



**St. Theresa's College, Quezon City**

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**The Effect and Relationship of Social Media Usage to the  
Emotional and Intellectual Quotient of Young Adults**

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## **ABSTRACT**

Social media plays a massive role in everyday's lives especially amidst the pandemic where it serves as a means of communication, amusement, learning, and outlet. There are numerous effects of social media in today's time, and some are detrimental to people, particularly young adults. It is significant to promulgate this study as it sheds light on how social media consumption affects life, particularly in terms of mental and emotional health. Thus, this quantitative research aims to deduce the effect of social media usage to the intellectual and emotional quotient of young adults from ages 18-24 who are living in Metro Manila. Standardized tests and questionnaires were used to determine the age range, type of job, social media usage, leisure time, work hours, intellectual quotient, and emotional quotient of the participants. Upon completion of the pre-test and post test, the researchers explained that there were minimal effects of social media on the respective intellectual and emotional quotient of the participants since the range of their tests were parallel to one another, signifying a low correlation between the two variables. Therefore, the researchers recommend further study to mitigate the possible implications of social media usage to young adults since there were a handful of participants who agreed that it had an underlying effect on them.

# CHAPTER I

## INTRODUCTION

### Background of the Study

The use of social media is a technological advancement and digital tool that rapidly grows and evolves in the 21st century. Social media is a collection of various applications and websites including Facebook, Instagram, Youtube, Facebook Messenger, Tiktok and many more. Hence, it can be used as a medium for leisure, social networking, communication, entertainment, social enhancement, promotion, information source and significantly more. This platform enables individuals to foster social communications and connections, spread social awareness, serve as an outlet for creativity and empower one's self. Despite all the advantages and satisfactions that social media brings, detrimental effects of this digital tool are inevitable. In a research conducted by Mark Griffiths, excessive screen time and social media use may be associated with psychological disorders and dependency. It is deduced in Griffiths research that people who spend more than 2 hours on Social Networking Sites or social media are more vulnerable in experiencing poor mental health along with other negative repercussions. In relation to this, according to a statistical report from Talkwalker, 52.7% of the Philippine population or an estimated 58 660 000 million people who use social media are young adults with ages ranging from 18 to 24, as of January 2021. Furthermore, it is also recorded that an average Filipino spends at least 4 hours on their phone for social media use on a daily basis. Hence, leading to repercussions that may intensely affect an individual's emotional and intellectual quotient.

Young adults have been profoundly using social media as both an outlet and as a form of communication even before the pandemic started. Thus, it is undoubtable that it impacted their lives as they progressed through their respective professions due to the abundance of social media usage. In a study conducted by Red Oak Recovery, it was concluded that 79% of young adults use social media everyday that may lead to repercussions such as addictive behavior, anxiety, and decrease in motivation; explaining the outburst of adults experiencing psychological distress during these times. Ultimately, the pandemic caused a strife in labor due to many workers being released from their work, hence, having sufficient time using their social media accounts due to other factors surrounding their situation. Social media also contributes to how one acts in their respective workplace. Research shows that 82% of employees perceive social media as a tool to improve their work relationship, and 60% think that it can support the decision-making process of the group. Although social media relays messages from a person to another, there are also several implications on how one can negatively affect the adult's mindset. According to Job Cluster, over use of social media and the internet causes an employee to lose focus, lower self-esteem, and decrease productivity which greatly affects the

organization's business. Furthermore, it was stated that people who are obsessed with social media have the tendency to depend on their self worth based on the acknowledgement they receive in the digital world. Thus, there is a greater possibility for them to compare themselves to other people they see online because they are seeking validation and fulfillment on social media.

Based on a statistical analysis of Pew Research Center, 93% of young adults have access to the online world and for over the past decade, this age group remains the most likely to go online despite having a continuous growing population on the internet. With this, it is evident that social media plays an influential role in the lives and overall well-being such as in their IQ also known as intelligence quotient and EQ or emotional quotient of young adults. The intelligence quotient is the intellectual abilities and potentials of a certain person. It is based on their cognitive skills, such as logical reasoning, problem solving, and long-term memory. Moreover, IQ reflects what a person has learned through life experiences and their education or work. According to research, having a high IQ means that one has better reasoning and problem-solving abilities compared to others who have a low to average IQ level. On the other hand, Emotional quotient or emotional intelligence is regarding how deep a person's ability to understand, apply, and manage one's emotions. Based on a study, EQ helps to build deeper and stronger relationships with others for it also reflects their communication skills and empathy towards other people.

As a result of the researchers' initial findings, further study regarding the impact of social media can help mitigate the damage that these implications may attribute to the young adult. As one ponders on the Emotional and Intellectual Quotient of a person, it is essential to broaden other factors associated with their psychological state while learning about the stressors outside social media. Researchers deduce that through proper usage of data measuring materials such as tracking logs, questionnaires and psychological health status, as it may help strengthen the study considering outside influences such as their environment, hierarchy, and status of life since only social media is regarded in this study. A plausible solution to the study circulates around the person's social media usage and screen time, lessening it may help in easing their worries and improve their overall mental well being as less toxicity can be seen when one is not focusing on other people.

## **Significance of the Study**

Social media is well utilized by young adults since people who are classified under this age range are those in their late teens and early twenties. People in this age range commonly use social media for communication and as a form of entertainment but since we are currently facing a pandemic, there have been a lot of changes especially in the aspect of education and

work, and the usage of social media has increased due to this. One of the main uses of social media is to be able to communicate with other people therefore the use of social media during this time has risen because people are only able to communicate virtually. College students and those who are working utilize social media more in this kind of set-up since classes and work are now being held online thus increasing the amount of time they use on social media. The target audience of this research topic are the young adults since they are the ones that use social media and technology the most and through this research, we would be able to find out how the amount of social media usage affects the emotional and intellectual quotient of these young adults, and what are the different effects that come with it.

Technology plays a vital role in the lives of almost everyone, particularly young adults in the 21st Century. Social media, as it continuously progresses, is a platform that is conveniently accessed by almost everyone for certain rationale and intention. It may either be used as a ground for entertainment, communication, learning, etc. Identifying the effects of using this platform to both intellectual and emotional quotient is very significant and indeed timely because of the fact that social media, no matter how helpful and convenient it is, still possesses deleterious and detrimental effects to individuals who make use of it. The research's content aims to convey that using social media both has its advantages and disadvantages. It reveals how digital platforms, no matter how helpful they may be, can affect one's intellectual and emotional quotient. Through this paper, the researcher's objective, which is to identify the different effect of social media usage to both intellectual and emotional quotient of young adults will be given further study and attention in order for the community to have a full grasp on how an individual can make use of the digital platform in a thriving and invigorating manner. Given the various findings, the researcher's expect this study to shed light and raise awareness that will elucidate how social media both have positive and negative effects in an individual's life and lifestyle. This study can further educate individuals on how social media usage can influence their lives especially on the mental and emotional aspect. Furthermore, this study can also empower individuals to discern and comprehend that thriving in the digital space is possible and that there is life and growth beyond social media. Aside from social media, we also encourage individuals to find more alternatives that will not limit them to giving their drive solely on social media per se but to also invest in finding knowledge, entertainment, purpose in life that will guarantee them growth and development. This study is timely and salient for the reason that it can broaden the knowledge of individuals on the different pros and cons of spending too much time on social media and at the same time spread awareness and empower them to do less scrolling and focus more on reality and finding different alternatives that will make them thrive, grow and foster as an individual.

