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Research Article

Instant Gratification and The Digital Natives: A Pilot Study

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ABSTRACT

Instant gratification refers to the temptation, and resulting tendency, to let go off a future benefit just to satisfy short-term pleasure. Instant gratification is closely associated with obesity. Studies show that the increased presence of automation, smart gadgets and the internet has resulted in a growing impact on instant gratification. The Digital Natives being born in a purely digital era have everything digitalized; has it caused a decrease in the ability to delay gratification? A qualitative study was conducted to see if there has been a decrease in the ability to delay gratification with the assumption that the Digital Natives are impulsive and show behaviour of instant gratification. For this, Marshmallow's Test was conducted on pre-schoolers and the video recordings were coded on NVivo for data analysis to achieve the research objective. The study shows that most of the participants were able to delay gratification. But few participants exhibit a lesser ability to delay gratification; though they did not eat the whole Marshmallow, they were constantly nipping and eating bits of the Marshmallow. There was a significant difference in the ability to delay gratification with regards to different socio-economic status of the family that the participants belonged to. The ability to delay gratification in most of the participants could be due to multiple factors like parents being more educated - teaching children to be more patient, early education, good health, better standards of living, etc.

Keywords: *Instant gratification, Delayed gratification, Digital natives, Socio-economic status, Obesity*

1. Introduction

1.1 Who are the Digital Natives?

The term 'Generation' collectively refers to all people born and living at about the same time experiencing common phenomena and having similar political and cultural influence. Individuals among various ages have differences in the qualities, convictions, visions, and opinions among various ages of individuals regarding their outlook on different aspects of life **(Soley *et al.*, 2021).** Individual belonging to a generation shares age, birth year, and life occasions at basic formative stages, characteristics and attitudes. Digital Generation consists of those generation in which individuals were raised in the digital era or born into it. They have access to modern technological gadgets and internet. To understand the Digital Generation let's first look into the different generations that we have **(Strauss and Howe (1991); Howe and Strauss (2000); McCrindle (2008); Pew Research Centre (2019)).**

- Greatest Generation born between 1901-1924
- Silent Traditionalists born between (Radio Babies) 1925–1945
- Baby Boomers born between ("Me" Generation) 1945–1965
- Gen X (Post Boomers/ The Doer) born between 1965–1980
- Gen Y (Millennials) born between 1980–1995
- Gen Z (Zoomers) born between 1995–2010
- Gen Alpha born between 2010-2024

Throughout these generation, technology have evolved and therefore, according to it these generations as coined by Marc Prensky in 2021 can be categorized into digital natives and digital immigrants. Digital immigrants are those who were not born into digital era and had to adapt to technologies over time. These includes the Silent Traditionalist (1925-1945), Baby Boomers (1945-1965) and Gen X (1965-1980). Whereas, digital natives are those generations born into the digital era and are quite familiar with technology. Gen Y or Millennials (1980-1995), Gen Z (1995-2010) and Gen Alpha (2010-2024) are considered as digital natives **(Pilette, 2021).** Research indicates that 44 per cent of generation Alpha children view tablet as their favourite "toy," and 61 per cent of generation Alpha parents use tablet to "babysit their children **(Ostojic, 2019).** Back in the days where parents or caretakes used candies or toys to babysit has now been replaced with digital gadgets in this digital era. **Wong (2022),** mentioned on the increasing influence of instant gratification as a result of smart gadgets, automation, and the internet. We can observe that, children in this digital era are living in a digitally stimulated environment where the use of any one digital gadget has become a need for this generation.

1.2 What is instant gratification?

Instant gratification is the desire to experience pleasure or fulfilment without delay. According to American Psychological Association, the feeling of satisfaction or receiving a reward as soon as a response is made is known as instant gratification or immediate gratification. The word "instant gratification" refers to the temptation and subsequent tendency, when one has a craving for something enjoyable, like food or entertainment, to disregard the future benefit in favour of a less satisfying but more immediate benefit **(Shawn, 2020).**

Delayed gratification is the opposite of instant gratification. Delaying the natural urge of getting something that we want, when what we want is not easy. The ability to delay gratification is within the family of executive functioning and self-regulation, both of which exhibit significant heritability and developmental stability **(Engelhardt *et al.*, 2015).** If we take a moment and think about it, we can see that there are many behaviours of instant gratification that we exhibit every now and then in our daily activities. For example, how many times have you checked your phone even when you know there were no notifications? The urge of checking your phone constantly for notifications even though you clearly know there is no incoming notifications, yet you are still engaged in that act over and over again giving you a sense of gratification, this is none other than instant gratification, which is addictive and quite distracting.

