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A Study On Impact Of The Free Laptop Scheme On Educational Outcomes In Tamil Nadu

[1]Raveena R Nair, [2]Harshi Gupta, [3]Leo Godson. S, [4]V.Chamili, [5]S.Vindiyan, [6]Swetha.R

[1]Assistant Professor, Department of Intellectual Property Rights, Saveetha School of Law, Saveetha Institute of Medical and Technical Sciences (SIMATS),
Chennai-600077. E mail - raveenarnair.ssl@saveetha.com
[2]Saveetha School of Law, Saveetha Institute of Medical and Technical Sciences (SIMATS), Chennai-600077
[3]Saveetha School of Law, Saveetha Institute of Medical and Technical Sciences (SIMATS), Chennai-600077
[4]Saveetha School of Law, Saveetha Institute of Medical and Technical Sciences (SIMATS), Chennai-600077
[5]Saveetha School of Law, Saveetha Institute of Medical and Technical Sciences (SIMATS), Chennai-600077
[6]Saveetha School of Law, Saveetha Institute of Medical and Technical Sciences (SIMATS), Chennai-600077

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ABSTRACT :
The free laptop scheme in Tamil Nadu, launched in 2011, aimed to bridge the digital divide and improve access to technology in education, particularly for students from underprivileged backgrounds. The distribution of laptops has increased digital literacy among students, enabling them to access online resources, engage in self-study, and enhance their technical skills, which are crucial in modern education. However, the scheme has faced challenges such as the lack of infrastructure, like internet connectivity and proper teacher training, which has limited the full potential of these devices in improving education quality. The research method followed here is empirical research. Sampling method is convenient. A total of 205 samples have been taken out of which is taken through simple sampling. The sampling frame taken by the researcher is empirical. The research samples were collected in and around Chennai. This empirical research has both dependent and independent variables. The independent variables are name, gender, age , marital status, educational qualifications and employment status.. The dependent variables are primary objective of the Tamil Nadu government's free laptop scheme, impact of free laptop scheme on students career prospects, aim to improve digital literacy among students, scheme minimised the reliance on traditional textbooks, making learning more interactive and engaging, access to laptop made students more engaged in their studies or not, impact of the free scheme on student's engagement with their studies. The statistical tools used are simple bar graph, clustered bar graph, cross tabulation, one sample t test and Anova.
KEY WORDS : Scheme, Free laptop, Tamil Nadu, Education, Students, Welfare.

INTRODUCTION :

The scheme has contributed to higher enrollment and retention rates in government schools, especially in rural areas, by offering a tangible incentive to continue education. The initiatives taken by the government are Integration of ICT (Information and Communication Technology, Digital Literacy Programs, Monitoring and Evaluation, Bridging the digital divide. The factors affecting are access to technology, infrastructure availability, teacher training and support, curriculum integration, parental support and engagement, socioeconomic factors, maintenance and sustainability, student motivation and digital literacy. The impact of Tamil Nadu's free laptop scheme on educational outcomes has been mixed, with recent developments pointing to significant changes. Launched in 2011, the scheme aimed to provide free laptops to government school and college students, primarily benefiting those from economically disadvantaged backgrounds. Between 2011 and 2020, over 51.67 lakh laptops were distributed. The scheme helped students, especially in rural areas, by improving digital literacy and access to educational resources, which is crucial given the rising importance of fields like artificial intelligence and data science. However, the distribution of laptops has faced challenges in recent years. The COVID-19 pandemic caused disruptions, and the scheme came to a halt in 2020. Despite efforts to revive it, the government has struggled with budgetary constraints. In 2024, no funds were allocated for the scheme, leaving 20 lakh students still waiting for their

laptops. While the government has invested in building computer labs as a temporary solution, students continue to express a preference for personal laptops, which offer greater flexibility. Some reports suggest the government is considering replacing the free laptop program with tablet distribution to reduce costs and cater. The government has commissioned independent studies to understand the correlation between the distribution of laptops and students' academic performance. These studies look into areas such as improved learning opportunities, access to digital resources, and performance in exams. By providing laptops, the government aims to integrate technology into the classroom. Initiatives focus on training teachers and students in using digital tools to enhance learning experiences and improve overall engagement. To complement the free laptop scheme, the government has introduced digital literacy programs in schools. These programs teach students how to effectively use the laptops for educational purposes, including accessing online resources, using educational software, and improving technical skills. The government regularly monitors the usage of the distributed laptops. Schools are tasked with ensuring the devices are used for learning and that students benefit from the increased access to technology. Reports on the academic performance of students receiving laptops help assess the scheme's effectiveness. The initiative also seeks to address the gap between urban and rural students by providing equal access to technology, aiming to improve overall educational outcomes, especially for students in remote areas where digital resources may be limited. Students who previously had limited or no access to computers benefit from the scheme, as they can use the laptops for research, assignments, and online learning. This could lead to improved digital literacy and better engagement with e-learning resources. Globally, initiatives like the “One Laptop per Child” (OLPC) program have aimed to provide low-cost laptops to students in developing countries. Studies on OLPC in countries like Peru and Uruguay indicate mixed outcomes. While providing laptops increased digital literacy, many studies show minimal improvement in core academic skills like math and reading. Tamil Nadu’s program, similarly, has shown increases in digital literacy, but concerns remain about its direct impact on academic performance. In Chile, laptops and tablets were provided along with a robust digital curriculum and teacher training. This holistic approach yielded better results in terms of both digital skills and educational outcomes, suggesting that Tamil Nadu’s scheme could benefit from deeper integration into the curriculum and more support for educators. The availability of electricity, reliable internet access, and digital resources (such as e-books and online tutorials) greatly affects the effective use of the laptops. In rural areas with limited infrastructure, the laptops may not be used to their full potential. The effectiveness of the scheme also depends on how well teachers are trained to integrate technology into their teaching. If teachers lack digital skills, students may not fully benefit from the laptops. The extent to which the school curriculum is designed to utilise technology in learning processes plays a significant role. If the curriculum encourages and supports digital tools, the laptops can have a more profound impact on learning outcomes. In homes where parents are digitally literate and supportive, students may use laptops more effectively. Conversely, in households with less digital literacy, students may not be guided on how to maximise the benefits of the device. While the scheme provides a free laptop, students from lower-income households may still struggle to afford other necessary resources (e.g., internet access, repairs), which can limit the positive impact. The durability of the laptops and the availability of repair services are crucial. If the devices frequently malfunction and there is no support for maintenance, the educational benefits may diminish over time. The impact also hinges on how motivated students are to use the laptops for academic purposes and how familiar they are with basic digital skills. Without adequate orientation, the laptops might be used for non-educational activities.

