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INFLUENCE OF COMPUTER LITERACY ON ACHIEVEMENT OF SECONDARY SCHOOL STUDENTS OF URBAN AREA OF WEST BENGAL

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Abstract: Advancement and evolution play a great role in the gradual development of human lifestyle, here advancement and evolution stand in the perspective of technology. The lattice of technology branches surrounds human society and covers all aspects of life. When it comes to the education sector human skill development becomes of utmost importance, because if the knowledge is imparted with a velocity using technology and sharp skills it will disperse more to ignite the mind because developing countries pay attention towards investing human capital in which spending on education and technology has been seen as an important step like Japan. Keeping all these in mind, research is done on the role of computer literacy in the life of secondary students and its effects on their acadetaic achievement. This is an emerging era of Artificial Intelligence (AI), Machine Learning (ML), Cyber Security, Blockchain technology, Quantum Computing, Virtual and augmented reality, Telemedicine, edge computing and robotics. The widespread use of the internet and computers in everyday life greatly influences our educational system.

For a country like India, a fastidious increase in Internet facilities and computer availability in the 21st century can be seen as a catalyst and the inclusion of computers and the Internet in the education sector may be a boon. Before COVID-19 and after COVID-19 India has seen an increase in using the Internet and computers, especially for e-learning resources.

Key-Word: **Internet, Computers, Academic achievements, e-learning, Secondary education, Urban area**

1. Introduction:

The human beings of the 21st Century went through the process of evolution and advancement and with us technologies also developed and become more advanced. This is an emerging era of Artificial Intelligence (AI), Machine Learning (ML), Cyber Security, Blockchain technology, Quantum Computing, Virtual and augmented reality, Telemedicine, edge computing and robotics.

The widespread use of the internet and computers in everyday life greatly influences our educational system. This study is based on the level of computer literacy among secondary-level school students and their teachers. This study will also determine the influence of computer literacy on the academic performance of secondary-level school students. Specifically, it tried to understand the students' attitudes toward computers and internet use. The study also dealt with the positive and negative aspects of computer and internet use. During the study of computer literacy level, we emphasised the extent of students' computer literacy in terms of Word Processing, Spreadsheet, Presentation, and General Computing and use of search engines.

During the COVID-19 pandemic, the online teaching-learning process has become a magical stratagem in the entire educational field for almost two years. That time school was a challenge to us. In India, the neo-normal kind of education system has been making itself the best endeavour to cope with this changed situation. It seems that the online education system is a panacea to world education, especially in any crisis. So, computers and online e-learning day by day become more essential for the education system. So proper use of internet and computer literacy becomes more and more essential for academic sectors.

Currently, information and communication technology has been a part of the school curriculum according to NEP 2020. India is moving towards a successful digital country within a few years. So, students from an early age should possess computer literacy, which is very important. This enables students to use IT very easily, and today computer training is being imparted not only to students but also to teachers. The government too is taking steps to enhance education in India with modern techniques using computers and laptops.

Nowadays, many students prefer Internet learning for homework, study notes, projects for exam preparation, mock tests for competitive examinations, or worldwide connections. This is why computer skills should be adopted by students in school life only; not only these skills are beneficial for their studies but also, they can go beyond to other spheres like for professional purposes or for personal use. Where computers, laptops as well as mobiles have advanced and improved our lifestyle. However, there are certain negative impacts too which can be harmful in the long run if timely actions are not taken to reduce them.

In the case of secondary school students, most of the students are literate in terms of computers. However, with the advent of blended learning in the new normal, new platforms had been introduced during this pandemic situation which gave the students difficulty to use and cope with its complicated features to successfully submit their outputs online, lagging them behind the scheduled submission or completion. So, it is essential to help and encourage the students to gain knowledge about computer technology which enhances the teaching-learning process also. Aitokhuehi and Ojogho (2014) affirmed that computer-literate students perform better than non-computer-literate in their academic activities. Furthermore, Jarvis and Pastuszka (2008) stressed that computer literacy plays a vital role in student's academic achievement and they need to be computer-competent and proficient to be able to operate efficiently in academic contexts

