

Effect of social media on memory among teenagers

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ABSTRACT

The objective of this study was to show the Effects of Social media on memory among Teenagers. Our main Aim of this study is to show the harmful effects of Social media on memory and cognitive functioning of Teenagers. In this study, we utilized a total sample of 120 students (60 Boys and 60 girls) of age group of 20 to 23 years, from Udaipur, Rajasthan. Our hypothesis was that “There will be a significant effect of Social Media on the memory of Boys and Girls.” This hypothesis was based on some previous research and review of literature. Data analysis by Mean, SD, and t-test were used and data was conducted by the Institute of Medical Education and Research Memory Scale (PGI) by Dwarika Pershad and Narendra Nath Wig and Social media self-prepared questionnaire. Results supported that mostly the college-going students spent their most of time on Social media and due to this their memory and cognitive functioning are intensely affected and by this we can prove that there is an intense relationship between Social Media and Memory.

Keywords: *Social Media, Memory*

In today’s dynamic world, the upcoming generation is widely affected by social media. Social Media affects the teenagers and new generation both directly and indirectly, and is affecting their mental level, their behavior, thinking, and social nature. Today’s teenager’s behavior and thinking are totally changed as an effect of Social media.

Social media has both positive as well as the negative impact on the new generation, which mainly include the cognitive functioning of teenagers and it also includes memory, attention, and learning and perception power. Various social media includes Facebook, Twitter, What’s App, Television, Online Gaming, online chatting and many more. Today mostly teenagers are spending most of their time on Social media which directly affects their memory, now a day’s children mostly do not remember many small things as they are mostly concentrated on social media which diverts their mind from other important things, and because of these children’s attention, perception power and attention tends to be weak. It is also affecting the learning capacity or the new generation, as the mind of teenagers is always diverted, children mostly so not remember other important things. Major impact of this is that it is affecting teenagers cognitive functioning and making him less social. Nowadays the children instead of sitting in

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groups or with elders they prefer to sit alone with their social media sites on and playing or chatting online.

Memory is that the school of the mind by that info is encoded, stored, and retrieved (Atkinson & Shiffrin, 1968). Memory is vital to the experience. Without memory, we are not us. If we have a tendency to couldn't keep in mind past events, we could not learn or develop language, relationships, nor personal identity (Eysenck, 2012).

Often memory is known as AN informational process system with express and implicit functioning that's created of a sensory processor, short-term (or working) memory, and long-term memory (Baddely, 2007).

Cognitive neuroscientists take into account memory because the retention, reactivation, and reconstruction of the experience independent internal representation. The term of mental object implies that such definition of memory contains 2 components: the expression of memory at the activity or acutely aware level, and the underpinning physical neural changes (Dudai 2007).

Social media is that the collective of online communications channels dedicated to community-based input, interaction, content-sharing and collaboration. Websites and applications dedicated to forums, small blogging, social networking, social book marking, social curation, and wikis square measure among the various varieties of social media.

Here Are Some Prominent Examples Of Social Media:

1. Facebook could be a well-liked free social networking web site that permits registered users to form profiles, transfer photos and video, send messages and detain bit with friends, family and colleagues. According to statistics from the Nielsen cluster, net users at intervals the users pay longer time on Facebook than the other web site.
2. Twitter could be a free small blogging service that enables registered members to broadcast short posts referred to as tweets.
3. Twitter members will broadcast tweets and follow different users' tweets by exploitation multiple platforms and devices.
4. Wikipedia could be a free, open content online encyclopedia created through the collaborative effort of a community of users known as Wikipedia's.
5. Anyone registered on the location will produce a piece of writing for publication; registration isn't needed to edit articles. Wikipedia was founded in January of 2001.
6. LinkedIn could be a social networking web site designed specifically for the community.
7. The goal of the location is to permit registered members to determine and document networks of individuals they grasp and trust professionally.

Importance

India's web users, WhatsApp superior the list of instant electronic messaging (IM) apps and Facebook is that the hottest social networking website fifty-six of web users in Asian country use What's App, every day, 51% use Facebook, finds a study by research firm TNS, says the study titled Connected Life.

