Impact of Instagram reels on the attention span of creative and analytic thinkers.

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Abstract

The Instagram reel is the latest trend in social media and it's not just a fad. It has already started to have an impact on the attention span of creative thinkers and analytic thinkers. This research is a pilot study which aims,s to study the impact of individuals before and after reel exposure on attention span. For this purpose, a total sample of Students (N = 20) aged 20 to 25 years was taken. This sample included 10 MMalesand 10 Females. A selective sampling method was used. The tools that were administered to students were tangram and word search to measure attention span. The R software statistical tool used for analysing the data of the sample were Paired and Unpaired t-test and one-way ANOVA, Two-way ANOVA. The results of the statistical analysis support the null hypothesis, according to which there would be no significant difference between people before and after exposure to attention span. Contrary to what our observations and raw score show, introspective reports also show that the attention span scores before exposure were greater than the after-exposure impact. We see that there is a huge scope for future research in this area as this was just the pilot test the results should be considered accurate.

Key Words

Creative thinking, Analytical thinking, Word search, Tangram, Attention, Instagram reel, Motivation reels, Memes reels.

Introduction

Instagram Reels are creative, brief, horizontal videos that can last as little as 90 seconds. The rise of YouTube shorts and Instagram reels will be one of the reasons to shorten the generation's attention span. A recent study found that people all over the world's attention spans have been getting shorter over time. The average millennial uses their smartphone 150 times per day, according to estimates. Problems can arise for any amount of time without being easily distracted for people who have a short attention span.

According to a Microsoft Corp, study people typically begin to lose focus after about eight seconds. Patience becomes even more advantageous as the average person's attention span decreases. It's hard for people who spend five hours a day online to remember people's names, which can be simply defined as an addiction. It alters our sleep patterns, attention span, and memory. A phenomenon known as neuroplasticity, which refers to the brain's capacity to alter its behaviour in response to new experiences, is responsible for this. Poor diet, inactivity, and conditions like depression and attention deficit hyperactivity disorder (ADHD) can all contribute to shorter attention spans.

According to the format.com blog states that “Creative achievers are likely to have unfocused attention spans.” It also said that people who are analytical and logical and who pay attention to detail are more likely to have a good amount of attention span.

Now someone who shows strong logical and analytical skills is often seen as a conformer to established patterns and rules. While the answers from conformers are seen as reliable, logical thinkers may be seen as lacking in passion or empathy. Creativity, by nature, breaks established patterns. Creative thinkers are outliers who ignite the brilliant spark of innovation. This can sometimes raise concerns about uncertainty and instability. It's going to be interesting to see how Instagram is going to affect or has been affecting creative and analytical thinkers and how their attention span changes.

Background & justification

The Instagram reel is the latest trend in social media and it's not just a fad. It has already started to have an impact on the attention span of creative thinkers and analytic thinkers.

Instagram reels, addiction and attention span:
Instagram, a highly visual social media platform owned by Facebook and used for photo and video sharing, is of particular interest to body-image scholars due to its emphasis on aesthetic content and the prevalence of photo-editing through the site's smartphone camera app (Fardouly & Vartanian, 2016).

Dopamine is a hormone that serves a variety of purposes in the brain, prominent among them incentive and reward. Every like, follow, or even straightforward notice causes a brief surge of euphoria, which reinforces the brain's need for this pleasure. Immediate and instant gratification provided by social media has taken control of our attention spans, impairing our brains' capacity to concentrate on anything we perceive to be less interesting.

Attention span is the amount of time spent fixated on a task until becoming distracted. In 2011, the American Psychological Association validated these results. The brain systems that link emotional processing, attention, and decision-making are damaged by excessive technology use.

According to Jill Ebstein of the Orlando Sentinel, our attention span has recently fallen to the level of a goldfish. The typical human attention span is currently less than that of a goldfish, the author seems to think. In a world with so much access to fast pleasure and addictive distractions, short attention spans and lack of concentration are inevitably the new norms.

Creative thinkers and analytical thinkers and attention span:
The major justification for the connection between creativity and attention seems to be that those who are creative may have this "broad" or "leaky" attention. It was proposed that creative people “deployed their attention more widely, were more aware of and receptive and retained more prior stimulus experience in usable form, tending not to screen out the irrelevant” (Dallas & Gaier, 1970).

Creative thinkers must attend to elements that are relevant to the current problem while recording seemingly irrelevant information that may lead to insight. Thus, creative thinkers should use peripherally presented cues effectively. Good analytic thinking should be characterised by sustained directed attention because solutions to analytic problems require focusing on the problem elements (Pamela. Ansburg Katherine Hill, 2002).

Research Gap:

The research gap we would like to highlight and want to know is about

- Instagram reels leading to decreasing or increasing attention span in analytical thinkers and creative thinkers?
- Does the motivational or meme content we see in reels play any role in our attention span?
- What is the relationship between attention span and Instagram reel feature in particular?

INTRODUCTION

1.1 ATTENTION

The definition of attention in psychology is the conscious concentration on phenomena at the expense of other stimuli.

By attention, we imply a concentrated and alert awareness of the present moment. Early psychologists maintained the belief that attention governed both the nature and the content of conscious experience, including Edward Bradford Titchener. The subjective aspect of awareness received less attention in the years that followed, and more emphasis was placed on the behavioural traits that allowed one to recognise other people's attention. Even though this influences how individuals perceive their surroundings, it is evident that humans do not fully control where their attention is directed. For instance, a person may occasionally find it challenging to focus on a task, a discussion, or a set of instructions.

