources.

Iqbal and Bhatti (2020) explored teachers' perceptions of smartphone usage in higher education institutions in developing countries. The study used qualitative interviews involving teachers and student teachers for about 350 in numbers. The findings revealed that smartphones support collaborative learning and flexible study practices, but also create distractions due to social media and entertainment applications.

Willermark (2018) investigated the development of digital competence among student teachers in Scandinavian countries using a longitudinal research design across multiple universities.The sample included 200 student teachers selected randomly from two universities. Data were collected through digital competency assignments and reflective learning logs. The findings showed that digital technology improved students' access to educational research and supported collaborative learning practices over time.

NATIONAL REVIEWS

Hasim et.al (2021) studied the role of digital resources in learning among technical education students. The study used a survey method with a sample of 150 teacher trainees. Data were collected through structured questionnaires and analyzed using descriptive statistics. The findings indicated that digital devices enhanced independent learning and academic engagement among students.

Amaaz et.al (2024) investigated pre-service teachers' attitudes toward mobile devices in STEM education. The study included a sample of 226 teacher trainees and used structured questionnaires with statistical analysis. The findings revealed that mobile devices positively influenced collaborative learning and provided flexibility in study practices.

Ward et.al (2024) examined the impact of AI-based learning tools on student study habits. The study adopted a mixed-method design involving surveys and interviews with a sample of 200 students. The findings indicated that AI-based digital tools improved time management and supported personalized learning experiences.

Maqbool et.al (2024) conducted a cross-sectional survey study with 300 university students to analyze the effect of digital learning tools on student engagement. Data were analyzed using regression analysis. The results revealed that digital tools significantly improved academic engagement and learning efficiency.

Zafeer et.al (2024) investigated the relationship between digital device usage and academic engagement using a survey design with a sample of 350 university students. The findings indicated that digital devices positively influenced collaborative learning but highlighted the need for proper digital literacy training.

Kumari et.al (2023) studied ICT-based study habits among pupil teachers in B.Ed. colleges in Jharkhand. The sample included 200 student teachers selected randomly from five universities. The study used a survey method and employed the Study Habit Inventory developed by Palasi and Sharma. Data were analyzed using frequencies and percentages. The findings revealed that ICT usage significantly influenced the study habits of student teachers.

Hassan et.al (2021) examined digital literacy among school teachers in Rajouri district, Jammu and Kashmir. The study used a survey method with structured questionnairesThe sample included 250 student teachers selected randomly from three universities. The findings indicated that digital competence is essential for effective technology integration in education.

Subhaveerapandian et.al (2022) conducted a survey study on digital literacy and reading habits among university students and research scholars. Data were collected using structured questionnaires. The findings revealed that most students possessed strong digital literacy skills and frequently used digital devices for academic purposes; however, many still preferred printed materials for deep reading.

Chaudhary et.al (2025) examined internet usage and study habits among secondary school students in India using a survey method. Data were collected through structured questionnaires. The findings emphasized that balanced internet usage and proper digital literacy are essential for developing effective study habits.

2.3 SUMMARY OF LITERATURE REVIEW

The review of International and national studies reviews that digital devices play a significant role in Modern Education environments; many studies highlight the positive impact of digital technology on students' engagement , collaborative learning and access to educational resources. Digital devices enable students to access online learning materials, participate in words for classrooms and communicate with peers and instructors.

However several studies also emphasize potential negative effects such as distraction multitasking and reduction to concentration during study sessions. The effectiveness of digital devices largely depends on students' digital literacy self regulation skills and the purpose for which these devices are used.

In the context of teacher education digital competency is an essential skill for the student teachers because they are expected to integrate Technology effectively in classroom teaching. The literature suggests that training programs focusing on responsible digital device uses and ICT integration can help student teachers develop effective study habits.

2.4 RESEARCH GAP

The review of related literature indicates that all those several studies have examined the digital device usage and its influence on learning behaviours; only a limited number of studies specifically focuses on student teachers and their study habits in teacher education institutions; many existing studies investigate general University students rather than pre-service teachers.

A considerable amount of research has been conducted on the use of digital devices and their influence on students' learning behaviour, academic performance, and overall educational experience. On the positive side, studies have shown that digital devices provide easy access to information, support interactive learning, and encourage collaborative educational practices.

On the negative side, several studies have highlighted that excessive use of smartphones and other digital devices can lead to distraction, reduced concentration, and poor time management among students. Overall, these studies offer valuable insights into the role of technology in education and help identify the research gaps that need further investigation in the literature review.

Firstly, a large number of previous studies have focused primarily on general university students, school students and adolescents rather than specifically examining student teachers enrolled in teacher education programs. Student teachers represent a unique group within the academic community because they are not only learners but also future educators who will shape the learning habits of the next generation.

Their study habits, attitude towards technology and learning behaviours are particularly important as they influence their professional development and teaching effectiveness. However, the existing body of research has given relatively limited attention to understanding how digital device use affects the study habits of the specific group of learners. As a result there is a need for focused research that examines the relationship between Digital device uses and study habits among student teachers.

Secondly much of the available research has been conducted in international context particularly in technology advanced countries whereas Axis to digital resources and learning environment may differ significantly from those in developing countries. In India the rapid expansion of digital technology in recent years has changed the learning environment of the higher education Institutions including teacher education colleges. However systematic studies

that examine how the technological shift influences the study habits of B.Ed student teachers remain relatively Limited.

Thirdly, while some studies have exploded digital device uses in relation to academic achievement or general learning outcomes, these studies have specifically examined its impact on study habits such as time management, note taking practices, revision methods and concentration during study sessions. Study habits play a crucial role in determining academic success because they reflect the Strategies and behaviour students adopt in their learning process. Understanding how digital devices influence these habits is essential for developing effective learning Strategies and guiding students towards productive academic practices.

In addition demographic factors such as Gender and locality Urban and rural background may influence both digital device uses and study habits. Students from different backgrounds may have wearing levels of exposure to digital technology across the learning access to learning resources and patterns of Technology use however relatively few studies have exploded these demographic variations in relation to digital device uses and study habits among student teachers investigating these aspects can provide deeper insight into how Technology affects different groups of learners.

Therefore, based on the analysis of previous studies, it can be concluded that there exists a clear research cap in understanding the specific relationship between Digital device usage and study habits among student teachers, particularly within the Indian teacher education context. To address this gap the present study attempts to examine the Effect of digital device usage on study habits of student teachers. By focusing on B.ed student teachers and analysing their patterns of Technology used and learning behaviours the study aims to contribute meaningful findings that can support teacher education programs in promoting balanced and effective use of digital technology academic life.

CHAPTER III
METHODOLOGY

CHAPTER 3

METHODOLOGY

3.1 INTRODUCTION

Research methodology refers to the systematic process used by the researcher to collect, analyse, and interpret data in order to answer the research questions of the study. It provides a clear Framework for conducting the investigation in an organised manner. The present study aims to examine the effect of digital device usage on the study habits of student teachers. In recent years digital devices such as smartphones, laptops, tablets and computers have become an essential part of students academic life while these devices provide easy access to information and education resources.Their excessive use also influences students' concentration, time management, and learning patterns.

A research methodology describes the techniques and procedures used to identify and analyze information regarding a specific research topic. It is a process by which researchers design their study so that they can achieve their objectives using the selected research instruments. It includes all the important aspects of research, including research design, data collection methods, data analysis methods, and the overall framework within which the research is conducted. (Sreekumar, 2023).

In order to understand this relationship a structured Research Design has been adopted. This chapter describes the research methodology used for the study including the Research Design, population, sample technique, research, procedure of Data Collection, scoring method and StatisticalTechniques used for analysis. The methodology ensures that the study is conducted in a reliable and valid -friendly manner and so that meaningful conclusions can be drawn from the collector data.