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WhatsApp, owned by Facebook INC., and had 900 million monthly active users globally in September 2015, with India being their largest country. Globally, the study maps digital attitudes and behaviors of 60,500 Internet users across 50 countries. 77% users in Asian nation, 73% in Hong Kong, 69% in China and 38% in India.

In distinction, some Western markets are trailing, including the UK with 39% and the US 35%. Facebook had 118 million monthly active users in Bharat in Gregorian calendar month 2014; in June 2015, the quantity rose to 132 million.

Facebook is hottest between the age brackets of 20-29. Men dominate the Facebook horizon. While Facebook remains the foremost widespread social network within the 20-29 age group, teens are really not that keen on the network.

Harmful Effect of Social Media on Memory

The Harmful effect of social media on People who use mobile phones and the internet most heavily are more likely to make mistakes, be forgetful and have worse spatial awareness, as per the study warned.

In our study, we show the harmful effect of social media on memory. Here are some studies that show that Social media damages the brain. The attention of the student had become weak. They can't able concentrate on study because their full attention is on the mobile, T. V., Internet, Facebook, video game, twitter etc. We have also found some study that shows the similar results.

Dr. Lee Hadlington of De Montford University Leicester asked 210 people aged 18-65 to rate their behavior in areas linked to perception, memory and motor function. He found that many times an individual used the web or a mobile the a lot of doubtless they were to expertise 'cognitive failures'. These failures enclosed not turning up to appointments, having bother being attentive whereas in language and forgetting why they visited one a part of the house to a different.

Dr. Hadlington said it was not clear whether the internet and phone usage was the cause of poor focus and attention, or that people who spent the most time using the technology were possibly to own attention problems within the 1st place.

Research released earlier this year showed that smart phones were making us less able to think independently as we rely on looking up information that we don't know, rather than thinking things through for ourselves.

Dr. Hadlington is conducting a follow-up study specifically with sensible phone users to live their psychological feature failures. (Millner jack 2015). Concerns have developed for the attainable negative health effects of radiofrequency magnetic attraction field (RF-EMF) exposure to children's brains.

The purpose of this longitudinal study was to research the association between mobile use and symptoms of Attention Deficit upset Disorder (ADHD) considering the modifying result of lead exposure. The results counsel that coincidental exposure to guide and RF from mobile use was related to exaggerated ADHD symptom risk, although possible reverse causality could not be ruled out.

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Facebook was strongly and significantly negatively related to overall college grade point average (GPA), while only weakly related to time spent preparing for class. Furthermore, using Facebook for collection and sharing data was prognosticative of the end result variables whereas mistreatment Facebook for socializing was negatively prognosticative. (Juncoa, R. 2011). College students eighteen to twenty-two years recent spent the foremost time victimization Facebook, searching for non-school-related information online, and emailing While doing school assignment outside of sophistication, students reported spending a mean of hr. per day on Facebook, forty-three minutes per day looking out, and twenty-two minutes per day on email “using Facebook and texting whereas doing assignment were negatively prognosticative of overall. (Juncoa, R. &Cotten, S. R. 2012).

Some study shows that Social media may be particularly harmful to autobiographical memory. On young adults (ages 18–29), they tested the effect of Twitter on false memory. Individuals may trust a source more if it is personally known to them, and there may, therefore, be higher rates of false memory if inaccurate information is presented through Facebook. (Fenn, K. M. et. al. 2014).

Effects of video and PC games on the brain. Video games ‘damage the brain’ or ‘boost brain power’ don’t do justice to the complexities and limitations of the studies concerned, and create a confusing overall picture about the effects of gaming on the brain. (Bavelier, D. et. al. 2011).

Harmful effect of social media on students’ academic performance they spend more time on social networking site (Facebook, WhatsApp, Mobile etc.) negative effect of this site so their academic performance is week because they can’t concentrate on study. We found similar study in this study Facebook affects the performance of students. Moreover, the impact of social network website on educational performance additionally raised another major concern that is health. Today social network sites square measure running the longer term and carrier of scholars. Social network sites were solely associate degree electronic association between users, but unfortunately it has become an addiction for students. they are not aware or misconceive the danger concerned and the way their privacy suffers as a result. (Abdulahi, A. et. al. 2014).