1.1.1 ATTENTION IN NEUROSCIENCE AND PSYCHOLOGY

The scientific study of attention originally appeared in psychology, where thorough behavioural studies may produce precise evidence of the tendencies and powers of attention in different settings. Cognitive science and cognitive psychology involve converting certain facts into hypotheses of how mental processes may cause specific behavioural patterns. Different verbal and computational models propose different underlying mechanisms. (2011) Driver; (2012) Borji and Itti

1.1.5 ATTENTION AND LEARNING

Attention influences learning by affecting what is retained in memory. Most computerised attention systems practise their attentional process. Except for the Neural Turing Machine, the model stops learning once the functioning attention system is in place. In this manner, the fundamental architecture is taught alongside the attention mechanism. As

a result, these systems continue to be implicit in their disregard for how attention might affect memory and learning.

2.1 LEFT-BRAIN VS RIGHT-BRAIN THINKERS

2.1.1 LEFT-BRAIN

The left-brainers adore numbers and data and are meticulous, analytical, and quantitative. They look at the kind of work duties that employees perform there, how they use their present workplace, and how they feel about it. They remove human judgement from the picture and prioritise the truth.

Left-brained persons are frequently goal-oriented, organised, critical thinkers, and rarely forgetful. They like to do work methodically and don't let feelings influence their decision-making. They are extremely realistic, logical, and exact, and they love spreadsheets. Science and technology, engineering, and logistics are just a few of the professions that cater mostly to left-brained individuals.

The antiquated theory contends that left-brained people are more likely to be analytical, rational, fact- and detail-oriented, numerical, and verbal thinkers.

2.1.1 RIGHT BRAIN

People with the right brain are creative, unrestricted, and intuitive. They focus on ensuring that the spaces we develop are both beautiful and functional. Together with our left brains, they pay attention, analyse the data, and make sure that the design concept addresses the problems with your current office space.

Right-brainers frequently have exceptional people skills, but they can also be disorganised and unpredictable. Compared to left-brainers, they are more impulsive, imaginative, and emotional, frequently reflecting on and acting on their feelings. With the strange, perceptive, and problem-solvers, they feel more at ease. Right-brained people frequently gravitate toward the design, human services, and marketing industries.

Contrary to popular belief, the theory claims that right-brained people tend to be more creative, free-thinking, able to see the big picture, intuitive, and more likely to think in pictures rather than words.

3.1 ADDICTION

3.1.1 INTERNET AND ADDICTION

The quickest adoption of any technology occurred for the mobile phone around the year 2000. Mobile technology opened up new spheres of effortless connectivity to everyone and everything with the mass adoption of smartphones in 2007. Nobody would argue against the fact that technology has produced remarkable advantages, such as boundary-free social connection, research and collaboration in nearly every field of human endeavour, entertainment, education, and the global transmission of life-saving medical advances.

3.1.2 ADDICTION AND BRAIN

It's a prevalent belief that consuming drugs "hijacks" the brain and results in addiction. Although it's hard to pinpoint exactly what it means, it properly suggests that the brain is prone to an automatic takeover that hinders decision-making and limits freedom of choice, making quitting difficult even in the face of a strong desire to do so. To preferentially identify, focus on, crave, and seek the substance, the brain prunes attentional and motivational nerve connections when someone has an addiction. This occurs as a result of totally natural mechanisms included in all learning. Initially a choice, it soon becomes a form of confinement.

3.1.3 DARK PSYCHOLOGY AND ADDICTION

The environment was very different than it is today when social media initially gained popularity. Users might construct curated versions of themselves on social media sites like MySpace. However, there weren't many possibilities for contagious indignation overall. But as Facebook's News Feed and Twitter's timeline—regularly updated streams of users' consciousness—rose to prominence, everything changed. To top it all off, an algorithm that

favours material that receives the most attention as well as public popularity measure systems like the "like" and "retweet" buttons quickly followed.

And soon after, many ideologies and political propaganda exploited the most recent upgrade, endangering the democratic purpose of social media.

4.1.1 TANGRAM AS A CREATIVITY TOOL

The Chinese puzzle known as a tangram is made of a square piece of paper or wood that has been sliced into numerous pieces of varying sizes. One piece of a square, five pieces of triangles, and one piece of a parallelogram make up the geometric forms that make up the Tangram. Tangrams can increase students' interest in mathematics, give them the ability to recognise different forms, help them understand the characteristics of shapes, help them figure out how the seven pieces fit together and allow them to experiment with existing tangrams to create new ones, all of which can foster their creativity.

According to Abdullah and Zakaria (2012), greater focus should be placed on practical exploratory activities while teaching and learning geometry. They emphasised that a hands-on exploration exercise helps students develop their critical thinking skills as well as their capacity to make assumptions and arguments through the use of a geometry project. Activities that include hands-on investigation also encourage kids to think critically and be creative and innovative. In response to this viewpoint, Copley (2000) strongly advises teachers to include some shape puzzles in geometry teaching and learning activities, such as Tangrams, Lego, and Fröbel's blocks. This would provide pupils with the chance to engage with forms and, in turn, independently explore the spatial relationship.

5.1.1 WORD SEARCH AS A ANALYTICAL TOOL

This study's word search game was designed to make it easier to acquire a foreign language's vocabulary. The game promotes internal learning motivation, aids in word memorising, and aids in long-term word recall.

By looking for words in a grid of letters, Norman E. Gibat created the word search puzzle in 1968. Finding a list of words that are concealed on a grid is the aim of the word search game.

Each word is located, circled on the grid, and then crossed off of the list. Word search is intended to be both entertaining and educational. Naturally, locating every word equates to "solving" the puzzle. The primary goal of the game is to locate every word on a list of terms that are presented with the grid. The words in the list usually correspond with the topic that has been assigned to the problem. To find the words on the grid and circle them, solvers must spend time examining the grid and utilising various techniques.

