

Academic Achievement of IX Grade Students in Relation to Their Internet Addiction

*Dr. Kiranjit Kaur

**Nitin Verma

Abstract

The present study explores the effect of internet addiction on students' academic performance, for instance, by how over-reliance on the internet affects one's performance, mental well-being, and social well-being. This study also throws light on the patterns of internet use and risks involved. This study examines academic achievement in relation to the internet addiction of 200 adolescents in government and private schools of both urban and rural areas of Amritsar District of Punjab. Internet Addiction Scale by Gulati, Kurisunkal and Bakliwal (2021) was used to collect data. Results show no significant differences in academic achievement in relation to the internet usage of IXth class adolescents but there exists significant difference in internet usage of Rural and Urban area IXth class adolescents.

Keywords: Academic Achievement, Internet Addiction, Adolescents

The electronic and communication technologies have emerged as a hallmark of human life over the past few decades. Mobile and internet facilities have transformed the people's accessibility of information, communication, and interaction within their surroundings. Today, the internet has emerged as an indispensable part of life, a fast and easy source of information and removal of significant barriers in communication through wireless technologies. In the olden days, to gain detailed information or even some specific documents used much time and effort, but after the emergence of the Internet, emails, and computer programs, now the accessibility of information can come directly at your fingertips right away with the click of a button. In schools and colleges, the internet has been a major input; it made the study material of the students easily accessible. It has enhanced learning, but at the same time, it has raised concerns about the improper use of the internet. The Internet provides a virtual space for interactions. Platforms like Skype, Zoom, WhatsApp, and social media channels allow us to connect with family, friends, and colleagues regardless of geographical barriers. The tools available on the Internet

can be accessed via desktops, laptops, tablets, and smart phones, making them widely accessible.

In today's world of extremely high internet use, the problem of internet addiction, mainly among teenagers and young adults, should be addressed. While the Internet has revolutionized communication, it has both positive and negative impacts. This duality has become a topic of extensive debate and research in numerous cultures.

Positive Impacts of the Internet:

1. **Instant Information Sharing:** The Internet enables users to share information within seconds, facilitating rapid communication and collaboration.
2. **Cost-effective Promotion:** Start-up companies can utilize online platforms to promote their products and services at a low cost, broadening their reach.
3. **Educational Resource Sharing:** Students can share assignments, collaborate on projects, and access a wealth of educational resources, such as e-books, articles, and presentations.
4. **Access to Current Affairs:** The Internet serves as a valuable tool for

*Professor, Dev Samaj College of Education Chandigarh, Email Id sidhukiranjit4@gmail.com

**Alumnus IGNOU, Email id- pr.nitinverma@gmail.com

staying updated on current events and technological advancements.

5. **Virtual Connections:** It creates opportunities for virtual gatherings through video conferencing, allowing people to connect with loved ones regardless of distance.
6. **Empowerment of Individuals:** Ultimately, how individuals use the Internet can lead to positive or negative outcomes, much like any tool; the responsibility lies with the users.
7. **Versatility for Various Fields:** The Internet is instrumental across diverse sectors, including politics, business, and technology. For example, e-commerce platforms like Amazon and eBay have revolutionized shopping experiences.
8. **Job Searching and Networking:** The Internet has become an essential platform for job seekers, enabling them to search for job opportunities from one central location.
9. **Social Campaigning:** It plays a crucial role in social movements, political activism, and public awareness campaigns, particularly during crises such as the COVID-19 pandemic.

Negative Impacts of the Internet:

1. **Distraction and Reduced Focus:** Excessive Internet usage can lead to decreased concentration and productivity, particularly among students.
2. **Time Consumption:** Spending too much time online can become a major distraction, detracting from real-world responsibilities and relationships.
3. **Inappropriate Relationships:** The anonymity of the Internet can lead to the formation of unhealthy or

unnecessary relationships, particularly among teenagers.

4. **Exploitation by Malicious Groups:** Some groups exploit the Internet for harmful purposes, including recruitment for extremist activities.
5. **Cybercrime:** The rise of the Internet has also led to increased instances of cybercrime, affecting individuals and organizations alike.
6. **Child Safety Concerns:** Young children should be monitored when using the Internet, as they may not be equipped to navigate online relationships safely.
7. **Addiction:** There is a growing concern about Internet addiction, which can have adverse effects on mental health and daily functioning.