## Statement of the Problem

From how we communicate, educate, and disseminate information, it is undeniable that technology has changed and shaped lives in many ways. This 21st century, having a cellphone is now a necessity and almost everyone has one as a use for entertainment, source of information, and to connect with other people which has affected their life for both better and for worse. Therefore, the researchers have arrived in studying the emotional and intellectual quotient of young adults due to the abundant rise of technology usage. According to the research entitled, *Evaluating Temperature Changes of Brain Tissue Due to Induced Heating of Cell Phone Waves* conducted by Ebrahimi, Pourabdian, et.al.

Mobile phones emit radiofrequency radiation which in high levels raises the temperature of our brain about 0.99 C° which in turn also cumulatively affects our bodies. Other researchers have also stated that prolonged radiofrequency exposure can lead to headaches and increase the risk of developing glioma which is a type of brain cancer. Not only the waves that these phones emit are harmful but also the components used in the manufacturing of the product. A variety of hazardous metals are present in our phones such as lead, mercury, nickel, arsenic, antimony, beryllium, and copper. Despite these researches, WHO (World Health Organization) stated that there is no conclusive and consistent evidence that mobile phones are damaging to one's health as there is limited research but much is still ongoing. On the other hand, even though researchers have concluded the possible dangers of mobile phones, people all around the world still view phones as something positive as it helps them in their day to day lives. It is difficult to conclude if mobile phones indeed pose health hazards as a result of research. In one study, they have studied the correlation between use of mobile phones and brain tumors by following 420 000 people over the span of 20 years but none of them have shown signs of developing brain tumors. That is why the researchers would want to be able to contribute to research regarding this topic as researches about it are still few to draw out conclusions. They want to address the long standing problem scientists and researchers face whether cell phones are harmful or not by adding experiments and data which could also be improved if results weren't of significance and are not what is expected.

Furthermore, a research entitled, *The Dangers of Social Media Posts and How It Affects Your Hiring Potential* by Pew Research Center shows that 90% of young adults are active on social media. This has an implication on their job applications because some companies accept applicants based on their performance, and social media activities; further strengthening the emotional effect of too much screen time. Young adults also have the tendency to misread, misunderstand, and misspell while using their gadgets due to the alterations that the internet has provided, such as autocorrect, which may be a factor on the intellectual quotient of the participants. Based on these findings, this research aims to search for more answers if use of mobile phones really does affect an individual. Gauging its effects through their emotional and intellectual quotient using different tests. The researchers also direct their attention to feasible

solutions on how social media usage can have a positive impact on an individual through their emotional and intellectual state.

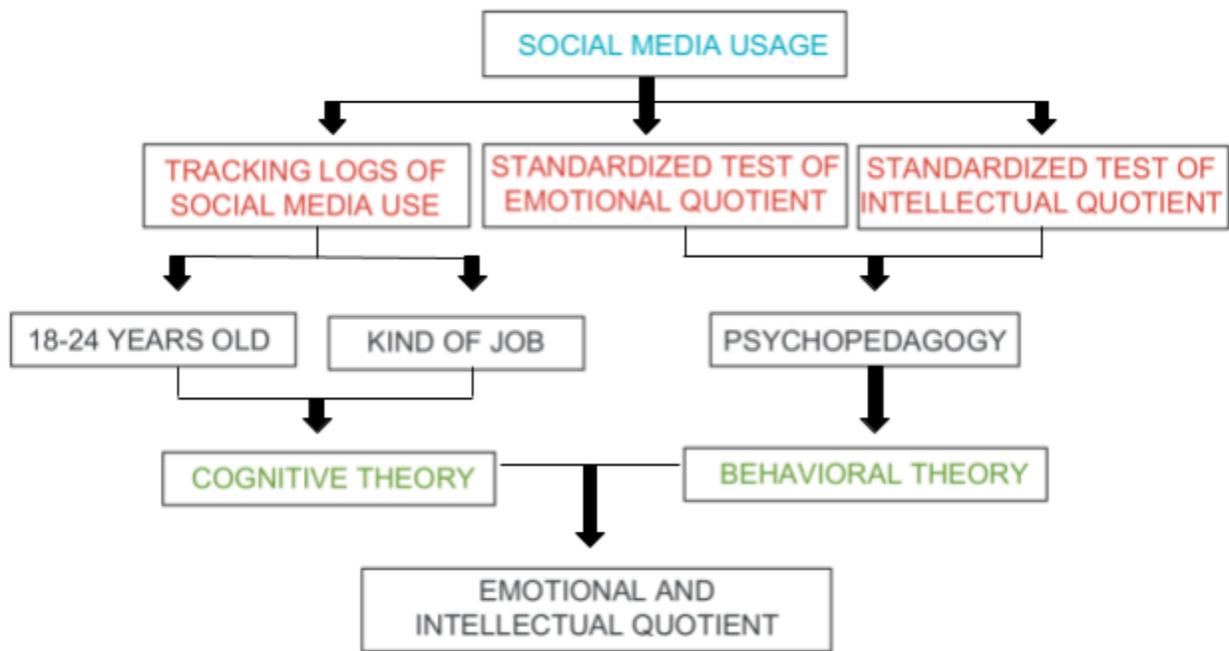
Research Questions:

1. In what ways can a person's emotional and intellectual quotient be gauged?
2. Do clinical psychologists resent or accept young adults' IQ and EQ behind their emotions?
3. What are the factors of social media that affect the emotional and intellectual quotient of young adults? And how are these things (emotional and intellectual quotient) correlated with one another?
4. Does technology affect young adults' iq and eq more in a positive way or negative way?
5. Has the use of technology during pandemic influenced young adults' eq and iq in a positive way?
6. How does social media affect young adults mentally?