REVIEW OF LITERATURE

Abraham, A., Windmann, S., Siefen, R., Daum, I., & Güntürkün, O. (2006). The paper talks about “Creative thinking in adolescents with attention deficit hyperactivity disorder (ADHD).” It has been hypothesised that an expanded attentional focus, which is frequently linked with ADHD, is accompanied by improved creative capacity. However, research on creativity in ADHD has been scant. The effectiveness of three groups—adolescents with ADHD, those with conduct problems, and a healthy control sample—was examined across a variety of creative measures. The ADHD group showed selective cognitive benefits and disadvantages by showing the improved ability to overcome the limiting impact of examples but decreased capability to come up with a useful invention during an imagery exercise. The context-dependent regulation of creative cognition and inhibitory control processes are used to interpret these findings.

Sanders, S. (2016). Critical and creative thinkers in mathematics classrooms. There is a growing understanding of the necessity for educators to educate kids on how to think critically and creatively. In the setting of a mathematics classroom, the relevance of critical and creative thinking abilities is argued in this essay. It will focus on how teacher pedagogy may enhance the growth of critical and creative thinking abilities by fostering a supportive and collaborative learning environment. Constructivist educational ideas are emphasised as beneficial factors that might improve students' ability to think critically and creatively in math classes.

Newell, A., Shaw, J. C., & Simon, H. A. (1962). “The processes of creative thinking.” This paper aims to explain some of the creative thinking implications of this notion. Doing so would indicate that innovative thinking is only a unique variety of problem-solving activities. We believe that this is a good functioning theory. We begin by talking about how creative thinking relates to problem-solving in general and by asking whether or not current problem-solving techniques can be deemed creative. To study the programmes and compare them to certain human problem-solving behaviour shown in thinking-aloud procedures of lab subjects, we first describe the problem-solving theory that underpins these programmes. To

understand what this means, we analyse a few subjects that have come up frequently in debates on creativity.

Menon, D. (2022). “Factors influencing Instagram Reels usage behaviours.” This study highlighted seven reasons why people use Reels, including socially rewarding self-promotion, amusement, escapism, surveillance, novelty, documentation, and trendiness. It was led by the Uses and Gluttony paradigm and used an online poll (N=540). The survey found substantial disparities in Instagram Reels use reasons by age and gender. In addition, the study discovered that people's usage behaviours for Instagram Reels are influenced by their motivations and other socio-psychological factors. The following key conclusions were made: Narcissists used Reels more frequently; socially rewarding self-promotion and entertainment predicted video creation and engagement; escapist users consumed and engaged more, and entertainment seekers actively participated in Reels.

Hong, S. (2022). “The Instagram Reels Effect” This paper states that social media has changed the way consumers make purchasing decisions. More precisely, it has entertained viewers with brief films, scrollable images, or text. Induced emotions have previously been shown in the literature to have a significant impact on decisions (Choi, Rangan, & Singh, 2016; Gardner, 1985; Janis, Kaye, & Kirschner, 1965). But up to now, research has concentrated on how a single emotional state, like happiness, affects buying decisions. In contrast, when someone scrolls through various videos on social media, they are quickly exposed to a wide range of emotional valences.

Indari, A. (2022). Mood Investigation in the Motivational Quotes of the Instagram Reels. The paper talks about how everyday life-sharing platform is a source of numerous inspirational quotations. The language component of the quotations is particularly present in the mood system. The purpose of this study was to look at the emotional content of inspirational phrases on Instagram reels. The content analysis approach was used in this investigation. The information was gathered from two Instagram reel accounts, @quotes and @merciful path. The findings of this study showed that declarative was the most common mood analysis in the Instagram Reels' motivational quotes, particularly because these quotes often included

provocative language to grab viewers' attention and contained comprehensive functions that made it simple for them to understand what they were saying. They had to develop the organisational functional structure.

Lang, P. J. (1995). “The emotion probe: Studies of motivation and attention”. The Intervention types, or states of alert readiness, and emotions come in a wide range of reported effects, physiology, and behaviour. However, just two opposing motivational systems—appetitive and aversive subcortical circuits—that govern responses to main reinforcers—are responsible for their motivation. Reliable effective psychophysiology is demonstrated using a vast collection of emotional images. This psychophysiology is determined by the evaluated valence (appetitive/pleasant or aversive/unpleasant) and arousal of the image percepts. The reactions to independently delivered startle probe stimuli are similarly modified by picture-evoked emotions. To put it another way, they enhance both effects of high picture arousal by potentiating startle responses during unpleasant pictures and inhibiting them during nice pictures. Research on fundamental emotions, psychopathology, and theories of orienting and defence are all affected, according to the implications. Conclusions emphasise both the limitations of the technique and possible directions for further research.

Lewthwaite, R., & Wulf, G. (2017). “Optimizing motivation and attention for motor performance and learning.” They cover three lines of current research on the development of motor skills at the interface of motor learning and sports psychology: improved expectations, autonomous support, and external attentional focus. The OPTIMAL (Optimizing Performance via Intrinsic Motivation and Attention for Learning) hypothesis, developed from the studies in these areas of study (Wulf and Lewthwaite, 2016), has been used to explain how people learn and perform motor skills. Athletes and performers in a variety of professions, including clinical rehabilitation, might benefit from more efficient skill development.

Kies, S. C. (2018). “Social media impact on attention span.” There were 209 participants in the current study who filled out a self-administered questionnaire created by the researchers. Three hypotheses were to be tested as part of the investigation. The first theory was that attention spans are unrelated to the quantity of social media profiles. According to the second

theory, there is no difference in attention span between frequent users of episodic and non-episodic social media accounts. According to the third hypothesis, individuals who favour mobile over PC forms of social media have similar attention spans. Three assumptions were accepted by the study's findings. The conclusion also discusses potential areas for future study.