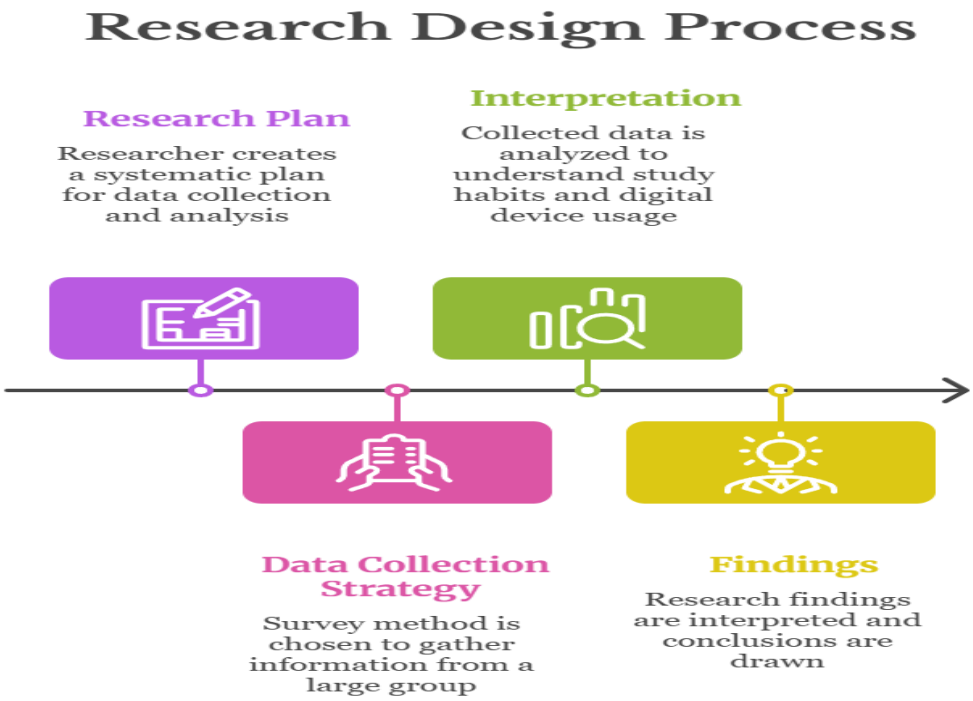
With the rapid advancement of technology digital devices such as smartphones, laptops, tablets and computers have been an integral part of students' academic life. The device provides quick access to information online learning platforms and digital study materials at the same time excessive use of digital devices may also influence student concentration, time management and overall study habits.

3.2 RESEARCH DESIGN

Research Design is the blueprint or plan that guides the researcher in collecting, analysing and interpreting the data. It exposes how the research problem will be investigated in a systematic way.

For the present study the survey method has been adopted. The survey method is considered appropriate because it all allows the researcher to collect information from a large group of respondents regarding the behaviour, opinion, and habits. Since the purpose of study is to understand the effect of digital device usage on the study habits of student teachers, the survey method helps in gathering relevant information directly from the participants.

Image 3.1 Research Design



It serves as a systematic plan that helps the researcher organize the study in a logical manner, ensuring that the research problem is examined clearly and efficiently. A well-defined

research design also enhances the reliability and validity of the findings by providing a clear pathway for conducting the investigation.

The choice of the survey method is appropriate for this study as it focuses on examining the effect of digital device usage on the study habits of student teachers. By directly interacting with the respondents, the researcher is able to capture authentic and relevant data that reflects their actual experiences and practices. Moreover, the survey approach allows for easy comparison and analysis of responses, making it effective in identifying significant relationships between digital device usage and study habits. Thus, the selected research design supports the objectives of the study and ensures a systematic and comprehensive investigation.

3.3 POPULATION OF THE STUDY

Population refers to the entire group of individuals, objects or events that the researcher intends to study in the research investigation. It represents the complete set of elements that share certain characteristics relevant to the research problem in educational research. The population usually consists of a specific group of people whose behaviour, attitudes or characteristics are being examined. The population forms the basis from which the research selects a smaller group called the sample of detailed analysis.

For the present study the population consists of 150 student teachers studying in teacher education colleges in Coimbatore and they are enrolled in professional teacher training programs such as bachelor of education (B.ed) which prepares them to become qualified teachers in the future. Student teachers are actually involved in various academy lectures preparing lesson plans, completing assignments and participating in teaching practice sessions. In recent years Digital Technology has become an integral part of the teaching and learning process.

Student teachers frequently used digital devices such as smartphones, laptops, tablets and computers for several academic purposes include attending online classes, accessing digital learning resources, preparing assignments, communicating as per and instructors and searching for education information on the internet because digital devices play an important role in the learning process student teachers represent as two table and relevant population for studying the relationship between Digital device uses and study have it they four all student teachers studying in teacher education institution constitute the population for the presence research study.

3.4 SAMPLE OF THE STUDY

A sample refers to a smaller group of individuals selected from the total population for the purpose of conducting the research study. Since it is often difficult and time consuming to study the entire population research to select a sample that represents the characteristics of the population the data collected from the sample is analysed and the researcher generalised to a larger population.

For the present study Sample of 150 student teachers were selected from the teacher education colleges. The student teachers were chosen because they represent the population of interest and they are actively engaged in teacher training programs. The selected respondent includes student teachers from different academic backgrounds and with very levels of exposure to digital devices in the daily academic activities.

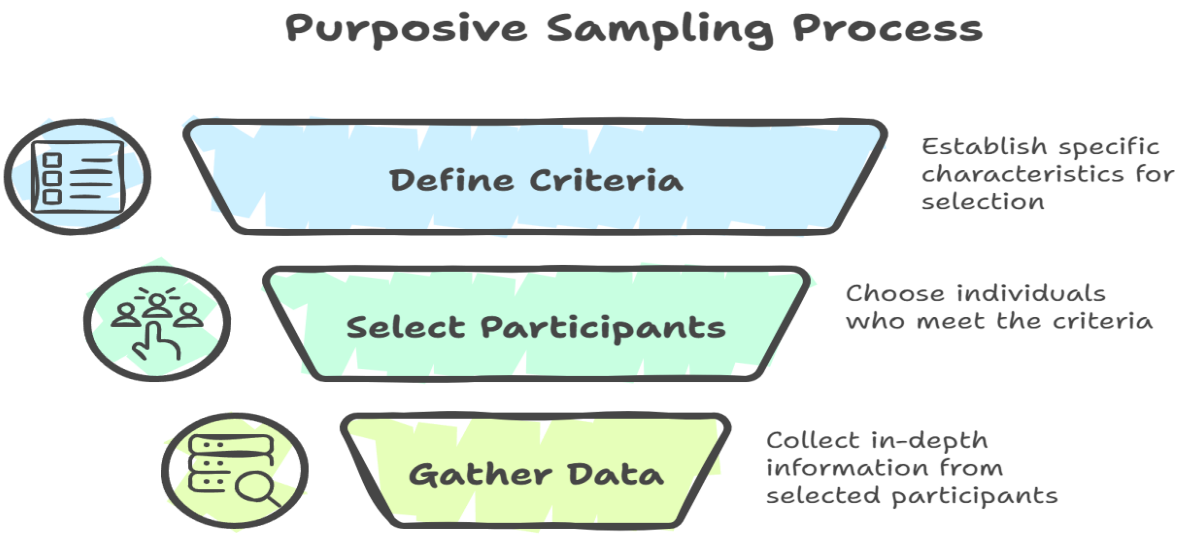
The sample includes individuals who regularly used digital devices for learning purposes such as accessing study materials, attending online classes, preparing notes and completing assignments. At the same time they study habits may vary depending on their level of Pistol device use by selecting a sample of 150 student teachers. The researcher was able to obtain sufficient and reliable data to examine the relationship between Digital device usage and study habits among student teachers. The sample size was considered adequate to represent the population and to carry out meaningful statistical analysis.

3.5 SAMPLING TECHNIQUE

Sampling technique refers to the method or procedure used by the researcher to select participants from the population for inclusion. In the research study the selection of an appropriate sampling technique is important because it helps ensure that the sample accurately represents the population. A good sampling technique also helps reduce by us and improve the reliability and validity of the research finding.

In the present study, purposive sampling technique was used to select the respondents. Purposive sampling is a non-probability sampling method in which the researcher selects participants based on specific characteristics, knowledge or purpose relevant to the study. This technique is widely used in educational research as it allows the research to focus on particular groups that are most suitable for the investigation.

Image 3.2 Purposive Sampling Process



Using this technique student teachers from teacher education colleges were selected based on predefined criteria relevant to the objective of the study.The selection was made intentionally considering factors such as their academic background, training experience or other relevant attributes. The use of purposive sampling helps the researcher of time in depth and meaningful data from participants who are best suited to provide the required information.As a result the findings of the study can be considered more focused, relevant and useful for understanding the specific context of student teachers.

3.6 TOOLS USED FOR THE STUDY

A research tool is an instrument or method used by the researcher to collect data from the participants involved in the study. The selection of an appropriate research tool is essential because it helps to provide accurate, relevant, and reliable information related to the objectives of the study. In educational research, commonly used tools include questionnaires, interviews, observation schedules, and rating scales.

For the present study, a self-structured questionnaire was used as the main tool for data collection. The questionnaire was carefully designed and developed by the researcher based on

the objectives and variables of the study. The purpose of the questionnaire was to collect information about the extent of digital device usage among student teachers and to understand their study habits. The questionnaire consists of statements related to the major aspects of the study, namely digital device usage among student teachers and their study habits.

The items in the questionnaire were prepared in simple, clear, and understandable language so that the respondents could easily comprehend and respond without confusion. The questionnaire includes a series of statements related to the use of digital devices for academic purposes, time management, concentration while studying, note-taking habits, and other related aspects of study behaviour. The respondents were asked to express their level of agreement or disagreement with each statement.

The responses were recorded using Five point Likert scale, which is commonly used in social science and educational research to measure attitudes and opinions. The response options included Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree. This format allows the researcher to measure the intensity of the respondents' opinions and attitudes towards digital device usage and study habits. The use of the Likert scale also helps in quantifying the responses, making it easier to analyse the data statistically and interpret the results effectively.

