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### Index

Youth and Self-Reliant India: Considering skill development and contemporary issues <b>Dr. Dinesh Chahal</b> dineshchahal@cuh.ac.in	1
The Role of Digital Technology in Early and Preschool Education <b>Kerceni &amp; Dr. Vidhyapati</b> Drvidyapati09@yahoo.in	4
An Analysis of the Problem-Solving Ability of Prospective teachers <b>Rajani Upadhyay, Prof. Saroj Sharma &amp; Prof. Dhananjay Joshi</b> rju.2285@gmail.com	9
A Study on Internet Addiction in Relation to Academic Achievement of M.Ed. Teacher Trainees <b>Dr. Dilip Kumar</b> dr.diliphpsingh18@gmail.com	15
Metacognition and Problem Solving Ability of Students : A Review <b>Shabana tasnim &amp; Prof. Arun kumar</b> tasnimshabanajmi@gmail.com	21
Gandhian principles and Women Empowerment <b>Dr. Pooja Rani</b> Poojarani921@gmail.com	27
To Study the Admission and Teaching- Learning Process in Two Autonomous Colleges in Uttar Pradesh <b>Prof. M. Verma &amp; Amrit Kumar Yadav</b> amritkumary@gmail.com	34
Teacher Educators and Student Teachers Perception towards Four Year Integrated B.Ed. Programme <b>Dr. Priyanka Sharma</b> Priyankaresearcher07@gmail.com	40
Cost-Benefit Analysis: A Tool for Justification of Education Policy <b>Digvijay Singh</b> Singhdigvijay4@gmail.com	48
Impact of Video Game Playing and Physical Game Playing on Self-Confidence of Adolescent <b>Dr. Azra Parveen &amp; Munmun Lepcha</b> Munmunlepcha21@gmail.com	54
Understanding Human Intelligence <b>Dr. Rashmi Singh</b> rashmisingh.23lucknow@gmail.com	60



- Factor Analytical Study of the Teacher's Morale and Burnout Dimensions  
**Prof.(Dr.) Pratap Singh Rana**  
deanbgu@gmail.com 66
- The combined and individual effect of selected independent variables viz Intelligence, Attitude towards English and Socio-Economic Status on Achievement in English among minority students at senior secondary level  
**Dr. Firoz Ahmad**  
firoz5655@gmail.com 72
- New Normal attitude and trends in teaching learning process  
**Dr. Saroj Pandey**  
sarojpandeydwt@gmail.com 79
- National Education Policy 2020: Reshaping and Restructuring Indian Education system  
**Dr. Monika Singh**  
Singhmonika16@gmail.com 85
- New teaching attitude and Trends in Teacher Education in India  
**Dr. Sadhana Mishra**  
sarojpandeydwt@gmail.com 91
- A Study of Mobile Technology Awareness and Actual Use among High School Students with Visual Impairment  
**Mayank Tripathi**  
mayanktripathi@rediffmail.com 97
- Experience and Influence of Teaching Practice on Pre-Service Teachers: An Analysis of Written Reflection  
**Reena & Anu Dabas**  
Reenachaudhary1104@gmail.com 103
- Covid Impact on Internship of B.Ed. Teacher Trainees: Problems and Suggestions  
**Sangeeta Suman**  
ssitssangeeta@gmail.com 110
- National Education Policy 2020 @ Sri Aurobindo  
**Pranab Barman & Dr. Mukesh Kumar**  
prababbarmanedu@gmail.com 114
- A Review on Internet Addiction in Relation to Adolescents  
**Deeba Zaidi & Dr. Bushra Alvera**  
Zaidideeba04@gmail.com 122
- Initiative of PENCIL Portal towards Child labour free Bihar : A case study  
**Mr. Alok Kumar & Dr. Rashmi Srivasatava**  
alokalok1990@gmail.com 129
- The Role of Technological Pedagogical Content Knowledge (Tpack) : A Literature Review  
**Tabassum Jahan**  
jahantj786@gmail.com 136
- शिक्षण सक्षमता राष्ट्रीय शिक्षा नीति 2020 के संदर्भ में  
कृष्ण कान्त एवं डॉ० स्मिता मिश्रा  
bajpaikkrishna@gmail.com 141

## A Review on Internet Addiction in Relation to Adolescents

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### Abstract

The aim of the paper is to review those research works that studied the prevalence of internet addiction. About 26 research work have been reviewed which were freely available and studied the concept in context of the adolescents only. The findings showed that adolescents are at high risk of internet addiction. They are more vulnerable to addictive behaviour due to their high level of curiosity and desire for adventure and communication. As for the prevalence rates of internet addiction among the adolescents of different countries, it varied due to different diagnostic tool used, size of sample and different social cultural conditions. Male adolescents were found to be more subjected to internet addiction than females in most of the studies. The prevalence rates of internet addiction among adolescents should not be ignored while living in the world of technological advancement where internet has become a necessity. It is essential that children should be taught to use it moderately and wisely, in a control and positive way, so that they could be saved from becoming victim of internet addiction.

