

DEVELOPING A SEMI-STRUCTURED QUESTIONNAIRE FOR ADOLESCENT INTERNET USERS AND IDENTIFYING CRITERIA TO ASSESS PSYCHOSOCIAL AND OCCUPATIONAL PERFORMANCE

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Abstract

Background and Aim: To develop a semi-structured questionnaire and identify items relevant to adolescent internet users' psychosocial and occupational performance. **Objectives:** To create a semi-structured questionnaire to evaluate adolescent's internet usage patterns. To choose the questions to be used in evaluating the psychological and academic performance of adolescents to examine adolescent's internet usage trends. **Methods:** The development of the assessment tool The review looks at the literature on model of human occupation, occupational therapy practice framework, item response theory, and item development steps that are connected to psychosocial and occupational characteristics of adolescent internet users. Develop a semi-structured questionnaire and distribute it to experts for feedback, followed by preliminary testing and data analysis. Based on that, the developed questionnaire will be given to an expert focus group discussion, followed by item development and the finalization of the response adolescent internet user's assessment tool. **Results:** The findings display the demographic distribution. The results of the semi-structured questionnaire revealed the following factors: The ranking of internet activities, other than Internet use, common activities first time using the internet, types, importance, time, positive, negative, and internet device item generation. **Conclusions:** Excessive internet use is detrimental for one's physical and mental health. The majority of adolescent internet users live in cities (46.7%); internet time consumption has increased with laziness (56%); internet access is a smartphone (93.3%); they lie down in their room with a phone or laptop before using the internet (56.7%); they play online games (50%); and they frequently watch YouTube (40%), uploading/downloading movies or songs (30%). The internet interferes with academic work, such as during class and examination hours (73.3%), and reveals any physical obstacles (63.3%) such as back pain, neck discomfort, hand pain, and eye abnormalities, as well as interrupts work/concentration (43.3%). The findings indicate a strong desire to create novel items as well as a psychosocial and occupational performance assessment tool.

Keywords: Problematic Internet Use, Semi-Structured Questionnaire, Adolescent, Assessment Tool.

1. INTRODUCTION

1.1 Background of the Study

The intention of this research is to enable researchers how else to develop semi-structured questionnaire in a systematic manner. To proceed in the development of the interview guide, the key features of each phase are discussed using literature support, followed by the author's experience working on each phase. When a semi-structured questionnaire is well-designed, it becomes a legitimate and valid source of data collection [1].

Recent research, particularly meanwhile the COVID-19 outbreak, there has been a huge surge in the problematic usage of computer games and social networking. Problematic Internet is especially dangerous for teenagers who struggle to regulate their unpleasant emotions. As a result, there has been evidence of emotional dysregulation identified as a potential risk factor with problematic internet use (PIU).

In comparison to pre-pandemic prevalence rates, PIU prevalence among 12–17-year-olds increased dramatically following the COVID-19 pandemic's third wave. During the pandemic, PIU is becoming a major issue among young people. Aside from PIU is affected by age and sex, pandemic-related digital media consumption, and emotion control, providing a foundation for preventive measures [2].

Semi-structured questionnaires are those that have only the basic framework and method of the questions predetermined, and they can be administered in an informal and interactive manner. To explore deeper, it blends open inquiry and field emphasis into adolescent internet users' inner thoughts and desires. With the help of a professional group, a semi-structured questionnaire group was established [3].

In recent years, an increasing number of scholars and institutions have expressed concern about adolescent Internet use. Some of the consequences of psychological and behavioural influence on youth include behaviour problems, social withdrawal, academic failure, and family issues [4].

Problematic internet use (PIU) is a major source of concern among school-age teenagers. There are no thorough reports available to evaluate the severity of the situation. The study's purpose was to investigate the growing prevalence of PIU in Indian school adolescents. Our findings are based on data on a nationwide scale on the quantity of PIU ingested many Indian teenagers in school, where the internet is widely used [5].

1.2 Scope of the Study

Procedures for item generation for instrument development and internet usage trends have been offered by the current study. Monitoring the overuse of the internet will be helpful. The current study concentrated on the usage patterns of the internet and the process of creating a tool for measuring internet usage in India. The current study indicated that there is a considerable need in establishing concepts, theories, and criteria for constructing an internet use though addiction, as well as the demand to create and evaluate an Indian-based instrument for assessing internet use. Future studies will concentrate on how developed items are standardized [6].

1.3 Research Question

The recent expansion of Internet infrastructure has resulted people of all ages are increasingly using the Internet. Some people, however, have suffered negative effects because of increased Internet usage. One of the disadvantages of heavy Internet use among consumers is "Internet addiction" (IA). The current study investigates the psychometric characteristics of such Internet addiction test (IAT) in 1,914 Indian senior and junior high school students [7].

There is no instrument that has identified psychosocial and occupational performance consequences, so items were designed and standardized to create a new tool for adolescent internet users. This study begins with a phase of tool framing based on

semi-structured questionnaires and concludes with a few phases of focus group discussion and tool item finalization.

1.4 Objectives of the Study

To develop a semi-structured questionnaire for assessing adolescent internet usage patterns. To determine the items for assessing adolescents' psychosocial and occupational performance. To analyze the internet usage patterns of adolescents.

2. LITERATURE REVIEW

Internet is a worldwide network of interrelated computer systems that has seen rapid technological advancement. Over the last decade, rapid advances in technology have significantly increased internet accessibility and use across all age categories, causing many people, particularly teenagers, to become addicted to the Internet. In 2018, India had 560 million Internet users, trailing only China. In 2018, except for China, Indians downloaded more apps and spent more time spent on social networks (average of 17 hours per week) than Chinese and American consumers.

Adolescents' addicted usage of betting (19.5%), mobile phones (15.5%), and Facebook is advanced in the 13-15 age range. While there is evidence of addictive use, it is necessary to study the usage trend in the Indian setting. Considering this data, a screening strategy for Internet consumption and its problematic effects on the society is required, as well as evolving psychosocial therapy. Researchers from across the world developed and validated various measures, each with distinct limitations. Numerous scales developed in various samples aren't broadly acknowledged. [8].

The best-fitting and most reliable KDAI model had a 7-factor structure that also included withdrawal, losing control, enhanced primacy, harmful effects, changes in state of mind, prominence, and impairments according to multi-sample studies. Concurrent validity was determined by comparing these parameters to IA Test domains. The KDAI showed outstanding psychometric parameters and sensitivity as a test for detecting IA in teenagers [9].

Internet addiction was considered for this category but was demoted to an appendix with the recommendation that "further research" be conducted [10]. Concerns have been raised about emotional and behavioural difficulties caused by excessive internet use. The goal of this research is to create and standardize a questionnaire capable of identifying high internet users based on existing internet usage patterns. Questionnaire for Detecting Internet Overuse screening (IOS-Q) is a questionnaire used to research internet addiction and assess high-risk individuals [11].

There are 45 tools for assessing there are many theories about internet addiction, but many of them are not well supported. This study serves as an example of the rising interest in Internet addiction and associated evaluation techniques. Demonstrate the lack of assessment agreement within the profession and the urgent need for a reliable, validated tool to unify the industry. There should be more study done to assess the psychometric properties of the current scales in various cultural contexts and age groups [12].