OBJECTIVES :

- To study the primary objective of the Tamil Nadu government’s free laptop scheme.
- To analyse the impact of the free laptop scheme on students career prospects.
- To determine the free laptop schemes in Tamil Nadu aimed to improve digital literacy among the students.

REVIEW OF LITERATURE :

1. **V. Mohanasundaram, S. Santhi (2022),** Open Educational Resources (OER) are the recently emerging concepts in education across the world. The rapid technological advances in the current era have placed a demand for everything to be available on the fingertips. Also, there is a demand for self-paced, independent learning experience from the learners. These developments have opened up new possibilities for alternate channels of dissemination of information and knowledge. Also, with the creation of new knowledge, proficient sharing of resources is an essential for a healthier tomorrow. Therefore, OER is considered one of the most important means of sharing knowledge, learning and teaching.

2. **K. Jafar, Kripa Ananthpur (2023),** This article discusses Tamil Nadu's experience in continuing education during the pandemic. The result highlights the existing digital divide and challenges faced by students in accessing online education. Some of the government initiatives like Kalvi TV telecasting classes for school students have been effective in addressing the digital divide between rural and urban areas in the state and making its education system more inclusive.
3. **Muthukumar S, Mani M (2022),** The result of the study central and state government should facilitate rural students by providing them with all kinds of facilities like laptops and smartphones and going to the slums to improve the quality of education of rural students and promote access to their higher education and intellectual information. The proposed study is aimed to concentrate the present knowledge to the information literacy skill, and impact the COVID-19 student's education level in the rural students of Tamil Nadu State, South India.
4. **Dr. S. Sasikumar (2020),** This exploratory study was aimed to understand the Government school students' perception towards cost-free welfare schemes of the Government of Tamil Nadu. The respondents have given higher perception on awareness of various Cost-Free Welfare Schemes offered to school students as compared to accessibility to Cost-Free Welfare Schemes offered to school students. To conclude, school students are expecting more welfare schemes from Tamil Nadu school education department to increase the enrollment ratio across different Government schools. Especially, the food offered in the noon-meal system can be enriched with good quality to attract more number of beneficiaries in Government schools of Tamil Nadu.
5. **Dr. K. Rajeswari, A. Selva Lakshmi (2014),** Education is a key tool for development and an invaluable means of addressing structural inequality and disadvantage. Providing free and quality education to children reflects the fact that every child is entitled to fundamental human rights and is to be treated with dignity. Primary education provides children with life skills that will enable them to prosper later in life. It equips children with the skills to maintain healthy productive and resourceful and socially active adults.
6. **Kannan M. Moudgalya (2020),** This article gives a bird's-eye view of the effort taken by the Ministry of Human Resource Development, Government of India, in improving the quality of higher education through ICT. This is initially achieved through projects funded by the National Mission on Education through ICT, and subsequently, through other schemes. Nationally coordinated projects, such as NPTEL, SWAYAM, and Virtual Labs are briefly described.
7. **Pooja Mann, Bhoomika Mann (2021),** This paper aims to bring forth how the basic right of education got adversely affected due to the COVID-19 pandemic. The unplanned and immediate shift to online classes adversely affected the students' physical and mental health as several issues that the students faced were related to the lack of adequate resources. Methods. The data for this paper were collected through a self-prepared and structured questionnaire, using Google forms, which was then circulated among different stakeholders of the educational institutes.
8. **Rohan Michael Ramesh (2022),** The impact of the national lockdown on a rural and tribal population in Tamil Nadu, southern India. A mixed-methods approach with a pilot-tested, semi-structured questionnaire and focus group discussions were used. The impact of the lockdown on health, finances, and livelihood was studied using descriptive statistics. Multivariable logistic regression was carried out to identify factors associated with households that borrowed loans or sold assets during the lockdown, and unemployment during the lockdown.
9. **Karthik Muralidharan, Dean Spears (2013),** This India Policy Forum 2012-13 comprises papers and highlights of the discussions at the ninth India Policy Forum (IPF) held in New Delhi on July 17-18, 2012. The IPF is a joint venture of the National Council of Applied Economic Research (NCAER) in New Delhi and the Brookings Institution in Washington, D.C. The IPF explores India's rapidly evolv-ing—and sometimes tumultuous-economic transition and the underlying policy frameworks and reforms using policy-relevant.
10. **Edward Cutrell, Srinath Bala (2013),** Recent advances in online education and massive (open) online courses (MOOCs) have led many people to suggest that a revolution in learning is imminent. In particular, a common claim is that these technologies will enable a democratisation of education, allowing everyone to receive the same high-quality education whether they live in India, China, Sub-Saharan Africa or San Francisco.
11. **Girija Krishnaswamy (2001),** The south Indian State of Kerala has more often than not, been hailed as a 'Model of Development' for its high human development scores comparable with that of many advanced countries, attained and being sustained with a much lower per capita income [8], [3]. Model or not, evidence of Kerala's development experience, as reflected in objective indicators like Human Development Index (HDI), Physical

Qualities of Life Index (PQLI), Education Development Index (EDI) and Gender Equality Index (GEI) is highly remarkable.

