



Relationship between Internet Addiction and School Achievement among Secondary School Pupils in Kirkuk City

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Abstract:

Background: Internet addiction is rising, especially among teens and young people who use it for learning, communication, and entertainment. Internet addiction can impair mental health, social isolation, and academic achievement. Secondary school students' frequent and extensive online use for leisure and education makes them prone to internet addiction. As educators and parents study how excessive internet use affects academic achievement, secondary school students' online addiction is being highlighted.

Objective: To Assess the proportion of internet addiction among Secondary School pupils in Kirkuk City. To Find out the relationship between internet addiction and sociodemographic characteristics of the pupils in Kirkuk city. To Determine the relationship between School Achievement and sociodemographic characteristics of the pupils in Kirkuk city. To Determine the academic achievement level of secondary school pupils in Kirkuk city.

Methodology: A descriptive study cross sectional study was used in this study from 5th of November 2023 to the 5th of June 2024. a multistage, probability sample was used for student at secondary school in Kirkuk. The study included (400) student. The study was carried out on the governmental secondary schools. They were (79) governmental secondary schools with (39969) total student of which (12607) were male and (27362) were female. data were analyzed using descriptive and inferential statistics.

Results: The results showed 62.25% male, 36% 15–16 years old, and 37.75% female. The study sample's highest percentage is class fourth (22.25%). More than half of the study sample (54.25%) resides in urban and (45.75%) lives in rural, with 56.3%) fathers and 11.5% Intermediate School graduates and 43.8%) mothers and 10.5% College graduates. About 34.5% of the study sample's fathers and 25.3% of its moms worked. 69 percent were family. 30.5% of the study sample has two brothers and sisters and earns 501.000–1.000.000 Iraqi dinars each month. Students live with parents 71% of the time. Compare Internet addiction score to study group socio-demographics. Internet addiction scores vary little by region, although student residence, gender, and family monthly income do. Internet addiction score gives the study sample a strong significant value at 0.05 (father and mother education level). Internet addiction scores differed significantly between father and mother education levels at p. value 0.05 (father and mother occupation). Internet addiction scores and father and mother occupations differ significantly at p. value 0.05. Class 1 has poor performance percentages overall. Most underperformers are in Class 2. Performance distributions are almost balanced in Class 3 and 4. courses 5 and 6 fail and perform poorly more than others. Table shows that class education level affects school success performance, with class levels varied.

Conclusions: The study highlights high smartphone internet usage among students, with social networking being a significant portion, but lack of parental monitoring and socio-demographic factors contribute to this issue.

Introduction

In the current digital era, internet addiction is becoming a bigger problem, especially for teens and young people who depend more and more on online platforms for information, communication, and entertainment. Overuse of the internet can have a number of detrimental effects, such as poor mental health, social isolation, and worse academic performance. Students in secondary schools are especially susceptible to internet addiction since they frequently spend a large amount of time on the internet for both leisure and instructional objectives. In 2021, Al-Jumaili, A., Al-Tamimi, S., and Al-Tamimi, M. As educators and parents look to understand the implications of excessive internet usage on academic performance, there is a growing body of research and interest on the impact of internet addiction on school accomplishment among secondary school students. (Kemp, S., 2021).

The beginning of the 21st century has witnessed an explosive growth of internet usage worldwide, particularly in developing countries like Pakistan.¹ Due to the advanced development of network construction in universities, the number of Internet-using university students is increasing. Medical students have an enormous opportunity to keep them always updated with the exponential growth of knowledge because of potential progression of Internet throughout the world that enables them to become a lifelong learner. (Javaeed et al., 2019)

The term Internet Addiction Disorder was first proposed by Ivan Goldberg for pathological, compulsive Internet usage. Pathological, compulsive Internet usage. (Rahimi, M., & Jafarzadeh, S, 2019).