Recent research findings and current perspectives on adolescent internet addiction, including terminology, prevalence, risk factors, comorbid problems, and treatment. Prevalence studies reveal data that differ greatly by region and by the definitions utilized. Because of impulsivity, hostility, and neuroticism, youth may be predisposed

to internet dependence. Cognitive behavioural therapy and prescription drugs for commonly co-occurring psychological conditions like depression and Attention deficit hyperactive disorder (ADHD) have shown significant of the treatment of internet addiction shows clinical pledge [13].

3. RESEARCH METHODOLOGY

3.1 Introduction

While there are a few validated evaluations connected to internet use in the global population, no gold standard test has been produced, particularly in terms of psychosocial and occupational assessment owing to internet use. As a result, there is a gap that needs to be filled in terms of building a new instrument. The critical review recommendation is shown in relation to the psychosocial and occupational impact evaluation due to internet addiction. The researcher would create relevant new assessment and psychometric qualities [14].

3.2 Scale Development Overview

Creating a rigorous scale consists of 3 phases: Phase-I item generation, Phase-II scale creation and Phase-III scale investigation which could be extended subdivided in to the 9 sections. Item development, or creating the first collection of questions for a final scale, comprises 2 stages: (i) determining the domain (s) as well as item generation, and (ii) considering content validity. The second stage is, scale construction, includes of (iii) questions for pre-testing, (iv) administration of surveys and sampling, (v) item decrease, and (vi) latent component extraction, i.e., transforming individual items are combined to form a harmonic and quantifiable construct. The last phase, scale evaluation, requires (vii) dimensionality tests, (viii) reliability of the test, and (ix) validity of the test [15].

Framework for Development our procedure after the 4 steps indicated in the Standards intended at Psychological and Educational Testing Stage 1: Define the reason for the examination as well as the scope of the construct or the domain to be evaluated. Stage 2: Develop and evaluate test specifications; Stage 3: Develop, field test, evaluate, then additionally select the items, as well as scoring procedures and guidelines; and Stage 4: Assemble the test and evaluate it for operational use [16].

To determine its components for developing an instrument for assessing Internet usage. Calendar of Semi-Structured Interviews (developed by the investigator and content validated by the 10 experts). Six Focus Group Discussions (FGD) were held with a total of 32 experts [6]. Created through intensive literature reviews, expert debates based on focus group discussion [9].

This research demonstrates getting interested in Internet addiction and related evaluation. Our findings, which are consistent with prior findings from around an era ago (Beard, 2005), show the lack of agreement in the profession regarding evaluation as well as the critical to come together to form the field, an established and validated tool is required. More study should be conducted to assess the psychometric qualities of prevailing scales in various cultural situations, age groups, and large samples [12].

By expert examination and panel discussions, 28 preliminary questionnaire items were chosen from a pool of 36 initial questionnaire items. A preliminary questionnaire was created after a thorough study of previously published research articles on internet addiction, interviews with visitors to the addiction treatment center, as well as

diagnostic criteria for Problems with compulsive gambling and substance abuse. After a series of conversations to improve the circumstances, a proficient group comprised of the psychiatrist, psychologist, social worker, and sociologist, 36 preliminary items were identified. 50 members of the addiction culture judged the appropriateness then relevance of every item on a 5-point (1-5) Likert scale. The mean score for adequacy was 3.94, while the average score for importance was 3.90 [11].

The study entails developing and validating its Core Beliefs about Behavioral Addictions and Internet Addiction Questionnaire (CBBAIAQ) on an unspecified French populace. The questionnaire was created in three stages: item design based on interviews that are semi-structured, execution of an Exploratory Factor Analysis (EFA) to improve the questionnaire framework [17].

3.3 Development of Assessment Tool

Step-1. Review the literature: The investigator will review various literatures. Model of Human Occupation (MOHO), Occupational Therapy Practice Framework-American Occupational Therapy Association (OTPF-AOTA) 2020 document, Item Response Theory (IRT), and assessment item development steps are all related to psychosocial and occupational aspects for adolescent internet users. Internet users and adolescents, problematic internet use (PIU) for psychosocial and occupational aspects, tools, scales, assessment in internet addiction or problematic internet users, updates in measuring excessive internet user problems were used to search electronic databases (PubMed, Google Scholar, Web of Science, Science Direct, and Scopus).

The investigator will plan the specific objectives, which will include the nature of the content, the type of instruction, the pilot sampling method with simple random sampling technique, the detailed arrangement for preliminary administration, the likely length and time limit for completion of the test, and the likely suitable statistical methods to be used.

Step-2. Design Semi-structured questionnaire: The investigator will create a semi-structured questionnaire its 2 main segments are as follows: (i) The investigator created the socio-demographic data section, which comprises information about the subject such as name, age, gender, education, birth order, number of siblings, and family type. Domicile, mother tongue, and email address are required. (ii) Designed general questions to elicit fundamental information such as accessibility gadget, durations of internet activity, frequently visit to internet sites, and the psychosocial and occupational consequences of internet use. (iii) All of the questions were constructed with an open-ended, closed-ended question structure, and some with the rating/ranking approach. It elicited information such as the location of internet access, ranking the most popular to least popular watching sites, length of time of internet activity, effectiveness of internet, preferred period to use internet, usage online platform in academics, habits, number of attempts to quit, familial issues caused by internet use, digital well-being, consequences of inability to access internet negative and positive impacts, and use of internet and related with psychosocial occupational consequences. Semi-structured questionnaire was consigned to experts for validation [17].

3.4 Procedures

Step-1. Expert suggestion for semi-structured questionnaire: The investigator will develop a semi-structured questionnaire that will evolve the pattern of internet use (accessing gadgets, hours of internet usage, frequent visits to internet sites, psychosocial and occupational consequences associated with internet use, and so on), and the developed semi-structured questionnaire will be distributed to 20 occupational therapy experts with at least 10 years of experience. 15 experts responded with content validation in terms of appropriateness and typological mistakes of the generated semi-structured questionnaire, and informed consent form acceptance was received. It was started with 20 questionnaires, however following the suggestion, it was changed to 31 questionnaires.

Step-2. Preliminary testing and data analysis: 30 pilot samples were selected to apply for a semi-structured questionnaire, and prior consent from parents and teachers was obtained to gather data from English medium senior high school students. The questionnaire contains 31 items, including internet use patterns of psychosocial and occupational performance questionnaire.