Many studies have been done in this regard but day by day nature of technology is changing and with this, its' effects are also changing. So, to understand the recent situation and new education policy regarding technology and computer literacy it is essential to assess newly changed situations. Premised on the foregoing situation, the present study is motivated to determine the extent of computer literacy among secondary students and its influence on their academic performance. Therefore, it is hoped that the findings of the study would draw implications to enhance the competence of the students, which would also redound to the enhancement of their academic performance. It is also hoped that students and teachers will be aware of the negative aspects of computer and internet use. Students will also

properly use the govt. grant given to them for computer or tab purchase. The findings of the study will help to give a positive direction about the use of computers and the internet for academic performance.

1.1. Objectives of the work

- Identify the problems encountered by students in the use of computers in their learning process

- To understand the proper utilization of computer and ICT facilities for academic purpose among the girls and boys students of urban areas.

- Determine the computer literacy level of secondary school students and their teachers in education.

- To understand the relationship between computer literacy and the academic performance of secondary-level school students.

1.2. Statement of the Problem

- Lack of internet facilities in govt. and govt. aided schools of West Bengal

- Shortage of computers in govt. and govt. aided schools of West Bengal.

- Unavailability of computers and other supporting electronic gadgets in the homes of school students as well as the school.

- Lack of maintenance of computers and e-gadgets related to teaching-learning in schools.

- Poor level of computer literacy and awareness regarding the appropriate use of internet and ICT among school teachers. Lack of proper computer teachers in govt. and govt. aided schools of West Bengal. Beside this lack of orientation programme for the school teachers regarding the use of

computer.

- Improper use of computers and Internet among school students.

1.3. Significance of the work

- To find the relationship between computer-assisted learning and academic achievement, so the educational department and parents can make the best use of the computer resources in schools as well as at their homes.

- To improve the level of computer literacy among school teachers.

- The Government will be aware of the facilities and sources of ICT and computer and internet facilities and will provide resources according to necessity.

- The Government will be aware to provide proper computer literate human resources (mainly in terms of computer teachers) to Government and government-aided schools.

- To encourage even non-governmental organizations to contribute towards providing secondary schools with computers, computer textbooks, and even internet services.

- Govt. will be responsive and parents and teachers will be aware of misuse of tabs or money provided for tab purchase by the students. They will be able to take the necessary steps for the same.

- To find a better use of the computer in terms of who, when, where, how, and what to enhance students' academic achievement.

1.4. Hypothesis

Based on the above assumption, the following hypothesis has been formulated.

H01: There is no significant relation between computer literacy and Attitudes toward computers in the case of urban students.

H02: There is no significant relation between computer literacy and Knowledge about Computers in the case of urban students.

H03: There is no significant relation between computer literacy and the Use/Skill of Computers in the case of urban students.

H04: There is no significant relation between computer literacy and the availability of computers in the case of urban students.

H05: There is no significant relation between achievement in Computer literacy and academic achievement tests among secondary school students of urban areas.

H06: There is no significant relation between Achievement in Computer literacy and Academic Achievement tests among secondary school students of urban area.

2. Review of Literature:

In a rapidly changing world, basic education is essential for a student to be able to access and apply information. So, Computer literacy is a critical program in schools from elementary to high school which teaches students how to use computers and navigate some computer programs. Kareem et al. (2015) in their research paper namely "Impact of Computer Literacy on Secondary School Students Achievement in Computer Science in Makurdi Local Government Area": showed that computer literacy in the education system has not only been found to improve access to learning by all and the quality of knowledge delivery, but its application has also likewise been effective in the teaching-learning process.

So, we can say, in today's world digitalization gives a new dimension to the teaching-learning. In digitalization, computer literacy plays a major role. That's why, computer literacy has a deep connection with academic issues mainly achievement. In 2021 Gabejan et al. stated that the level of computer literacy has a high influence on academic performance in their paper "Students' Computer Literacy and Academic Performance". The study was done on Grade-10 students .55.28 per cent served as respondents of the study. The finding is students manifested a highly favourable attitude toward computers which implied their interest in learning it. However, they still felt the need to enhance their computer literacy in the areas of word processing, spreadsheet, presentation, and general computing. Thus, teachers should support them by providing intervention activities to improve their computer literacy level in the identified areas. The extent of their computer literacy in word processing significantly.