The criteria for this disorder are based on similar criteria for substance abuse disorders in the DSM-IV. It can be defined as, “an individual’s inability to control his or her use of the internet, which eventually causes psychological, social, school, and/or work difficulties in a person’s better relationships with administrative staff, better academic grades and increased learning satisfaction as compared to heavy Internet users. (Rahimi, M., & Jafarzadeh, S., 2020).

The term "school achievement" is broad and includes a range of elements related to a student's intellectual and personal growth. One important measure of student success in school is academic performance, which includes grades, test scores, and graduation rates, evaluation system can be used which mainly having an attempt at a measurement point either by assigning numerical value or grading on a rough scale.(Jasim, W. and Hassan, Z. 2021) Academically gifted students have a deep comprehension of the subject matter, the ability to think critically, and a dedication to study. Extracurricular activity participation is a critical component of academic success in addition to academic performance. Engaging in extracurricular activities such as clubs and sports not only improves a student's mental and social health but also shows that they can manage their time well and follow their interests outside of the classroom. Given that consistent attendance is necessary for kids to excel academically and fully engage with the curriculum, attendance rates are another significant element in school performance. (Hanushek & Woessmann, 2020)

Furthermore, behavior and discipline records provide valuable insights into a student's overall school achievement, as good behavior and adherence to school rules are often associated with academic success. Standardized test scores also play a significant role in measuring school achievement, as they provide a standardized way to assess students' academic abilities and compare their performance with their peers. Overall, school achievement among secondary school students is a complex and multifaceted concept that involves academic performance, extracurricular involvement, attendance rates, behavior, and standardized test scores. (Nunes et al., 2023).

There is a growing concern about the relationship between internet addiction and school achievement among secondary school students. Research suggests that excessive and compulsive use of the internet can have a negative impact on academic performance. Students who are addicted to the internet may experience distractions, sleep disturbances, social isolation, procrastination, and

mental health issues, all of which can contribute to lower grades and decreased academic success. (Javaeed et al., 2019).

Educators, parents, and students need to be aware of the potential consequences of internet addiction on school achievement and take proactive steps to address it. By promoting a healthy balance between online and offline activities, setting limits on screen time, and providing support for mental health issues, students can improve their academic performance and overall well-being. (BiLge et al., 2022)

Subject (Material and Methods)

A cross sectional study “Descriptive Design” had been used through the present study with the application of approach for participant group during the period November, 5th, 2023 to February 5th, 2024. The study was carried out on the governmental secondary schools in Kirkuk City; region of Iraq. they were (79) governmental secondary schools with (39969) total student of which (12607) were male and (27362) were female according to the Kirkuk Directorate of Education Statistics. The study was conducted from (20) governmental secondary schools. These schools were chosen for the study these schools consist of (first grade to six grade); Randomly, is the way of choosing schools for the study. In order to obtain a representative sample, On-Probability sampling approach consists of 400 students were chosen as size of study sample at secondary schools in Kirkuk city. according to the following sampling procedure: sample size of the study was 400 students who were selected to participate in the

study. based on an analysis of the students’ needs and the relevant scientific literature as well as earlier studies, Experts in various fields evaluate the content, and changes are made based on their recommendations and suggestions. To assess Relationship between Internet Addiction and School Achievement among Secondary School Pupils in Kirkuk City, the researcher creates a questionnaire interview form for data collection, which includes three sections: the questionnaire consists of (39 statements) (MCQ) questions and took approximately 20-25 minutes to complete for each student. A panel of experts evaluates the study instruments and program's content validity; the tools' dependability was assessed using a test-retest methodology and data from the evaluation of 10 students. for assesses the degree to which items in a questionnaire or scale are interrelated and measure the same construct, the reliability coefficient was 0.8. The Statistical Package (SPSS) ver. 26.0 was used to analyse and evaluate the study's findings using statistical data analysis methods: Frequencies, percentages, the mean of the score (MS), , the standard deviation (SD), are used in descriptive analysis of data. Inferential data analysis is used to draw conclusions. the Independent-Samples t-test and Matched Paired-Samples t-test are used to compare means for two groups of cases.