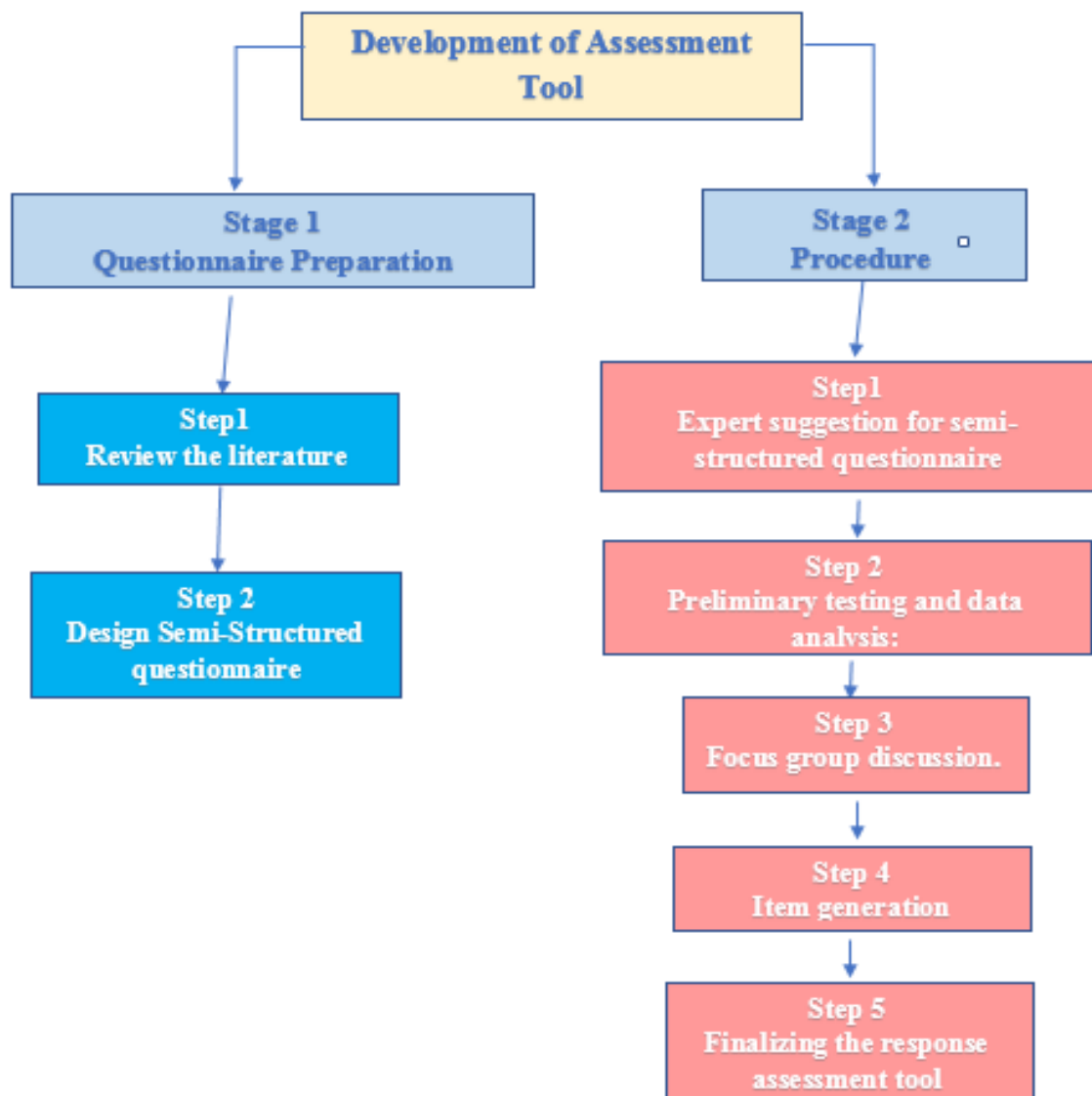
The data will be entered into an excel sheet, filtered, and coded then analyzed with SPSS IBM 24 edition. In order to examine the factors impacting internet use, semi-structured questionnaire and assessment tool responses will be tested. The assessment tool elements will be kept based on the outcomes of the initial administration. Tabulated independent and dependent variables differentiate the category, frequency, and percentage.

Step-3. Focus group discussion: Each Focus group discussion (FGD) is attended by occupational therapists, psychologists, psychiatrists, biostatisticians, and software professionals. A different expert committee member with a minimum of 10 years' experience in their field will select each of the four expert groups from a pool of 20 experts responded. There will be a total of 4 focus group discussions (FGDs) [17].

Step-4. Item generation: Based on literature reviews, semi-structured questionnaires, and focus group discussions, the new items will be created for further tool establishment for standardization of appropriate tool. The items will be organized according to certain dimensions, such as the internet related behaviour, Psychosocial and Occupational performance of adolescent internet users.

Step-5. Finalizing the response assessment tool: The response assessment tool for the FGD will be created based on the assessment items. Likert scale will most likely be used.

FLOW CHART



3.5 Population of the Study

30 pilot samples were chosen to complete a semi-structured questionnaire as part of a preliminary survey for our new assessment tool.

3.6 Sampling Method and Technique Methods

The pilot sampling method, as well as the simple random sampling (SRS) technique, were utilized in this research. People who gather in one spot with their school attended for class interest as a result of this reason for the survey.

3.7 Data Collection Tool

The investigator will create a semi-structured questionnaire that will evolve the pattern of internet use (accessing gadgets, hours of internet usage, frequent visits to internet sites, psychosocial and occupational consequences associated with internet use,

etc.), and the developed semi-structured questionnaire will be given to 20 experts in the field of occupational therapy with at least 10 years of experience. Received 15 experts reply with valuable feedback and comments to modify the semi-structured questionnaire with their informed consent form.

Initial draft was socio-demographic data with semi-structured questionnaire consist of 20 items, after the expert review, its established into socio-demographic data with semi-structured questionnaire contains 31 items, including Internet Use Patterns of Psychosocial and Occupational Performance.

4. DATA ANALYSIS AND INTERPRETATION

4.1 Demographic Information of the Respondents

Table 1 exploits the socio-demographic data statistics of the demographic variable, the average age in Mean \pm SD 15.87 ± 0.819 , it is mini 14 years and maxi 17 years. Out of 30 samples the males and female (n=6 and n=24) is comparatively higher than male participants. Mean age use of internet 12.40 ± 2.207 with mini of 9 years and maxi of 15 years. The average mean time (hrs) spent on the internet is 3.58 ± 2.34 which ranges from 1hour to 8 hours. The age ranges are 14 years (1 Person), 15 years (9 Person), 16 years (13 Person [43.3%]) is higher than and statistically significant difference of other ages in our study, 17 years (7 Person). The number of 11th class adolescent is 16 (53.3%) is higher than other class section students, 12th class adolescent is 10(33.3%), 10th class adolescent is 2 (6.7%) and the college first year adolescent is 2 (6.7%).

The first child is 19 (63.3%) is above 50% the parents give freedom of the first child, and the second child is 11 (36.7%). Two siblings exhibit 19 (63.3%) here also more freedom of this category compared to one, one sibling exhibits 7 (23.3%), three siblings exhibit 3 (10%), and four siblings exhibit 1 (3.3%). Adolescents live in 14 (46.7%) urban areas nearly 50% of the children living urban used more internets compare to village children, 11 (36.7%) suburban areas, and 5 (16.7% rural areas). Joint families account for 17 (56.7%) of all families is higher because the people have mobile facility, while nuclear families account for 13 (43.3%).

Table1: Descriptive and frequency distribution of the demographic variable (Annexure-II)

	Mean \pm SD	Mini	Maxi	Sex	M n (%)	F n (%)
Average Age	15.87 ± 0.819	14	17		6(20)	24(80)
Mean age use internet	12.40 ± 2.207	9.0	15	Birth order	1 st Child	2 nd Child
Mean time use internet	3.58 ± 2.34	0.60	8.0		19(63.3)	11(36.7)
Age	14 Yrs	15 Yrs	16 Yrs	17 Yrs	-	-
	1(3.3)	9(30)	13(43.3)	7(23.3)	-	-
Education	10 th Std	11 th Std	12 th Std	1 st Year	-	-
	2(6.7)	16(53.3)	10(33.3)	2(6.7)	-	-
No. Of sibling	One	Two	Three	Four	-	-
	7(23.3)	19(63.3)	3(10)	1(3.3)	-	-
Domicile	Sub-urban	Urban	Rural	Family type	Joint	Nuclear
	11(36.7)	14(46.7)	5(16.7)		17(56.7)	13(43.3)

4.2 The Semi-Structured Questionnaire Findings Revealed The Following Factors

Table 2 Explain Question 1 (Q1) reveals that the device most used for internet access is a smartphone (93.3%) is nearly 100% of the participants used internet through smart phone only. Data pack 15 adolescents (50%) is higher usage of mobile net pack, according to Q2, have the most access to the internet. Q3 reveals an average of 6 hours for 5 adolescents (16.7%) and 1-3 hours for 14 adolescents (46.7%) is higher usage of hours destroyed their activities. Q4 describes lie down in their room with phone/laptop before internet activities is 17 (56.7%) in this output shows clearly the child should become laziness in their home. Q7 discovers that in recent times, mobile phone activity is one of the daily routine activities, with 13 (43.3%) demonstrating the same actions in the previous three months, this clearly explain that the children cannot give more interest in other works.