2.1. Computer literacy and achievement depends on various factors-

Attitudes and perceptions play a pivotal role in learning behaviours. Some researchers tested a model based on the concept of the attitude-behaviour theory, which argues that beliefs lead to attitudes and attitudes are an essential factor in predicting behaviour. In 1998 Levine and Donitsa-Schmidt in their research paper named "Computer use, confidence, attitudes, and knowledge: a causal analysis" predicted that computer use leads to more computer confidence and positive attitudes towards computers, and these elements influence each other. Even with the change in technology over time, recent studies support their theory that positive computer attitudes and positive computer confidence continue to lead to better outcomes (Lee et al., 2019).

Gibson et al. in 2014 found in their research named "Changing teachers, changing students? The impact of a teacher-focused intervention on students' computer usage, attitudes, and anxiety" that technology intervention has a positive effect on students' attitudes toward the use of computers for educational purposes. However, Bae and Wickrama, (2015) have found that students who play more video games have worse results in school.

The environment where students learn can affect their attitudes. Gu and Xu (2019) in their study named “Missing piece in understanding student learning: out-of-school computer use” showed that students achieve higher grades when they have a computer at home and use it daily to facilitate their school work. So, it is suggested that home computers improve educational outcomes and computer skills, leading to more efficient use.

Motivation impacts the academic achievement of a student. If the student is interested, motivations directly affect reading achievements. When analysing students' motivations for using computers, in 2019 Partovi and Razavi's research on “The effect of game-based learning on academic achievement motivation of elementary school students” showed that using computers at school and for schoolwork results in higher motivation when studying and positively impacts academic achievement. In 2021 Hatlevik and Bjarnø stated that Hands-on experience with technology is the most important factor in increasing students' confidence while using it and consequently increasing their perceived computer self-efficacy in their paper “Examining the relationship between resilience to digital distractions, ICT self-efficacy, motivation, approaches to studying, and time spent on individual studies”. Higher commitment to school, curiosity, and positivism can help students develop motivation and interest in school subjects, leading to higher self-efficacy and consequently better academic achievement.

Technology use is linked to additional factors that influence adolescents' academic outcomes such as family socioeconomic factors – in particular, parents' occupation, marital status, parents' educational level and family size - and student socio-emotional factors - such as relationship with colleagues, student motivation and anxiety.

In 2019 Fang showed in this research named “Acculturation and academic achievement of rural to urban migrant youth: the role of school satisfaction and family closeness” that Family involvement and closeness to younger progeny have positive impacts on their achievements. That’s why, the relation between using computers in a school environment on academic achievement, verified above, may change depending on the family size.

2.2. Major challenges:

In recent eras, Computer literacy has helped to achieve a higher quality of education. but in some places, this opportunity is inadequate or misused by the students.

- Purswani Khushbu Jethro found in their research named "Challenges of Education in Skill Development and Computer Literacy" that People are not interested in attending the program conducted on the awareness of computer literacy. Depression, suicide, murder, madness, leaving education in between etc. are many social victims we found as an outcome of digital knowledge.

- Bae and Wickrama, (2015) in their research work "Does recreational computer use affect high school achievement" showed the effects of technology and social media use on students' outcomes and confirmed that students who have lower grades spend more time using computers for fun.

- The integration of computers in the classroom positively influences the interaction between students and increases learning and teaching. However, most students show dissatisfaction with the learning environment of schools (Hsiao and Huang, 2008).

- Enyi Uko Jairus (2022) found in his research named "Impact of Computer Literacy on Students' Academic Performance in Art Education" that computer literacy level among Art students in the College of Education is high and that computer literacy significantly enhances students' academic performance and that irregular power supply/failure, lack of information literacy and sponsorship to computers/IT training program are the major challenges encountered.

3. Materials and Method

3.1. Materials

Questionnaire, Approx 200 secondary level school students of W.B. Board, Statistical analysis software and tools.