12. **Komathi Ale, Arul Chib (2011),** The role of information and communication technologies (ICTs), particularly in the domain of education (ICTE), has been recognized to benefit learning. This article aims to investigate the influential factors that affect the introduction of technology in an Indian rural primary school. The objective was to address current gaps in research by illuminating specific community factors that influence technology adoption.
13. **Genimon V. Joseph (2021),** This study is relevant as it could connect the pre-Covid digital initiatives which could successfully empower the teachers to face the Covid-19 pandemic situation without interrupting the education process amidst the Covid-19 restrictions in Kerala. The study identified that the technology learning initiatives with tools of educational neurosciences have partially mediated teachers' Technology Readiness to Technology Adoption.
14. **Padmanabhan, Poornima (2009),** there has been an influx of single-user laptop projects in educational settings. The rationales are to address purported access gaps, foster student-led learning, and encourage the development of 21st century digital literacies. More recently, low-cost laptops are being distributed in developing country contexts, with the goal of providing children with new educational opportunities. However, technologies are being distributed even before the socioeconomic and cultural contexts of their use are fully understood. This work aimed to study one implementation of the One Laptop Per Child (OLPC) initiative in a South Indian city.
15. **Dr. Rachna Tyagi (2015),** Information and Communications Technologies (ICT) education is basically our society‟s efforts to teach its current and emerging citizens valuable knowledge and skills around computing and communications devices, software that operates them, applications that run on them and systems that are built with them. ICT is used strategically in almost all businesses and industries. Many have developed specialised systems and uses of ICT, and many have specialised legal and regulatory requirements; quality control systems; integrations with production and research equipment and systems; security requirements; and software applications.
16. **Ramaswamy, Meena (2021),** This paper discusses the "academic phobia" of rural students manifested due to the "digital divide," which results in ultimate "psychological distress" while focusing on the students of higher educational institutions in rural districts of Kerala, Karnataka and Tamil Nadu the three Southern states of India. A study was directed to test how virtual learning impacts the psychological distress directly and also through mediating variables, academic phobia, and digital divide among the students of higher education institutions in rural India.
17. **K. A. Arokiaraj (2022),** A laptop, also known as notebook, is a portable personal computer which aids one to utilise in different milieu. Needless to mention that a laptop with internet connection would bring the macrocosm simply into one's earning capacity. In today's fast-moving world, it has become the definite need of the hour rather than luxury. The part played by laptops among students is more vital in academic usage as well as in day today life.
18. **Ninawari Dilip Ware (2023),** Due to the COVID-19 pandemic, several sectors across the globe have witnessed widespread disruption, impacting almost every sector of the economy. The education sector is no exception to this; schools across the globe have been shut, and over 1.2 billion children are out of classrooms. Owing to this situation, India's schools have adopted online teaching-learning for children, like many other countries.
19. **Kanageswary Thumbarayan (2023),** The integration of technology in teaching and learning is a crucial cornerstone in the education world to produce competent individuals in the 21st century. Teachers play a key role in contributing to the development of technologically proficient individuals in the field of IT. However, it is found that there is a lack of integration of technology in teaching and learning mainly because teachers face various challenges in implementing technology in pedagogy.
20. **Ritu Dangwal, Krati Sharma (2014),** Research also indicates that children self-organise themselves to figure out things which they find difficult and thus learning is a continuous process for them. The studies have also indicated that HiWEL pedagogy is child centric and is at the discretion of the child. Children organise themselves and become self-regulated learners. However, so far no study has been undertaken to determine whether children accessing Hole-in-the-Wall learning stations (HiWEL LSs) can improve in mathematics and English.

HYPOTHESIS :

H0 : There is no significant association between age and the primary objective of Tamil Nadu government's free laptop

scheme.

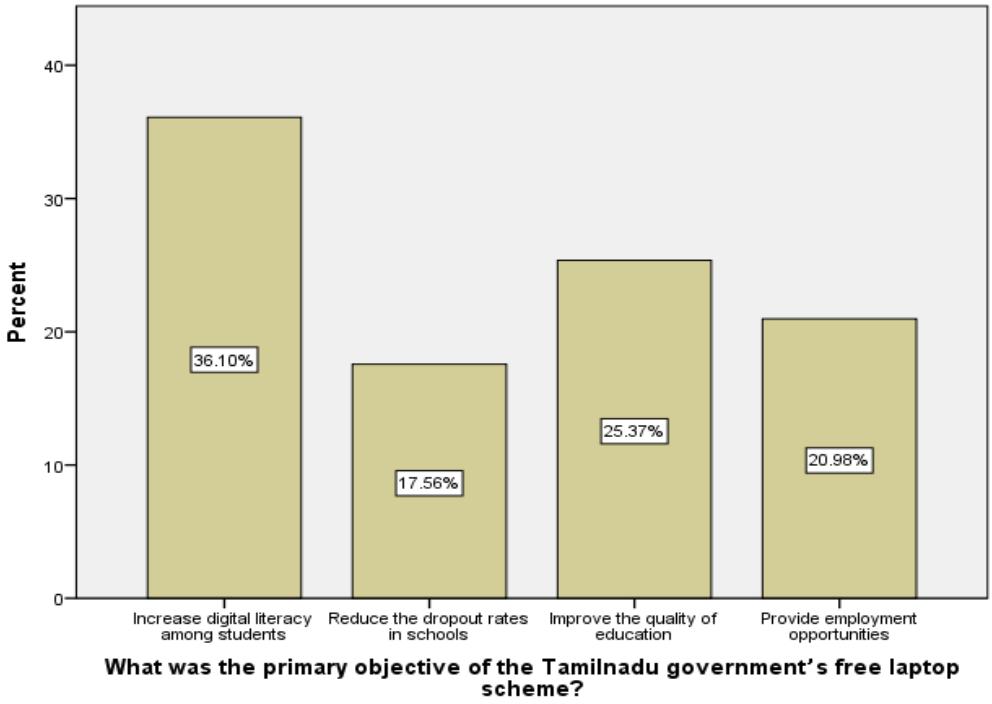
Ha : There is a significant association between the age and the primary objective of Tamil Nadu government's free laptop scheme.

METHODOLOGY :

The research method followed here is empirical research. Sampling method is convenient .A total of 205 samples have been taken out of which is taken through simple sampling. The sampling frame taken by the researcher is empirical. The research samples were collected in and around Chennai. This empirical research has both dependent and independent variables. The independent variables are gender, age , marital status, educational qualifications and employment status.. The dependent variables are primary objective of the Tamil Nadu government's free laptop scheme, impact of free laptop scheme on students career prospects, aim to improve digital literacy among students, scheme minimised the reliance on traditional textbooks, making learning more interactive and engaging, access to laptop made students more engaged in their studies or not, impact of the free scheme on student's engagement with their studies. The statistical tools used are simple bar graph, clustered bar graph, cross tabulation, one sample t test and Anova.

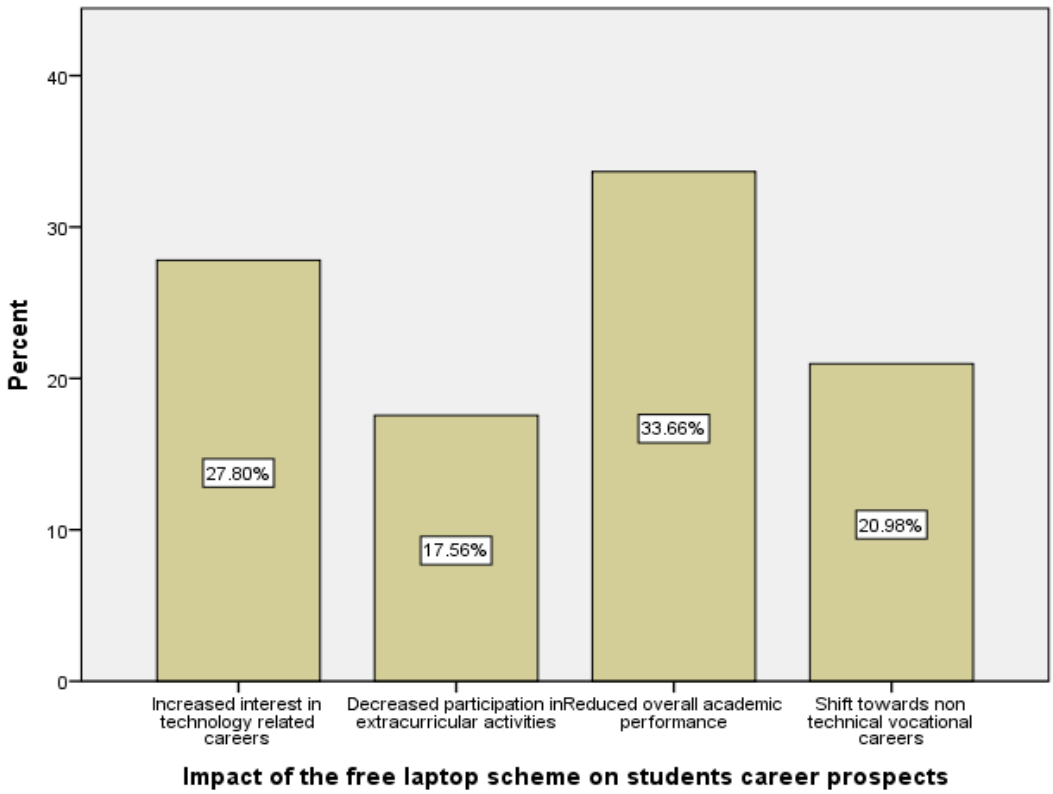
DATA ANALYSIS :