Table 2: Descriptive and frequency of the questionnaire percentage of Q1, Q2, Q3, Q5 and Q7. (Annexure-II)

Q1	Laptop	Smart phone	Tab	-
	1(3.3)	28(93.3)	1(3.3)	
Q2	WIFI	Data pack	Hotspot	Others
	13(43.3)	15(50)	1(3.3)	1(3.3)
Q3	<1 hour	1-3 hours	4-5 hours	≥ 6 hours
	5(16.7)	14(46.7)	6(20)	5(16.7)
Q5	I lie down in my room with my phone/laptop	I sit before my pc/android TV	I sit anywhere with my phone and headset on	-
	17(56.7)	5(16.7)	8(26.7)	
Q7	The same as it has been for the last three months.	I am spending more time when compared to the last 3 months.	I am spending less time than I was three months ago.	-
	13(43.3)	7(23.3)	10(33.3)	

4.3 Ranking of the internet activities

Table 3 Conclude that Q4 reveals the ranking of the internet activities search for information frequently 20(66.7%) this is the top rank category, play online games rarely 15(50%) is more compared to others, chat services such as messenger, WhatsApp, Instagram chat, google meet, discord share chat and telegram used frequently 11(36.7%), use of frequently social networking sites such as Facebook, twitter, Instagram and LinkedIn is 10(33.3%), access pornography rarely 3(10%), email access occasionally 14(46.7%) more update their current progress, ordering of food from online occasionally 10(33.3%), occasionally checking websites 10(33.3%), frequently watching YouTube 12(40%) this is important findings compare to others, uploading/downloading movies or songs occasionally 9(30%), online shopping frequently 9(30%), online academic activities frequently 10(33.3%), online business none 21(70%), direction/map services occasionally 11(36.7%) and Q20 family members feel about the internet use reveals badly 18(60%).

Table 3: Descriptive and frequency of the questionnaire percentage of Q4, and Q20. (Annexure-II)

	None	Rarely	Seldom occasional	Frequently	Always
Q4A	-	1(3.3)	6(20)	20(66.7)	3(10)
Q4B	9(30)	15(50)	3(10)	1(3.3)	2(6.7)
Q4C	-	4(13.3)	6(20)	11(36.7)	9(30)
Q4D	6(20)	3(10)	7(23.3)	10(33.3)	4(13.3)
Q4E	27(90)	3(10)	-	-	-
Q4F	2(6.7)	9(30)	14(46.7)	4(13.3)	1(3.3)
Q4G	3(10)	9(30)	10(33.3)	3(10)	5(16.7)
Q4H	2(6.7)	7(23.3)	10(33.3)	10(33.3)	1(3.3)
Q4I	-	3(10)	5(16.7)	12(40)	10(33.3)
Q4J	3(10)	4(13.3)	9(30)	7(23.3)	7(23.3)
Q4K	-	6(20)	8(26.7)	9(30)	7(23.3)
Q4L	2(6.7)	2(6.7)	9(30)	10(33.3)	7(23.3)
Q4M	21(70)	4(13.3)	2(6.7)	3(10)	-
Q4N	2(6.7)	9(30)	11(36.7)	6(20)	2(6.7)
Q20	very bad	bad	good	bad and good	very bad and good
	4(13.3)	18(60)	4(13.3)	2(6.7)	2(6.7)

4.4 Common activities other than Internet use

Table 4 Q6 demonstrates that utilizing the internet at the expense of other activities such as socialization 16(53.3%) is more than others, family time 17(56.7%) used more children with their parents, housework 21(70%) our study result shows are higher than other works, leisure 6(20%), academic 8(26.7%), and games/sports 15(50%) was disagreed. Q8 suggests that you are conscious of your digital well-being 9(30%), Q9 implies that you discuss with your parents using internet sites 9(30%), and Q10 shows that you miss something when your phone/laptop is not working 15(50%). Q11 exposes agree that using the internet or mobile devices has affected your sleep 19(63.3%) may lead any health issues in future, Q12 confirms using gadgets to avoid any social participation or to avoid a specific person 14(46.7%), Q13 has shown relies more on internet-based platforms for problem solving 15(50%) this is very helpful to the children some times in their education, Q14 reveals the internet is used to cope with challenges and dysphoric moods 14(46.7%), Q15 reveals experiencing sleeping difficulties or finding it difficult to fall asleep 11(36.7%).

Q22 agreed that it is preferable to sit in your room with your phone rather than meet others, 7(23.3%) children need to sit alone with phone only, Q23 doing academic related work, taking breaks to go online/check messages and updates / having the constant urge to check your phone is 23(76.7%), Q24 having any concerns about your internet use, tried to cut down on your internet use how many times you tried and what kind of strategies you used to cut down on your internet use it agreed 25(83.3%), Q25 agreed that academic work (such as during class hours, exam times, and study hours) being disrupted by internet use is 22(73.3%) the internet destroyed their exam,

Q26 finds any physical problems (such as back pain, neck pain, hand pain, and eye problem) due to internet use is 19(63.3%) in this output clearly shows that more than 60% of the children affected by phone internet use, Q27 likes to share any information is 20(66.7%) it is very important useful communication tool and reduce their time, Q28 notification sounds disturbing your work/concentration is 13(43.3%) this is also one of the mind disturb things, Q29 experiencing any psychological problems such as lack of concentration, irritability, anxiety is 21(70%) most of the student affected and get

disease, Q30 experiencing any online bullying and harassment is 20(66.7%) because more sharing the information through social media and other used, and Q31 agreed that being unable to use your mobile device or the internet in an internet café due to issues such as a low battery, insufficient data use, or a power outage 9(30%) this quit nature of the usage.

Table 4: Descriptive and frequency statistics of the questionnaire percentage of Q6, Q8 to Q15 and Q22 to 31. (Annexure-II)

	Yes/ Agree	No/ Disagree		Yes/ Agree	No/ Disagree
Q6A	14(46.7)	16(53.3)	Q14	14(46.7)	16(53.3)
Q6B	13(43.3)	17(56.7)	Q15	11(36.7)	19(63.3)
Q6C	9(30)	21(70)	Q22	7(23.3)	23(76.7)
Q6D	24(80)	6(20)	Q23	23(76.7)	7(23.3)
Q6E	22(73.3)	8(26.7)	Q24	25(83.3)	5(16.7)
Q6F	15(50)	15(50)	Q25	22(73.3)	8(26.7)
Q8	21(70)	9(30)	Q26	19(63.3)	11(36.7)
Q9	21(70)	9(30)	Q27	20(66.7)	10(33.3)
Q10	15(50)	15(50)	Q28	13(43.3)	17(56.7)
Q11	19(63.3)	11(36.7)	Q29	21(70)	9(30)
Q12	14(46.7)	16(53.3)	Q30	20(66.7)	10(33.3)
Q13	15(50)	15(50)	Q31	9(30)	21(70)

4.5 First Time Internet Use

Table 5 From our data collection the most of the Adolescents begin using the internet for the first time at 15 years 7 (23.3%) from our result output shows the difference one because now a day's form 8th months onwards they want to see the YouTube, and followed by 14 and 9 years 5 (16.7%) second most used the internet, 13 and 12 years 4 (23.3%) the third most used internet, 11 years 2 (6.7%) and 10 years 3 (10%) the last percentage of internet used based on our study results.