3.2. Survey area:

Rural and Urban areas in Nadia District of West Bengal.

3.3. Demographic variables:

Secondary Students from govt. schools under the West Bengal Board.

3.4. Basis of selecting the variables:

Secondary-level students from the West Bengal Board are selected because these students are familiar with computer knowledge and they are mature enough to make their career-oriented decisions. So this section of students and their study are very vital.

Urban students get more facilities than rural students which makes their education easier. So, I Choose this variable to understand the difference between urban and rural students.

Table: 1 The Domains of the survey questionnaires are the following:

1. **Attitudes Towards Computer (Motivational Domain)**
2. **Knowledge about Computer (Cognitive Domain)**
3. **Use/Skill about Computer (Application domain)**
4. **Availability of computer (Source)**
5. **Hour spent for study using mobile phones (Attitude towards e-resources for academic purpose)**
6. **Hour spent Other than studying on mobile phones (Attitude towards proper use of mobile phone)**

3.5. Selection Of Scale:

Linkert's 3-point Scale: Parameters are Agree, Sometimes, Disagree.

4. Result:

Fig. No.1: Comparison Between Boys' and Girls' Students Regarding Time Spent in Mobile Phones for Study in Urban Areas -

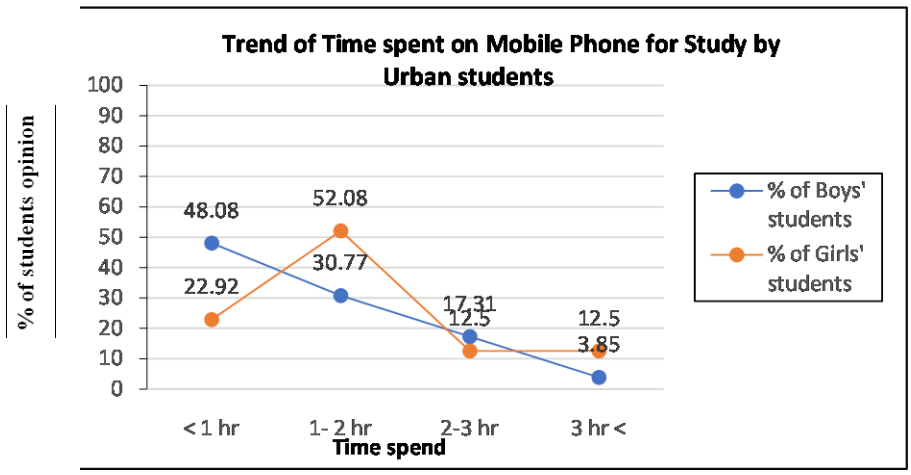
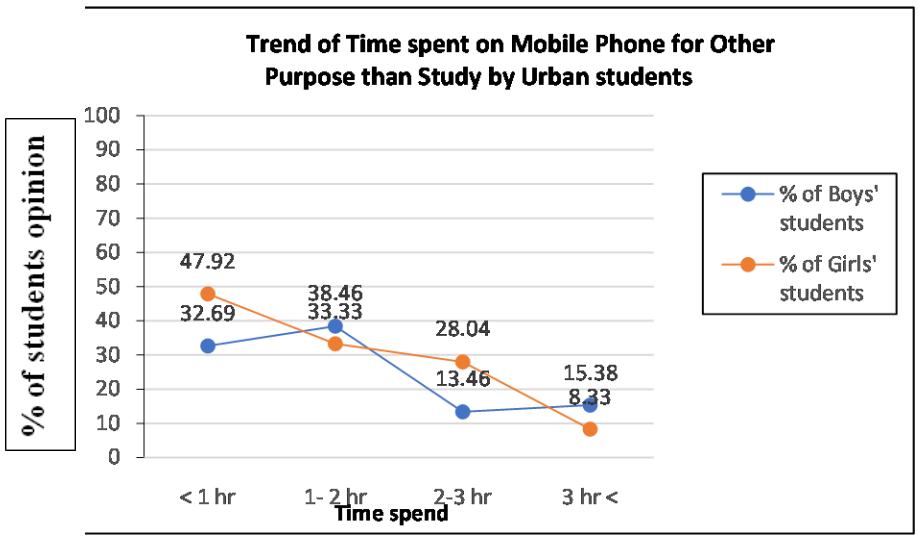