Statistical Analysis

Utilizing the statistical software (SPSS) ver. (26.0), the following statistical data analysis techniques were employed to analyses and evaluate the study's findings:

Results:

Table (1) Distribution of study sample (n=400) according to Demographical Characteristics of the Study Sample

Variable	class	Frequency	%
Age group	13 - 14	142	35
	15 - 16	144	36
	17 - 18	114	28.5
Gender	male	249	62.25
	female	151	37.75
	class 1	59	14.75
	class 2	62	15.5

Class educational level	class 3	75	18.75
	class 4	89	22.25
	class 5	53	13.25
	class 6	62	15.5
Place of residence	Urban	217	54.25
	Rural	183	45.75
Father educational level	Illiterate	8	2.0
	read and write	23	5.8
	Primary School graduate	33	8.3
	Intermediate School graduate	46	11.5
	High School graduate	37	9.3
	Institute graduate	28	7.0
	College graduate	36	9.0
	Master or PhD graduate	14	3.5
Mother educational level	Illiterate	18	4.5
	read and write	23	5.8
	Primary School graduate	21	5.3
	Intermediate School graduate	29	7.3
	High School graduate	15	3.8
	Institute graduate	15	3.8
	College graduate	42	10.5
	Master or PhD graduate	12	3.0
Occupation	Unemployed	102	25.5
	Employed	239	59.75
	Retired	59	14.75
Family monthly income	<500,000	71	17.8
	501,000-1,000,000	276	69.0
	1,000,000 and more	53	13.3
No. of brothers and sisters	0	39	9.8
	1	92	23.0
	2	122	30.5
	3	73	18.3
	4	57	14.3
	5 and more	17	4.3
Pupil residence	With Parents	284	71.0
	With father	27	6.8
	With mother	51	12.8
	With relatives	38	9.5

Table (1) shows that two thirds of sample (62.25%) were male, and most of them (36%) their age are (15 – 16) years old, while (37.75%) were female, Class educational level , of the study sample which the highest percentage is class fourth at rate (22.25%) more than other levels, more than half of study sample lives in urban (54.25%) and (45.75%) lives in rural, which that about more than half of sample (56.3%) were fathers, and most of them (11.5%) their educational level are Intermediate School graduate, while (43.8%) were mothers, and

most of them (10.5%) their educational level are College graduate. And regarding to the Occupation of fathers and mothers of the study sample, which that about more than third of sample (34.5) were fathers are employed, while (25.3%) were mothers are employed too. which that about more than two thirds of sample (69%) were their Family Monthly Income are between 501.000–1.000.000 Iraqi dinars, when regarding to the number of brothers and sisters, were who have two brothers and sisters make about third (30.5%) of the study sample.

According to pupil's residence, the higher proportion (71%) are with parents.

Table (2): Association Between Internet Addiction Score and Socio-demographic Characteristics of Study Sample (N :400)

INTERNET ADDICTION Score		Normal Level 0-30	Mild Level 31-49	Moderate level 50-79	Severe Level 80-100	Test Statist ics & p value
Demographic Characteristics						
Gender	Male	53	94	77	25	$X^2 = 27.38$ P value = 0.0000048 HS
	Female	67	46	23	15	
Place of residence	Urban	69	74	52	22	$X^2 = 0.83$ P value = 0.841 NS
	Rural	51	66	48	18	
Family monthly income	Less than 500,000	14	38	6	13	$X^2 = 58.82$ P value = 7.811 HS
	501,000-1,000,000	87	94	83	12	
	More than 1,000,000	19	8	11	15	
Pupil residence	With Parents	73	103	83	25	$X^2 = 28.02$ P value = 0.00094 S
	With father	11	9	2	5	
	With mother	18	23	7	3	
	With relatives	18	5	8	7	
Father Level education	Illiterate	5	1	19	1	$X^2 = 144.42$ P value = <0.001 HS
	read and write	19	5	18	4	
	Primary School graduate	20	33	1	0	
	Intermediate School graduate	19	23	26	7	
	High School graduate	13	19	16	4	
	Institute graduate	15	26	1	1	
	College graduate	20	31	16	11	
	Master or PhD graduate	9	2	3	12	
Mother Level education	Illiterate	1	6	2	17	$X^2 = 223.03$ P value = < 0.001 HS
	read and write	17	18	2	9	
	Primary School graduate	18	27	2	7	
	Intermediate School graduate	41	22	9	3	
	High School graduate	8	32	12	0	
	Institute graduate	9	18	15	1	