FIGURE 1 :



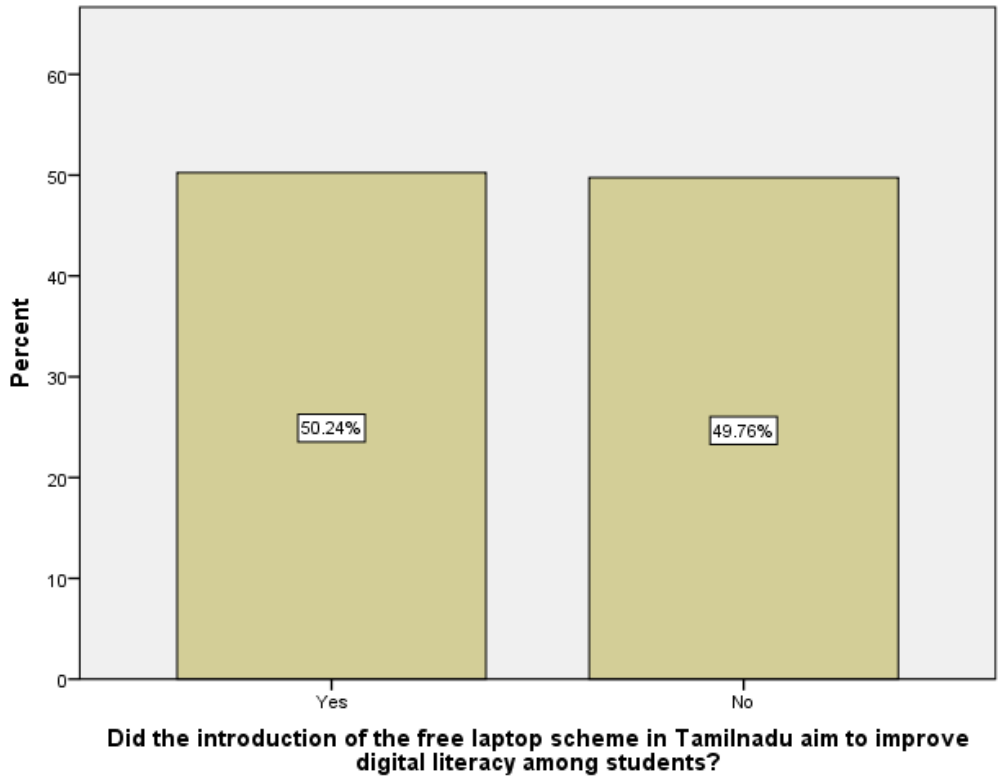
LEGEND : The graph represents the primary objective of the Tamil Nadu government's free laptop scheme.

FIGURE 2 :



LEGEND : The graph represents the impact of the free laptop scheme on students' career prospects.

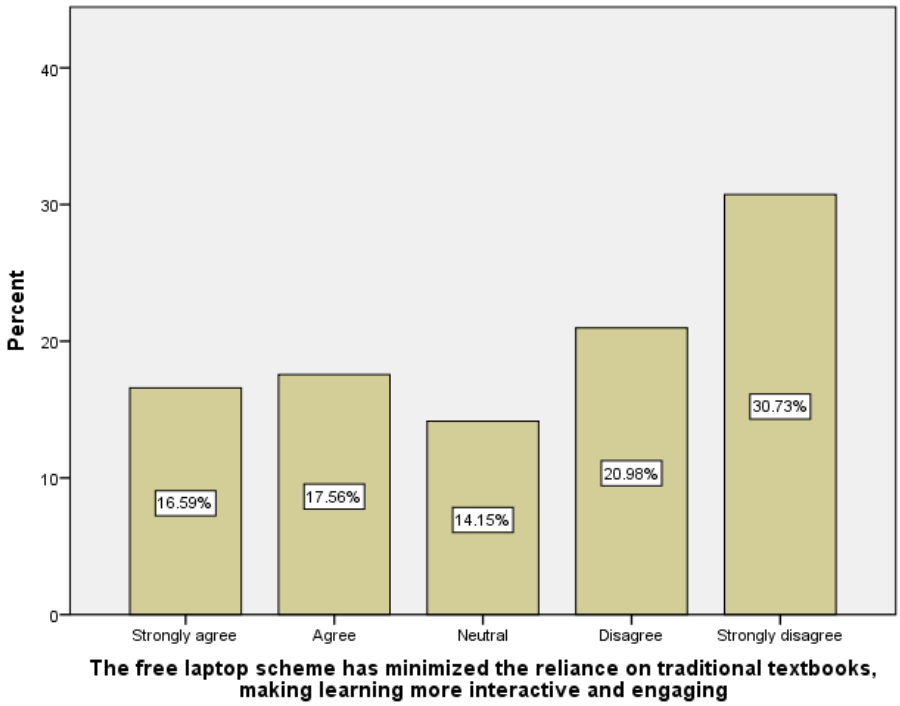
FIGURE 3 :



LEGEND : The graph represents the introduction of a free laptop scheme in Tamil Nadu aimed to improve digital literacy