METHODOLOGY

Research topic:
Impact of the Instagram reel on the attention span of creative and analytic thinkers.

Aim:
To study the impact of Instagram reel exposure on the attention span of creative and analytic thinkers.

Sample:
20 Undergraduate students
10 (Analytical thinkers) BBA-MBA and 8 (Creative thinkers) B.Des- M.Des
10 boys - 10 girls ratio
Selection of the sample based on if they use Instagram reels for more than 5 hours a day

Objective:

To study the impact of the Instagram reel and attention span

To study the relationship of attention between creative thinkers and analytical thinkers

To study the impact of Motivational - Meme reels on attention span

Hypothesis:

H1(alt): There would be a significant relationship between Instagram reels and attention span. - comparative t-test

H1(alt): There would be a significant relationship between Creative and analytical thinkers on attention span. ANOVA

H1(alt): There would be a significant relationship between Motivational and meme content on attention span. ANOVA

Variable:

IV: Exposure, Meme, Motivational reels, Creative and analytical thinkers.

DV: Time and task solved.

Sample collection
A Selective convenience sampling method was used.

Experiments:

Analytical thinkers experiment 1
Tangram - Reels - Tangram
BBA- MBA - 5 girls 5 boys
Meme content 2 girls 3 boys
Motivational content 3 girls 2 boys
Overall 10

Creative thinkers experiment 2
Word search - Reels - Word search
B.des M.des - 5 girls 5 boys
Meme content 3 girls 2 boys
Motivational content 2 girls 3 boys
Overall 10

The sample under each objective

Reels meme VS Motivational
Reels meme - 5 GIRLS 5 BOYS (BBA - BDES)
Reels motivational - 5 GIRLS 5 BOYS (BBA - BDES)

Creative vs Analytical
BBA- MBA - 5 girls 5 boys = 10
B.des M.des - 5 girls 5 boys = 10

Instagram reels vs Attention span
Whole sample of 20

STATISTICAL ANALYSES

For the data analysis and interpretation, the initial scoring was done using Microsoft Excel and after attaining the raw scores, R studio was employed.

- ➔ To find there would be no significant difference between Creative thinkers and analytical thinkers before and after exposure to attention span Paired T-test.
- ➔ To find there would be no significant difference between Creative and analytical thinkers in attention span. Using Unpaired T-test.
- ➔ To find there would be no significant difference between Motivational and Meme Reel watchers in attention span using an Unpaired T-test
- ➔ To find there would be no significant difference between Creative and analytical thinkers in attention span. Using One-way ANOVA
- ➔ To find there would be no significant difference between Motivational and Meme Reel watchers in attention span using One-way ANOVA
- ➔ To find there would be no significant difference between males and females in attention span. Using One Way Anova
- ➔ To find there would be no significant difference between Gender and Thinking On attention. Two-tailed ANOVA

RESULTS

For better understanding and analyse the hypotheses of the research were checked using the Anova One way, and two way, Paired T-test, which was done on the following basis.

- ➔ To find there would be no significant difference between individuals before and after exposure to attention span Paired T-test.

T-TEST UNPAIRED RESULTS

T-test Paired	**P value 0.05**	**0.0614862647**	**Null hypotheses accepted**

Table 0.1 Shows the results of the T-test which states that the P value is higher by a point 0.06 than the significant P value that is 0.05. This, therefore, accepted the null hypothesis showing that there would be no significant difference between individuals before and after exposure to attention span. Our observations and raw score on their own prove otherwise, it was seen that the scores of attention span before the exposure were higher than the after-exposure effect, as per introspective reports as well.

IV: Creative thinker, Analytical thinker DV: Time taken

- ➔ To find there would be no significant difference between Creative and analytical thinkers in attention span. Using Unpaired T-test.

T-TEST RESULTS

T test Unpaired	**0.0000008409**	**Rejects Null hypothesis**

Table 0.2 Shows the results of the T-test which state that the P value is lesser than the significant P value is 0.05. This, therefore, rejects the null hypothesis, stating that there is a significant difference between creative and analytical thinkers. Which can also support our observation reports and individual introspective report. It's seen that creative thinkers tend to have lesser attention spans than analytical thinkers.

ANOVA RESULTS

- ➔ To find there would be no significant difference between Creative and analytical thinkers in attention span. Using One-way ANOVA

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
THINKING	1	0.000	0.0000	0	1
Residuals	18	2.602	0.1446		

** P value from the F test is less than 0.05 level, The null hypothesis is rejected.

Table 0.3 shows the ANOVA results, to see the significant difference between creative and analytical thinkers. The results show that 1 is the P value which is more than 0.05 which basically accepts the Null hypothesis.

Proving that there is no significant difference between analytical and creative thinkers in terms of attention span. This is contradictory to the t-test conducted as the t-test results reject the null hypothesis. Here we would want to focus on a t-test as our sample is less.

IV: Motivational and Meme Reels DV: Time is taken

- ➔ To find there would be no significant difference between Motivational and Meme Reel watchers in attention span using an Unpaired T-test

T-TEST UNPAIRED RESULTS

T test Unpaired	**0.6563230793**	**Null hypothesis accepted**

Table 0.4 Shows the results of T-test which states that the P value is higher than the significant one 0.05, which therefore accepts the null hypothesis stating that there would be no significant difference between Motivational and Meme Reel watchers in attention. This is again contradictory to our observation and individual raw score which shows that motivation reel-exposed individuals in the sample were being more attentive after the exposure.

➔ To find there would be no significant difference between Motivational and Meme Reel watchers in attention span using One-way ANOVA

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
TIME	1	0.056	0.05623	0.205	0.656
Residuals	18	4.944	0.27465		

** P value from the F test is less than 0.05 level, The null hypothesis is rejected.

Table 0.5 shows the ANOVA results, to see the significant difference between motivational and meme reels on attention span. The results show that 0.6 is the P value which is less than 0.05 which basically rejects the Null hypothesis. Proving that there is no significant difference between motivational and meme reels on attention span. Where as we can see that our raw data graphs actaullly highlights the diffenrces.