Tip-of-the-tongue experiences (TOTs), this is often a term given to a state of affairs within which a reputation is thought however cannot be now retrieved from memory, is an explanation for concern if these experiences reviewed as a signal of memory decline. Many studies are conducted on identical, investigation the relation between age and TOT frequency, the influence of personal memory, that is that the variety of memory most frequently assessed to observe memory issues, thereon relation. The results show that increase in age results in increase in TOT’s frequency and different factors that boost the rise in TOT’s are {different totally completely different completely different} response criteria or different quantity of information. Age-related will increase in TOTs and age-related decreases in personal memory seem to be a minimum of part freelance phenomena.

METHODOLOGY

Objective

- To study the effect of social media on memory
- To study the effect of gender on memory

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Hypotheses

1. There is no significant difference between social media and memory
2. There is no significant difference between gender and social media
3. There is no significant difference between gender and memory

Variables

Independent variables

- a) Social media
- b) gender (Boys & Girls)

Dependent variable

- a) Memory

Control variable

Age -20-23

Sample

The sample for the study consisted of 120 students (60 boys and 60 girls) of Udaipur (Rajasthan.). The Sample was collected randomly to eliminate possible biasing. Research design: - Correlation research design.

TEST AND TOOLS

Postgraduate inventory memory scale (P. G. I.) was used to assess the memory level of college students which is constructed by Dwarika Pershad and Narendra Nath Wig. And self prepared social media questionnaires.

Procedure

1. P.G.I memory scale - first of all, individuals asked to fill their demographic information completely at the top of the scale. In this scale 10 subtests 1. remote memory 2. recent memory 3. mental balance 4. Attention, concentration 5. delayed recall 6. immediate recall 7. retention for similar pair 8. retention for dissimilar pairs 9. visual retention 10. recognition. Individuals directed aloud to read each test and then give the answer on limited time.

2. Social Media scale (SMS) –for filling this scale the same individual explained about this scale and our aim to filling this scale. After that, all individuals were asked to fill their demographic information completely at the top of the scale. Then individuals directed aloud to read each statement and then mark, by a tick ✓ in the appropriate object. And at last they asked to give appropriate information about average their daily time duration spent of all on these in various categories on Facebook, What's App, Online Games, Internet, and Television.

Scoring

P.G.I. Memory scale (postgraduate inventory) in this scale 10 subtests we given scoring (i) and (ii) 5 question one score each correct response, (iii) alphabet 3 score if all correct response within 1 second, 2 if longer than 15 second, 1 if their one mistake. Backward counting 3 score if all correct response within 30 seconds, 2 if takes longer than 30 seconds, 1 if there is one error. (iv) summation of digits forward and backward is the score for this sub-tests. (v) one score for each correct recall total 10 words. (vi) 12 question one score correct response. (vii) total 5 one score each correct reproduced of the associated word of the pair. (viii) Total 15 one score for each correct reproduced pair separately for each trial. Summation of scores on three trials is the score. (ix) total 13 one score for each geometrical figure correctly

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reproduced in sequence and number (x) each object correctly recognized and named is to be given one score.

Social media scale (SMS): In this scale there are total 20 questions and one mark for every question and in the scale we covered five different mediums such as video games, what's App, Facebook, Internet and T. V. Also the measuring criteria were spending time on different mediums as less than one hour, 1-2 hour, 2-3 hour and more than 3 hours.