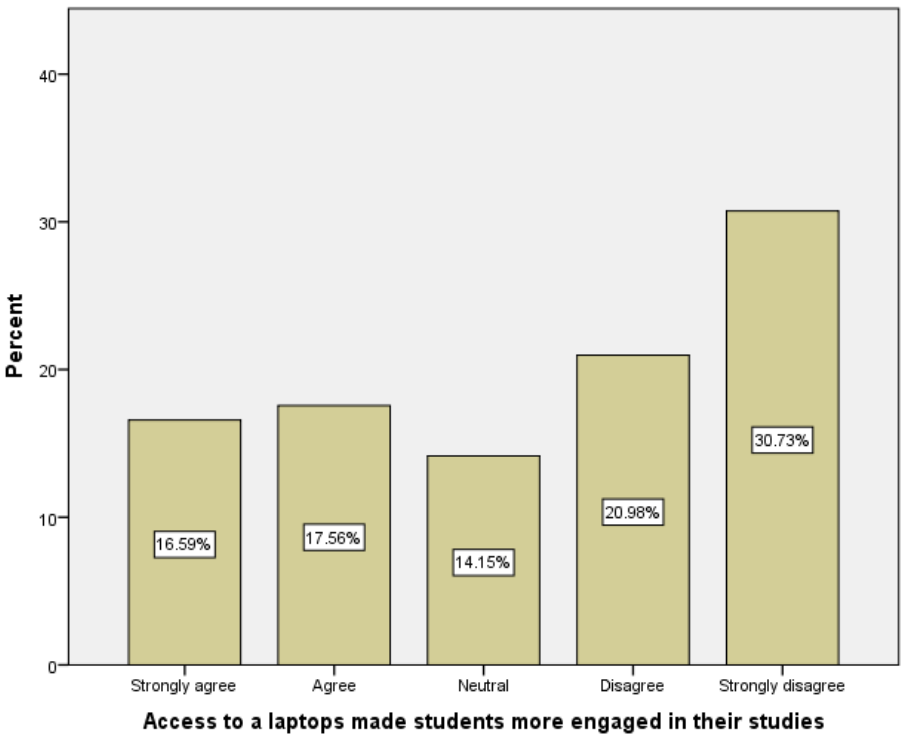
among students.

FIGURE 4 :



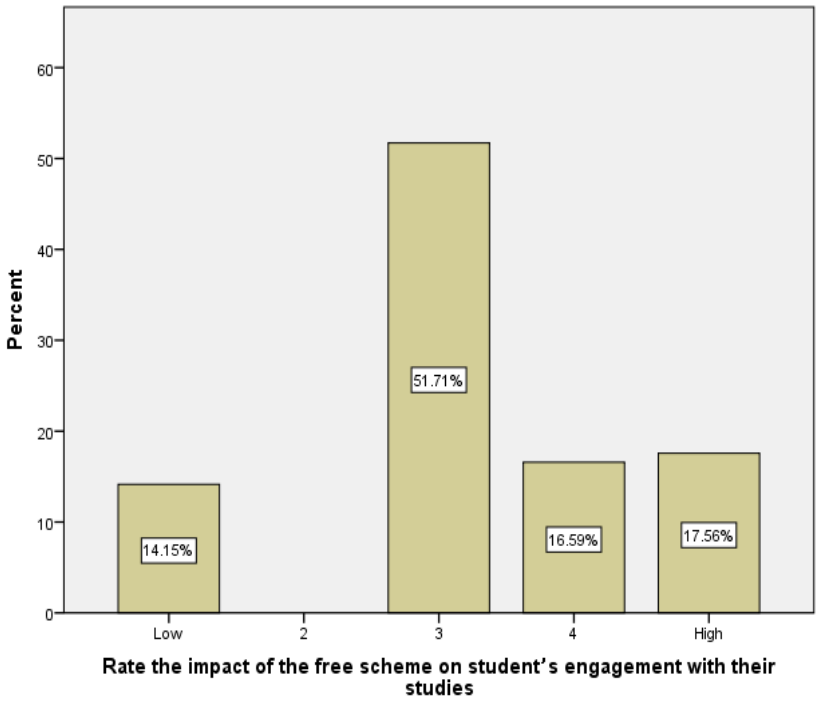
LEGEND : The graph represents the free laptop scheme that has minimised the reliance on traditional textbooks, making learning more interactive and engaging.

FIGURE 5 :



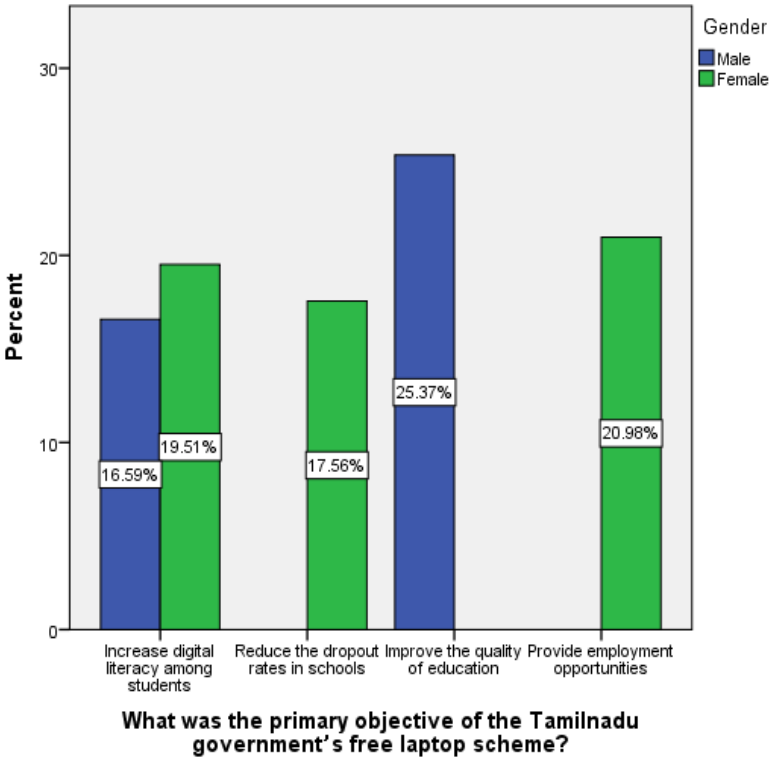
LEGEND : The graph represents access to laptops has made students more engaged in studies or not.