1.3 Instant gratification and Freud's theory of Personality Development

Sigmund Freud's theory of personality development states that there are three fundamental structures that shaped the human personality – the id, the ego, and the superego. The id, which is the most primitive part of the personality constitute the basic biological drives and reflexes. Id - "a pit full of seething excitations" **(Freud, 1913)** as described by Freud, is dominated by pleasure principle. Its main goal is to maximize pleasure and minimize pain. Similarly, instant gratification is impulsive and tends to seek pleasure and avoid pain. It works on pleasure principle as the "id", the component of the unconscious mind which is the source of needs such as wants, desires, and impulses **(Boag, 2014).**

1.4 Impact of instant gratification on cognitive functions

There has been numerous **(Woodley of Menie *et al.*, 2017)** evidence of declining cognitive domains over time due to instant gratification. Cognitive domains constitute of – complex attention, executive function, learning and memory, language, perceptual-motor control, and social cognition (various social signals that helps us learn about the world). Additionally, they noted a decline in abilities like working memory, simple visual and auditory reaction times, colour acuity, vocabulary usage pattern, 3D visuospatial aptitude, and per capita rates of macro-innovation and creative genius. Related abilities such as visual working memory were also said to decline over time **(Wongupparaj *et al.*, 2017).**

Delaying gratification and choosing a better reward later in life are skills that children possess and are linked to many favourable outcomes in life. Delaying gratification has been linked to children staying in school longer (**Ayduk *et al.*, 2000**), healthier body weights (**Schalm *et al.*, 2013**), better academic performance, and a decreased risk of teenage substance use (**Wulfert *et al.*, 2002**). The behaviour of delayed gratification is a modifiable behaviour (**Drobetz *et al.*, 2012)**, the most effective being regulating this behaviour at an early age using appropriate behavioural interventions and strategies. Studies have shown that good health could be a reason for a child to be able to delay gratification **(Colom *et al.*, 2005; Lynn, 2009).** A study conducted by **Kidd *et al.*, 2013** also mentioned the rise in living standards being a probable reason for children being able to delay gratification. Some studies indicated that children from lower income families have harder time delaying gratification **(Evans and English 2002).** According to **Pietschnig and Voracek (2015)**, better educated parents may be encouraging their kids learn to delay gratification. A major reason for the declining ability to delay gratification in children is attributed to extensive use of technology, the increase in screentime of children could have been a factor leading to declining in the ability to delay gratification, as stated by **Kabali *et al.* (2015)**. It is also believed that children not spending enough time engaging in activities influences self-regulation, which may have influenced their declining ability to delay gratification.

1.5 Instant gratification and obesity

We have understood that instant gratification is satisfying of one's needs or wishes without delay. Dopamine, the pleasure hormone that we become increasingly dependent on, is released by the brain in response to temporary desires to seeking satisfaction (instant gratification), causing addiction. This addiction can lead to number of diseases, one of those being obesity. Obesity impact on cognitive functions results in poorer cognitive performance, acceleration of cognitive ageing, dementia and Alzheimer. A study conducted by **Caleza *et al.* (2015**), found a clear relationship between inability to delay gratification and overweight and obesity, stating that children with the inability to delay gratification are more likely to be overweight. Instant gratification stems from poor self-regulation which decreases the ability to delay gratification. According to **Brich and Fisher (1998)**, self-regulating children may recognise satiety cues and quit eating when they are full. Obese individuals are more likely not to delay gratification **(Bruce *et al.*, 2016).** In addition to obesity, other prevalent issues linked to the inability to delay gratification include drug addiction, eating disorders, financial crisis, and compulsive buying **(Dawd, 2017).** A number of significant life outcomes, such as being successful, academic accomplishment, and good health, can be predicted by an individual's ability to delay gratification **(Dawd, 2017).** Behavioural interventions and cognitive strategies improve self-regulation which results in increasing ability to delay gratification and in turn reducing the prevalence of obesity due to instant gratification. As suggested by **Drobetz *et al.*, (2012),** it is possible to modify the behaviour of delayed

2. A pilot study

As mentioned earlier, there has been a massive proliferation in the usage of technology and owning of technological gadgets among the digital natives also many study results indicating that increase in automation, internet, technological gadgets could influence in the of instant gratification behaviour of children. This study was taken up assuming that digital natives cave more to instant gratification rather than delay gratification due to their exposure and upbringing in this purely digital era.

2.1. Method

Marshmallow test – The "Marshmallow test", a paradigmatic experiment to measure delay of gratification in children **(Mischel & Ebbesen, 1970)** was used. This test was originally carried out by Walter Mischel, a professor at Stanford University during the 1960s and 1970s. In this test, the child is offered two options – first, a Marshmallow, and is an immediate reward; second being another Marshmallow as a reward, if they could wait until the researcher returns (researcher leaves the room for 15 minutes and then return) to eat the first reward (Marshmallow). If a child could wait until the researcher returns, as instructed, before they eat the immediate reward, it is said that the child can delay gratification.

Sample - Samples of ten pre-schoolers were selected randomly from preschool in Jorhat district of Assam. Their background and other necessary details were collected from their teachers and parents. The participants selected for the study had an average screen time of about 1-2 hours.