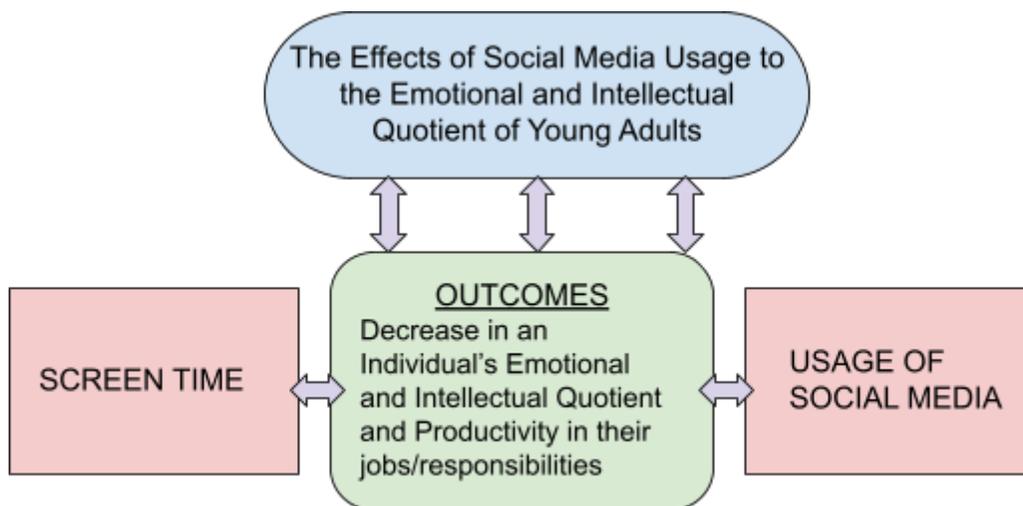
## **Scope and Delimitation**

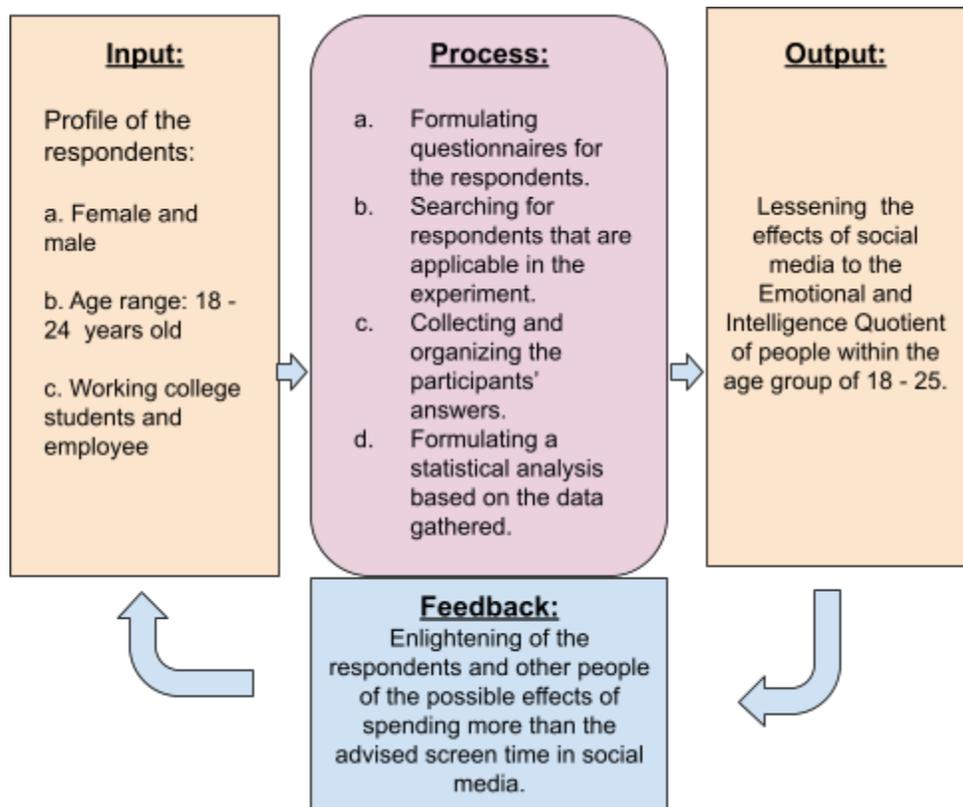
This study aims to identify the interconnectedness and effects of social media usage to the emotional and intellectual quotient of young adults. The parameters of the study will revolve around social media as the independent variable, and amount of screen time, jobs, participants (young adults of any race or gender), emotional and intellectual quotient as the dependent variables. Thus, the average amount of young adults' screen time will be recorded by the researchers in order to distinguish its effects in the emotional and intellectual quotient of young adults through standardized tests. The researcher's sample population will strictly be (1) young adults of any gender with the age ranging from 18 to 24 years old (2) must have a job/ or is employed. However, since the researchers are not professionals or experts in the field of mental health, they won't be able to provide advice and express their own opinions. Hence, the researchers' only option is to focus on each participant's response and provide additional knowledge about the subject by using reliable resources and references. Through the use of these data/ results, researchers will be able to establish and give an in-depth understanding of whether an individual's emotional and intellectual quotient will either be higher, or lower in relation to social media usage. Hence, the general intent of the study is to only determine the positive and negative consequences of social media usage (screen time) to the overall psychological quotient of a young adult. Through the use of proper data measuring materials such as tracking logs, questionnaires, and standardized emotional and intellectual tests, all yielded results will be used in determining an individual's emotional and intellectual quotient.

## Conceptual Framework



## Theoretical Framework





## Hypotheses

Null hypothesis: Social Media usage affects young adults' emotional and intellectual quotient more than their professions.

Alternative hypothesis: Social media usage does not affect young adults' emotional and intellectual quotient more than their professions.

# CHAPTER 2

## REVIEW OF RELATED LITERATURE

The researchers have compiled and reviewed these studies with the following headings:

1. *Studies on the Negative and Positive Effects of Mobile Phone Usage on One's Overall Health*
2. *Studies on the Correlation of Emotional and Intellectual Quotient*
3. *Studies on the Negative Effects of Social Media to Young Working Adults*
4. *Studies on Social Media and how it affects Young Adults' Job Performance*

### **The Negative and Positive Effects of Mobile Phone Usage on One's Overall Health**

In order for the researchers to further understand and have a clear picture of how cell phones affect humans. Below, they have compiled studies for various sources that would help in supporting the importance of their study.

Gupta et.al (2015), have conducted a study on the effects of mobile phones usage on psychological health, sleep, and academic performance in medical university students. One thousand medical students were asked to fill up questionnaires which aimed to know the pattern of usage, purpose, and average time in using their phones. They have also surveyed how it affected their sleep through descriptive questions as well as their academic performance. From the results of their survey, it showed that

- (1) the majority use their phones for communication, coordination of activities, and emergency situations
- (2) more than half of the population use their phone for more than one hour while some use it for more than three hours.
- (3) the use of mobile phones at night affected their difficulty in waking up, tiredness in waking up, decline in study habits, concentration, increase in missed and late classes.

Whilst mobile phones are practical and useful to university students. They have concluded that excessive use of it may impact their mental health, academic performance, and sleep. It is recommended that use of it may be restricted so as to reduce its effects. With this provided knowledge, it would provide support to the objective of this research as it gives evidence that excessive cell phone usage does have effects on how humans would function day by day. However, the researchers think that these surveys and questionnaires are quite unreliable in terms of gathering true data. As it came from the people themselves, there are bound to be inaccuracies in the data due to forgetfulness of the population. This idea would help the researchers in avoiding mistakes that they have made in gathering data as well as further designing our research so that it would provide reliable and accurate data from the people.

Larik et.al (2016), investigated the biological effects of phone radiation. In this study, they have surveyed 200 doctors including students. A questionnaire containing 18 questions on their perception regarding the effect of a cell phones' radiation to one's health was answered. From the results of the survey, it showed that

- (1) 98% of doctors agreed that usage of mobile phones are harmful as waves emitted by phones penetrate the human body, as the other 2% did not comment on it
- (2) 11% believed that mobile phones are dangerous to one's health, 24% disagreed while the rest (67%) doesn't know
- (3) 77% of brain tumors, 46% of male infertility, 88% of ear diseases, 43% Alzheimer's disease, 34% of Parkinson's disease, 22 of Leukemia, 74% of eye disease, and 70% of heart diseases are caused by cellphones

It has been concluded that some diseases such as Brain tumor, Heart disease, male infertility, Alzheimer's disease, Parkinson's disease and hearing function are induced by cell phones by quite a high percent. Just like the previous study, it was also recommended to reduce phone usage. Overall, this research would be beneficial as it further supports that cell phone usage affects not only how we live our lives but also affects our bodies biologically. Focusing on how 77% of brain tumors are caused by cellphones, the researchers may hypothesize that the decline in emotional and intellectual quotient may be correlated as these may be symptoms of brain tumors. With this, they would be able to recommend for future researchers to study on this if results do turn out as they hypothesized as this idea isn't part of the scope of the research. Despite the help that this research has given, they have noticed that despite the high percentage of doctors stating that cell phones contribute to the progression of various diseases, 67% of them still said that they were uncertain if phones are dangerous to one's health. Despite their conclusion that such diseases are induced by cellphones, they weren't able to explain why these data conflict with each other as it would bring confusion to those reading their paper.