Internet Addiction

Internet addiction is becoming a significant issue among students, as it refers to an excessive, compulsive behavior related to computer use and web access. This form of addiction can lead to serious consequences, including mental health issues like anxiety, depression, and social isolation. The ease of access to the Internet, especially through smart phones and computers, allows students to spend long hours online, often without realizing the negative effects it has on their well-being. Chandrashekhar (2019) India in "Philosophical Reflections on the Impact of the Internet on Indian Youth," Chandrashekhar discussed how internet addiction disrupts traditional modes of learning and interaction. He argues that the increasing digitalization of youth culture in India has led to reduced attention spans and lower academic engagement. Cheema and Bhardwaj (2021) explored the connections between adolescent self-esteem, academic achievement, and home environment. The study, involving 200 adolescents, indicated

that a positive home environment correlates with higher self-esteem and academic performance, suggesting that improved home conditions foster better academic outcomes. Sreekumar and Menon (2022) their research “The Digital Divide and Its Impact on Internet Addiction in India” explored how the increasing access to the internet in urban areas correlates with high rates of addiction and academic decline. They concluded that students with unrestricted access to smart phones and computers were more prone to addiction, especially in urban schools. Park and Lee (2023) investigated the relationship between internet addiction, sleep problems, and academic performance in their paper “Internet Addiction, Sleep Problems, and Academic Performance among Adolescents in South Korea. “They found a strong correlation between late-night internet use and disrupted sleep patterns, which negatively impacted students' academic achievements. Their findings underscored that sleep deprivation caused by excessive online activities, especially gaming and social media, impaired students' concentration and cognitive function during school hours, leading to poorer academic outcomes. Research indicates a strong negative relationship between internet addiction and academic achievement, particularly among students. Time displacement, psychological distress, and reduced academic engagement are consistent findings across studies. As internet usage continues to rise, especially in the post-pandemic era, the need for targeted interventions, such as digital literacy programs and psychological support, is crucial to mitigate the adverse effects of internet addiction on students' academic performance.

Objectives

- To study the relationship of Academic Achievement of IX grade students studying

in Rural and Urban schools.

- To study the relationship of Academic Achievement of IX grade students studying in Government and Private schools.
- To study the relationship of Academic Achievement of IX grade Male and Female students.
- To study the relationship of Internet Addiction of IX grade students studying in Rural and Urban schools.
- To study the relationship of Internet Addiction of IX grade students studying in Government and Private schools.
- To study the relationship of Internet Addiction of IX grade Male and Female students.
- To study the relationship of Academic Achievement of IX grade students studying in Rural schools in relation to Internet Addiction.
- To study the relationship of Academic Achievement of IX grade students studying in Urban schools in relation to Internet Addiction.
- To study the relationship of Academic Achievement of IX grade students studying in Government schools in relation to Internet Addiction.
- To study the relationship of Academic Achievement of IX grade students studying in Private schools in relation to Internet Addiction.
- To study the relationship of Academic Achievement of IX grade Male students in relation to Internet Addiction.
- To study the relationship of Academic Achievement of IX grade Female students in relation to Internet Addiction.

Hypotheses

- There exists no significant difference in Academic Achievement of IX grade students studying in Rural and Urban schools.
- There exists no significant difference in

Academic Achievement of IX grade students studying in Government and Private schools.

- There exists no significant difference in Academic Achievement of IX grade Male and Female students.
- There exists no significant difference in Internet Addiction of IX grade students studying in Rural and Urban schools.
- There exists no significant difference in Internet Addiction of IX grade students studying in Government and Private schools.
- There exists no significant difference in Internet Addiction of IX grade Male and Female students.
- There exists no significant difference in Academic Achievement of IX grade students studying in Rural schools in relation to Internet Addiction.
- There exists no significant difference in Academic Achievement of IX grade students studying in Urban schools in relation to Internet Addiction.
- There exists no significant difference in Academic Achievement of IX grade students studying in Government schools in relation to Internet Addiction.
- There exists no significant difference in Academic Achievement of IX grade students studying in Private schools in relation to Internet Addiction.
- There exists no significant difference in Academic Achievement of IX grade Male students in relation to Internet Addiction.
- There exists no significant difference in Academic Achievement of IX grade Female students in relation to Internet Addiction.

Design of the Study

The study is primarily designed to determine the relationship between the academic achievement of IX grade students and Internet addiction. In the present study, academic

achievement is the dependent variable and internet addiction is the independent variable. The present study uses the descriptive survey method.

Sample

In the present study, the stratified random sampling technique is employed. The sample for the present study comprises 200 IX-grade students from four different schools in Amritsar. Out of these, 100 students are selected randomly from both urban and rural schools. From the 100 students in each category, 50 students are taken from government schools and 50 from private schools. Furthermore, 25 males and 25 females are taken from each type of school, i.e., government and private.