	College graduate	19	15	42	2	
	Master or PhD graduate	7	2	16	1	
Father's occupation	Unemployed	63	16	21	2	X² = 92.75 P value = 0.001
	Employed	64	86	72	17	
	Retired	13	18	7	21	
Mother's occupation	Unemployed	83	11	8	0	X² = 157.60 P value = 0.001 HS
	Employed	39	92	84	24	
	Retired	18	17	8	16	

0-30 points: normal level of Internet usage, 31-49 points: mild level of Internet addiction, 50-79 points: moderate level, 80-100 points: severe dependence upon the Internet. X²: Chi-square test.

Table (2) shows the differences the Internet addiction regarding to the Socio-demographic characteristics of the study sample by using Internet addiction score. There is no significance value with the differences between the scores of the items of the Internet addiction with regards to the place of residence, but there is a significant value with pupil's residence, while in both socio-demographic characteristics (gender and family monthly income) there are a high significance value of the study sample at p. value 0.05 (father and mother education level) of the study sample by

using Internet addiction score. there are a high significance value with the differences between the scores of the items of the Internet addiction with regards to the both father and mother education level of the study sample at p. value 0.05 (father and mother occupation) of the study sample by using Internet addiction score. there are a high significance value with the differences between the scores of the items of the Internet addiction with regards to the both father and mother occupation of the study sample at p. value 0.05 by using Chi-square test.

Table (3) Relationship Between Class Educational level and school Achievement of Studied Sample. (N:400)

Class educational level	School Achievement Performance										Test Statistics & p value
	Failing 0-8		Poor 9-16		Moderate 17-27		Good 25-32		Excellent 33-40		X ² = 75.77 p-value = 2.028
	F	%	F	%	F	%	F	%	F	%	
class 1	3	0.75%	9	2.25%	15	3.75%	16	4.00%	16	4.00%	
class 2	5	1.25%	20	5.00%	21	5.25%	14	3.50%	2	0.50%	
class 3	22	5.50%	19	4.75%	22	5.50%	7	1.75%	5	1.25%	
class 4	34	8.50%	17	4.25%	24	6.00%	9	2.25%	5	1.25%	
class 5	19	4.75%	18	4.50%	5	1.25%	5	1.25%	6	1.50%	
class 6	17	4.25%	17	4.25%	13	3.25%	9	2.25%	6	1.50%	
Total	100	25.0%	100	25.00%	100	25.00%	60	15.00%	40	10.00%	

χ^2 : chi squared test

* Significant association between groups.

The table (3) shows that Class 1 has relatively low percentages across all performance categories. Class 2 has a higher percentage of students in the Poor performance category compared to other

classes. Class 3 and Class 4 show relatively balanced distributions across performance categories. Classes 5 and 6 have higher percentages of students in the Failing and Poor performance

categories compared to other classes. the table shows that there is a significant relationship between class educational level and school achievement performance, with variations in performance levels observed across different class levels.