IV: Female, Males DV: Time taken

To find there would be no significant difference between males and females in attention span. Using One Way Anova

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Time	1	0.084	0.08434	0.309	0.585
Residuals	18	4.916	0.27309		

** P value from the F test is less than 0.05 level, The null hypothesis is rejected.

Table 0.7 shows the ANOVA results, to see the significant difference between males and females in attention span. The P value is greater than 0.05 which accepts the null hypothesis stating that there is no significant difference between males and females in attention span. But according to our raw data, it is seen that females are like to have a lesser attention span than males.

IV: Female, Males, Creative thinker, Analytical thinker DV: Time taken

➔ To find there would be no significant difference between Gender and Thinking On attention.

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
TIME	1	0	0.000	0	1
Residuals	18	125	6.944		

** P value from the F test is less than 0.05 level, The null hypothesis is rejected.

Table 0.7 shows the ANOVA results, to see the significant difference between Gender and Thinking On attention. This here states that the p-value is lesser than the significant level which tells us that it accepts the null hypothesis. Stating that there would be no significant difference between Gender and Thinking On attention.

CONCLUSION

The Instagram reel is the latest trend in social media and it's not just a fad. It has already started to have an impact on the attention span of creative thinkers and analytic thinkers. This research is a pilot study which aims,s to study the impact of individuals before and after reel exposure on attention span, study the relationship of attention between creative thinkers and analytical thinkers, and study the impact of Motivational - Meme reels on attention. Span For this purpose, a total sample of Students (N = 20) aged 20 to 25 years was taken. This sample included 10 Males and 10 Females. A selective sampling method was used. The tools that were administered to students were tangram and word search to measure attention span. The R software statistical tool used for analysing the data of the sample were Paired and Unpaired t-test and one-way ANOVA, Two-way ANOVA.

The statistical analysis states that there is no impact, accepting the null hypothesis showing that there would be no significant difference between individuals before and after exposure to attention span. Our observations and raw score on their own prove otherwise, it was seen that

the scores of attention span before the exposure were higher than the after-exposure effect, as per introspective reports as well. The 2nd hypothesis no significant difference between Creative and analytical thinkers in attention span. Was rejects the null hypothesis, stating that there is a significant difference between creative and analytical thinkers. Which can also support our observation reports and individual introspective report. It's seen that creative thinkers tend to have lesser attention spans than analytical thinkers. The next hypothesis states that there is no significant difference between Creative and analytical thinkers in attention span. Proving that there is no significant difference between analytical and creative thinkers in terms of attention span. This is contradictory to the t-test conducted as the t-test results reject the null hypothesis. Here we would want to focus on a t-test as our sample is less. Here Anova showed us that it accepts the null hypothesis stating that there would be no significant difference between Motivational and Meme Reel watchers in attention. This is again contradictory to our observation and individual raw score which shows that motivation reel-exposed individuals in the sample were being more attentive after the exposure. To find there would be no significant difference between Motivational and Meme Reel watchers in attention span using One-way ANOVA. Proving that there is no significant difference between motivational and meme reels on attention span. Whereas we can see that our raw data graphs highlight the differences. The hypothesis is to see the significant difference between males and females in attention span. accepts the null hypothesis stating that there is no significant difference between males and females in attention span. But according to our raw data, it is seen that females are like to have a lesser attention span than males.

Graph 0.1 (Appendix) talks about the average time taken to solve after exposure meme and the average time taken to solve after exposure motivational which shows the fluctuation in both scenarios. As you can read from the graph, the meme experimenter’s attention span has gone down and the motivational exposure and the experimenter’s attention span have gradually come up because they felt quite distracted by the meme content and got boosted up with motivational exposure. In the meme exposure, as mentioned in graph 0.2 (Appendix) there is a slight difference between before the exposure to memes and after the exposure to reels. Experimenter’s felt that the meme content is quite distracting from the task they started with. The motivational exposure, shown in graph 0.3 (Appendix) there is a difference between before the exposure to motivational and after the exposure. The participants felt that the motivational content is very helpful in solving more puzzles as it motivates them to do so. In graph 0.4 (Appendix), the average time for each word/ tan before and after makes

difference as it shows before the attention span was high and gradually it came down when the process of the task started. The distribution between creative thinkers and analytical thinkers has a difference between attention span and time taken. The average time taken by creative thinkers is less compared to analytical thinkers. Graph 0.5 (Appendix) shows the data of the same. The graph data shows the difference in the data from the participants for the experiment.

PRACTICAL IMPLICATION

Even though there are several possible causes for this alleged decline in the world's attention span, social media use is frequently held responsible for the majority of it. Researchers have speculated that the primary offender may be "social media multitasking." Some contend that social media sites like Facebook encourage users to focus on several aspects at once, including news feeds, lives, alerts, and messaging, which is bad for concentration. In addition to this, we are concurrently balancing all of these features across many platforms.

Even the mechanism behind a causal relationship between "media multitasking" and attention deficiency has been theorised. Synaptic pharmacology expert Lady Greenfield contends that social media raises the risk of "infantilizing" the human mind. In a world of swift and fleeting action, brain development may become used to working on short timelines. Then, in response to longer-lasting tasks, like reading a book or paying attention in class, attention is a relative deficiency.

We see that our results show that the attention span after watching reels has been some way or the other disrupted and that's the highlight of social media causing addiction in people's minds using dark psychology patterns or endless scroll patterns, making people respond to the ideate gratification and not able to have good attention and focus. Is a point to look for in our day-to-day life, observing ourselves and our users can show us many realities like these that social media is causing and for us, this was just a small sample pilot testing done, we look forward to working with bigger sample and understand the results.