Tools

The following tool was used to collect the data:

1. Internet Addiction Scale by Gulati, Kurisunkal and Bakliwal (2021).
2. The score of rural and urban students from the government and private schools in the Term-I examinations were taken as an academic achievement.

Analysis and Discussion of Results

Hypothesis 1:

Hypothesis 1 states “There exists no significant difference in Academic Achievement of IX grade students studying in Rural and Urban schools.” This hypothesis has been tested with the help of results entered in Table 1.

Geographical Location of School	N	Mean	Standard Deviation	t-value	p-value
Rural School Students	100	477.11	14.7996	0.3073	0.758
Urban School Students	100	474.99	14.4917		

NS- Not Significant

Table. 1: Mean Differentials between Rural & Urban School Students

Discussion of results:

Entries made in table 1 show the mean differentials of rural and urban school students. The mean academic scores were 477.11 and 474.99 for Rural and Urban students, respectively. A t-test revealed a p-value of 0.7589, which is greater than the significance level ($\alpha=0.05$). This indicates no statistically significant difference in academic achievement between the two groups. Since the p-value is greater than the significance level of 0.05, the null hypothesis is accepted. Therefore it can be concluded that students from Rural and Urban schools perform similarly in terms of academic achievement.

Hypothesis 2:

Hypothesis 2 states “There exists no significant difference in Academic Achievement of IX grade students studying in Government and Private Schools.”

This hypothesis has been tested with the help of results entered in Table 2.

Type of School	N	Mean	Standard Deviation	t-value	p-value
Government School Students	100	476.51	14.3396	0.4431	0.6581
Private School Students	100	475.59	15.0084		

NS- Not Significant

Table.2: Mean Differentials between Government & Private School Students

Discussion of results:

Entries made in table 2 show the mean differentials of government and private school students. The mean academic scores were 476.51 and 475.59, respectively. A t-test yielded a p-value of 0.658, which is greater than the significance level ($\alpha=0.05$). This indicates no statistically significant difference in academic achievement between the two groups. Since the p-value is greater than the significance level of

0.05, the null hypothesis is accepted. Therefore, it can be concluded that students in Government and Private schools perform similarly in terms of academic achievement.

Hypothesis 3:

Hypothesis 3 states “There exists no significant difference in Academic Achievement of IX grade Male and Female students.”

This hypothesis has been tested with the help of results entered in Table 3.

Gender of School Students	N	Mean	Standard Deviation	t-value	p-value
Male Students	100	475.34	15.6697	0.68455	0.49443
Female Students	100	476.76	13.5922		

NS- Not Significant

Table 3: Mean Differentials between Male & Female Students

Discussion of results:

Entries made in table 3 show the mean differentials of male and female students. The mean academic scores for male students were 475.34, and for female students, the mean was 476.76. A t-test analysis was performed, yielding a t-value of 0.68455 and a p-value of 0.4944. Since the p-value is greater than the significance level of 0.05, the null hypothesis is accepted. The results indicate no statistically significant difference in the academic achievement between male and female students. Therefore, it can be concluded that gender does not affect academic performance among IX grade students in the study.

Hypothesis 4:

Hypothesis 4 states “There exists no significant difference in Internet Addiction of IX grade students studying in Rural and Urban schools.”

This hypothesis has been tested with the help of results entered in Table 4.

Internet Addiction among different Geographical Locations	N	Mean	SD	t-value	p-value
Internet Addiction in Rural school students	100	48.25	6.895	3.517	0.0005
Internet Addiction in Urban school students	100	51.85	7.563		

NS- Not Significant

Table 4: Mean Differentials of Internet Addiction of students studying in Rural and Urban schools

Discussion of results:

Entries made in table 4 show the mean differentials between Internet Addiction of students studying in Rural and Urban schools. The mean scores for rural and urban students were 48.25 and 51.85, respectively. A t-test was performed, yielding a t-value of 3.52 and a p-value of 0.00053. Since the p-value is less than the significance level of 0.05, the null hypothesis is rejected (not accepted). This indicates a statistically significant difference in Internet addiction levels, with urban students exhibiting higher levels of Internet addiction compared to rural students.

Hypothesis 5:

Hypothesis 5 states “There exists no significant difference in Internet Addiction of IX grade students studying in Government and Private Schools.”

This hypothesis has been tested with the help of results entered in Table.5.

Internet Addiction among Different Types of School	N	Mean	SD	t-value	p-value
Internet Addiction in Govt school students	100	49.5	7.397	1.045	0.297
Internet Addiction in Private school students	100	50.6	7.480		

NS- Not Significant

Table 5: Mean Differentials of Internet Addiction of students studying in Government and Private schools

Discussion of results: Entries made in table 5 show the mean differentials between Internet Addiction of students studying in Government and Private schools. The mean scores were 49.5 for Government school students and 50.6 for Private school students. A t-test analysis yielded a t-value of 1.05 and a p-value of 0.297. As the p-value is greater than the significance level of 0.05, the null hypothesis is accepted. This indicates no statistically significant difference in Internet addiction levels between students of Government and Private schools.