Nguyen et.al (2015), examined if cell phone distractions affect cognitive flexibility. Through the use of Stroop test in which they grouped 29 people into 3 groups. The first and second groups experienced cell phone distractions while doing the test while the third did not. Heart rate, blood pressure, and galvanic skin response were recorded throughout the process. The results from the experiment showed that

- (1) There were no significant effect that cell phone distractions have in one's blood pressure
- (2) There were no significant effect that cell phone distractions have in one's galvanic response
- (3) There was an increase of heart rate only after a third text message was received so the rise in heart rate may not be caused by the cell phone distractions as there were many other distractions that were present.

It has been concluded that cell phone distractions don't affect heart rate, galvanic response, and blood pressure as the results shown were statistically insignificant. It is recommended by the researchers that adjustments in the execution of the experiment and a computerized Stroop test should be made in order to improve accuracy in data. Also, to add physiological parameters

appropriate for this study such as electroencephalogram (EEG). From the study presented, the researchers thought that they should be able to be accurate in gathering the statistical data in order to have truthful results which would help in the success of the research whether the results show the opposite from what they have hypothesized such as the study above. It also implied to the researchers that much research about cell phones' effect on human health is still for improvement to have a conclusive answer to their question which taught them that despite what outcome would be procured it would be an opportunity for further developing more research.

Based on the website [itstimetologoff.com](http://itstimetologoff.com), they are aware of the factors that can influence mental wellbeing and how people feel and the increasing number of studies that are highlighting how smartphones and modern technology can be detrimental to mental health. Hence, they are exploring how smartphones influence people without even realizing it. Thus, here are the 4 ways on how smartphones affect the overall mental being of people:

- (1) One of the biggest factors is that smartphones and the constantly-connected culture that it promotes can affect people's self-esteem. These social media platforms are ways for people to be more creative and express themselves, however most of them feel inferior and under pressure to be someone else or live a different life.
- (2) Smartphones can be the reason for people to be distracted and negatively affect their productivity because there is a huge tendency for them to constantly check their mobile phones and lose their focus.
- (3) Smartphones can have a negative impact on being engaged, mindful and focusing on present moments. The digital world is feeding everyone information they need through the screens that they carry, which results in them rarely allowing their minds to wander. Hence, this can have an effect on their creativity and connectedness in the real world.
- (4) Maintaining relationships can be challenging because of smartphones. Although modern technologies help people to be connected to others despite the distance, mobile phones are constantly tugging the attention of people from spending quality time with friends and loved ones that is important for people's wellbeing as well. It causes people to be distracted from the person-to-person conversations because some prefer talking online.

The website concludes that it is important to be mindful of the usage of mobile devices and step back from technologies from time to time. Hence, they have mentioned learning how to have digital detox to take care of people's mental wellbeing, find perspectives in life, and become more mindful of their surroundings.

The website [Gearbest.com](http://Gearbest.com) has revealed the effects of mobile phone's to the human body. The website has added how smartphones can affect people lives such as:

- (1) Cell Phones are one of the greatest sources of radiation in life and researches at Unibersidad de Granada in Spain have revealed that the short wavelength blue light emitted by mobile devices such as smartphones while charging can damage the body's

production of the melatonin, have an effect on metabolism and become a factor why some people become obese or diabetic.

- (2) Neck stripe can also be an effect because when people put their head down for a long period of time, there will be greater pressure on the neck. Hence, the longbow squeezes the muscle of the neck which causes the skin cells to age faster and deepen the neck lines.
- (3) Peritendinitis can be developed in too much usage of phones, especially those who play mobile games. They are prone to tenosynovitis where in some symptoms are sore fingers, wrists and forearms and cramps.
- (4) Ophthalmic diseases that can be caused when an individual uses their mobile phones before going to bed. Some examples of these illnesses are first, it can influence the biological clock due to the suppression of melatonin. Second, chronic strain that can have an effect on the state of chronic hyperemia and cervical spondylosis and easy pressure of the vertebral artery. Third, cervical vertebrae reverse arch that can be developed through high back-to-back TV watching, excessive usage of internet surfing and lying on mobile phones because this can drag the cervical spine that leads to decrease, straightening of the bow of the curve. Moreover, it can affect the intelligence of a person due to screen radiation and body signal radiation. Damaged skin, numbing of fingers and allergy are some of the harmful effects of mobile devices.

The website concluded by giving some tips on how to reduce the screen time and help improve the overall wellbeing. The site mentioned doing neck and shoulder exercises to help relax the neck muscles and relieve neck fatigue. Also, it added to giving themselves a break from mobile phones because this can help to eliminate eye fatigue, have a better mindset and lesser risk of developing the illnesses stated.

The website providence.org has revealed the possible side effects of too much mobile phone usage and attached ways on how to find digital balance in a person's life. The website stated that technology has completely changed people's lives because it has become easier to communicate with others, find information and purchase items. Moreover, the site has added that according to a 2018 survey by Hopelab and Well Being Trust, teens to young adults had mixed feelings about the usage of social media because some participants who had symptoms of moderate to severe depressions had mentioned that they were more likely to feel left out and think that other people are having better lives than they are. Although scientists' studies have not yet found the concrete and accurate relationships between digital devices and depression, research has shown that it can have an impact on people's sleep and rest. Phones can cause sleep problems because of the blue light that they create. This blue light has the possibility to suppress melatonin which can impact the sleeping schedule of an individual. Hence, this can have a greater possibility for poor mental health. With this, providence.org has included ways on how to take a break from mobile devices.

- (1) Limit the phone time by setting a goal on how long an individual should use their smartphones.
- (2) Set boundaries when it comes to the usage of smartphones

- (3) Use the cellular phones for good
- (4) Connect with supportive and trustworthy groups. Based on a podcast by Dr. Henderson, some people find groups who can provide them support when they are facing mental health challenges.
- (5) Use applications that can help with relaxation and not stress. Some examples of these are meditation apps, relaxing games and youtube videos about an individual's hobbies or interests.

The website had mentioned that mobile devices do not have to be an enemy. For as long as people are smart enough on how to properly use these modern technologies, then it can help individuals to become connected with one another and more grounded.

### **Correlation of Emotional and Intellectual Quotient**

Emotional Quotient refers to the ability to maintain one's feelings, emotions, and how to manage it while Intellectual Quotient focuses on the measurement of one's intellectual capability. In inclusion, to further understand the implications of the Emotional and Intellectual Quotient to the Young Adults, researchers should expound their knowledge on the connection, nature, and difference to help deepen the background of the research.