**Keywords :** Internet Addiction & Adolescents.

### Introduction :

Internet has become an integral part of human life, leaving no sphere of life untouched. Its easy accessibility, popularity and quick availability of several devices with internet had made Internet use, a daily activity for most people. Eventually the percentage of people depending on internet is also increasing in different part of the world. India is also witnessing a rapid India stands second to China in number of its internet users. China with 989 million users took the first position, followed by India with 755 million internet users. [1] No age group had remain unaffected by it whether aged, adults or adolescents. Adolescents have an innate quality of curiosity, adventure and pleasure seeking. Internet provided them with a platform which gives answer to every query they have, keep them connected, and provide them with load of never ending fun at their finger tips.

Though it cannot be ignored that internet is a productive activity as it has made communication, business, trade, banking and education easy; yet its overindulgence and uncontrollable usage becomes a problem when it began to negatively affect one's relation, work, studies and daily affairs of life. Young(1996) examined the extend of problems caused by excessive internet use in his study. He found that excess use of internet resulted in personal, family and occupational problems. He had classified these problems into five categories: academic, relationship, financial, occupational and physical. These problems are the demarcation of the development of behavioural pattern which is making them internet addict or leading them to a disorder termed as internet addiction.



Internet addiction is an emergent disorder. (Young.et.al.,1999). Adolescents are more vulnerable to internet addiction than others. Kandell (1998) stated that students are more prone to developing a dependence on internet than any other segment of society. Studies have found it to be a common problem among Taiwan college students (Chou & Hasio,1999) South African youngsters (Thatcher & Goolam ,2005) Greek adolescents (Konstantinos, 2008) Hong Kong adolescents (Shek & Yu, 2012) Iranian (Zamani et al.,2011)) Indian adolescents (Chauhan,2017)) and among many more. Thus internet addiction among adolescent is a global issue and need to be researched.

The present paper is a review of 26 studies which provides an analysis of the prevalence rate of internet addiction, from the pioneer researches in 1996 till 2020, which were freely accessible in full-text in English and which study the concept in relation to adolescents.

### **Concept of Internet Addiction :**

Internet addiction was first recognised as a disorder in 1995 by Dr.Ivan Goldberg. Dr.Ivan .Goldberg, who coincidentally named a disease which he said does not exist nor intended to create. Dr,Ivan K.Goldberg a New york psychiatrist played a joke by posting a parody of the fourth edition of the Diagnostic and Statistical Manual (DSM-4) of American Psychiatric Association on the psychiatric bulletin board PsyCom.net( a cyberclub).To bring forth the complexity and the rigid diagnostic criteria of the manual he satirically coined a fictitious disease internet addiction order (I.A.D) and laid down its diagnostic criteria as per DSM , the occupational activities that are given up or reduced because of Internet use, "fantasies or dreams about the internet " and " voluntary or involuntary typing movement of the fingers ." Much to his surprise, his bulletin board was flooded with several tales of "netaholism" and of being "caught in the Net" and seeking help from him.[2]

The term then attracted the attention of a clinical psychology student Kimberly Young of USA who introduced internet addiction as a disorder in her paper 'Internet Addiction: The emergence of a new clinical disorder' (Young,1998) Young proposed a diagnostic criteria for internet addiction and develop an eight-item Diagnostic Questionnaire, utilizing and adapting the criteria defined in DSM-4 (APA, 1994) for pathological gambling. She found that internet users who exhibited a minimum of five out of eight criteria laid down in the questionnaire were internet dependent.