Hypothesis 6:

Hypothesis 6 states “There exists no significant difference in Internet Addiction of IX grade Male and Female students.”

This hypothesis has been tested with the help of results entered in Table 6.

internet Addiction Among different Gender	N	Mean	SD	t-value	p-value
Internet Addiction in Male students	100	49.58	7.385	0.892	0.373
Internet Addiction in Female students	100	50.52	7.502		

NS- Not Significant

Table 6: Mean Differentials of Internet Addiction among Male and Female Students

Discussion of results: Entries made in table 6 show the mean differentials between Internet Addiction among male and female students. The mean scores were 49.58 for Male students and 50.52 for Female students. A t-test analysis yielded a t-value of 0.89 and a p-value of 0.373. Since the p-value is greater than the significance level of 0.05, the null hypothesis is accepted. This indicates no statistically

significant difference in Internet addiction levels between Male and Female students.

Hypothesis 7:

Hypothesis 7 states “There exists no significant difference in Academic Achievement of IX grade students studying in rural schools in relation to Internet Addiction.”

This hypothesis has been tested with the help of results entered in Table 7.

Dependent Variable	Group	Mean	SD	t-value	p-value
Academic Achievement of Students studying in Rural schools	Severe	478	16.814	0.226	0.823
	Moderate	476.95	14.520		

NS- Not Significant

Table 7: Mean Differentials of Academic Achievement of students studying in rural schools in relation to Internet Addiction

Discussion of results:

Entries made in table 7 to examine the academic achievement of IX grade students in rural schools with varying levels of Internet addiction. The mean academic scores were 478 for students with severe Internet addiction and 476.95 for those with moderate Internet addiction. A t-test analysis yielded a t-value of 0.23 and a p-value of 0.823. Since the p-value is greater than the significance level of 0.05, the null hypothesis is accepted. This indicates no statistically significant difference in academic achievement between students with severe and moderate Internet addiction.

Hypothesis 8:

Hypothesis 8 states “There exists no significant difference in Academic Achievement of IX grade students studying in urban schools in relation to Internet Addiction.”

This hypothesis has been tested with the help of results entered in Table 8.

Dependent Variable	Group	Mean	SD	t-value	p-value
Academic Achievement of students studying in Urban schools	Severe	474	13.690	0.479	0.633
	Moderate	475.45	14.930		

NS- Not Significant

Table 8: Mean Differentials of Academic Achievement of students studying in urban schools in relation to Internet Addiction

Discussion of results:

Entries made in table 8 to examine the academic achievement of IX grade students in urban schools with varying levels of Internet addiction. The mean academic scores were 474 for students with severe Internet addiction and 475.45 for those with moderate Internet addiction. A t-test analysis yielded a t-value of 0.48 and a p-value of 0.633. Since the p-value is greater than the significance level of 0.05, the null hypothesis is accepted. This indicates no statistically significant difference in academic achievement between students with severe and moderate Internet addiction in Urban schools.

Hypothesis 9:

Hypothesis 9 states “There exists no significant difference in Academic Achievement of IX grade student studying in Government schools in relation to Internet Addiction.”

This hypothesis has been tested with the help of results entered in Table 9.

Dependent Variable	Group	Mean	SD	t-value	p-value
Academic Achievement of students studying in Government schools	Severe	477.05	10.292	0.224	0.824
	Moderate	476.39	15.132		

NS- Not Significant

Table 9: Mean Differentials of Academic Achievement of students studying in Government schools in relation to Internet Addiction

Discussion of results:

Entries made in table 9 to examine the academic achievement of IX grade students in Government schools with varying levels of Internet addiction.

The mean academic scores were 477.05 for students with severe Internet addiction and 476.39 for those with moderate Internet addiction. A t-test analysis yielded a t-value of 0.224 and a p-value of 0.824. Since the p-value is greater than the significance level of 0.05, the null hypothesis is accepted. This indicates no statistically significant difference in academic achievement between students with severe and moderate Internet addiction in Government schools.

Hypothesis 10:

Hypothesis 10 states “There exists no significant difference in Academic Achievement of IX grade students studying in Private schools in relation to Internet Addiction.”

This hypothesis has been tested with the help of results entered in Table 10.