Bulborea et.al (2012), investigated the importance of Emotional Quotient and Intellectual Quotient by comparing them through an experimental study. They made use of the Raven Progressive Matrices which allows the participant to operate simultaneously on different levels while measuring their capacity to maintain new information. Subsequently, they also used the Diagnostic Test of Emotional Intelligence (Wood, Tolley) to understand each participant's self-adjustment, self-consciousness, empathy, and social ability. The questionnaire included 6 situations with 3 choices each (A, B, C) to ensure precision of answers. Through this they were able to infer that

- (1) Of the 60 participants, 5 men and 55 women, 66.7% obtained a high score at self-consciousness which indicates that they are generally understanding of their feelings, impulses, and emotions.
- (2) 73.3% scored a high score in the empathic index which implies that they are understanding of other people's needs.
- (3) The frequency distribution of after the Raven Progressive Matrices show that 45% has superior intelligence, 26.7% over media intelligence, 16.7% good media intelligence, and 11.7% has low media intelligence based on their Intellectual Quotient.
- (4) Determining the correlation between IQ and EQ, it is noted that most participants who scored high on their Intellectual Quotient (Raven Progressive Matrices) also scored high on 'self-consciousness, empathy, and self-adjustment'

The results yielded showed that there is a correlation between Intellectual and Emotional Quotient since they demonstrated interdependency on one another. As concluded, the participants showed that humans should identify the factors that help them reach success, control their emotional energies in stressful conditions, and be sensitive towards other people.

Through this, the researchers are informed about the underlying connection between IQ and EQ which will help them elaborate their findings since they've obtained a background on other studies with measuring tools such as pre-prepared tests to back their research. Emotions, feelings, and impulses are also regarded in this study which shows great importance of one's well being. Despite this, the researchers suggest that covariates for genders should be taken since there were only 5 male respondents, as opposed to the 55 women in order to get a more balanced data. The conclusion seemed to lean on the Emotional Quotient more rather than giving an equal stance about the Intellectual Quotient, and there were no recommendations about future studies circulating this topic. With this, it may affect the data given since there were no remarks about IQ, thus making it seem that EQ is the entire focus of the study. Nonetheless, the researchers can learn from this by putting both variables and recommending possible alterations for the future studies.

Das et.al (2015), showed the relation between Emotional and Intellectual Quotient through the use of an EQ test developed by doctors Chadha and Singh, and IQ test, Wechsler Adult Intelligence Scale by clinical psychologist David Wechsler. 50 medical interns, 34 male and 16 females, were asked to participate in this study to find the difference between genders with respect to their EQ, IQ, and academic achievements. From the results yielded, they can infer that

- (1) No significant differences were found between male participants EQ and IQ test results, with mean samples of the EQ being 344 and IQ 101.
- (2) Females' results also showed that the correlation is not evident and statistically insignificant.
- (3) Females answered better than males in the IQ part which refutes other authors reporting that males have a higher advantage in IQ tests.
- (4) Academic achievements show that females outperform males. The finding is consistent with several reports of males' grades from previous years.

They concluded that the results yielded weren't statistically significant since there was no correlation between the two, disproving other authors' findings. On the other hand, they stated that since this research was an institution based study where only interns from one specific school were subjected to the tests, this does not apply to the general population due to the limited sample size. They recommended that since their study did not find a correlation, further research involving a massive and varied population to ensure diversity in data since there may be other factors involved in influencing the IQ and academic achievements of the interns. Through this study, the researchers are aware that though there are numerous reports of the relationship between the two quotients, there is still a possibility that no correlation can be located. As a result, researchers will be able to identify their participants and their main focus instead of bombarding themselves with various variables to be concerned with. Subsequently, usage of various tests such as the Wechsler Adult Intelligence Scale can help researchers easily track, expound, and understand the results yielded on the study.

Fernández-Berrocal et.al (2015), examined the role of intelligence quotient and emotional intelligence in cognitive processes of an individual. The study aims to find the relationship of these 2 variables with a person's cognitive control abilities using Kaufman Brief Intelligence Test (KBIT), Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT), Schutte Emotional Intelligence Scale (SEIS) and Numerical Stroop Task in order to yield the following interpretations, results and conclusions:

- (1) The Varimax rotation of the Principal Component Factor Analysis (PCA) was used in order to analyze the association of emotional intelligence and impulsivity along with intellectual quotient and interference. Using this analysis, 2 components were found namely, the cognitive and emotional components.
- (2) COGNITIVE COMPONENT: The Vocabulary (learned knowledge) and Matrices (abstract reasoning) scores from the Kaufman Brief Intelligence Test (KBIT) and response time interference attained a 33.36% variance with rotated component loadings of 0.79 for Vocabulary, 0.77 for Matrices and -0.61 for reaction time interference.
- (3) EMOTIONAL COMPONENT: On the other hand, the Emotional Intelligence Managing Emotions and impulsivity index also attained high scores due to the 24.74% variance with rotated loadings of 0.76 for Managing Emotions and -0.80 for impulsivity.

Through these multiple scales, questionnaires and tests, results show that Intellectual Quotient and interference suppression index are negatively correlated with each other. At the same time, as measured by the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT), Managing Emotions dimensions of Emotional Intelligence is also negatively correlated with impulsivity index. Thus, suggesting that intellectual quotient and emotional intelligence are significant in the cognitive control and processes of an individual. People with higher emotional intelligence have the capability to perform better in terms of cognitive tasks because the MSCEIT proves that it generates better mood regulation and at the same time, develops verbal and nonverbal intelligence.

Rodriguez et al (2020), stated that the aim of the study was to assess the effect and influence of smartphones with emotional, cognitive, and educational dimensions in university students. The researchers have gathered 144 university students between 19 and 27 years old and studying psychology and education at the University of Granada who participated in their assessment. In order to conduct the test, the following assessments were administered: smartphone addiction (TDM), general intelligence (Wonderlic), emotional intelligence (TMSS-24), motivation (MAPE-3), creativity (CREA test), and attitudes toward competencies. Based on these analysis, they were able to determine the importance of using these assessments for the results and conclusions due to the fact that:

- (1) The Test of Smartphone Dependence (TDM) by Choliz and Villanueva aimed at assessing a person's dependence on mobile devices. It consists of four factor analysis and the first is withdrawal which depicts an intense anxiety when it is not possible to use a smartphone. Second, abuse and difficulty in controlling impulse. Third, problems due to excessive use and lastly, tolerance which is related to the aspects of withdrawal. The results in the test have shown that

- (2) The Perception of the Utility of Smartphone Use for the Acquisition of Educational Competencies was exhibited through 10 questionnaires about smartphone use.
- (3) The Wonderlic Test which assesses the general cognitive ability of the respondents using an individual and group questionnaire. It measures general intelligence through mathematics, vocabulary, reasoning, speed and perceived accuracy tests.
- (4) MAPE-3 Questionnaire is used to test the motivation of the participants. This is composed of three dimensions: the extrinsic motivation, motivation toward the task, and facilitating anxiety for performance. These are further divided into sub-dimension to deepen the examination of the respondents.
- (5) The Trait Meta-Mood Scale (TMMS-24) which measures the Emotional Intelligence of the participants, how a person experiences and expresses emotions correctly, the extent to which a person accurately understands their feelings and how a person regulates their emotions.
- (6) CREA Test of Creative Intelligence is a quick test that consists of three types (A,B,C) depending on the specific age ranges. This assessment measures creativity through questions related to a certain picture and gives limited time to answer.