Figure:1 gives a comparative idea about the opinions of students in percentage regarding the use of mobile phone for study between boys' and girls' student from urban area. Fig:3 shows Trend of time Spend on Mobile Phone for Study by Boys' and Girls' students from Urban area. Here 52.08% urban girls' students spent 1h-2h time on mobile for their study where as 30.77% boys students spent on mobile for study. Fig-3 also shows gradual decrease in % of boys' students in urban area who use mobile for study.

Fig. No.2: Comparison Between Boys' and Girls' students Regarding Time Spent in Mobile for Phone for Other Purpose than Study in Urban Area -



This graph (Fig: 2) indicates that 32.69 % urban boys' students spend their time less than 1 hour for other than their study. Where, 38.46 %,13.46 % and 15.38 % urban boys' students spend their time between 1–2-hour, 2-3 hour and more than 3 hours respectively for other than their study. On the other hand, 47.92 %, 33.33 %, 28.04 % and 8.33 % urban girls' students spend their time less than 1 hour, 1–2-hour, 2-3 hour and more than 3 hours respectively for other than their study. From this graph we can say, most of boys' students spend their time for other than study is 1-2 hours and least number of urban boys student (13.46 %) spend their time for other than study between 2-3 hours. Whereas, most of the urban girls' students spend their time for other than study is less than 1 hour. At the same time, least number of urban girls' students (8.33 %) spend their time for other than study is more than 3 hours. So, it is clear that urban boys' students use more mobile phone for other than their study than girls' students.

Fig. No. 3: Graph represents the hour spent by the secondary level students to use tablet given by state govt. for study

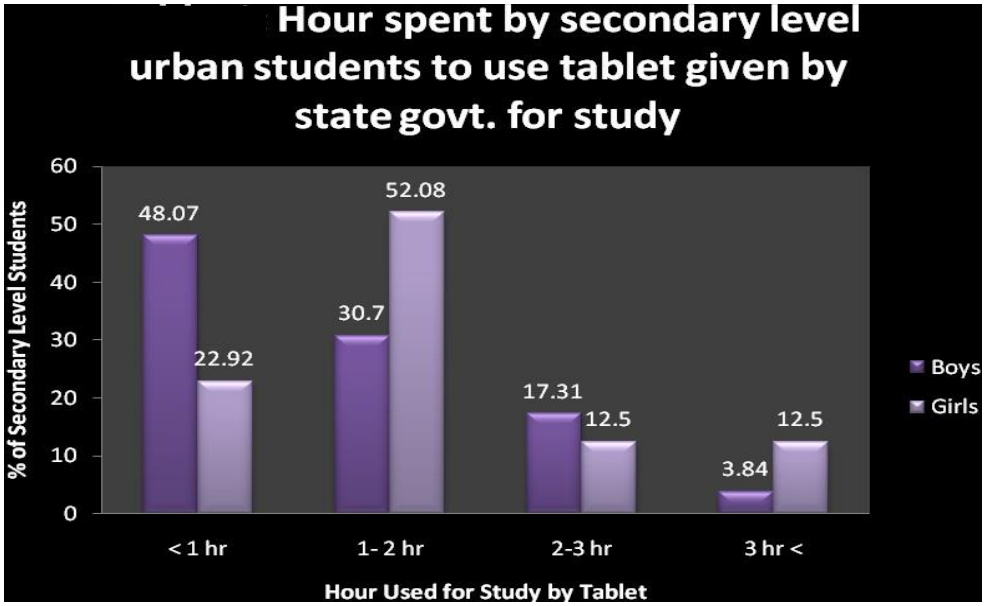


Figure 3 shows that 12.5% girls students spent more than 3h on tablet for study there only 3.84% boys students spent more than 3h on tablet for their study in urban area. 48.07% boys students

use tablet less than 1h for their study where as in the same case girls students percentage is 22.92% in urban area. Graph shows more positive use of tablet for their study than boys students of urban area.