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APPENDIX 1

Tables:

H1(alt): There would be a significant relationship between before and after exposure on attention span.

Before exposure (tangram plus word search)

Task done	Time taken	Average time each word/Tan	Exposure
4	**20**	**5**	**none**
5	**17**	**3.4**	**none**
5	**19**	**3.8**	**none**
1	**4**	**4**	**none**
4	**11**	**2.7**	**none**
6	**15**	**2.5**	**none**
4	**18**	**4.5**	**none**
6	**15**	**2.5**	**none**
3	**11**	**3.6**	**none**
9	**13**	**1.4**	**none**
11	**20**	**1.8**	**none**
13	**20**	**1.5**	**none**
9	**20**	**2.2**	**none**
19	**20**	**1**	**none**
10	**20**	**2**	**none**
14	**20**	**1.4**	**none**
19	**20**	**1**	**none**
20	**20**	**1**	**none**
22	**20**	**0.9**	**none**
11	**20**	**1.8**	**none**

After the exposure (tangram plus word search)

Task done	Time taken (mins)	Average time each word/Tan	Exposure
6	19	3.1	Motivational
4	14	3.5	Motivational
7	17	2.4	Motivational
5	18	3.6	Motivational
7	17	2.4	Motivational
4	10	2.5	Meme
5	13	2.6	Meme
1	3	3	Meme
6	15	2.5	Meme
3	8	2.6	Meme
8	20	2.8	Motivational
19	20	1	Motivational
18	20	1.1	Motivational
20	20	1	Motivational
19	20	1	Motivational
15	20	1.3	Meme
9	20	2.2	Meme
20	20	1	Meme
21	20	0.9	Meme
21	20	0.9	Meme

H1(alt): There would be a difference between Creative and analytical thinkers on attention span.

Creative thinkers - Independent variable

Analytical thinkers - Independent variable

Average time taken - Dependent variable

Creative thinkers	**Average time taken**
1	**1.6**
1	**1.6**
1	**2.1**
1	**1.2**
1	**1**
1	**1.1**
1	**1.5**
1	**1.6**
1	**1.2**
1	**0.8**

Analytical thinkers	**Average time is taken**
1	**2.4**
1	**4**
1	**2.6**
1	**3**
1	**2.9**
1	**3.2**
1	**3.6**
1	**3.8**

1	**3.5**
1	**2**

H1(alt): There would be a difference between Motivational and meme content on attention span.

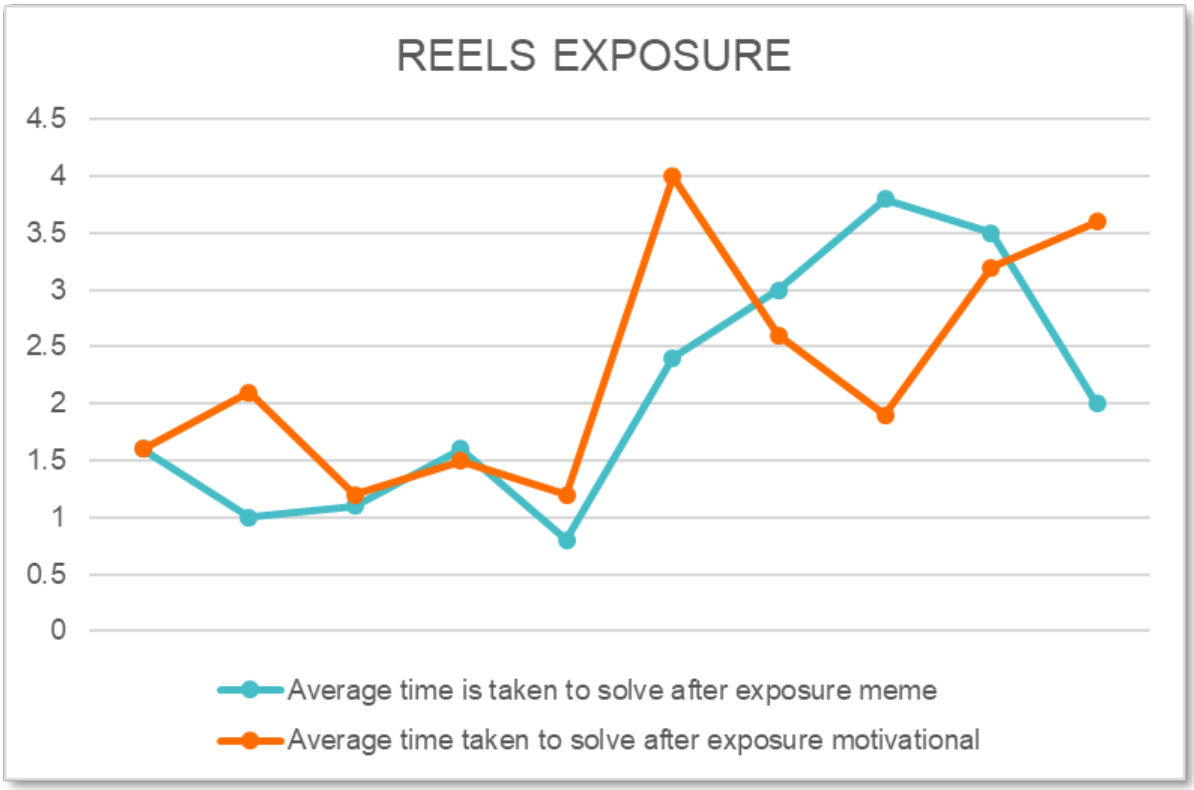
Motivational - Independent variable
Reels - Independent variable
Average time taken - Dependent variable