FIGURE 6 :



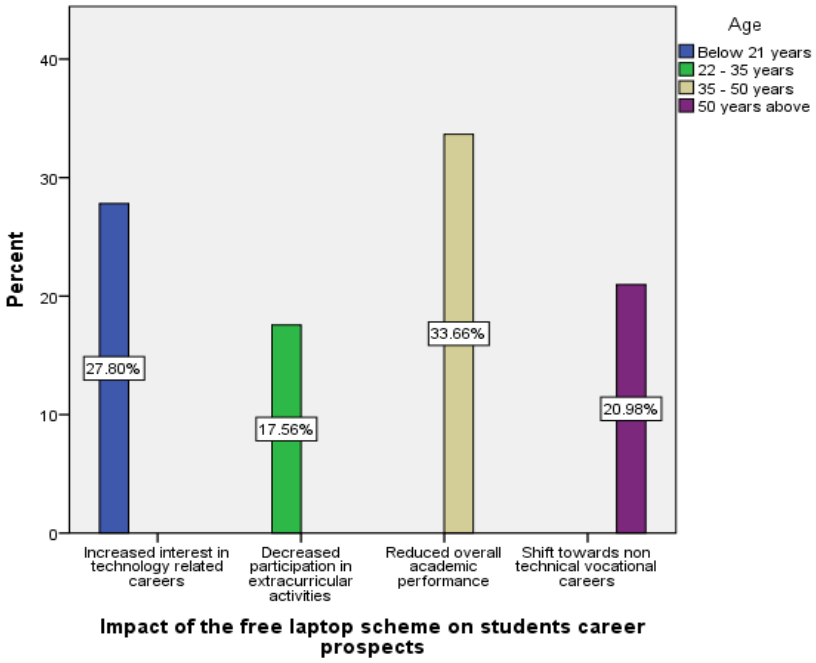
LEGEND : The graph represents the rate scale of the free scheme on students engagement with their studies

FIGURE 7 :



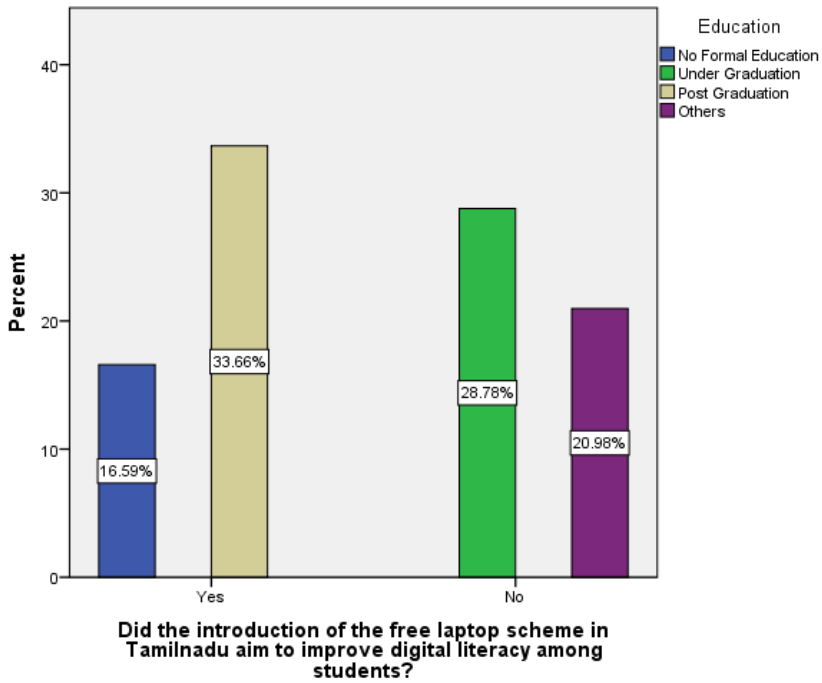
LEGEND : The graph represents the primary objective of the Tamil Nadu government's free laptop scheme compared with gender of the respondents.

FIGURE 8 :



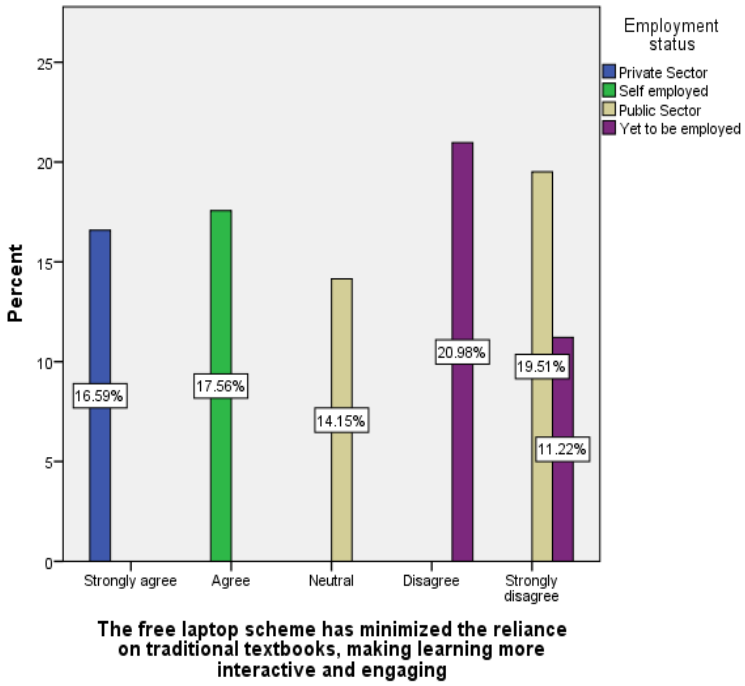
LEGEND : The graph represents the impact of the free laptop scheme on students' career prospects compared with the age of the respondents.

FIGURE 9 :



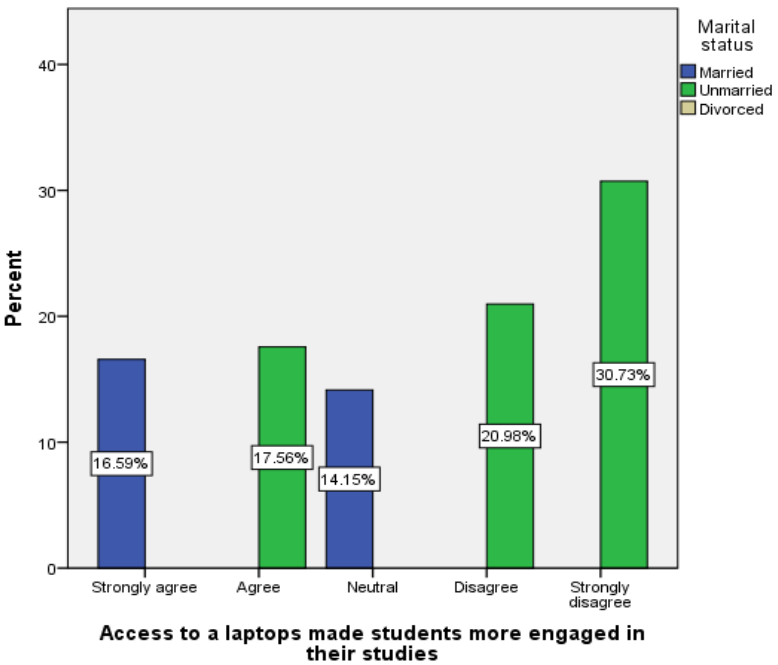
LEGEND : The graph represents the introduction of a free laptop scheme in Tamil Nadu aimed to improve digital literacy among students compared with the educational qualification of the respondents.