Table: 2 Correlation Between Different Domains for Computer Literacy and Achievement in Computer Literacy by Urban Students of Secondary Level.

	A Attitudes Towards Computer (Motivational Domain)	B Knowledge about Computer (Cognitive Domain)	C Use/Skill about Computer (Application domain)	D Availability of computer (Source)	Achievement in Computer Literacy
A (Attitude towards computer)	1				
B (Knowledge about computer)	0.459611	1			
C (Use/Skill about computer)	0.389688	0.738226	1		
D (Availability of computer)	0.11631	0.492301	0.430787	1	
Achievement in Computer Literacy	0.556793	0.872329	0.929778	0.623655	1

From Table:9 we found that Domain A, B, C, D effects computer literacy level of urban secondary level boys' students by 55.68%, 87.23%, 92.98% and 62.37% accordingly.

Table: 3 Relation Between Computer Literacy and Attitudes Towards Computer in Case of Urban Students

Regression Analysis (For Domain A)

Regression Statistics	
Multiple R	0.556793
R Square	0.310019
Adjusted R Square	0.302978
Standard Error	9.296811
Observations	100

P- Value (For Domain A)

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	29.47383	5.671606	5.196734	1.11E-06	18.21871	40.72894	18.21871	40.72894
A Variable 1	2.875769	0.433377	6.635728	1.79E-09	2.015747	3.73579	2.015747	3.73579

Domain A significantly correlated with computer literacy at 0.01 significant level

Table:4 Shows the Relation Between Computer Literacy and Knowledge About Computer in Case of Urban Students-

Regression Analysis (For Domain B)

Regression Statistics	
Multiple R	0.872329
R Square	0.760957
Adjusted R Square	0.758518
Standard Error	5.472089
Observations	100

P- Value (For Domain B)

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	28.87371	2.204919	13.09513	2.99E-23	24.49812	33.2493	24.49812	33.2493
B Variable 1	3.545704	0.200746	17.66263	3.22E-32	3.14733	3.944078	3.14733	3.944078

Domain B significantly correlated with computer literacy at 0.01 significant level

Table: 5 Shows the Relation Between Computer Literacy and Use/Skill About Computer in case of Urban Students

Regression Analysis (For Domain C)

Regression Statistics	
Multiple R	0.929778
R Square	0.864488
Adjusted R Square	0.863105
Standard Error	4.120069
Observations	100

P- Value (For Domain C)

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	17.32291	2.013402	8.603799	1.28E-13	13.32738	21.31844	13.32738	21.31844
C Variable 1	1.625234	0.065	25.00365	2.53E-44	1.496244	1.754224	1.496244	1.754224

Domain C significantly correlated with computer literacy at 0.01 significant level

Table:6 Shows the Relation Between Computer Literacy and Availability of Computer in Case of Urban Students

Regression Analysis (For Domain D)

Regression Statistics	
Multiple R	0.623655
R Square	0.388945
Adjusted R Square	0.38271
Standard Error	8.74894
Observations	100

P- Value (For Domain D)

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	32.60949	4.391713	7.425232	4.18E-11	23.89428	41.3247	23.89428	41.3247
D Variable 1	2.670111	0.338074	7.898002	4.18E-12	1.999214	3.341008	1.999214	3.341008

Domain D significantly correlated with computer literacy at 0.01 significant level

Table:7 Table shows the correlation between achievement in computer literacy and academic achievement by urban students of secondary level.

	Achievement in computer literacy	Academic achievement
Achievement in computer literacy	1	
Academic achievement	0.533094	1

Table:1 shows that computer literacy effects academic achievement at 53.31% level in case of urban secondary level students.

Table: 8 Table shows the regression analysis for p-value and t-stat value

Regression Analysis

Regression Statistics	
Multiple R	0.533094
R Square	0.284189
Adjusted R Square	0.276885
Standard Error	15.68313
Observations	100

ANOVA

	Df	*SS*	*MS*	*F*	*Significance F*
Regression	1	9569.767	9569.767	38.90774	1.13E-08
Residual	98	24104.13	245.9605		
Total	99	33673.89			

T-stat and P-value

T- stat value (>2) and P- value (1.13E-08) shows null hypothesis will be rejected and computer literacy (CL)significantly correlated with academic achievement (AA).