The researchers have concluded that there is a direct relationship between addiction symptoms caused by excessive use of smartphones through the different tests that were conducted. Moreover, correlations were discovered between too much use of smartphones and anxiety and extrinsic motivation when it comes to learning. It has also been observed that there is an inverse relationship between smartphone addiction and emotional intelligence when it comes to clarity of feelings. Therefore, this study is relevant given that smartphones have been part of the lives of people. This can raise awareness on the factors that young adults should give more attention to, especially when it comes to the field of education. Lastly, it has been stated that this can give ideas on how to update the teaching strategies in today's society, where information and technologies cause big impacts in people's lives.

### **The Negative Effects of Social Media to Young Working Adults**

Social media usage is prevalent as it serves as a means of communication, updates, and entertainment during this pandemic. Despite the numerous useful implications of social media, there are underlying problems that result in negative effects towards young adults. The studies under this heading manifests the adverse nature and reason as to why young working adults are severely affected.

Gao et.al (2020), conducted a study about social media exposure and its effects to one's mental health during the pandemic. They released a questionnaire measuring the respondents' time on social media where 4872 young adults from 31 provinces in China answered. They made use of a poll where the choices are, 'less, sometimes, frequently' to get a precise answer. Covariates which include gender, age, educational level, and self-rated health were also studied to obtain a variety of results and to compare the answers taken. Through the questionnaire, they found that:

- (1) Of the 4872 participants, 48.3% answered that due to the pandemic, the parallelism between their social media use and depression grew as they spent more time analysing what they see on social media. The self-rated health portion can be accompanied by the increased odds of depression since many young adults have been dealing with stress even before the pandemic started.
- (2) Prevalence of anxiety was 22.6% due to the abundance of cases in China, and constant fear of being infected are high. Social media exposure also played a part since they became 'wary, distressed, and scared' of their situation after reading updates about the COVID outbreak.
- (3) Combination of depression, anxiety, and social media exposure's prevalence was 19.4% with the participants noting that they felt more anxious and depressed due to their social media use.

Their findings showed that there is a high prevalence of mental health problems associated with frequent usage of social media during this pandemic. This implies that though social media is useful, it may also affect one's mental and overall well being. The researchers also suggest more mental health services provided by the government to reduce the amount of adults encountering these problems. This study significantly contributes to the researchers' methodological data and research design since it showed great usage of covariates that may help in defining the participants' responses better while acknowledging other factors surrounding their choice. The amount of respondents and their location signifies that multiple people feel the same sentiment as others since mostly all the data includes the majority of votes. Thus, showing that the study conducted is reliable since more than a thousand participants shared their answers.

Robinson (2021), stated that excessive use of social media can contribute to the feeling of anxiety, depression, isolation, and other mental health issues. Multiple studies have discovered that there is a connection between social media and the increased risk of several mental health issues, and the following are some of the negative aspects of social media:

- (1) Inadequacy about your life or appearance. Not everything you see on social media is real, some photos can be manipulated or edited for it to look better, but despite that fact those photos that you see can still affect one's perspective about themselves and can develop insecurities.
- (2) Fear of missing out. This can trigger anxiety and has an effect on one's self-esteem due to the fact that they don't want to miss out on anything. This would make people use social media more often since they want to be updated all the time.
- (3) Isolation. According to a study at the University of Pennsylvania, the more one uses social media increases the feelings of loneliness.
- (4) Depression and Anxiety. The more one uses social media the risk of developing mood disorders, such as anxiety and depression, increases.
- (5) Cyberbullying. Social media platforms can be used in order to spread lies, rumors, and abuse that would greatly affect the one reading it.

(6) Self-absorption. Sharing too much on social media can detach you from reality, and can create unhealthy self-centeredness.

It is also stated here that the excessive use of social media could be masking some underlying problems that are most likely related to one's mental health.

Hemsley et.al (2018), used different articles in order to showcase the different 'evils' social media has. The first article was entitled, "The Clickwrap: A Political Economic Mechanism for Manufacturing Consent on Social Media ", it is written by Obar and Oeldorf-Hirsch. The authors conducted research using qualitative survey data in order to assess the participants' interactions with consent materials. The authors show that clickwraps tend to divert attention away from the policies related to privacy and reputation protection by suggesting that consent materials are unimportant. Social media platforms may use clickwraps in order to discourage the use of the consent process and instead would manipulate users into agreements that provide economic advantage to companies. The second article is written by Introne et.al and is entitled, "How People Weave Online Information Into Pseudoknowledge," this article talks about the spread of misinformation and how false narratives are constructed. The authors used the term 'pseudoknowledge' in order to describe the false narratives that are made. Lastly, the article entitled, "Refugee or Migrant Crisis? Labels, Perceived Agency, and Sentiment Polarity in Online Discussions," by Lee and Nerghes talks analyzes how the use of labels on social media has an impact on the public opinion, changes the perspective of the people, and dictates how people are seen.

Stegner (2020), stated that the negative effects of social media are both physical and mental, and the following are the seven negative effects of social media on people and its users:

- (1) Depression and Anxiety. Spending too much time on social media could affect one's mood, and it is said that those who use social media more are most likely to have poor mental health, including symptoms of anxiety and depression.
- (2) Cyberbullying. People can bully others online - anonymously or not. Has a great effect on one's mental health for it leaves deep mental scars on those who are bullied. Doesn't only affect children, but adults as well.
- (3) Fear of Missing Out. A form of anxiety that would make someone anxious if they do not check social media.
- (4) Unrealistic Expectations. Forms unrealistic expectations of life, and other factors. What we see on social media isn't always true, most social media sites lack online authenticity.
- (5) Negative Body Image. Because of society's standards, we could see on social media how 'perfect' is supposed to look like, thus making people conscious about their appearance.
- (6) Unhealthy Sleep Patterns. Spending too much time on social media can lead to poor sleep.
- (7) General Addiction. If one gets addicted to social media, it would make them check it all the time.

## **Studies on Social Media and how it Affects Young Adults' Job Performance**

Social media is a pervasive technological tool that continuously develops as part of a digital revolution. Due to this, social media's influence becomes extensive because it enables a society to effectively communicate with one another, disseminate information and engage with the available resources provided. However, multiple studies under this heading provides information on how the usage of social media, may it be inadequate or excessive, considerably affects the job performance of young adults in their workplace.

Çetinkaya et.al (2018), made a study that shows the effect of social media usage on an individual's Job performance. Its aim was to identify the relationship between the use of social media and employee job performance in the service providing sector. In today's competitive and constantly evolving industry, social media has become an essential for every corporation because it can be a tool to better understand a person's needs and demands. Through their study, they were able to come up with the following conclusion and recommendations:

- (1) Organizations or businesses that make use of social media in the workplace can enhance and improve the job performance of employees in terms of time management. Contextual performance, etc.
- (2) Social media's usefulness aspect is strongly correlated with an employee's job performance and contributes to an employee's efficiency in doing her tasks as well.
- (3) Since technology is something that everyone makes use of, employees were aware of the benefits of networking technology and made use of it in order to improve their job.
- (4) Lastly, the study also suggested that different managements should organize various training programs for their employees in order to maximize the use of social media for organizational purposes in the workplace.