Table 5: First Time Internet Use By Age Wise Distribution Of The Questionnaire(Annexure-II)

Q16	9 Year	10 Year	11 Year	12 Year	13 Year	14 Year	15 Year
	5(16.7)	3(10)	2(6.7)	4(13.3)	4(13.3)	5(16.7)	7(23.3)

4.6 Types, Importance, Time, Positive, Negative and Device related to Internet use

Figure 1, Q17A reveals the types of internet activities that people prefer, such as social media 11(36.7%) more used compare to others types, entertainment 5(16.7%), academics, entertainment, and social media. 3(10%), academics 5(16.7%) here the study find out the importance of the future carrier of the people, entertainment, shopping, and infotainment 2(6.7%), research 1(3.3%), academics and entertainment 1(3.3%), entertainment and social media 1(3.3%).

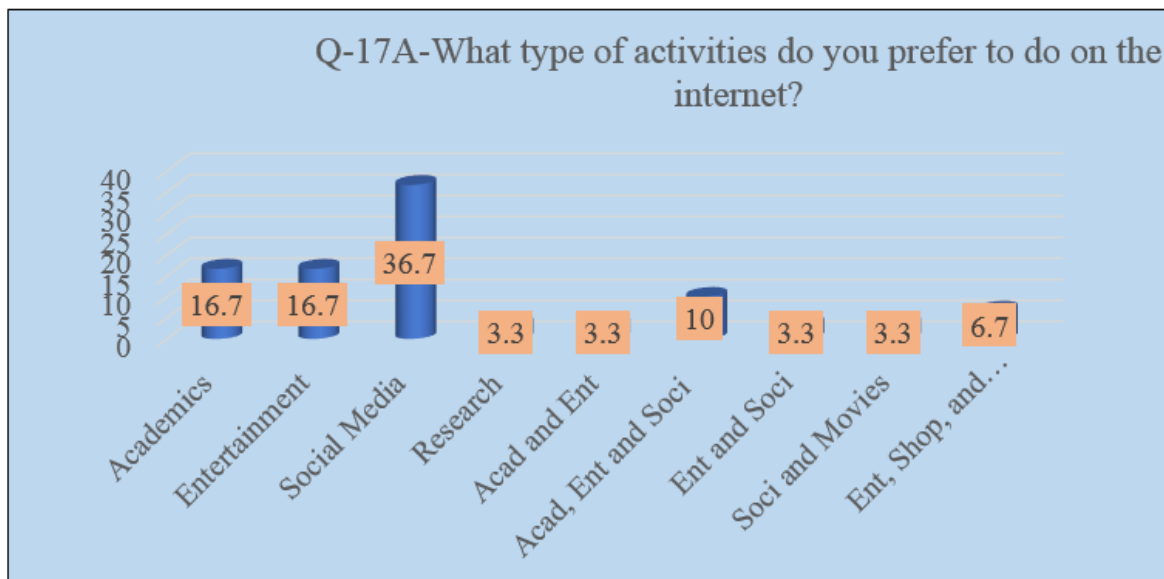


Figure 1: Bar Chart Clearly Shows The Types Of Internet Activities In The Study. (Annexure-II)

Q17B, Internet time utilization academics and entertainment for 3-hours 5(16.7%) displays maximum usage, followed by entertainment and social media usage for 7-hours 3(10%). No answer of this question 14(46.8).

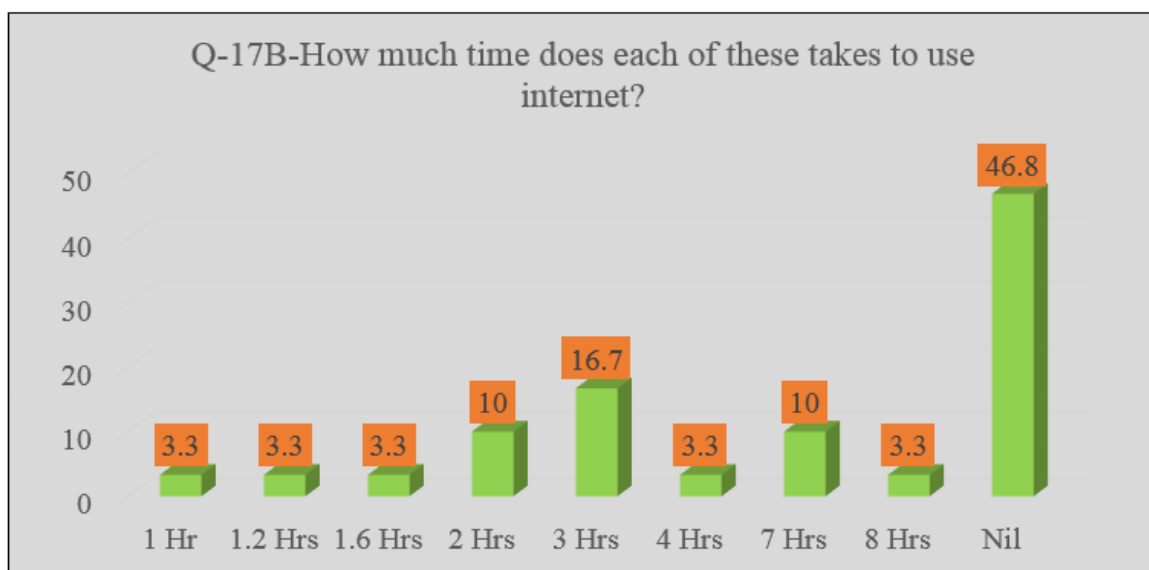


Figure 2: Bar chart explain the Internet time utilization. (Annexure-II)

Q18 demonstrates the current importance of internet use as gathering information 11(36.7%), communication 7(23.3%), academics 7(23.3%), all aspects 3(10%), and entertainment 2(6.7%).