FIGURE 10 :



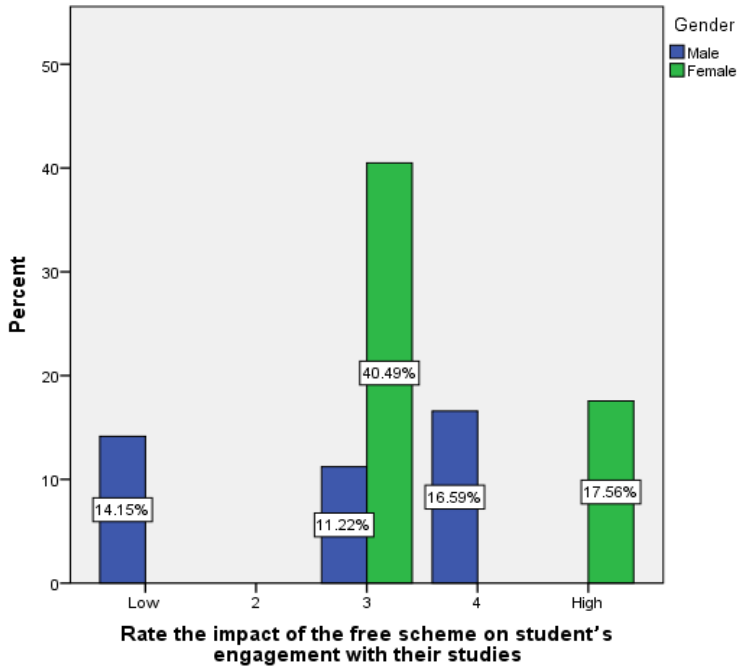
LEGEND : The graph represents the free laptop scheme that has minimised the reliance on traditional textbooks, making learning more interactive and engaging compared with the employment status of the respondents.

FIGURE 11 :



LEGEND : The graph represents access to laptops has made students more engaged in studies or not compared with the marital status of the respondents.

FIGURE 12 :



LEGEND : The graph represents the rate scale of the free scheme on students engagement with their studies compared with the gender of the respondents.

FIGURE 13 :
CROSS TABULATION :

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Education * The free laptop scheme has minimized the reliance on traditional textbooks, making learning more interactive and engaging	205	100.0%	0	0.0%	205	100.0%

Education * The free laptop scheme has minimized the reliance on traditional textbooks, making learning more interactive and engaging Crosstabulation

Count

		The free laptop scheme has minimized the reliance on traditional textbooks, making learning more interactive and engaging					
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Total
Education	No Formal Education	34	0	0	0	0	34
	Under Graduation	0	36	0	0	23	59
	Post Graduation	0	0	29	0	40	69
	Others	0	0	0	43	0	43
Total		34	36	29	43	63	205

LEGEND : The tabular column represents cross tabulation.

FIGURE 14 :

ONE SAMPLE T TEST :

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Impact of the free laptop scheme on students career prospects	205	2.48	1.110	.077

One-Sample Test

	Test Value = 0					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Impact of the free laptop scheme on students career prospects	31.977	204	.000	2.478	2.33	2.63

LEGEND : The tabular column represents one sample t test.

FIGURE 15 :

ANOVA :

ANOVA

What was the primary objective of the Tamilnadu government's free laptop scheme?

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	13.945	1	13.945	10.719	.001
Within Groups	264.075	203	1.301		
Total	278.020	204			

LEGEND : The tabular column represents the test of Anova.

RESULTS :

In **figure 1,** 36.10% of the respondents say that increasing digital literacy among students is the primary objective of the Tamil Nadu government's free laptop scheme. In **figure 2,** 33.66% of the respondents say that reduced overall academic performance impact of the free laptop scheme on students' career prospects. In **figure 3,** 50.24% of the respondents responded yes saying that introduction of a free laptop scheme in Tamil Nadu aim to improve digital literacy among students. In **figure 4,** 30.73% of the respondents strongly disagree that free laptop scheme has minimised the reliance on traditional textbooks, making learning more interactive and engaging. In **figure 5,** 30.73% of the respondents strongly disagree saying that access to laptops has not made students more engaged in their studies. In **figure 6,** 51.71% of the respondents rate 3 on the scale of 5 saying that the impact of the free scheme on student's engagement with their studies is neutral. In **figure 7,** 25.37% of the male respondents say that to improve the quality of education is the primary objective of the Tamil Nadu government's free laptop scheme. In **figure 8,** 33.66% of the respondents of age 35 - 50 years old say that reduced overall academic performance impact of the free laptop scheme on students' career prospects. In **figure 9,** 33.66% of the pg respondents responded yes saying that introduction of a free laptop scheme in Tamil Nadu aims to improve digital literacy among students. In **figure 10,** 20.96% of the respondents yet to be employed disagree that the free laptop scheme has minimised the reliance on traditional textbooks, making learning more interactive and engaging. In **figure 11,** 30.73% of the Unmarried respondents strongly disagree saying that access to laptops has not made students more engaged in their studies. In **figure 12,** 17.56% of the respondents rate 3 on the scale of 5 saying that the impact of the free scheme on student's engagement with their studies is neutral. In **figure 13** The calculated value is 0.000 <0.05, Null Hypothesis is rejected. So, there is a significant association between variables. In **figure 14** The calculated value is 0.000 <0.05, Null Hypothesis is rejected. So, there is a significant association between variables. In **figure 15** The calculated value is 0.000 <0.05, Null Hypothesis is rejected. So, there is a significant association between variables.

DISCUSSION :

Figure 1 : The 36.10% of respondents identifying the primary objective of Tamil Nadu's free laptop scheme as increasing digital literacy highlights a general awareness that the initiative aims to address the digital divide. This suggests that the scheme is being perceived in line with the government's goal to equip students with essential technological skills in a rapidly digitizing world.

Figure 2 : With 33.66% of respondents indicating that the free laptop scheme has reduced overall academic performance, there seems to be a significant concern about the scheme's unintended effects. This finding points to potential challenges, such as over-reliance on laptops for non-educational activities or inadequate integration of technology into the curriculum.

Figure 3 : A majority of 50.24% agreeing that the scheme aims to improve digital literacy reinforces that the public views this as a digital inclusion effort. It shows a strong consensus on the purpose of the initiative, which underscores its importance in fostering tech skills, especially for students in underserved areas.

Figure 4 : The 30.73% who strongly disagree that the scheme has minimized reliance on traditional textbooks implies a resistance to or slow adoption of digital learning tools. This suggests that while laptops are being distributed, they may not yet be fully integrated into students' learning processes or that conventional learning methods still dominate.