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	-2.27339	9.556671	-0.23789	0.812467	-21.2383	16.69151	-21.2383	16.69151
CL Variable 1	0.882922	0.141548	6.237607	1.13E-08	0.602024	1.16382	0.602024	1.16382

This Study contributes to and extends the literature review on computers literacy and academic achievement. This study relates academic achievement with and computer-related variables such as **Attitude towards computer**, **Knowledge about computer**, **Use of computer**, **Availability of computer**. The results of the study show that attitude towards computer, knowledge about computer, use or skill about computer and availability of computer positively influence the computer literacy. We see the similar results regarding educational and enjoyment computer attitude positively influence computer literacy in a study of Simoes et al. in 2022. They propose a model on the influence of computer attitudes, computer learning environments, computer learning motivations, computer confidence, computer use, computer self-efficacy, loneliness, mothers' education, parents' marital status and family size on academic achievement (AA). To validate the conceptual model, 286 students aged

16–18 years old answered an online questionnaire. The proposed conceptual model explains 31.1% (R^2) of academic achievement. A significant conclusion was found regarding the computer use environment, though the mediation effect of computer use (R^2 = 42.5%). When students use the computer at home (42.1% at 0.001 level of significance), they need to use it frequently to influence their academic achievement, but when students use the computer at school (31.7% at 0.05 level of significance), it will influence their academic achievement positively independently of the frequency of use.

Where (Table:2) knowledge about computer (87.23% in urban area) and use or skill about computer (92.98% in urban area) more influence on computer literacy than attitude towards computer (55.68%in urban area) and availability of computer (62.37%in urban area). Although there is a significant relationship between attitude towards computer with computer literacy, knowledge about computer with computer literacy, use or skill about computer and computer literacy and availability of computer and computer literacy. The t- stat value of correlation between attitude towards computer and achievement in computer literacy in urban area is 6.635728 (Table:3), which is greater than the critical value (2.63) of 0.01 level of significant. Means, there is a significant relation between computer literacy and attitudes towards computer in urban area at 0.01 level of significance. So, H01 hypothesis is nullified and alternative hypothesis is accepted. Similarly, t- stat value of domain B means Knowledge about computer is 17.66263 (Table:4). Which is greater than the critical value at 0.01 level of significant. So, we can say H02 is rejected and alternative hypothesis is accepted. Means there is a significant relation between computer literacy and knowledge about computer in urban area. The t-value in case of relation between computer literacy with use/ skill of computer and computer literacy with availability of computer is 25. 00365 and 7.898002 respectively (Table:5 and Table:6). Which are greater than the critical value at 0.01 level of significance. So, in these both case we can say the H03 and H04 are rejected and alternative is accepted. Which means, there is a significant relation between computer literacy and use/ skill about computer in urban area. From this result (Table:7 and Table:8)we

can also found that, there is a positive relationship between Computer literacy and academic achievement test in urban area (53.31%). In urban t- stat value (>2) and P- value (1.13E-08) shows null hypothesis (H06) will be rejected at 0.01 level of significance and computer literacy significantly correlated with academic achievement. At the same time, the relation between computer literacy and availability of computer is significant in urban area. This result was also supported by the work Learner perceptions versus technology usage: astudy of adolescent English learners in Hong Kong secondary schools, Lee et al. in 2019. Gu and Xu in 2019 showed in their study namely Missing piece in understanding student learning: out-of-school computer use, that environment has a great effect on students' attitudes towards computer literacy. So, we can say computer literacy and achievement in computer is significantly related.