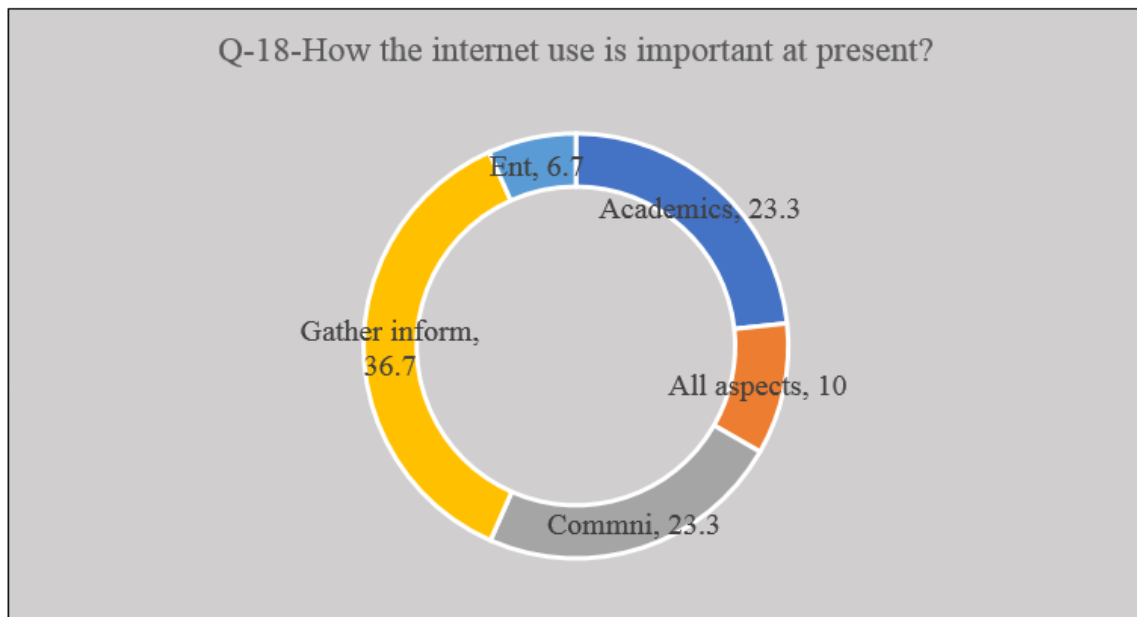


Figure 3: Pie Diagram Clearly Shows The Current Importance Of Internet Use. (Annexure-II)

Q19A demonstrates that internet use has a positive impact on gathering knowledge (15(50%), communication 6(20%), gathering information and communication 4(13.3%), academics (3(10%), communication and academics 1(3.3%), gathering information and academics 1(3.3%).

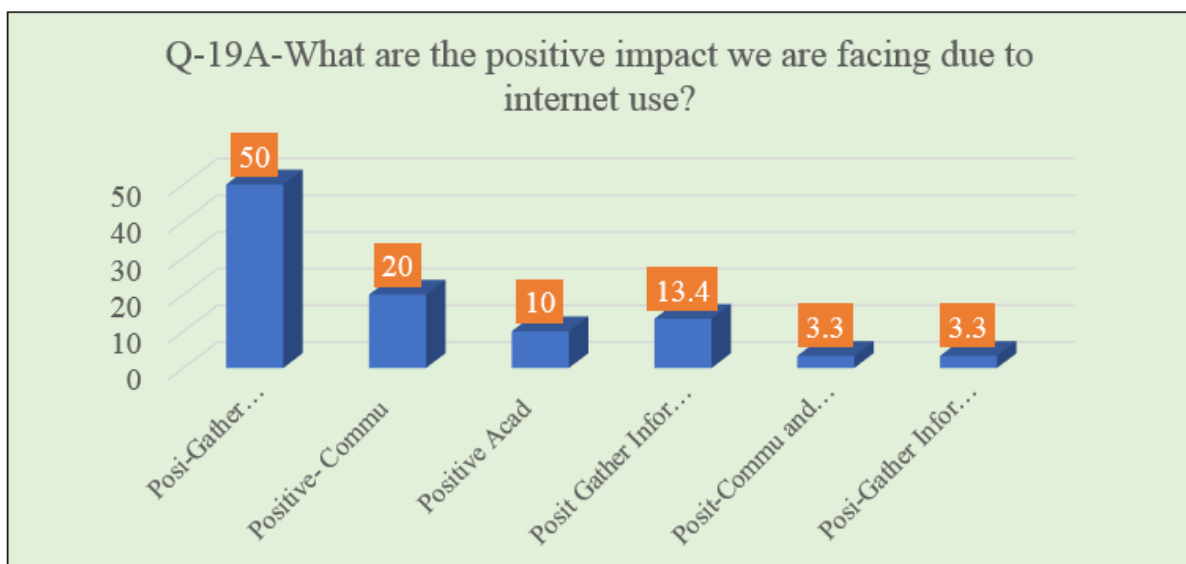


Figure 4: Bar Chart Shows The Positive Impact Of Internet Use. (Annexure-II)

Q19B Internet use has a negative impact on mental health problems 21(70%), physical health problems 3(10%), time management 3(10%), and mental health and time management 3(10%).

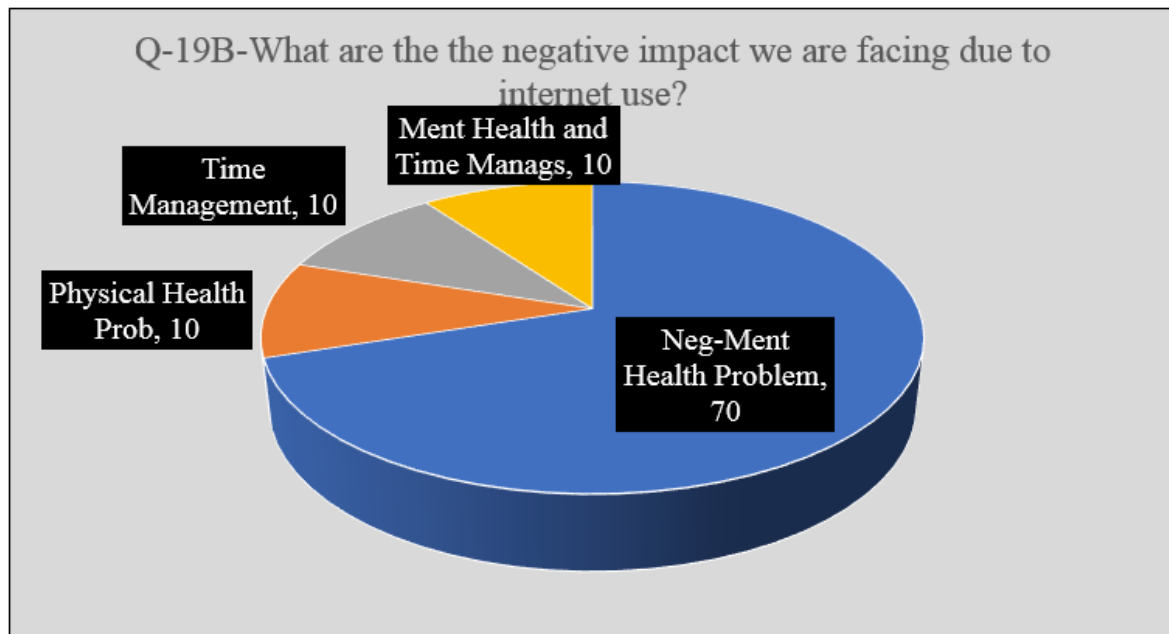


Figure 5: Pie Diagram Clearly Shows The Negative Impact Of Internet Use. (Annexure-II)

Q21 demonstrates that checking/using devices while having face-to-face conversations with individuals is rarely (70%), often (6%) and very often (3%).