When the incidence of internet addiction began increasing countries like South Korea and China declared it a serious public health hazard (Block,2008). A proposal was put forward to include internet addiction in the 5<sup>th</sup> edition of Diagnostic and Statistical Manual of Mental Disorders. But due to lack of sufficient peer reviewed evidences to establish the diagnostic criteria as a mental disorder, internet addiction was not recognised as a disorder in the latest edition of Diagnostic and Statistical Manual of Mental Disorder (DSM-5). Though the manual recognised internet gaming as a mental disorder, and laid down the criteria of its diagnosis. Yet still some psychologist had a view that internet addiction should be treated in the same way as the other types of addiction.

Internet addiction is a new concept and has no standardized definition. Different researchers have defined this concept differently. Griffiths(1996) defined internet addiction as kind of "technological addiction". Technological addiction according to him is "operationally defined as non chemical (behavioural) addiction which involve human-



*machine interaction*". He provided an operational definition of internet addiction as an addictive behaviour, which includes six main components of addiction namely "salience, mood modification, tolerance, withdrawal symptoms, conflicts and relapse". Young (2000) defined internet addiction as an "impulse control disorder like pathological disorders that does not involve an intoxicant." Chou and Hsiao (2000) interpreted it "as an individual's inability to control the usage of internet." Kandell (1998) defined it as a "psychological dependence on the internet, regardless of the type of activity once logged on". Chou & Hsiao(2000) defines internet addiction as "an individual's inability to control his and her use of the internet, which eventually causes psychological, social, school. and/or work difficulties in a person's life".

The term internet addiction have been address with various names like compulsive internet use ( Greenfield, 1996), compulsive computer use (Black,Belsare & Schlosser,1999), pathological internet use(Davis,2001), problem internet use (Shapira,Lessig,Goldsmith & Lazoritz,2003), internet addiction disorder.(Weinstein,Feder,Rosenberg, & Dannon, 2014),or internet addiction(Shaw & Black ,2008; Young, 1996). In this article the term internet addiction have been used.

### **Studies on Internet Addiction Related to Adolescents :**

#### **Discussion :**

The aim of this paper was to review and describe the research works done on internet addiction in reference to adolescents. About 26 research works have been thoroughly reviewed to assess the prevalence of internet addiction, restricting itself to adolescents only. Internet addiction is defined as excessive and overuse of internet in most of the researches. The focus is basically on adolescents as it is primarily a disorder of children.

The sample size of these studies ranges from very small about 52 adolescents in India (Chauhan,2017) to 2,22542 students in Korea (Kim. et.al.2020). The variation in the sample size may be due to the difference in the time duration of the study and the type of survey done. The studies which were for short period and did filed survey used small samples while studies which were for longer duration of time and were web-based used large sample. It is so as it was convenient to collect data from them and large response could be achieved through online surveys. For instance Kim et.al(2020) study is based on the data collected during 2008,2009 and 2010 collected through a web-based survey.

The assessment of internet addiction among adolescents is done through the utilisation of certain measurement tools. Based upon the results of the assessments tools the prevalence of internet addiction and the associated factors are highlighted. The table given above bring forth the tools commonly used by different studies for the assessment of Internet addiction. Which include eight-item Diagnostic Questionnaire (Young,1998) Internet-related Addictive Behavior inventory (IRABI)(Brenner,1997), Questionnaire of the Pleasure Experience from Internet Usage(PEIU-11)(Stephenson,1988),-Internet Addiction Test(IAT)(Young,1999).Young's Internet Addiction Test was the popularly utilized assessment tool in most of the study. It a 20 item scale that measures the prevalence and intensity of internet addiction by scoring the responses on 5-degree Lykert scale. It categories the sample into four categories on bases of their behaviour pattern as no addiction, mild addiction, moderate addiction and severe addiction. Researches have confirmed IAT as a reliable tool for measuring internet addiction. The next commonly used tool for diagnosis of



Internet addiction was eight-item Diagnostic Questionnaire developed by Young. Studies have found YDQ be an appropriate tool for screening internet addiction when there is less time as it has only 8 items .(Grover & Joseph ,2020)

The prevalence rate of internet addiction among adolescents varies across different countries but is limited by the heterogeneity of measurement tools used, as different studies have used different measurement tools. Each of the measuring tools have different cut-off score and thus account for difference in the internet addiction prevalence among countries and studies. Studies which have used Young's Diagnostic Questionnaire for the assessment of Internet addiction, their prevalence rate varied from 1.67% (Thatcher,2005) to 8.2% (Konstantinos,2008). While the prevalence rate of those studies which have assessed internet addiction on bases of Young,s Internet Addiction Test varied from 24.7%(Waldo,2014) to 92.3% (Chauhan,2017). The prevalence of internet addiction among the adolescents was found to be low in countries like Taiwan(Chou & Hsiao,2000) with 5% ,South Africa(Thatcher,2005) with 1.67% to 5.29%, Greece(Konstantinos,2008) with 8.2% of the sample. Internet addiction was found to be serious concern in Lebanon(Hawi,2012) where out of 78.3% total addicts 4.2% were severe internet addicts 34.9% moderate 39.2% mild addicts. Croatia (Cernja,2019) too detected high level of internet addiction among its adolescents, about 3.4% exhibited severe level of internet addiction,32% moderate and 39% low level while 24.4% showed no sign of addiction.