Meme Reels	**Average time is taken to solve after exposure meme**
1	**1.6**
1	**1**
1	**1.1**
1	**1.6**
1	**0.8**
1	**2.4**
1	**3**
1	**3.8**
1	**3.5**
1	**2**

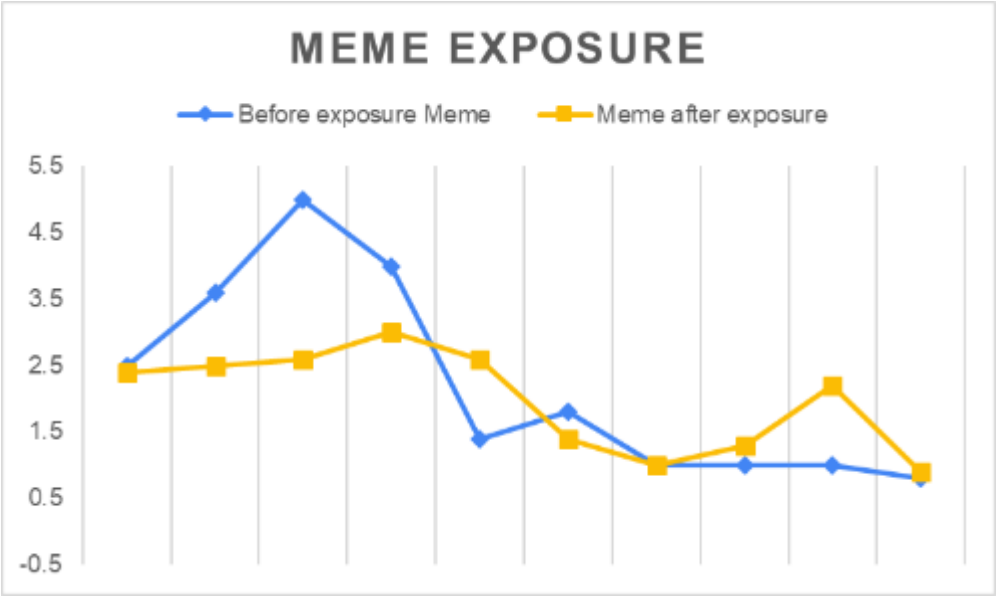
Motivational Reels	**Average time taken to solve after exposure motivational**
1	**1.6**
1	**2.1**
1	**1.2**
1	**1.5**