The response were recorded using Five point Likert scale such as

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

This format helps in measuring the attitude and behaviours of student teachers regarding their use of digital devices and sales study habits.

3.7 PROCEDURE OF DATA COLLECTION

Data collection is one of the most important stages of the research process because it provides the necessary information required to answer the research questions and achieve the objectives of the study. The reliability of the research findings largely depends on the quality and

method of data collection. Therefore, the researcher must carefully plan and follow systematic procedures to ensure that the data collected are relevant and appropriate for analysis.

For the present study, the researcher visited the selected teacher education institutions to collect the required information from the respondents. A questionnaire prepared by the researcher was distributed to the student teachers through Google Forms, which made it convenient for them to access and submit their responses.

Before distributing the questionnaire, the researcher clearly explained the purpose and objectives of the study to the respondents so that they could understand the importance of the research and respond sincerely.

The respondents were also assured that the information provided by them would be kept strictly confidential and used only for academic and research purposes. This helped the respondents feel comfortable and encouraged them to provide honest and accurate responses. The researcher also instructed the respondents on how to fill out the questionnaire and clarified any doubts they had regarding the questions.

Adequate time was given to the respondents to carefully read each statement and respond to the items without any pressure. After completing the questionnaire, the responses were automatically recorded through Google Forms and later collected by the researcher. The collected responses were then systematically organized, classified, and prepared for statistical analysis. This careful procedure ensured that the data collected were complete and suitable for achieving the objectives of the study.

3.8 PILOT STUDY

A pilot study is a small scale preliminary investigation conducted before the main research study. The primary purpose of the study is to test the feasibility and effectiveness of the research instrument, identify potential problems in the questionnaire, and make necessary modifications before conducting the final data collection.

During the pilot study the research distributor the question it to the participant and ask them to read each statement regarding the clarity of the questions the language used in the question very and the feedback of time was very useful for improving that questionnaire based

on the based on the suggestion items that required in order to make them understand for the respondent.

The Pilot study helped the researcher determine whether the questionnaire was appropriate for measuring the variables under investigation; it also ensured that items were understandable and relevant to the target group. After making the necessary corrections and improvements the final version of the question was prepared and used for collecting data from the selected samples for the student teachers.

Thus the Pilot study played a significant role in refining the research instrument and improved the reliability of the data collection process.

3.9 VALIDITY OF THE TOOL

Validity refers to the degree to which a research instrument accurately measures what it is intended to measure in simple terms. Validity indicates effectiveness and appropriateness of a tool in collecting relevant information related to the research problem; a wallet research instrument ensures that the data obtained truly represent the phenomena being studied and contribute to meaningful and reliable Conclusions.

For the present study content validity was ensured for the questionnaire developed by the researcher. The question was carefully prepared after conducting a thorough review of related literature, previous research studies, books, journals and articles related to digital device uses and the study habits of student teachers. This review helped the researcher identify the important aspects and dimensions that needed to be included in the questionnaire.

The Statements included in the questionnaire were framed in clear, simple and understandable language so that the respondent could easily compose the questions and provide appropriate responses. Proper Care was taken to ensure that each item in the questionnaire was relevant to the objective of the study and effectively presented the variables being measured.

After the initial preparation of the questionnaire, that tool was submitted to experts in the field of education and research methodology for the revolution and suggestions. The experts carefully examine the questionnaire and provide valuable feedback regarding the clarity, relevance, wording, and structure of the items. Based on the suggestion necessary modifications

were made to improve the wording and ensure that the items accurately reflected the research objectives.

Through this process of expert review and revision the quality and effectiveness of the research tool were significantly improved. Thus, the questionnaire used in the present study was constructed valid and appropriate for measuring the effect of digital device usage on the study habits of student teachers.

3.10 RELIABILITY OF THE TOOL

Reliability refers to the consistency and stability of a research instrument in measuring a particular concept or variable. Research tools produce consistent and dependent results when it is used repeatedly under similar conditions. Reliability is essential because it ensures that the findings of the study are not influenced by random errors or inconsistency in measurements.

In the present study, the reliability of the questionnaire was tested through a pilot study conducted before the final data collection. The pilot study was carried out with a small group of students who were not included in the final sample. The main purpose of conducting the pilot study was to examine whether the questionnaire items were clear, understandable, and suitable for the respondents.

In this study, the pilot study was conducted with a group of 20 student teachers who were studying in teacher education institutions and were selected randomly for the purpose of testing the research tool. It is important to note that the respondents who participated in the pilot study were not included in the final sample of the research.

During the pilot study the respondents were asked to complete the questionnaire and provide feedback on any difficulty in buying and answering the questions the response obtained from the pilot study were carefully analysed by the research to identify any issues related to ambiguity, wording or misunderstanding of the items.

Based on the analysis and feedback received from the respondents, minor changes were made to the sum of the statements in order to improve their clarity and reliability. These modifications help ensure that the questions were easily understandable and capable of obtaining accurate response from the participants.

After making the necessary revisions, the final version of the questionnaire was prepared and used for collecting data from the selected respondents. Since the questionnaire items were carefully designed, reviewed by experts, and tested through a pilot study the research instrument was considered reliable for the present investigation.

3.11 VARIABLES OF THE STUDY

Variables are the characteristics, attributes, or factors that can vary or change in a research study. They play a significant role in Research because they help the research examine relationship patterns and influence between different aspects of the study but identifying and analysing variables researchers can better understand how one factor affects another within the context of the research problem

The present study focuses on examining the relationship between Digital device uses and the study habits of student teachers. in order to analyse this relationship effectively, two main types of variables are considered in the study the independent variable and dependent variable

1.Independent variable

The independent variable is the factor that influences or causes any changes in another variable; another variable is the variable that the researcher studies to determine its effects on the outcome of the reach.

In the present study, the independent variable is digital device use among student teachers. Digital devices include smartphones, laptops, tablets, desktop computers, and other electronic devices that are commonly used for accessing Digital information. Student teachers use these devices for various purposes such as attempting online classes, searching for academic resources, preparing assignments, communicating with peers and teachers and also for entertainment and social media activities.

The study aims to understand how the frequency and manner of using these digital devices may influence the learning behaviour and academic practices of student teachers.

2.Dependent variable

The dependent variable is the outcome or result that was changed due to the influence of the independent variable; it represents the effect of consequence that the researcher intends to measure in the study.

In this research, the dependent variable is the study habits of student teachers. They refer to the regular learning practices and behaviours adopted by students during their academic activities. These habits include aspects such as time management consideration during study, note taking for examinations, maintaining studies schedules and the ability to stay focused by learning.

This study aims to examine how the use of digital devices affects the study habits. By analysing the relationship between Digital device uses and study habits, the research seeks to understand whether the increasing use of digital technology has a positive or negative influence on the academic study habits of the student teachers.

3.12 STATISTICAL TECHNIQUES USED FOR DATA ANALYSIS

After the completion of Data Collection the next important step in the research process is the analysis and interpretation of the Collector data. Data analysis helps the research organize, summarize and interpret the response obtained from participants in order to draw meaningful conclusions. In the presence of study appropriate Statistical Techniques were applied to analyse the data and to understand the effect of digital device usage on the study habits of student teachers.

The Statistical Techniques used in the study are described below:

1. MEAN :

The mean, also known as the average, was calculated to determine average level of digital device usage and study habits among the respondents. The main score provides a central value that represents the all over lead tendency of the data it helps in identifying whether the level of digital device used among student teachers is high, moderate, or low.

2.STANDARD DEVIATION:

Standard deviation was used to measure the degree of variation or dispersion in the responses provided by the participants. While the main give the average value the standard deviation indicates how much the individual responses deviate from the mean value. A highest standard deviation indicates greater variability in responses, whereas a lower standard deviation indicates responses where more consistent.

3. CORRELATION :

Correlation is a statistical concept that measures the degree and direction of relationship between two variables. It indicates how changes in one variable are associated with changes in another variable.

- If both variables increase or decrease together → **Positive correlation**
- If one increases while the other decreases → **Negative correlation**
- If there is no relationship → **Zero correlation**

4. t- TEST :

In statistical analysis, the t-test is commonly used to compare the means of two groups and determine whether there is a significant difference between them. It is widely applied in research studies to test hypotheses and analyze data. A t-test is a statistical method used to determine whether there is a significant difference between the means of two groups.

Overall the statistical techniques help the researcher to systematically analyse the collected data and to draw meaningful conclusions regarding the influence of digital device usage on the study habits of student teachers.

3.13 BLUEPRINT OF THE QUESTIONNAIRE

A blueprint is a structured outline that provides a clear overview of the questionnaire used in the research study. It helps in organising the various items of the questionnaire according to the different dimensions or variables of the research. The blueprint ensures that all important aspects of the research problem are adequately represented in the questionnaire.