Dependent Variable	Group	Mean	SD	t-value	p-value
Academic Achievement of students studying in Private schools	severe	474.96	16.576	0.243	0.808
	Moderate	475.83	14.469		

NS- Not Significant

Table 10: Mean Differentials of Academic Achievement of students studying in Private schools in relation to Internet Addiction

Discussion of results:

Entries made in table 10 to examine the

academic achievement of IX grade students in Private schools with varying levels of Internet addiction.

The mean academic scores were 474.96 for students with severe Internet addiction and 475.83 for those with moderate Internet addiction. A t-test analysis yielded a t-value of 0.24392 and a p-value of 0.80845. Since the p-value is greater than the significance level of 0.05, the null hypothesis is accepted. This indicates no statistically significant difference in academic achievement between students with severe and moderate Internet addiction.

Hypothesis 11:

Hypothesis 11 states “There exists no significant difference in Academic Achievement of IX grade Male students in relation to Internet Addiction.”

This hypothesis has been tested with the help of Results entered in Table 11.

Dependent Variable	Group	Mean	SD	t-value	p-value
Academic Achievement of Male students	Severe	475.66	16.674	0.1024	0.9190
	Moderate	475.25	15.502		

NS- Not Significant

Table 11: Mean Differentials of Academic Achievement of Male Students in Relation to Internet Addiction

Discussion of results:

Entries made in table 11 to examine the academic achievement of IX grade male students with severe and moderate Internet addiction. The mean academic scores were 475.67 for students with severe Internet addiction and 475.25 for those with moderate Internet addiction. A t-test analysis yielded a t-value of 0.10247 and a p-value of 0.91908. Since the p-value is greater than the significance level of 0.05, the null hypothesis is accepted. This indicates no statistically significant Difference in academic

achievement between IX grade male students with severe and moderate Internet addiction.

Hypothesis 12:

Hypothesis 12 states “There exists no significant difference in Academic Achievement of IX grade Female students in relation to Internet Addiction.”

This hypothesis has been tested with the help of results entered in Table 12.

Dependent Variable	Group	Mean	SD	t-value	p-value
Academic Achievement of Female students	Severe	475.88	12.427	0.394	0.695
	Moderate	477.05	14.025		

NS- Not Significant

Table 12: Mean Differentials of Academic Achievement of Female students in relation to Internet Addiction

Discussion of results:

Entries made in table 12 to examine the academic achievement of IX grade female students with severe and moderate Internet addiction. The mean academic scores were 475.88 for students with severe Internet addiction and 477.05 for those with moderate Internet addiction. A t-test analysis yielded a t-value of 0.39439 and a p-value of 0.69511. Since the p-value is greater than the significance level of 0.05, the null hypothesis is accepted. This indicates no statistically significant difference in academic achievement between IX grade female students with severe and moderate Internet addiction.

Educational Implications

The findings of the study "Academic Achievement of IX Grade Students in Relation to Their Internet Addiction" hold significant implications for the education system. The results highlight the need for proactive measures by educators, parents, and policymakers to address internet addiction and its impact on academic achievement. The

following educational implications can be drawn from the study:

- **Promoting Digital Literacy:** Schools should participate in corporate digital literacy programs to teach students responsible internet use and how to balance online activities with academic responsibilities.
- **Time Management Training:** Educators can help students develop time management skills to ensure they prioritize academic tasks over excessive internet use.
- **Parental Involvement:** Parents should be educated about internet addiction and its impact on academics, encouraging them to set limits on their children's screen time.
- **Support Systems in Schools:** Schools should provide counseling and support services to help students manage internet addiction and its effects on their studies.
- **Encouraging Alternative Activities:** Schools should offer extracurricular activities to reduce students' reliance on the internet for entertainment and social interaction.
- **Policy Implementation:** Educational policies should regulate internet use during school hours, ensuring it is primarily for academic purposes and not for recreational activities.

References

- Chandrashekhar, P. (2019). Philosophical reflections on the impact of the internet on Indian youth. *Indian Journal of Digital Studies*, 8(2), 15-25.
- Cheema, N., & Bhardwaj, R. (2021). Adolescent self-esteem, academic achievement, and home environment: A correlational study. *Journal of Adolescent Development*, 18, 72-83.

Gulati, D. K., Kurisunkal, J. J., & Bakliwal, M. (2014). *Internet Addiction Scale (IAS)*. APRC: Agra

Park, S. & Lee, H. (2023). Sleep problems and internet addiction in South Korea. *Cyber Psychology Journal*, 30(1), 11-20.

Sreekumar, M., & Menon, K. (2022). The digital divide and its impact on internet addiction in India. *Journal of Educational Research and Technology*, 14(3), 112-130.