RESULT TABLE

Table No. 1 Girls

GIRLS	SUBTEST									
	remote memory	recent memory	mental balance	Attention, concentration	delayed recall	immediate recall	retention for similar pairs	retention for dissimilar pairs	visual retention	recognition
MEAN	4.166667	3.4	5.2	7.7333	8.1	6.4666	3.2	8.9	6.6333	5.933
S. D.	0.79147	0.6746	0.805156	1.014833	0.803012	1.224276	0.846901	1.3222	2.7728	0.827682

Table No. 2 Boys

BOYS	SUBTEST									
	remote memory	recent memory	mental balance	Attention, concentration	delayed recall	immediate recall	retention for similar pair	retention for dissimilar pairs	visual retention	recognition
MEAN	4.133333	3.466667	5.466667	7.533333	8.466667	6.8	3.766667	9.333333	8.6	6.533333
S. D.	0.730297	0.776079	0.973204	0.973204	0.860366	1.242911	1.006302	1.561019	2.094327	1.407696

This table shows that the mean score of 10 subtests of memory scale. This table shows girls and boys mean score there is equal mean score but in some test retention for similar and dissimilar pairs, visual retention, recognition boy's memory is better than girls.

Table No. 3 correlation between social media and memory

		Social	Memory
Social	Pearson Correlation		1
	Sig. (2-tailed)		.440
	N		120
Memory	Pearson Correlation	-.102	1
	Sig. (2-tailed)	.440	
	N	120	120

This table shows that there are low negative correlation between social media and memory.

Table No.4 Group Statistics of social media

	Gender	N	Mean	Std. deviation	Std. error mean
Social media	Girls	60	19.0000	.98261	.17940
	Boys	60	18.6667	1.02833	.18775

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Table No. 5 Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Social Media	Equal variances assumed	.309	.580	1.284	58	.204	.33333	.25968	-.18647	.85314
	Equal variances not assumed			1.284	57.880	.204	.33333	.25968	-.18649	.85316

Result table shows an independent t-test was conducted to determine there are no difference existed between the mean social media scores of male and female. Result for Levene's test for Equality of Variances, $F(58) = .309$, $p = .580$, indicate that the variance of two groups is assumed to be equal. Thus, the standard t-test results were used. The results of the independent t-test were not significant, $t(58) = -1.284$, $p = .204$, indicating that there is no significant difference between the scores of boys ($n=60$, $M=18.6667$, $SD=1.02833$) and girls ($n=60$, $M=19.000$, $S.D. = .98261$). The effect size (Cohen's d): $\eta^2 0.33140113$, was small. The 95% confidence interval for the difference between the means was -5.6 to 1.1.

Table No. 6 Group Statistics of Memory

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Memory	Boys	60	59.7333	3.03921	.55488
	Girls	60	64.1000	2.70823	.49445

Table No. 7 Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Memory	Equal variances assumed	.036	.851	5.875	58	.000	-4.36667	.74322	-5.85438	-2.87895
	Equal variances not assumed			5.875	57.246	.000	-4.36667	.74322	-5.85480	-2.87853

Result table shows an independent t-test was conducted to determine if a difference existed between the mean memory scores of male and female. Result for Levene's test for Equality

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of Variances, $F(58) = .036$, $p = .581$, indicate that the variance of two groups are assumed to be equal. Thus, the slandered t-test results were used. The results of the independent t-test were not significant, $t(58) = -5.875$, $p = 0.000$, indicating that there is significant difference between the scores of boys ($n=60$, $M=64.1000$, $SD=2.70823$) and girls ($n=60$, $M=59.7333$, $S.D. =3.03921$). The effect size (Cohen's d): $\eta^2 1.51701533$ was biggest. The 95% confidence interval for difference between the means was -5.6 to 1.1.

CONCLUSION

Our study shows that there are low negative correlation between social media and memory. Our hypothesis has been rejected Social media affects the memory; Due to the verse of social media in Students, the memory of the users tends to be weak. Our hypothesis has been accepted. There is no difference existed between boys and girls as they use social media for an equal time but there is a difference between the boys and girls memory and our hypothesis has been rejected. Boy's memory is far better as compared to the girl's memory. Students using more of social media and they spend a lot of time on Facebook, Twitter, WhatsApp, Internet, T. V., and any other programs. They lose the attention, perception, and poor recall power, problem solving capability of any objects. They are not able to concentrate on their study. But boy's attention, perception and recall power is better than girls.

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Conflict of Interest

The author declared no conflict of interests.

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