While it is Showed that computer literacy in the education system has not only been found to improve access to learning by all and the quality of knowledge delivery, its application has likewise been effective in the teaching-learning process (Kareem et al., 2019). Similar findings are also found that computer literacy has a deep connection with academic issues mainly achievements in tests/examinations. Gabejan et al. in 2021 in their study stated that the level of computer literacy has high influence on the academic performance. This finding also supports our study. Similarly, there is also significant relation between academic achievement in computer and academic achievement test among secondary school students of urban area. Government should adopt not only some policy which encourage students and teachers towards computer but also supervised that, these policy should be proper implemented. This study also showed that besides computer literacy, attitudes and habits towards computer use and internet use also affect the achievement in study. Sometimes students spend several hours in computer, android phones or tabs not only for study for some other purpose mainly for social media and games. This is very harmful to the students. In urban areas of West Bengal, it was found that boy students have more addiction towards computer and internet than girl students for other purpose than study. Government provides tabs for study to the students but government should also monitor the use of the tabs and internet through schools.

5. Discussion:

Now a days, a mobile phone performs many of the functions of a computer. So, students can acquire the knowledge about computers through their mobile phones also, and it is very important to know how much time students spent their time for study purposes and other purposes. That's why we divide this study into two parts. The first is related to spending time on a mobile phone for study, and then the study purpose, and the second is related to the relationship between academic achievement and computer literacy.

In comparison between boys' and girls' students regarding time spent in mobile phone for study in urban area, we can see that, girls spent more time for their study than boys with the help of mobile phone. It may be because of urban girls' students are more sincere towards their learning. At the same time, Boys' students spent their time for other purpose than study is more than girls' students. Which indicates the lack of sincerity of urban boys' students towards their study. It means, Urban boys' students are less sincere than urban girls' students. It may be cause of boys' student most of the time use their mobile phone for gaming purpose. Similar result is found in Rabiu, H. at al. (2016) research named Impact of Mobile Phone Usage on Academic Performance among Secondary School Students in Taraba State, Nigeria. This study find that, mobile phone usage significantly influence academic performance among senior secondary school students,age different was not a significant factor in mobile phone usage on academic performance among senior secondary school students, gender was also not significant factor in mobile phone usage on academic performance among senior secondary school students,socio economic status was not a significant factor in mobile phone usage on academic performance among senior secondary school students and that, the frequency of mobile phone usage does not significantly influence academic performance among senior secondary school students. Patil, S. et al. (2023) in their research namely Impact of Mobile Phone Usage on The Academic Performance of Students shows Mobile phones are useful for learning new things through the internet and are capable of upgrading students through the use of technology.

Whereas, adverse result is also found in Khan, N. et al. (2022) research named Influence of Mobile Phone Usage on the Academic Performance of Students: A Case Study of Malakand Division Students that, the negative relationship and impact of the Usage of Mobile Phones and Students Academic Performancedecreases its importance for the enhancement of students' knowledge and their interest in their academics. The misuse of cell phones in academics is found to be more problematic therefore it is the responsibility of the educational institutes and network operators to promote its positive aspects and also take initiative for bring positive behavioural change in community.

6. Conclusion:

The school students manifested a very high favourable attitude toward computer usage which implied their interest regarding computer literacy. Though they still felt the need of enhancement of their computer literacy in the areas of Application and knowledge. They also hope to get more assistance from their school teachers regarding this issue.

From this study it was found that schools (mainly govt. aided) of urban areas still suffering from the different kinds of problems related to electricity and other facilities related to digitalization and ICT. Teachers are also suffering for lack of knowledge regarding ICT. So, they need more and more orientation programme regarding these issues. Study showed there is a huge lack of initiative from the side of government. All areas considered in their computer literacy significantly influenced their academic performance. but it should be remembered increased level of computer literacy Chowledge about computer) and awareness about internet (use of internet) must be channelized in proper direction otherwise it will be a boomerang . This signified that the higher their computer literacy in the identified areas manifested, the higher the academic performance also. It also indirectly helps students regarding their higher studies and employment.

- Suggestion for the improvement of ICT facilities in secondary schools in West Bengal.

6.1. Future Impact

- Impact of online education in achievement in education.

- Improvement in educational infrastructure and facilities in rural as well as urban region.

- Aware society about the negative sides of ICT, Internet and Computer use.

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