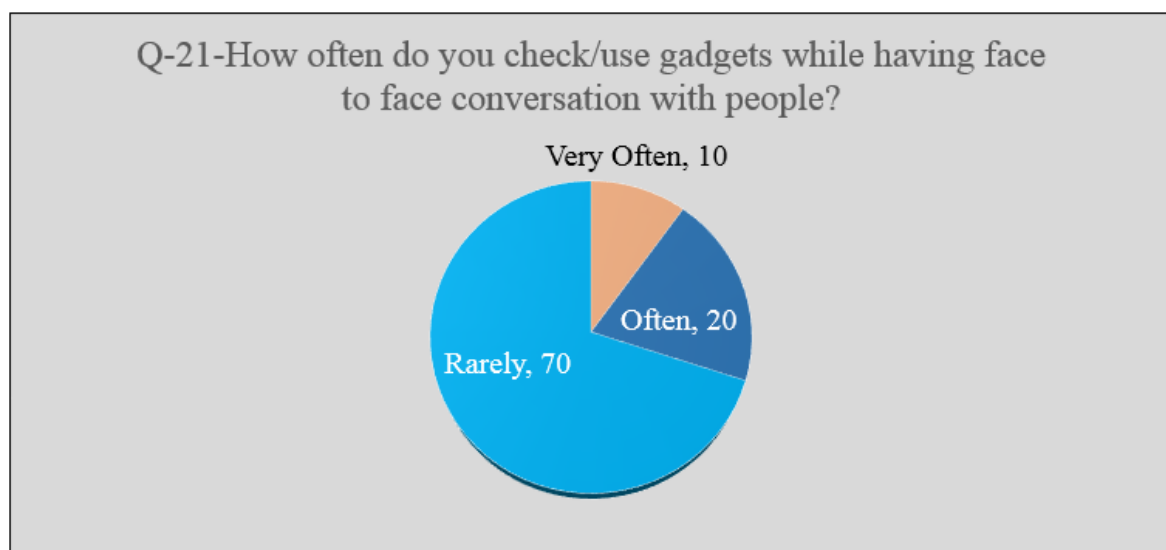


Figure 6: Pie Diagram Clearly Shows The Internet Device Use. (Annexure-II)

4.7 Focus group discussion

The first focus group discussion (FGD) is framed by investigator results and addresses internet-related behaviour, occupational performance, and psychosocial items. 112 new things were created and eliminated 36 items. Second FGD 89 items created following the elimination of 24 items. Third FGD 63 items created after discussion items were eliminated 26. Fourth FGD 60 items produced following the elimination of discussion items 11. (Annexures-III,1V, V, VI and VII)

4.8 Item generation

The tool includes demographic information, section-1 occupational performance (20 questionnaires), section-2 psychosocial performance (25 questionnaires), and section-3 internet related behaviour (15 questionnaires) based on literature reviews, semi-structured questionnaires, and focus group discussions.

4.9 Finalizing the Assessment Tool

A few statements that assess Psychosocial and Occupational Performance for Adolescent Internet Users will take approximately 10-15 minutes of your time. which would benefit the student community and society. It necessitates informed consent, as well as the response evaluation tool's overall demographic information. There are 8 items and a number of remarks about the repercussions of internet use. Read each item carefully and select the response that best matches your recent behaviours and feelings. There are no correct or incorrect replies. Don't spend too much time on any one statement, but rather choose the response that seems to best express your feelings in the last several months. Eventually 60 items and a Likert scale are likely to be used.

5. DISCUSSION

The current study focused on the creating of a semi-structured questionnaire used to suggest questions for developing psychosocial and occupational performance assessments of internet use. [6]. According to the demographic information provided by respondents, the first child is 19 (63.3%), indicating that more than half of parents offer their first child independence and that nearly half of urban children use the internet more frequently than rural children.

Demographic and internet usage data were collected using a pre-structured questionnaire. Investigate how teenagers of school age use the internet, whether they grow addicted to it, and how they are feeling psychologically. We looked into the frequency of IA. Those who lived alone, had an English-medium education, were from wealthy homes, had a mobile internet connection, and played online games had considerably higher IA levels [18].

The results of the semi-structured questionnaire revealed the following factors: A smartphone 93.3% is the most often utilized internet access device. 5 adolescents 16.7% spent an average of 6 hours per day. Increased consumption of hours ruined their activity., lie down in their room with phone/laptop before online activities is 56.7% in this output clearly suggests that the youngster should become lazy at home. With 43.3% displaying the same actions in the previous three months, it is apparent that the youngsters cannot give more attention in other works.

The most common internet activity is regularly searching for information 66.7%, followed by infrequently 50% playing online games and frequently 40% viewing YouTube videos. Other noteworthy findings include the following: occasionally uploading or downloading music or movies 30%, frequently engaging in online academic activities 33.3%, and seeing online movies with a mobile internet connection 60% [18].

Other than Internet use, common behaviours include discussing with your parents using internet sites 9% and missing something when your phone/laptop is not working 15%. The internet or mobile devices have damaged your sleep 63.3%, which may lead

to future health problems; using gadgets to avoid social engagement or to avoid a specific individual 46.7%; and utilizing internet-based platforms for problem solutions 50%.

The internet is utilized to cope with obstacles and dysphoric moods 46.7%, having sleeping difficulties or finding it difficult to fall asleep 36.7%. It is advisable to stay in your room with your phone than interact with people. 23.3% children need to sit alone with phone only, academic related work, taking breaks to go online/check messages and updates / having the constant urge to check your phone is 76.7%, your internet use, how many times you tried and what kind of strategies you used to cut down on your internet use it agreed 83.3%, scholarly work (such as during class hours, exam times, and study hours).

The number of people whose lives have been disrupted by internet use is 73.3%. The proportion of people who have bodily difficulties as a result of internet use is 63.3%. This output clearly reveals that notification sounds interrupting your work/concentration is 43.3% of the children affected by phone internet use. This is also one of the mind's disrupting factors, with 70% experiencing any psychological difficulties such as lack of attention, impatience, or worry. Majority of the students are impacted by disease, and Q30 shows the high value of 66.7% have experienced online bullying and harassment as a result of increased sharing of information via social media and other means.

Excessive Internet use will also result in a rise in depression and a deterioration in cognitive function, and different uses of the Internet will result in diverse outcomes. Furthermore, Internet use reduces life satisfaction, which has an effect on mental health [19].

Problems with mental health are negatively impacted by internet use. difficulties with physical health 70% Time management 10%, mental health and time management 10%, and time management 10%. Checking/using devices while having in-person talks with people occurs infrequently 70%, frequently 6% and a lot 3%. Internet entertainment may effect children's cognitive abilities differently due to differences in the family network environment, educational resources, and residential places [20].

Internet-related activities that individuals like, such as social media, include the following: types, importance, time, positive, negative, and device Comparing 36.7% to other genres, entertainment 16.7%, social media, entertainment, and education. academics 16.7%, the study determines the significance of research 3.3%, academics and entertainment 3.3%, entertainment and social media 3.3%, entertainment, shopping, and infotainment 6.7%, and research 3.3%.3-hours of academic and entertainment use of the internet Maximum usage is shown at 16.7%, followed by entertainment and social media use for 7 hours 10%.

There is no response to question 46.8%. Currently, communication 72.3%, academics 72.3%, all aspects 30.0%, and entertainment 26.7% are the top five current uses of the internet in terms of importance. The usage of the internet has a beneficial effect on learning 50%, communicating 20%, learning and communicating 13.3%, learning and communicating and academics 10%, learning and communicating and academics 3.3%, and learning and communicating and academics 3.3%. Internet provides easy access to information and enables communication, it is also highly harmful, particularly for young users. As a result, users should be aware of it and approach any information obtained from the website with caution [21].

The majority of teenagers start using the internet for the first time at 15 years and 7 months 23.3%, according to our results. This is because they increasingly want to view YouTube starting in the eighth month. The next most common ages to start using the internet are 14 and 9 years 16.7%, 13 and 12 years 23.3%, 11 years 6.7%, and 10 years 10%, respectively. Adolescents are especially susceptible to internet addiction (IA) because they have less control over their passion for internet activities. Fathers' age, social position, and career have strong connections with both IA and the impact of IA [22].