Through the research method they used (questionnaires and demographics) and through Confirmatory Factor Analysis (CFA) which is a 'hypothesized model to forecast a population covariance matrix that is compared with the observed covariance matrix', the researchers were able to show the correlation of social media usage to the job performance of an individual. To summarize, Social Media made accessing information, networking, and collaboration more accessible hence, results in a more effective job performance of employees. Therefore, organizations should expand the use of social media in their business and integrate it with the different aspects and processes that take place in their business.

Wamuyu (2020), conducted a research that explores the different aspects of social media in terms of its excessive usage and consumption based on a comprehensive behavioral and computational approach. One of the concepts presented in the research analyzes the impact of Social Networking Sites (SNS) or social media usage with an individual's overall work

performance through the use of empirical research through the means of multiple-case study . Thus, semi-constructed interviews were composed in order to observe 15 employees from 8 Tunisian firms so that every individual's productivity and work performance are analyzed based on their social media usage. Using the Nvivo 10 software, results were analyzed and recorded which identified the 3 types of effects of social media usage in their work performance. The 3 types of effects are as follows: positive, negative and null. Hence, the research deduced that:

- (1) Excessive usage of social media may lead to reduced productivity in an individual's workplace due to "cyberslacking" or "cyberloafing" because social media can serve as a distraction that may hinder them from doing their occupational duties. It yielded a result of 0.25 to 2.00 distribution wherein social media usage embodies a convergent validity with self-reported performance in work.
- (2) A decline in job satisfaction also serves as one of the repercussions of excessive social media usage since it impedes a person's work performance since cognitive-emotional preoccupation and cognitive-behavioral control yielded a 1.18 (3.76 mean) and 1.12 (3.77 mean) standard deviation respectively.

Based on the overall findings of Wamuyu's study, it can be distinguished that social media usage can be correlated to an individual's work progress and performance to a minimal extent. Hence, the reason why the 3 types called: positive, negative and null effects of social media usage with work performance are present.

Kumar et.al (2018), conducted a study that measures the impact of social media usage to work-life balance. Work-life balance refers to the concept of balancing a job and spending time with loved ones. It is characterized as the division of one's time between personal and professional pursuits without it interfering with one another. Thus, through various conceptual design, research model, analysis and findings, the study can infer that:

- (1) Work-life balance is associated with social media usage in both personal and professional lives, with social media usage being more associated with professional life since it yielded a result of 0.390201.
- (2) Work-life balance has a positive influence (0.486496) on professional life social media usage for men, while personal life social media usage has a greater influence (0.223017) on work-life balance for women.

Their study was able to yield results that shows positive correlation between work-life balance and usage of social media. It is also discovered how social media usage in professional life has more impact on work-life balance due to pre-occupation (unproductive behaviour) with social media in the workplace compared to other productive variables such as task-oriented social media behaviour or relationship building social media behaviour.

Carlson et.al (2016), conducted a research on the dual effects of social media in the workplace. The use of social media in the workplace may contribute to both productive (task-oriented and relationship-building) and unproductive (deviance) behavior at work. The study examines the impact of social media on these organizational practices, focusing on channel expansion concepts. The study was able to conclude that the intensity of Social media usage contributes to

the positive behaviors of task-oriented and relationship-building behaviors however, it contributed most strongly to the negative behavior of social media deviance (hypothesis test).

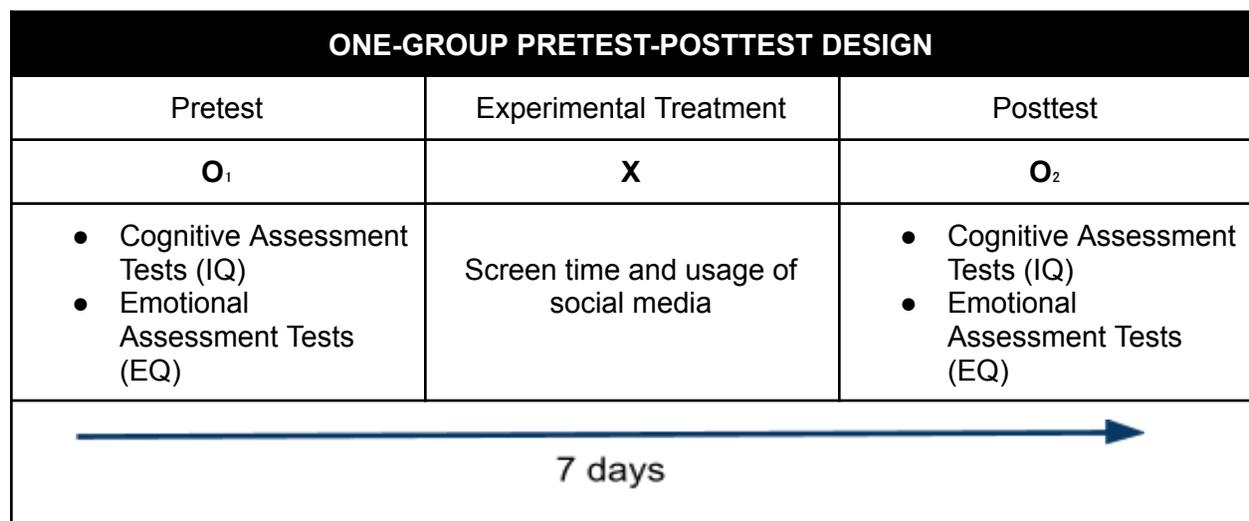
Social media usage is established in today's competitive environment, and it seems to be on a strong growth trajectory among all forms of employment. As new technologies emerge, social media's potential to become a more comprehensive and widely used communication medium will continuously expand. Hence, improving one's understanding of how corporations utilize these technologies for the advantage of individual users, groups, teams, and ultimately organizational productivity while mitigating against potential abuses will be a significant issue for the workplace of the future.

# Chapter 3

## Methodology

### Research Design

One-Group Pretest-Posttest and Correlational research design will be utilized as the method of researchers to obtain data and observations. It contributes in attaining greater knowledge and understanding the effects of social media in the emotional and intellectual quotient of young adults. In addition, it has the capacity to compare the state of young adults' (experimental group) emotional and intellectual quotients before and after the experiment. In utilizing this research design, the diagrams will be the following: the pretest (**O<sub>1</sub>**) will include cognitive and emotional assessment tests to be answered, the experimental treatment (**X**) will be the screen time and usage of social media, and the posttest (**O<sub>2</sub>**) will also include cognitive and emotional assessment tests to be answered. Thus, the research design will not include any controlled group but instead, it will only have 30 participants who will be the subjects for the experimental group for the whole duration of the experimentation. As the One-Group Pretest-Posttest design is utilized, the researchers will have the opportunity to observe and compare the effects of social media to the emotional and intellectual quotients of young adults as pretest and posttest results are acquired.