In the present study the question was designed to measure two major dimensions of digital device uses and study habits of student teachers. Each dimension was further divided into several subcontinent sub components that reflect different aspects of the variable being studied.

The present study employed a structured questionnaire as a primary tool for data collection. The instrument was carefully designed to assess two major variables namely digital device uses and study habits among student teachers. The questionnaire consists of two

standardised sessions sections the *Digital Device Usage Scale* (DDUS) and the *Study Habit Inventory* (SHI) both tools were self structured based on the extensive review of relevant literature and aligned with the objective of the study.

The questionnaire was designed in a simple and clear format to ensure an understanding and accurate response from the participant. All items are close ended in nature and measured using a five point likert scale.

3.14 STRUCTURE OF THE QUESTIONNAIRE

The questionnaire is divided into two main parts

- **Digital device usage scale (DDUS)**
- **Study habit inventory SHI**

DIGITAL DEVICE USAGE SCALE (DDUS)

The digital device uses a scale consisting of 20 items divided into four dimensions that capture both academic and non academic uses of digital devices.

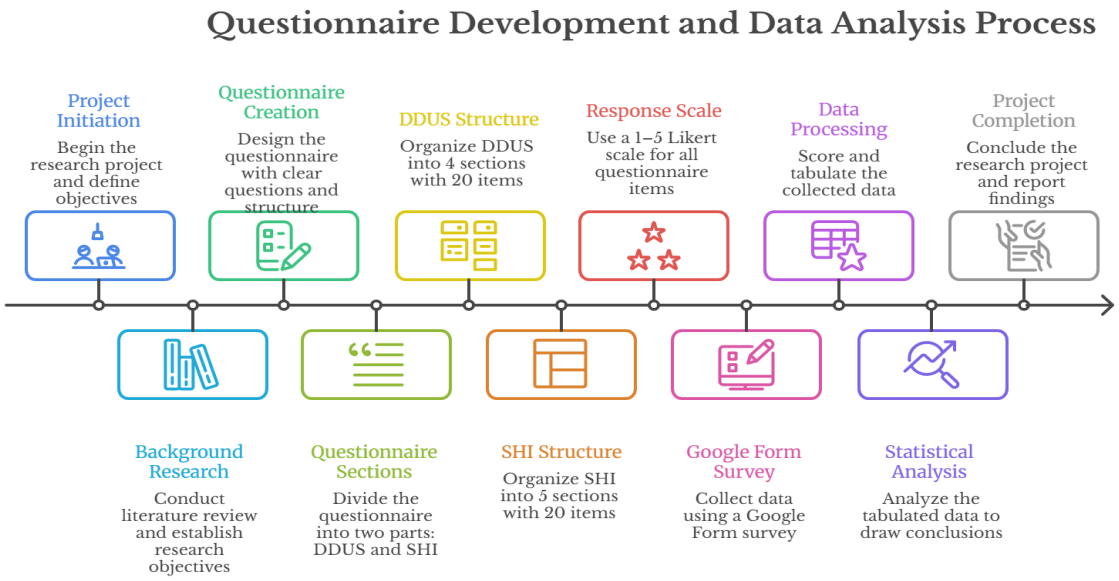
Section A focuses on the academic utilization of digital devices such as searching for study materials using education and preparing assignments. section B exam is non academic usage including gaming social media and entertainment activities. section C evaluates students behaviour during studying particularly distraction and multitasking habits with one rivers scored items to ensure response accuracy section D measures dependency on digital device and time management issues such as excessive usage and anxiety when not using devices.

STUDY HABIT INVENTORY (SHI)

The study habit inventory comprises 20 items categorised into Five dimensions representing various aspects of students study behaviour.

Section A evaluates the time management skills such as maintaining a studies schedule and completing assignments on time. Section B measures concentration levels and their ability to avoid destruction. Section C focuses on effective learning strategies including note taking and Organisation. Section D exams reading and division practices. while Section E assesses examination preparation confidence and time management during exams

Image 3.3 Diagrammatic Blueprint of the questionnaire



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3.15 SUMMARY

This chapter presented the research methodology used for the present studies. The survey method was adopted to investigate the effect of digital device usage on study habits of student teachers. A sample of student teachers was selected using the simple random sampling technique data work collected in a cell structure designed by the research.

The responses were scored using a liquid scale and analysed using statistical techniques such as mean , Standard deviation, Co- relation. The methodology adopted in the study ensures that the data collected are reliable and useful for achieving the objectives of the research.

Overall the methodology adopted in the study ensured that the research was conducted in a systematic and scientific manner. It also helps in obtaining reliable and useful data that contributes to achieving the objective of the research.

CHAPTER IV

ANALYSIS AND INTERPRETATION OF DATA

CHAPTER 4

DATA ANALYSIS AND INTERPRETATION

4.1 INTRODUCTION

Data analysis and interpretation constitute one of the most important sections of any research study, as they transform raw data into meaningful information that can be used to answer the research objectives. This chapter presents the systematic analysis and interpretation of the data collected from respondents through the structured questionnaire designed for the study. The main purpose of this chapter is to analyze the responses obtained from the participants and to interpret the results in order to understand the patterns, relationships, and implications related to the research problem.

Descriptive statistical tools such as correlation, mean, standard deviation and T- test were used to summarize the basic characteristics of the data and to describe the demographic profile of the respondents. These tools help in presenting the responses in an organized manner and provide an overview of the general patterns present in the dataset.These statistical techniques help in identifying significant relationships between variables, measuring the strength of associations, and determining whether observed differences among groups are statistically meaningful.

Correlation analysis was conducted to examine the degree of relationship between key variables included in the study. The Chi-square test was used to determine whether there is a significant association between categorical variables such as demographic factors and behavioral responses. The independent sample t-test was applied to compare the mean differences between two groups of respondents. Regression analysis was performed to evaluate the impact of independent variables on the dependent variable and to determine the predictive power of the model.

The results obtained from these statistical analyses are presented in the form of tables and charts for better understanding and clarity. Each table is followed by a detailed interpretation explaining the meaning of the results and their relevance to the research objectives. This systematic approach helps in linking the empirical findings with the theoretical framework discussed in the earlier chapters.

Overall, this chapter plays a crucial role in validating the research objectives and provides empirical evidence that forms the basis for the conclusions and recommendations presented in the final chapter of the study.

4.2 DEMOGRAPHIC PROFILE OF RESPONDENTS

Demographic analysis is an important component of any research study because it helps to understand the basic characteristics of the respondents involved in the survey. The demographic profile provides information about the background of the participants and allows the researcher to analyze how different groups may influence the research outcomes.

In the present study, demographic information such as gender, age group, and locality was collected from the respondents through the questionnaire. Understanding these characteristics is essential because demographic factors can influence attitudes, behaviors, and patterns of technology usage among individuals.

The total sample size for this study consists of 150 respondents, all of whom belong to the age group of 21–24 years. This age category was selected because individuals within this group are generally active users of digital devices and are highly exposed to technology in their academic and social environments.

Among the demographic variables collected, gender distribution is an important factor as it helps in understanding whether the responses are equally represented by male and female participants. Balanced gender participation increases the reliability and generalizability of the research findings.

4.3 DEMOGRAPHIC ANALYSIS

AGE DISTRIBUTION

- Majority (56.7%) of respondents belong to the **21–22 age group**
- 43.3% belong to **23–24 age group**

Image 4.1 Age distribution of Respondents

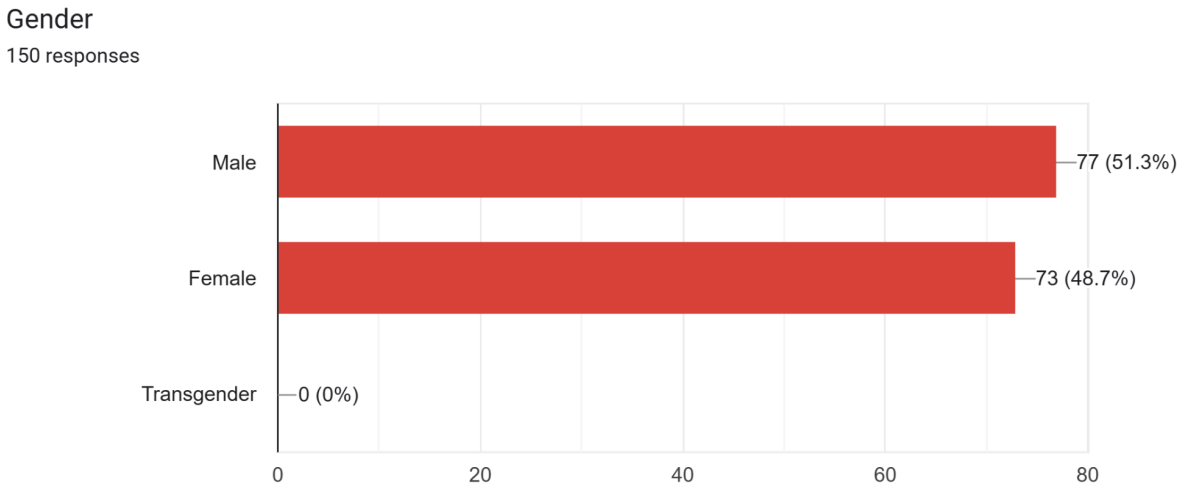

Table 4.1 Age Distribution of Respondents

Age	No.	Percent
21-22	85	56.7
23-24	65	43.3
Total	150	100.0

The sample is slightly dominated by younger respondents, indicating that the study mainly reflects early postgraduate or undergraduate learners.