Discussion in a focus group which tackles internet-related behavior, occupational performance, and psychosocial topics, is framed by investigator results. First, 36 items were eliminated, and 112 new things were added. Following the removal of 24 items, the second FGD had 89 items. Following the elimination of 26 discussion items, the third FGD produced 63 items. Fourth FGD 60 items generated after discussion item 11 was removed. Item development Based on research reviews, semi-structured questions, and focus group discussions, the instrument comprises demographic data, section 1 occupational performance (20 questionnaires).

Section 2 psychosocial performance (25 questionnaires), and section 3 internet-related behavior (15 questionnaires). Placing the Assessment Tool Overall A few statements assessing Psychosocial and Occupational Performance for Adolescent Internet Users will take you about 10-15 minutes. which would benefit both the student body and society.

It requires informed consent as well as the overall demographic information from the response evaluation instrument. There are eight things and several comments about the consequences of internet use. Read each item carefully and choose the response that best describes your recent actions and emotions. There are no right or wrong answers. Spend less time on any one statement and more time on the response that seems to best describe your sentiments throughout the last few months. Eventually, 60 items and a Likert scale are likely to be employed.

6. CONCLUSION

According to the study's findings based on a semi-structured questionnaire, urban children are the majority of adolescents who use the internet; usage of internet time has increased with laziness; the first child in the child is given more priority to using the internet; internet access is a smartphone; lying down in their room with a phone or laptop before using the internet; playing online games; and frequently watching YouTube; uploading/downloading movies or songs; and how their families feel about it.

The internet destroys exams, discovers any physical issues like back pain, neck pain, hand pain, and eye problems, disturbing your work/concentration, psychological issues like lack of concentration, irritability, anxiety, and lack of physical leisure activities, and interferes with academic work such as during class hours, exam times, and study hours. In order to address this issue, the researcher conducted additional focus group discussions before creating new items and developing a psychosocial and occupational performance assessment tool.

7. Recommendations

More sample size should have a strong impact on item generation, as the study is only conducted in one city, the sample is taken from a small number of schools, the time period of the study is also limited, and non-responded children are excluded from the study.

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References

- 1) Naz, N., Gulab, F., & Aslam, M. (2022). Development of Qualitative Semi-Structured Interview Guide for Case Study Research. *Competitive Social Science Research Journal*, 3(2), 42-52.
- 2) Paulus, F. W., Joas, J., Gerstner, I., Kühn, A., Wenning, M., Gehrke, T., ... & Möhler, E. (2022). Problematic Internet Use among Adolescents 18 Months after the Onset of the COVID-19 Pandemic. *Children*, 9(11), 1724.
- 3) Zhou, T., Cai, H., & Xu, C. (2022). Application of Semi structured Interview Based on Doctor-Patient Perspective in Constructing a Palliative Care Regimen for Patients with Advanced Heart Failure. *Emergency Medicine International*, 2022.
- 4) Gómez Salgado, P., Rial Boubeta, A., Braña Tobío, M. T., Varela Mallou, J., & Barreiro Couto, C. (2014). Evaluation and early detection of problematic Internet use in adolescents. *Psicothema*.
- 5) Joseph, J., Varghese, A., Vijay, V. R., Dhandapani, M., Grover, S., Sharma, S. K., ... & Varkey, B. P. (2022). Problematic Internet Use Among School-Going Adolescents in India: A Systematic Review and Meta-Analysis. *Indian Journal of Community Medicine*, 47(3), 321-327.
- 6) Palanichamy, T., Sharma, M. K., Chandra, P. S., & Thennarasu, K. (2019). Identification of items for evolving an instrument for the Assessment of Internet Use in Indian Context. *International Journal of Indian Psychology*, 7(2).
- 7) Dhir, A., Chen, S., & Nieminen, M. (2015). Psychometric validation of internet addiction test with Indian adolescents. *Journal of Educational Computing Research*, 53(1), 15-31.
- 8) Palanichamy, T., Sharma, M. K., Chandra, P. S., & Kandavel, T. Development and validation of an instrument for the assessment of internet use in the Indian context.
- 9) Siste, K., Wiguna, T., Bardasono, S., Sekartini, R., Pandelaki, J., Sarasvita, R., ... & Nasrun, M. W. (2021). Internet addiction in adolescents: Development and validation of Internet Addiction Diagnostic Questionnaire (KDAI). *Psychiatry Research*, 298, 113829.
- 10) Wasmuth, S., Crabtree, J. L., & Scott, P. J. (2014). Exploring addiction-as-occupation. *British Journal of Occupational Therapy*, 77(12), 605-613.
- 11) Lee, H. K., Lee, H. W., Han, J. H., Park, S., Ju, S. J., Choi, K., ... & Jeon, H. J. (2018). Development and validation study of the internet overuse screening questionnaire. *Psychiatry Investigation*, 15(4), 361.
- 12) Laconi, S., Rodgers, R. F., & Chabrol, H. (2014). The measurement of Internet addiction: A critical review of existing scales and their psychometric properties. *Computers in human behavior*, 41, 190-202.
- 13) Bickham, D. S. (2021). Current research and viewpoints on internet addiction in adolescents. *Current pediatrics reports*, 9, 1-10.
- 14) Vadivu, S. V., & Chupradit, S. (2020). Psychosocial and occupational impact assessment due to internet addiction: a critical review. *Systematic Reviews in Pharmacy*, 11(7), 152-155.

- 15) Boateng, G. O., Neilands, T. B., Frongillo, E. A., Melgar-Quiñonez, H. R., & Young, S. L. (2018). Best practices for developing and validating scales for health, social, and behavioral research: a primer. *Frontiers in public health*, 6, 149.
- 16) Adams, W. K., & Wieman, C. E. (2011). Development and validation of instruments to measure learning of expert-like thinking. *International journal of science education*, 33(9), 1289-1312.
- 17) Harren, N., Walburg, V., & Chabrol, H. (2021). Validation study of the core beliefs about behavioral addictions and Internet Addiction questionnaire (CBBAIAQ). *Computers in Human Behavior Reports*, 4, 100096.
- 18) Islam, M. R., Apu, M. M. H., Akter, R., Tultul, P. S., Anjum, R., Nahar, Z., ... & Bhuiyan, M. A. (2023). Internet addiction and loneliness among school-going adolescents in Bangladesh in the context of the COVID-19 pandemic: Findings from a cross-sectional study. *Heliyon*, 9(2).
- 19) Zhang, C., Wang, Y., Wang, J., & Liu, X. (2022). Does internet use promote mental health among middle-aged and older adults in China? *Frontiers in Psychology*, 13.
- 20) Hu, W., Mao, Y., Huang, K., & Sun, Y. (2022). Does Internet Entertainment Reduce the Cognitive Ability of Children? Evidence from the China Education Panel Survey. *Behavioral Sciences*, 12(10), 364.
- 21) Diomidous, M., Chardalias, K., Magita, A., Koutonias, P., Panagiotopoulou, P., & Mantas, J. (2016). Social and psychological effects of the internet use. *Acta informatica medica*, 24(1), 66.
- 22) Kayastha, B., Gurung, A., & Chawal, R. (2018). A descriptive study to assess the level of internet addiction among adolescents: A case study of high schools in Mangalore. *J Child Adolesc Behav*, 6(03), 37