Figure 5 : With 30.73% strongly disagreeing that laptops have made students more engaged in their studies, this suggests a gap between providing technological tools and effectively using them to enhance learning outcomes. It indicates that just access to technology may not be sufficient to increase academic engagement.

Figure 6 : The 51.71% who rated the impact of the free laptop scheme as neutral indicates a general uncertainty or ambivalence about the scheme's effectiveness in boosting student engagement. This suggests that while the program may not be harmful, its benefits are not being fully realised or measured as significant by a majority of respondents.

Figure 7 : Among male respondents, 25.37% viewing the improvement of education quality as the scheme's primary objective highlights that there is a diverse range of expectations for the initiative. This could reflect a gendered perspective or varying priorities regarding the role of technology in education.

Figure 8 : Respondents aged 35-50 expressing concern about reduced academic performance due to the scheme (33.66%) might reflect their observations of technology's impact on younger generations. This demographic may perceive technology as a distraction or are comparing current students' academic performance to their own education experiences, which were less technology-dependent.

Figure 9 : Among postgraduate respondents, 33.66% believe the scheme aims to improve digital literacy. Their agreement with this objective suggests that those with higher education understand and align with the scheme's intentions, possibly reflecting their personal experiences with the importance of digital literacy in higher education and careers.

Figure 10 : The 20.96% of unemployed respondents disagreeing that the scheme has minimised reliance on traditional textbooks suggests that unemployed individuals may not see laptops as effectively replacing traditional methods. This could reflect concerns about practical application or training gaps in how to use digital resources effectively.

Figure 11 : With 30.73% of unmarried respondents strongly disagreeing that laptops have increased student engagement, it raises questions about the scheme's outreach and the ability of students to balance technology use for academic purposes versus other distractions, particularly for students who are still single and possibly more tech-savvy.

Figure 12 : 17.56% of respondents rating the impact of the scheme on engagement as high shows that a small segment of the population recognizes the scheme's benefits. While it suggests the scheme has had a positive impact for some, this minority indicates that more effort is needed to maximise its overall effectiveness.

Figure 13 : The rejection of the null hypothesis in figure 13 indicates a significant association between the variables studied. This suggests that some factors related to the free laptop scheme, such as its impact on academic performance, student engagement, or digital literacy, have statistically significant relationships with other variables, warranting deeper investigation.

Figure 14 : Similarly, the rejection of the null hypothesis in figure 14 implies a strong association between variables, further indicating that the factors under study are not independent. This could refer to aspects like the correlation between the free laptop scheme and student learning outcomes or socio-economic factors.

Figure 15 : In figure 15, the rejection of the null hypothesis again indicates a significant association between the variables studied. This consistency across figures 13 to 15 reinforces that the variables influencing the free laptop scheme's outcomes are interconnected, possibly pointing to important trends that need further exploration.

LIMITATIONS :

One of the major limitations of the study in the sample frame. There is a major constraint in the sample frame as it is limited to a small area. Thus, it proves to be difficult to extrapolate it to a larger population. Another limitation is the sample size of 205 which cannot be used to assume the thinking of the entire population in the particular country, state or city. The physical factors have a larger impact, thus limiting the study.

SUGGESTIONS :

The Free Laptop Scheme in Tamil Nadu has aimed to bridge the digital divide by providing laptops to students, especially those from economically disadvantaged backgrounds. While the initiative has the potential to improve educational outcomes, its impact has been mixed. Implement comprehensive digital literacy programs alongside the distribution of laptops. This should include training on basic computer skills, internet research, educational software, and productivity tools like word processors and spreadsheets. Design school curricula that actively integrate technology into subjects across all grades. Teachers should be trained on how to incorporate laptops into lesson plans, ensuring that students use them for research, interactive learning, and creative projects. Establish systems to monitor and evaluate the academic performance of students who receive laptops. This could include tracking changes in grades, digital skills development, and engagement levels in learning over time. Provide students with access to a well-curated collection of e-learning resources, including online courses, digital libraries, educational apps, and government-endorsed learning platforms. Free access to subject-specific tutorials and interactive content will encourage self-learning. Prioritize support for rural and economically disadvantaged students by offering additional resources such as offline learning materials, better internet access, and free or subsidised mobile data packages. Ensuring access to the internet is key to realising the full potential of laptops in education. Encourage parental involvement in overseeing the use of laptops for educational purposes. Additionally, conduct teacher development workshops to help educators guide students in using the devices effectively for learning, rather than for entertainment or non-educational purposes. Collaborate with educational technology companies to provide pre-installed or subsidised access to high-quality learning software. These partnerships can also help introduce students to coding, virtual labs, and other interactive learning experiences. Introduce usage tracking software to monitor how often and for what purposes the laptops are being used.

CONCLUSION :

The free laptop scheme in Tamil Nadu, introduced with the primary objective of improving digital literacy and bridging the digital divide, has had a mixed impact on educational outcomes. While the initiative has increased access to technology for students, especially from underprivileged backgrounds, its influence on academic performance and engagement remains a topic of debate. A significant portion of the respondents acknowledged that the scheme has positively contributed to

enhancing digital literacy among students. This aligns with the government's goal of preparing students for a digital future by familiarizing them with technology and digital tools at an early age. Concerns about reduced academic performance suggest that simply providing laptops without adequate support and training may not automatically translate into better educational outcomes. For some students, the laptops may have become more of a distraction than an aid, potentially affecting their focus and study habits. While some students have benefitted from increased access to educational resources and digital platforms, the overall impact on student engagement has been perceived as neutral or even negative by a considerable portion of respondents. This highlights the need for integrating technology into the curriculum more effectively and ensuring that students are guided on how to use laptops for educational purposes. Despite the introduction of laptops, the scheme has not significantly reduced the reliance on traditional textbooks or transformed the learning experience into a more interactive and engaging one. This suggests that the full potential of digital learning is yet to be realized in many schools. The impact of the scheme appears to vary across different demographic groups, with differences in perception based on gender, age, and educational background. This highlights the importance of tailoring support to ensure that all students can benefit equally from the initiative. The free laptop scheme in Tamil Nadu has made commendable strides in promoting digital inclusion and empowering students with essential digital skills. However, its effect on educational outcomes, particularly academic performance and student engagement, remains limited. To enhance its effectiveness, there is a need for better integration of digital tools into the teaching-learning process, along with continuous support, training, and monitoring. Regular assessments can help ensure that the devices are being utilised effectively for learning and not merely for entertainment or social media. Invest in improving internet infrastructure, particularly in underserved areas. Provide free or low-cost internet access or Wi-Fi hotspots in schools, community centres, or government offices to ensure all students can fully utilise their laptops.

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