1	**1.2**
1	**4**
1	**2.6**
1	**1.9**
1	**3.2**
1	**3.6**

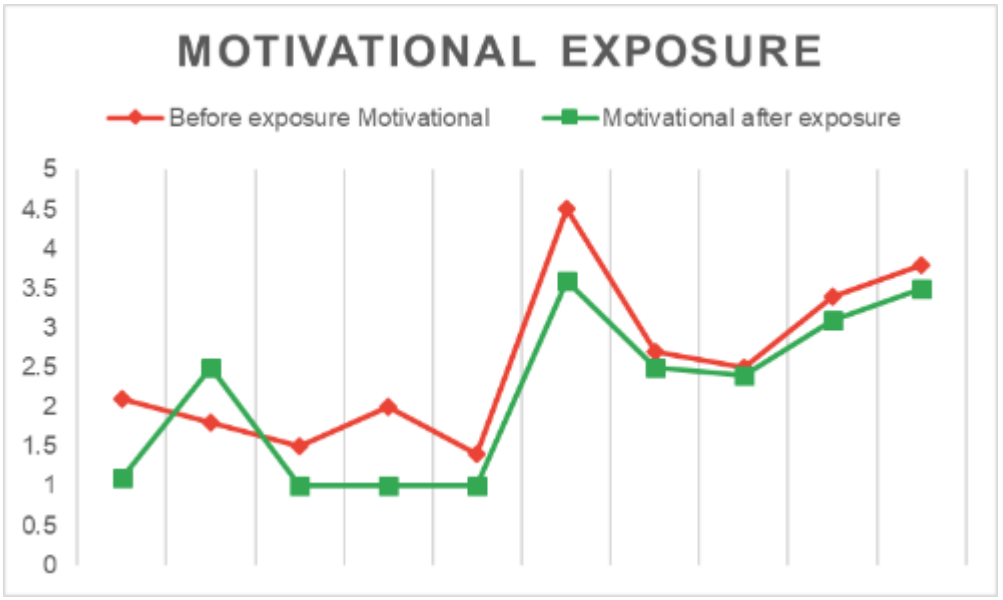
APPENDIX 2



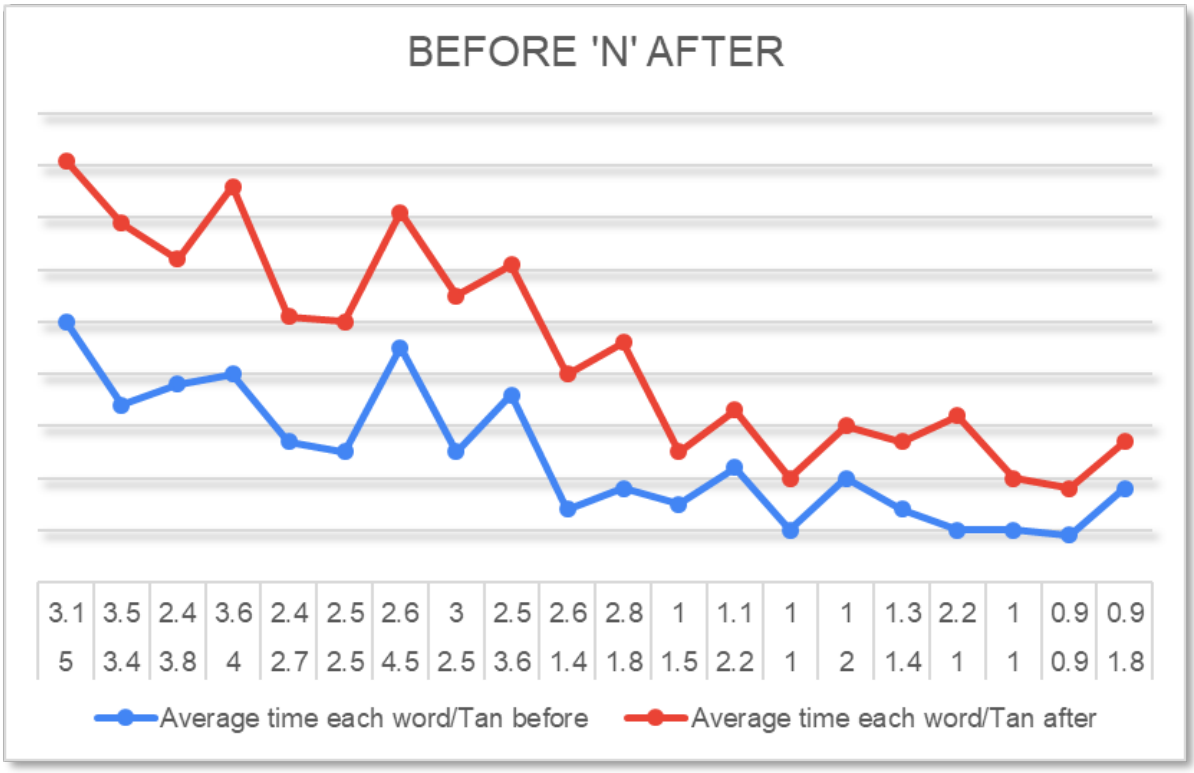
Graph 0.1 Shows the Average time taken to solve the tangram and word search after the meme and motivational exposure.



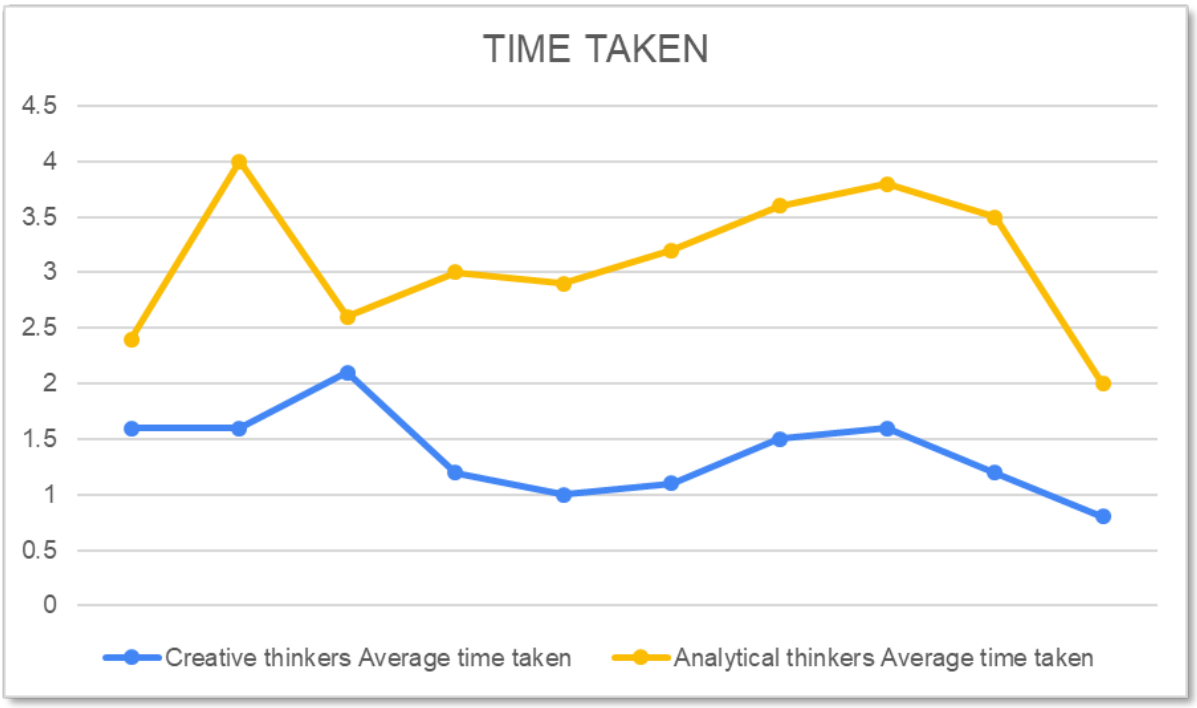
Graph 0.2 Shows the meme exposure of the sample



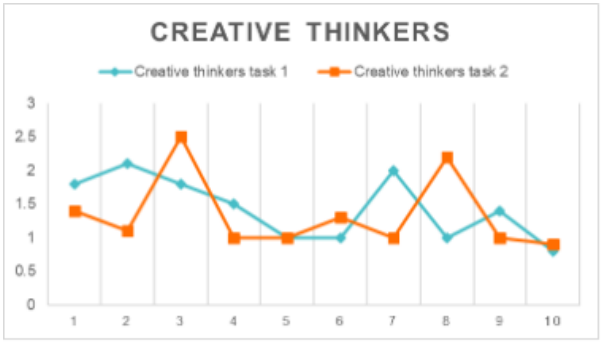
Graph 0.3 Shows the motivational exposure



Graph 0.4 Shows the average time taken before and after the tasks of tangram and word search.



Graph 0.5 Shows the average time creative thinkers and analytical thinkers.



Graph 0.6 Shows the average time creative thinkers and analytical thinkers in task 1 and task 2