Out of the 26 researches 5 of them aimed to evaluate the extend of internet addiction among Indian adolescents belonging to different states of India. The overall prevalence of internet addiction was very high in a study by Chauhan (2017), about 93.3% of the sample, with 30.8% being mildly, 53.8% moderately and 7.7% severely addicted to internet. This obtained result is alarming but may be due to the fact that the sample selected for the assessment of internet addict was too small. The result was drawn on basis of just 52 adolescents selected from a private school of Hardwar. This is followed by studies conducted by Srivastava (2020) with 80% of sample being internet addicted, Sapkota (2019) with 79.9%, Bhatia (2016) with 70.67% Goswami(2018)with 37.6%, Upadhyay(2017) with 25.5% and Grover & Joseph(2020) with 4.5% suffering from this disorder.

All the five studies on Indian adolescents, though assess internet addiction on basis of the same diagnostic tool i.e. Young's Internet Addiction Test, the obtained prevalence rates are varied. The dissimilar prevalence rates may be attributed partially to varying size of sample selected and the sampling techniques used. The sample size was either too small as 52 secondary school students or big as 1150 students. Similarly some studies have used convenient sampling, which facilitate collection of a large data but might involve sampling bias. Besides cultural and technological differences among the different states of India also accounts for it. The results obtained thus cannot be compared and generalised. But it is no denying the fact that India has contributed significantly to the available knowledge on internet addiction and its understanding.

Gender difference in regard to internet addiction in the literature reviewed is worth noting. Males have more Internet addiction tendency than do female Almost 17 studies reported that internet addicts include a large proportion of male than female adolescents. Chou &Hsiao(2000) found only 3 female among 54 male internet addicts. Thatcher (2005) reported that 80% of high risk group were male adolescents. In Konstantinos (2008) research,



out of 8.2% internet addicts, male adolescents constitute 6.2% while female=2%. A similar finding of male adolescents being more prone to internet addiction are identified in studies like Sipal & Bayhan(2010), Zamani(2011), Hawi(2012),Waldo(2014),Tekkanat & Topaloglu(2015) Upadhyay (2017), Goswami(2018), Sapkota(2019), Hassan(2020), Kim et al. (2020) Cinar et al. (2020) Mohammad (2020) Grover & Joseph (2020). Males overindulgence in internet may be attributed to social norms and easy availability and affordability of internet for them. Males and females have different motivations and behavioural patterns for internet use. Female adolescents are often under more strict family supervision than males which limit their internet access.

Although many studies indicate that males are more prone to internet addiction than females but contrary results are found in some studies. Bhatia (2016) in his study on 300 adolescents found that female surpasses the male in their level of internet addiction. There were 8.88% and 62.76% females in the severe and mild category as compared to 4.88% and 59.15% males in the same categories respectively. Chauhan (2017) too found that 40% females and 18.2% male were mildly addicted while 10% females and 4.6% males were severely addicted. At the same time there were some researches which showed no gender difference in the overall internet addiction score. (Cernja2,019 ; Shek & Yu, 2012)

### **Conclusion :**

The aim of the paper is to review those research works that studied the prevalence of internet addiction. About 26 research work have been reviewed which were freely available and studied the concept in context of the adolescents only as it is primarily a disorder of children. The findings showed that adolescent are at high risk of internet addiction. They are more vulnerable to addictive behaviour due to their high level of curiosity and desire for adventure and communication. As for the prevalence rates of internet addiction among the adolescents of different countries, it varied due to different diagnostic tool used, size of sample and different social cultural conditions. Male adolescents were found to be more subjected to internet addiction than females in most of the studies. The prevalence rates of internet addiction among adolescents should not be ignored. It is essential that children should be taught to use it moderately and wisely, in a control and positive way, so that they could be saved from becoming victim of internet addiction.

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