GENDER DISTRIBUTION

- Male: 51.3%
- Female: 48.7%

Image 4.2 Gender Distribution of Respondents

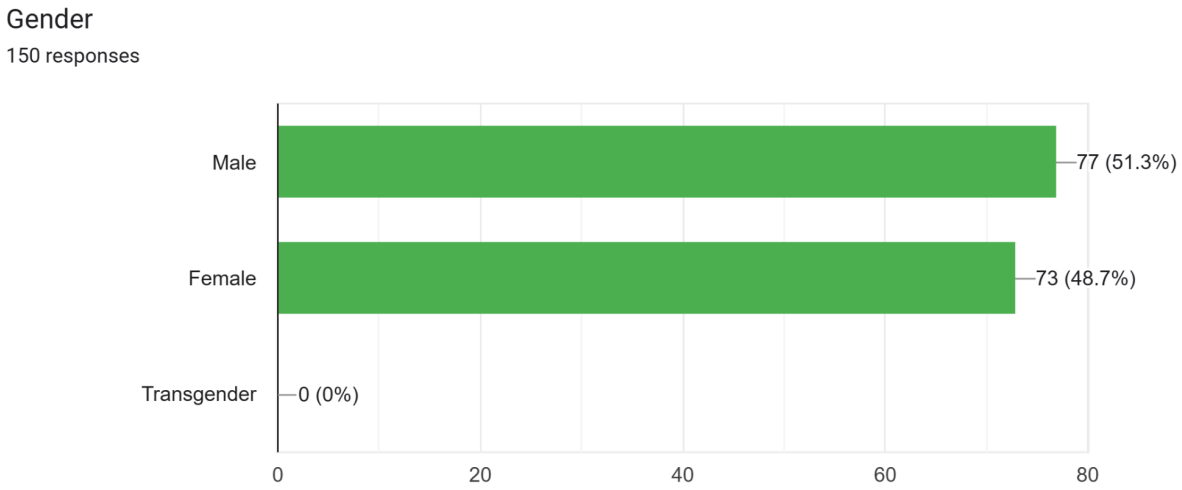

Table 4.2 Gender Distribution of Respondents

GENDER	No.	Percent
Male	77	51.3
Female	73	48.7
Total	150	100.0

The sample shows a balanced gender representation, ensuring unbiased comparison.

LOCALITY DISTRIBUTION

- Rural: 29.3%
- Urban: 70.7%

Image 4.3 Locality Distribution of Respondents

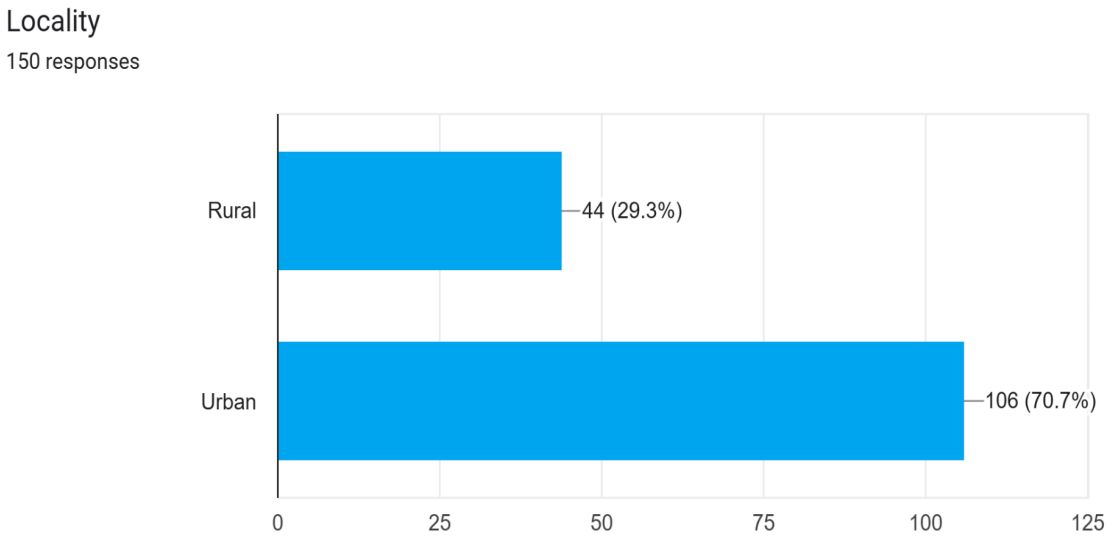

Table 4.3 Locality Distribution of Respondents

Locality	No.	Percent
Rural	44	29.3
Urban	106	70.7
Total	150	100.0

Most respondents are from urban areas, indicating higher exposure to digital resources.

Image 4.4 Correlation between Digital Device Usage and Study Habits

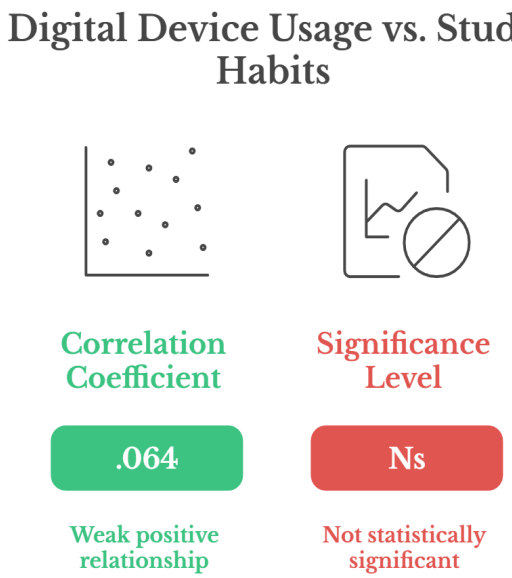

Table 4.4 Digital Device Usage and Study Habits Correlations

	Study Habits	Sig.
DIGITAL DEVICE USAGE	.064	Ns

Correlation value (r) = 0.064 Significance: Not Significant

The correlation value is very low and positive, indicating a negligible relationship between digital device usage and study habits.The correlation analysis between digital device usage and study habits reveals a very low positive correlation coefficient (r = 0.064), which is statistically not significant. This indicates that there is almost no meaningful relationship between the extent of digital device usage and the study habits of students.

In practical terms, this suggests that students who spend more time using digital devices are not necessarily better or worse in their study practices compared to those who use them less. The negligible correlation further implies that digital devices may be used for diverse purposes such as entertainment, communication, and academic work, thereby diluting any direct influence on study habits. Additionally, it reflects that modern learners are capable of managing their academic responsibilities irrespective of their level of digital engagement.Hence, digital device usage alone cannot be considered a determining factor in shaping effective study habits among students. This suggests that increased device usage does not necessarily improve or reduce study habits. Therefore the hypothesis is accepted.

Table 4.5 Digital Device Usage between age groups

		Digital Device Usage		
		Mean	S.D	No.
Age	21-22	68.32	5.75	85
	23-24	68.18	5.57	65
total		68.26	5.65	150

Image 4.5 Digital Device Usage between age groups

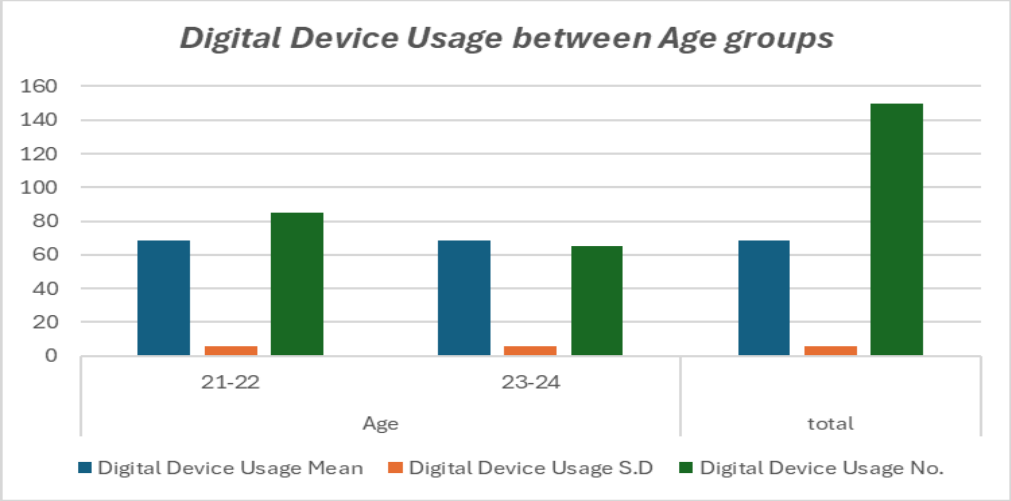

Table 4.6 t-test for Equality of Means

t	df	Sig.
.142	148	.887

- Mean (21–22) = 68.32
- Mean (23–24) = 68.18
- t-value = 0.142
- p-value = 0.887 (> 0.05)

Both age groups show almost identical mean scores. The very low t-value indicates no statistical difference in device usage between age groups.The comparison of digital device usage between the two age groups (21–22 and 23–24 years) shows nearly identical mean scores, with only a minimal difference that is statistically insignificant.