Discussions:

Regarding the demographic variable, our study demonstrates that a higher percentage of males (62.25%) compared to females (37.75%) at p value 0.05. Research by (Jalil & Jabbar, 2020) in Baghdad similarly examined students' and found, younger students and males have been shown to engage more heavily in internet use, which could impact their academic and interpersonal relationships. a wide range of parental education levels is noted, from 'Illiterate' (2%) for father and (18%) for mother, to 'Master or PhD graduate.' (3.5%) for father and (3%) for mother. The impact of parental education on a student's internet usage and school achievement is also explored in studies like those by, (Shihab et al., 2020), in Iraq Studies imply that improved parental education is frequently associated with better child supervision about their online activities and, in turn, may lead to improved academic results. This is important because more educated parents might be more aware of the educational tools and materials that are accessible online and can better supervise their kids' internet usage. The higher percentage (54.25%) of the study group living in urban area completed with (45.75%) in rural area that is consistent or in line with a study done by Al Faris et al. (2018) in Iraq indicate that urban students often have better access to internet facilities, This can both increase distractions and improve learning possibilities. The kind of content accessed, how long it takes, and eventually how it affects academic achievement can all be greatly impacted by the rural-urban difference. The data indicates varying educational levels from class 1 to class 6 with different frequencies. The highest percentage was class four (22.25%) and the lowest percentage was class five (13.25%) This result is similar to the study done by Leyrer-Jackson and Wilson (2018) in United states which demonstrate that male is

more than female students. the relationship between internet addiction levels and socio-demographic characteristics, showing significant associations with gender, family monthly income, pupil residence, and parents' education levels. Notably, there were significant differences in internet addiction based on the socio-economic background and education levels of the parents. This confirms the findings of studies such as by Li et al. (2019) in China, which noted that socio-economic factors could predispose or protect against internet addiction. The significant influence of parental education on internet addiction levels suggests that higher educational attainment in parents may be linked to better regulation and guidance concerning internet use at home also school-based health education is an appropriate approach for improving students' knowledge (Mahmood et al., 2018).

The findings is similar to the study done by Gavurová et al., 2022 in Slovakia compared to female students, male students are more likely to display signs of internet addiction, more pupils how where living with their parents had mild level of internet addiction. the relationship between levels of internet addiction and school achievement, finding significant where higher addiction levels often corresponded with lower school achievement. Normal Level: 0–30 points, signifying typical use of the Internet. Mild Level: Points 31–49. Level of Moderation: 50–79 points. Severe Level: 80–100 scores, signifying a high degree of internet reliance. The academic performance of the pupils was categorized into five groups: Excellent Performance: 12 percent, 48 students. Good Performance: 11.25% of the 45 students. 27 students (6.75%) had a moderate performance. Failed Performance: 5 students, 1.25 percent. Failing Performance: 15% of the students. Higher Internet addiction levels were associated with worst school performance in students. The Internet addiction levels of weak and failing performance were higher than those of excellent and good performers. Impact of internet addiction on school achievement, which is in line with the literature, such as the work by Kubey, Lavin, and Barrows (2001), demonstrating how excessive

internet use can impair academic success. Also the findings aligns with the study done by (Kareem, et al. 2021) in Iraq on internet addiction among students were minimal, it did draw attention to the possible dangers of addiction. Important variables: The degree of internet addiction was found to differ statistically significantly according to mother education, smartphone ownership, class level, and mobile internet access. Also the study aligns with study done in Iraq by (yoursrf .F.M , Tahseen .R.M , 2021) According to the study, the majority of students have an average level of internet addiction, with 8.8% being very addicted and 53.5% being moderately affected.

Conclusion:

The study reveals a high prevalence of internet use via smartphones, with a significant portion of this usage dedicated to social networking. the study finding that a substantial number of students reported their parents were unaware of their internet use suggests a gap in parental monitoring. the study found a direct between excessive internet use and lower academic performance where there is a significant diversion of time from academic activities to online engagement that internet addiction can detrimentally affect students' academic performance by decreasing the time and energy available for studies. the study find Significant differences in internet usage patterns were observed based on socio-demographic factors such as place of residence, family income, and parental education levels. Students from higher-income and urban backgrounds generally had better access to the internet, which, while beneficial in some aspects, also posed risks related to overuse. The impact of parental education on internet usage underscores the role of parents in mediating their children's internet habits.

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