Analysis - Video of each selected child performing the Marshmallow test was recorded. Later, it was fed in NVivo and their actions were carefully transcribed and coded as: did not eat, took a pinch, took a pinch and ate it, and took a pinch and did not eat. These codes were used for analysis in NVivo to achieve the research objective.

3. Results and discussion

It was interesting to find that they could delay gratification when it comes to waiting till the researcher returns, inorder to eat the whole Marshmallow. But we could also observe that few of the participants exhibited lesser ability to delay gratification as they kept on pinching off and eating bits of the Marshmallow. This act of pinching off and eating bits of Marshmallows again and again is an act of instant gratification. Therefore, let us look into this aspect as there were no participants who ate the Marshmallow before the researcher returned.

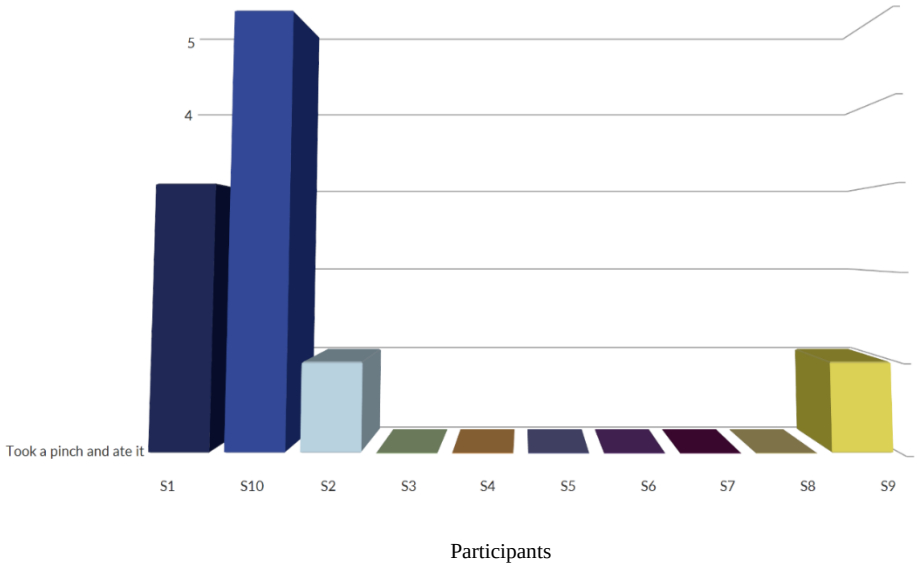

Figure: Participants who pinched off and ate bits of the Marshmallows

From the figure, we can see that out of the ten participants four of them were pinching off and eating bits of the Marshmallow, the highest being five times during the 10 minutes test which can be attributed as showing signs of lesser ability to delay gratification.

The behaviour of children in school in terms of following instructions, engagement in class activities, attentiveness and responsiveness in class co-operation were observed. It was found that, out of the ten participants, the four participants, who exhibited behaviour of instant gratification, were showing behaviours of less self-control and low attention. Research studies indicate that ability to delay gratification has association later cognitive and social behaviours **(Mischel *et al.*, 1989).**

Further, when we looked into the socioeconomic status (SES) of participants, we could find that, out of the four participants who exhibited behaviour of instant gratification, three of them belonged to low and one of them belonging to middle socioeconomic status (SES). Meanwhile, all the participants who did not exhibit behaviour of instant gratification belonged to high SES. Therefore, it is SES of the participants that is influencing the behaviour of instant gratification. Studies also shows that, families' socioeconomic status (SES) has been linked to delayed gratification (**Green *et al.*, 1996**).

4. Conclusion

It can be concluded that majority of the Digital Natives i.e., the selected participants, were able to delay instant gratification while few of them showed signs of instant gratification. In the present study, participant's socioeconomic status seemed to be influencing their ability to delay instant gratification. A study conducted by **Evans & English (2002),** stated that children from lower economic status have poorer ability to delay gratification. Similarly, **Lui *et al.*, 2012,** also mentioned that, people living in poverty tend to be more impulsive, enabling them to make intertemporal decisions that would only satisfy their immediate needs. And **Calarco (2018),** found that higher-income parents typically encourage their children to wait for larger rewards, fostering patience and the ability to delay gratification. In contrast, lower-income parents often seek to indulge their children whenever possible. From these studies, we can see that SES play a significant role in influencing the ability to delay gratification. Understanding these influences is crucial for fostering better self-regulation and decision-making skills in the digital age, guiding strategies to improve cognitive and social outcomes. Behavioural interventions at an early age to regulate self-control will foster in child the ability to delay gratification.

5. Author Contributions

All listed authors have significantly contributed intellectually to the work and have approved it for publication.

6. Conflict of Interest

The authors declare no conflict of interest.

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