The obtained t-value (0.142) and high p-value (0.887) clearly indicate that age does not play a significant role in influencing digital device usage among respondents.

This finding suggests that individuals within this narrow age range exhibit similar patterns of digital engagement, likely due to shared academic requirements, technological exposure, and lifestyle preferences. Since both groups belong to a similar developmental stage, their familiarity with digital tools and dependency on technology for learning and communication remains consistent.

Table 4.7 Digital Device Usage between Male and Female groups

		Digital Device Usage		
		Mean	S.D	No.
Gender	Male	69.97	6.39	77
	Female	66.45	4.07	73
total		68.26	5.65	150

Image 4.6 Digital Device Usage between Male and Female groups

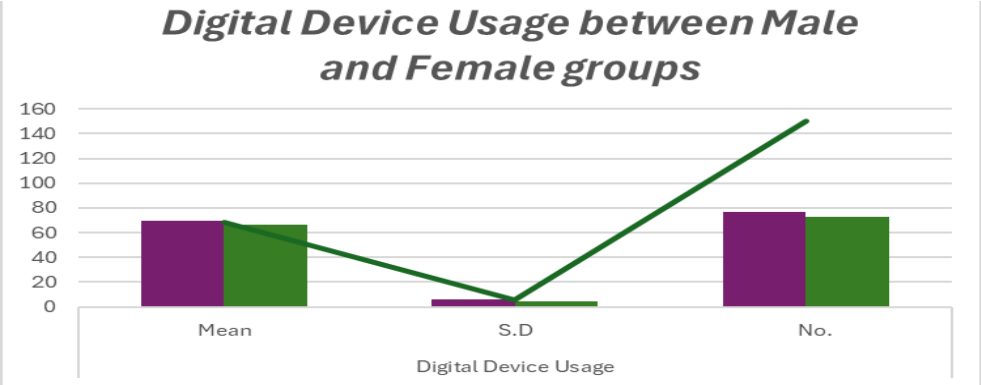

Table 4.8 t-test for Equality of Means

t	df	Sig
4.003	148	*

Critical value: 1.976 Ns – Not significant.

- Mean (Male) = 69.97
- Mean (Female) = 66.45
- t-value = 4.003 (> 1.976)

Male respondents have a higher mean score compared to females. The calculated t-value exceeds the critical value, indicating a significant difference.The analysis of digital device usage based on gender reveals a statistically significant difference, as indicated by the obtained t-value (4.003), which exceeds the critical value. Male respondents have a higher mean score compared to female respondents, suggesting that males tend to use digital devices more extensively.

This difference may be attributed to variations in usage patterns, interests, and accessibility. For instance, male students might engage more in activities such as gaming, browsing, or prolonged online interaction, leading to higher overall usage.

On the other hand, female students may exhibit more balanced or purpose-driven usage patterns. This finding highlights that gender plays a significant role in influencing digital behavior, and it emphasizes the need to consider gender-specific approaches when studying digital engagement. Therefore, the null hypothesis is rejected, confirming that digital device usage significantly differs between male and female students.

There is a significant difference, and males use digital devices more than females. Therefore the hypothesis is not accepted.

Table 4.9 Digital Device Usage between Rural and Urban groups

		Digital Device Usage		
		Mean	S.D	No.
Locality	Rural	69.36	6.00	44
	Urban	67.80	5.46	106
total		68.26	5.65	150

Image 4.7 Digital Device Usage between Rural and Urban groups

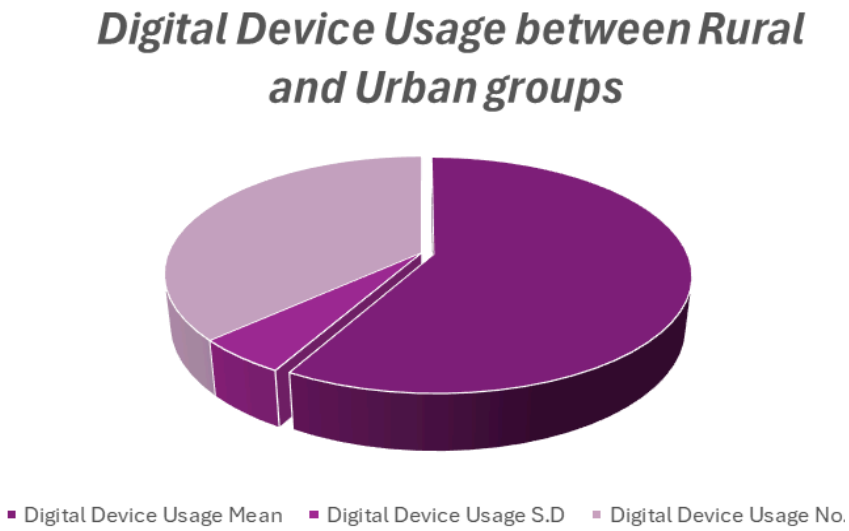

Table 4.10 t-test for Equality of Means

t	df	Sig.
1.548	148	.Ns

Critical value: 1.976

- Mean (Rural) = 69.36
- Mean (Urban) = 67.80
- t-value = 1.548 (< 1.976)

Although rural respondents show slightly higher usage, the difference is not statistically significant.The comparison between rural and urban respondents shows a slight variation in mean scores, with rural students reporting marginally higher digital device usage. However, the calculated t-value (1.548) does not exceed the critical value, indicating that the difference is not statistically significant. This suggests that despite differences in geographical location, both rural and urban students have comparable access to and usage of digital devices.

The finding reflects the growing penetration of technology and internet connectivity even in rural areas, reducing the traditional digital divide. It also indicates that educational demands and the increasing integration of technology in learning have led to uniform digital usage patterns across regions. Therefore, locality does not significantly influence digital device usage, and both groups demonstrate similar levels of engagement with digital tools.

There is no significant difference between rural and urban respondents. Therefore the hypothesis is accepted.

Table 4.11 Study Habits between Age groups

		Study Habits		
		Mean	S.D	No.
Age	21-22	75.85	9.73	85
	23-24	75.09	10.40	65
total		75.52	10.00	150

Image 4.8 Study Habits between Age groups

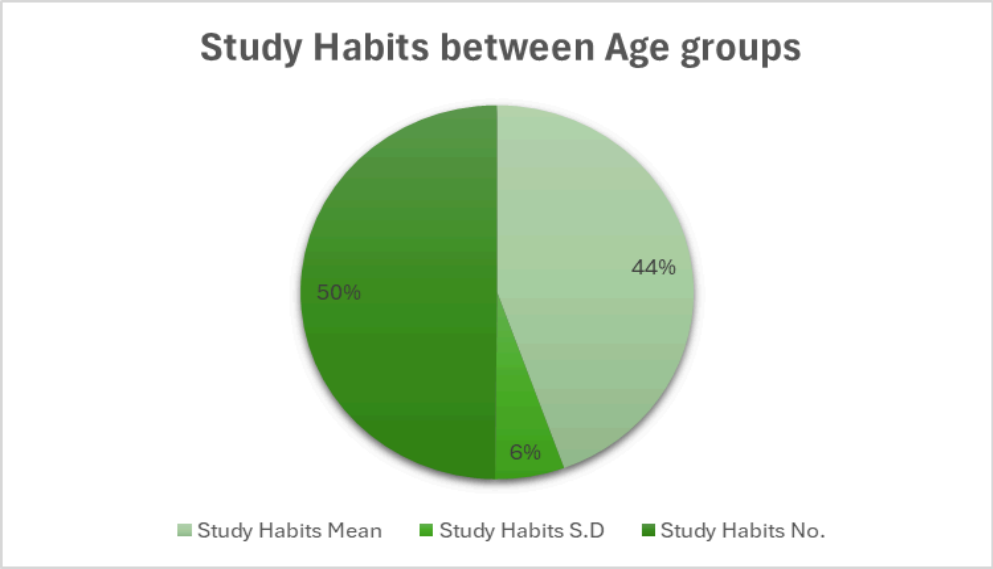

Table 4.12 t-test for Equality of Means

t	df	Sig
.457	148	Ns

Critical value: 1.976

- Mean (21–22) = 75.85
- Mean (23–24) = 75.09
- t-value = 0.457

The study habits of both age groups are nearly identical, indicating uniform academic behavior.The analysis of study habits across the two age groups reveals very close mean scores, with no statistically significant difference as supported by the low t-value (0.457). This indicates that students belonging to the age groups of 21–22 and 23–24 exhibit similar study behaviors and academic practices.

The consistency in study habits may be due to comparable academic pressures, curriculum structure, and learning environments experienced by both groups. Additionally, as these students are in adjacent stages of higher education, their approach to studying, time management, and preparation strategies tend to be aligned. This finding suggests that age, within this limited range, does not significantly impact how students organize and execute their study routines.

Hence, study habits appear to be stable and independent of minor age differences. Study habits are independent of age group. Therefore the hypothesis is accepted.

Table 4.13 Study Habits between Male and Female groups

		Study Habits		
		Mean	S.D	No.
Gender	Male	76.47	9.69	77
	Female	74.52	10.28	73
total		75.52	10.00	150

Image 4.9 Study Habits between Male and Female groups

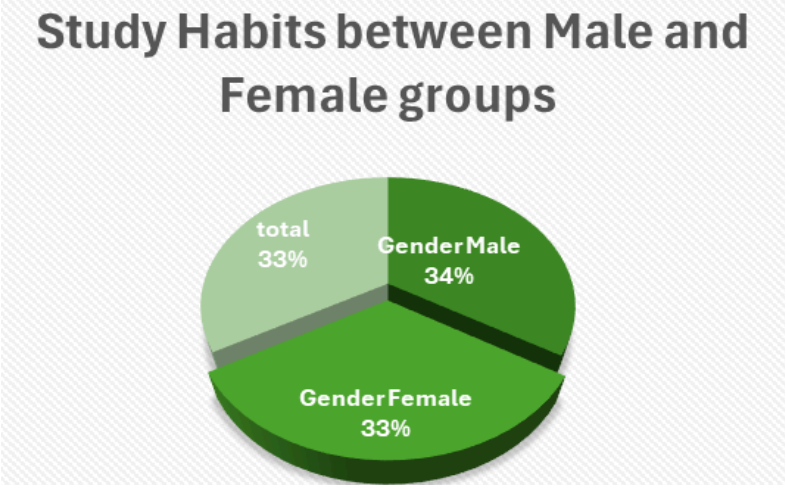

Table 4.14 t-test for Equality of Means

t	df	Sig.
1.194	148	Ns

Critical value: 1.976

- Mean (Male) = 76.47
- Mean (Female) = 74.52
- t-value = 1.194

The comparison of study habits between male and female respondents shows a slight difference in mean scores, with males scoring marginally higher. However, the t-value (1.194) indicates that this difference is not statistically significant. This suggests that both male and female students demonstrate comparable levels of commitment, planning, and engagement in their academic work. The result reflects a balanced academic orientation across genders, possibly due to equal access to educational resources and similar academic expectations.

It also indicates that gender does not significantly influence study discipline, learning strategies, or academic focus. Therefore, study habits are largely consistent between male and female students, supporting the acceptance of the hypothesis. Although males have slightly higher scores, the difference is not statistically significant.Therefore the hypothesis is accepted.

The result reflects a balanced academic orientation across genders, possibly due to equal access to educational resources and similar academic expectations.

Table 4.15 Study Habits between Rural and Urban groups

		Study Habits		
		Mean	S.D	No.
Locality	Rural	76.02	10.61	44
	Urban	75.31	9.77	106
Total		75.52	10.00	150

Image 4.10 Study Habits between Rural and Urban groups

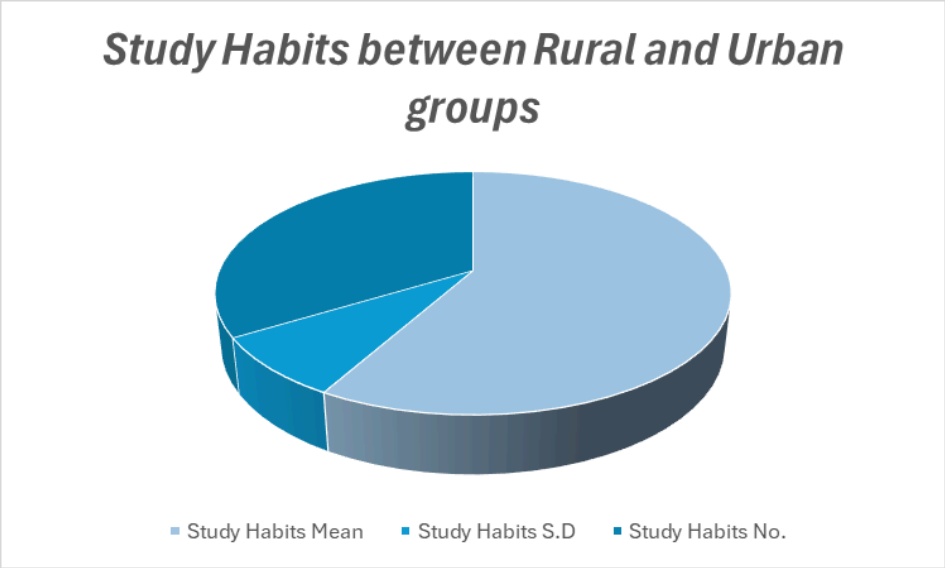

Table 4.16 t-test for Equality of Means

t	df	Sig
.396	148	Ns

Critical value: 1.976

- Mean (Rural) = 76.02
- Mean (Urban) = 75.31
- t-value = 0.396

The analysis of study habits based on locality reveals very similar mean scores between rural and urban students, with an insignificant t-value (0.396). This indicates that there is no meaningful difference in the study habits of students from different geographical backgrounds. Despite potential differences in infrastructure or resources, both groups appear to maintain similar levels of academic discipline and study practices.

This finding suggests that students, regardless of their locality, are adapting effectively to educational demands and are equally committed to their learning. The result also reflects the positive impact of increased educational outreach and digital access in bridging gaps between rural and urban learners. Hence, locality does not significantly affect study habits, and both groups demonstrate comparable academic behavior.

Both groups show nearly equal study habits, indicating that locality does not influence learning behavior significantly.

4.4 OVERALL FINDINGS

- Digital device usage and Study Habits does not differ significantly
- Digital device usage does not differ significantly between Age groups
- Digital device usage does not differ significantly between gender (male and female).
- Digital device usage does not differ significantly between Locality (Rural and Urban).

- Study Habits does not differ significantly between Age groups
- Study Habits does not differ significantly between Gender (Male and Female)
- Study Habits do not differ significantly between Locality (Rural and Urban).

4.5 CONCLUSION

The analysis reveals that while digital device usage is widespread among students, it does not significantly impact their study habits. The only notable difference observed is based on gender, where male students tend to use digital devices more than female students. However, study habits remain stable regardless of demographic variables. This suggests that students are able to balance digital usage without affecting academic behavior, highlighting the maturity and adaptability of learners in a digital environment.

CHAPTER V

FINDINGS AND SUMMARY

CHAPTER 5

SUMMARY AND FINDINGS

5.1 INTRODUCTION

The present chapter provides a comprehensive overview of the entire research study by synthesizing the key aspects discussed in the previous chapters. It brings together the objectives, methodology, analysis, and interpretation into a coherent framework in order to derive meaningful conclusions. The primary purpose of this chapter is to present a detailed summary of the study, highlight the major findings derived from statistical analysis, and draw logical conclusions based on the results obtained.

In addition, this chapter discusses the educational implications of the findings, particularly in the context of teacher education, and offers suggestions for future research. As the study focuses on understanding the effect of digital device usage on the study habits of student teachers, this chapter plays a crucial role in explaining how the results contribute to existing knowledge and how they can be applied in real educational settings.

It also provides a reflective understanding of how modern learners interact with digital technology and manage their academic responsibilities in a rapidly evolving digital environment.

5.2 SUMMARY OF THE STUDY

The present study was undertaken with the objective of examining the relationship between digital device usage and the study habits of student teachers. In the contemporary educational context, digital devices such as smartphones, laptops, tablets, and computers have become an integral part of students' daily academic activities.

While these technologies provide numerous opportunities for accessing information and enhancing learning, they also raise concerns regarding their potential impact on students' concentration, time management, and overall study behavior.

The study aimed to explore whether the usage of digital devices significantly influences the study habits of student teachers and whether this relationship varies based on demographic

factors such as age, gender, and locality. To achieve these objectives, a systematic research methodology was adopted. The study employed the survey method, which is widely used in educational research for collecting data related to attitudes, behaviors, and practices.

A sample of 150 student teachers from teacher education institutions was selected using a purposive sampling technique. A self-structured questionnaire was developed by the researcher to collect relevant data. The questionnaire consisted of items related to digital device usage and study habits, and responses were recorded using a five-point Likert scale.

The collected data were analyzed using appropriate statistical tools such as mean, standard deviation, correlation, and t-test. These tools helped in examining the relationship between variables and identifying differences among groups. The results of the analysis were systematically presented and interpreted in chapter 4, forming the basis for the findings and conclusions discussed in this chapter.

5.3 MAJOR FINDINGS OF THE STUDY

The analysis of data yielded several important findings that provide insight into the relationship between digital device usage and study habits among student teachers.

The study found that there is no significant relationship between digital device usage and study habits. The correlation coefficient obtained was very low, indicating that the level of digital device usage does not directly influence how students organize and manage their study practices. This suggests that students are capable of maintaining their academic routines irrespective of their engagement with digital devices.

Another important finding of the study is that digital device usage does not differ significantly across different age groups. Students belonging to the age groups of 21–22 and 23–24 years exhibit similar patterns of digital engagement, which may be attributed to their comparable academic requirements and exposure to technology.

However, a significant difference was observed in digital device usage based on gender. Male students were found to use digital devices more extensively than female students. This

difference may be due to variations in interests, usage patterns, and levels of engagement with digital activities.

The study also revealed that locality does not have a significant impact on digital device usage. Both rural and urban students demonstrated similar levels of access to and usage of digital devices, indicating that technological advancements have reduced the gap between different geographical areas.

With regard to study habits, the findings indicate that there are no significant differences based on age, gender, or locality. Students across different demographic categories exhibit consistent study behaviors, suggesting that study habits are relatively stable and not significantly influenced by these factors.

Overall, the findings highlight that while digital devices are widely used among student teachers, their usage does not significantly affect the development or maintenance of study habits.

5.4 CONCLUSIONS OF THE STUDY

Based on the findings of the study, several important conclusions can be drawn. The study concludes that digital device usage, despite being a prominent aspect of modern education, does not have a significant impact on the study habits of student teachers.

This indicates that students are capable of adapting to technological advancements without compromising their academic discipline and learning practices.

The absence of a significant relationship between digital device usage and study habits suggests that the influence of technology on learning behavior is complex and may depend more on how digital devices are used rather than the frequency of usage. Students who use digital devices for both academic and non-academic purposes appear to maintain a balance that prevents any negative impact on their study routines.

The study also concludes that demographic factors such as age and locality do not significantly influence digital device usage or study habits. This reflects a level of uniformity in

digital engagement and academic behavior among student teachers, regardless of their background.

However, the significant difference observed in digital device usage based on gender indicates that gender plays a role in shaping digital behavior. This finding suggests the need for further exploration into gender-specific patterns of technology use.

In general, the study emphasizes that student teachers are capable of managing their academic responsibilities effectively in a digital environment. It highlights the importance of responsible and purposeful use of technology in supporting learning without causing disruption to study habits.

5.5 EDUCATIONAL IMPLICATIONS

The findings of the study have several important implications for educational practice, particularly in the field of teacher education.

Firstly, the study highlights the need to promote balanced and responsible use of digital devices among student teachers. Since digital device usage does not negatively impact study habits, educational institutions can encourage the use of technology as a supportive tool for learning, provided it is used appropriately.

Secondly, the findings emphasize the importance of integrating digital literacy training into teacher education programs. Student teachers should be equipped with the skills required to use digital tools effectively for academic and professional purposes. This will enable them to become competent educators who can integrate technology into their teaching practices.

Thirdly, the study suggests that awareness programs should be conducted to educate students about the potential benefits and risks associated with digital device usage. Such programs can help students develop self-regulation skills and maintain a healthy balance between academic and non-academic activities.

Furthermore, the results indicate that study habits are consistent across different demographic groups. Therefore, educational institutions should focus on strengthening study skills and learning strategies among all students, regardless of their background.

Finally, the study underscores the importance of preparing student teachers to adapt to the digital age. As future educators, they must be capable of using technology effectively to enhance the learning experiences of their students.

5.6 SUGGESTIONS FOR FURTHER RESEARCH

While the present study provides valuable insights into the relationship between digital device usage and study habits, it also opens up several avenues for future research.

Future studies may be conducted with a larger and more diverse sample to improve the generalizability of the findings. Researchers can also explore additional variables such as academic performance, stress levels, time management skills, and digital literacy.

Comparative studies can be undertaken to examine differences between various educational levels, such as school students, college students, and university students. Longitudinal studies may also be conducted to understand how digital device usage influences study habits over a longer period of time.

In addition, future research can focus on distinguishing between academic and non-academic usage of digital devices to gain a more detailed understanding of their impact. Studies can also be extended to different regions and cultural contexts to explore variations in digital behavior and study habits.

5.7 CONCLUSION

The present study provides a comprehensive understanding of the relationship between digital device usage and study habits among student teachers. The findings reveal that digital device usage, although widespread, does not significantly influence study habits. This suggests that student teachers are capable of adapting to the digital environment while maintaining effective academic practices.

The study highlights that the role of digital technology in education is not inherently positive or negative; rather, its impact depends on how it is utilized by learners. When used responsibly and purposefully, digital devices can serve as valuable tools that support learning and enhance academic engagement.

Ultimately, the study emphasizes the importance of developing a balanced approach to technology use, where digital devices are integrated into the learning process without disrupting study habits.

This balanced approach is essential for preparing student teachers to succeed in both their academic and professional careers in an increasing digital world.

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BIBLIOGRAPHY

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APPENDICES

Questionnaire for College Students on Digital Device Usage

Personal Information

1. Name: _____
2. Age: _____
3. Gender: ☐ Male ☐ Female
4. Locality: ☐ Rural ☐ Urban

S. No	Statement	Always	Often	Sometimes	Rarely	Never
1	I use digital devices to search for information related to my studies.					
2	I use educational apps or websites for learning subjects.					
3	I watch online educational videos to understand difficult concepts.					
4	I use digital devices to prepare assignments or projects.					
5	I use e-books or online study materials instead of printed books.					

6	My teachers encourage the use of digital devices for academic purposes.					
7	I use my digital device for playing games.					
8	I spend a lot of time on social media platforms (WhatsApp, Instagram, etc.).					
9	I use digital devices mainly for entertainment (videos, music, reels).					
10	I use my device late at night for non-academic purposes.					
11	I feel distracted by digital devices while studying.					
12	I find it difficult to control my time spent on digital devices.					
13	I keep my mobile phone away while studying.					

14	Notifications from digital devices interrupt my study time.					
15	I multitask between studying and using digital devices.					
16	I feel restless if I do not check my phone during study hours.					
17	Digital device usage reduces my concentration while studying.					
18	I lose track of time while using digital devices.					
19	I prefer using digital devices over completing my homework.					
20	I feel anxious when I am unable to use my digital device.					

Questionnaire for College Students on Digital Device Usage

Personal Information

5. Name: _____
6. Age: _____
7. Gender: ☐ Male ☐ Female
8. Locality: ☐ Rural ☐ Urban

S. No	Statement	Always	Often	Sometimes	Rarely	Never
1	I follow a fixed timetable for my daily studies.					
2	I complete my assignments on time.					
3	I allocate sufficient time for each subject.					
4	I avoid postponing my study work.					
5	I can concentrate on my studies for a long time without distraction.					
6	I study in a quiet and comfortable place.					

7	I remain focused while studying difficult subjects.					
8	I avoid distractions during study hours.					
9	I take notes while studying or listening in class.					
10	I organize my notes properly for future reference.					
11	I underline or highlight important points while studying.					
12	I revise my notes regularly.					
13	I read my lessons daily.					
14	I revise topics before examinations.					
15	I prepare summary notes for quick revision.					

16	I practiced previous years' question papers.					
17	I prepare well in advance for examinations.					
18	I feel confident about my preparation before exams.					
19	I manage my time effectively during examinations.					
20	I review my answers before submitting the exam paper.					

Avinashilingam Institute for Home Science and Higher Education for Women
Deemed-to-be-University Estd. u/s 3 of UGC Act 1956, Category A by MHRD (now MoE)
Re-accredited with 'A++' Grade by NAAC CGPA 3.65/4, Category I by UGC
Coimbatore-641 043, Tamil Nadu, India

Institutional Human Ethics Committee (IHEC)

Date 4/3/26

To
Vishmitha R K
24PED014
Department of Education
Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore 641043

Dear Ms Vishmitha R K
Ref: Your application IHEC 2026/EDN10
Effect of Digital Device Usage on Study Habits of Student Teachers submitted for approval of IHEC

The Institutional Human Ethics Committee of Avinashilingam Institute for Home Science and Higher Education for Women after careful scrutiny and review of your application, hereby grants approval to your application titled 'Effect of Digital Device Usage on Study Habits of Student Teachers'. The approval number for the same is IHEC 2026/EDN10/ XMT
This certificate is issued for the study period specified in your application.

Best Wishes,

Dr. Shubashini K. Sripathi
Member Secretary

Institutional Human Ethics Committee