### Population and Sample

#### Research Locale

There are 111,460,341 million Filipinos as of October 2021 with Metro Manila comprising 17 cities and municipalities that has an overall population of 12.8 million (World Population Review, 2021). 8.8 million of these residents have ages ranging from 15-64 years old (City Population Census, 2015). Based on the statistics provided, the researchers focused on Metro Manila as the location and origins of participants since it inhabits many young adults and it has close proximity to the researchers' respective locations, which will make the data more reliable. The demographics shows that there will be at least 30 and at most 40 combined male and female young adults, possibly working students, part-time, or working full time with ages ranging from 18-24 years old living in Metro Manila. The number of participants and demographics are

limited due to the close monitoring of data and results for both pre-test and post-test which includes the intellectual quotient, emotional quotient, and screen time. The setting will take place online due to the COVID-19 restrictions and government's strict implementations on gatherings, thus, the researchers will provide a questionnaire to be answered by the participants.

## **Sampling Method**

The sampling method that the researchers would use is the non-probability sampling method. The non-probability sampling method involves non-random selection and is based on specific criteria that would easily help us to collect data. The type of non-probability sampling method that would be used is the convenience sampling, which would include respondents that are accessible to us researchers. We would be sending out surveys to those who fit the specific criteria that is imposed in our research. The specific criteria that is imposed in this research are the age which ranges from 18 to 24 and if they are working part time or full time, and should be residing in Metro Manila for more accurate data.

Non-probability sampling is the most convenient sampling method to use in our study because we would only focus on a specific group of respondents which are young adults who are exposed to and are using social media.

## **Instrumentation**

### **I. Formulation**

Given the online set-up wherein the researchers will have difficulty in conducting an actual, face-to-face, survey due to the pandemic, The researchers decided to utilize a reliable web application, also known as the google form to gather all the needed information from the survey. The group includes multiple types of questions and is composed of the one group pre and post tests.

In order to qualify for the researcher's survey one must possess all of the following (1) must be 18-24 years old, (2) must have a job may it be part-time, full-time, or working student, (3) must be using social media and lastly, (4) must be willing to participate in the research process and agreed to terms and conditions in accordance to the Data Privacy Act. The group made use of the research design which is a One-Group Pretest-Posttest in order to identify if there is a correlation between social media exposure and Emotional and Intellectual Quotient.

In formulating the questions that will be answered in the survey, the group made sure that every question posted will have a meaningful contribution to the interpretation of data and the overall result of the research. The group first made a consent form in order to ask the participants if they are willing to participate in the research and to also comply with the Data Privacy Act of 2012. Second, after a participant gives their consent to the researchers, they will

now give a randomized letter or code to the participant in order to ensure their anonymity. Third, the participants will answer basic questions such as their age, type of job, how many days and hours they work in a week, what are the social media platforms they use, how much time do they spend on these platforms and, does these platforms affect their mood in a positive or negative way. These questions are mostly multiple choice and only some require a very short answer. The group will then ask for a screenshot of the participant's weekly screen time, daily average screen time for the week, and total screen time for the week. After which, an EQ and IQ Test will be taken by the participant for the pre test and will then upload a picture of the result. Lastly, the researcher's will ask the participants if there are any recent happenings in Social Media (positive or negative) that affected them emotionally or mentally during the week's experimentation.

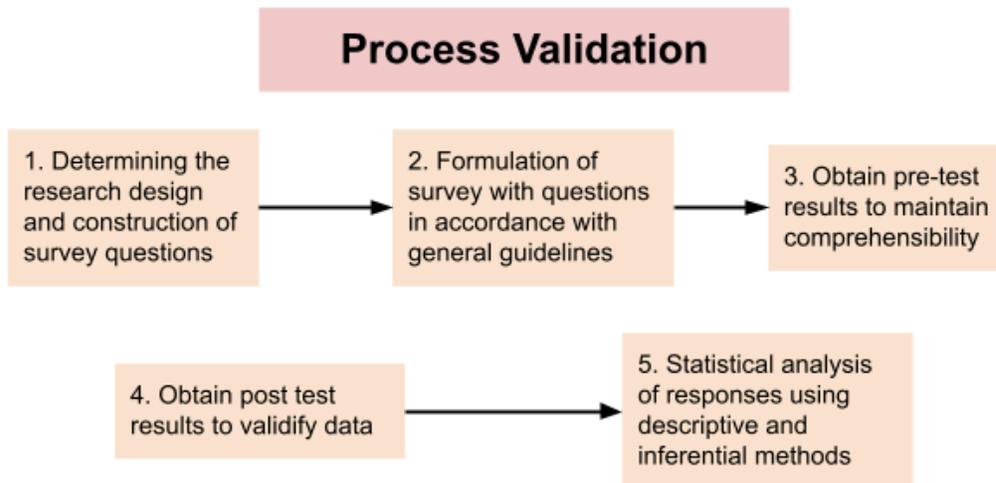
The participant's screen time, emotional quotient result, and intellectual quotient result, are the variables that the researchers will use in order to identify if there is any relationship between these variables by using the 4 Statistical methods namely, Multifactors emotional intelligence scale or MEIS, T-test, Pearson correlation coefficient and, Regression line coefficients, that will be further explained below. The posttest will then gather data re: participant's screen time, eq and iq result and after a week of observation, the participants will then again answer an EQ and IQ test in order for the researchers to compare the results of the data that will be gathered and infer if there are any relationship between the variables namely, screen time and Emotional and Intellectual Quotient.

## II. Table of Specifications

RESEARCH QUESTION	VARIABLES	TYPE OF DATA	QUESTIONNAIRE (*see appendix A for the survey questionnaire)	STATISTICS
In what ways can a person's emotional and intellectual quotient be gauged?	1.1 Emotional Quotient	Interval/Ratio Data	Q10	Multifactors emotional intelligence scale or MEIS
	1.2 Intellectual Quotient			
What are the factors of social media that affect the emotional and intellectual quotient of young adults? And how are these things (emotional and intellectual	1.1 Emotional Quotient	Interval/Ratio Data	Q6 - Q9	T-test
			Q10	Pearson correlation coefficient (2 variables: emotional and intellectual quotient and factor of social

quotient) correlated with one another?				media that affects it)
Does technology affect young adults' iq and eq more in a positive way or negative way?	1.1 Emotional Quotient	Interval/Ratio Data	Q10	T-test Likert's Scale
	1.2 Intellectual Quotient		Q11 & Q13	
Has the use of technology during pandemic influenced young adults' eq and iq in a positive way?	1.1 Emotional Quotient	Interval/Ratio data	Q10	T-test
	1.2 Intellectual Quotient			T-test
	1.3 Screen Time			Regression line coefficient (2 variables: EQ/IQ and screen time)
How does social media affect young adults mentally?	1.1 Young adult's productivity	Interval/Ratio data	Q4	Pearson correlation coefficient (2 variables: work hours in a day & screen time of games and entertainment in a day)  Likert's scale
	1.2 Screen Time (Games and Entertainment )		Q6, Q7, Q13	

## Validity



The researchers conducted the survey through the use of questionnaires that would be answered by participants who are applicable in the requirements. In this research, the credibility of the questions are important and crucial because it would determine whether social media usage actually has a factor on an individual's mental health. Hence, the group gave their utmost effort to find the valid and reliable sources for the conduction of the survey.

The researchers discovered standardized tests that are frequently utilized online by psychologists. The survey includes different questions to further analyze the effects of social media and participants are being asked to take screenshots of the result of their one week analysis of screen time. In line with this, the validity of the survey could also be proven through the built-in system in the respondents' cellular devices which would help the group track the exact amount of screen time. In the formulation, it was stated that the instruments that were used in the survey are the 4 Statistical methods which are Multifactors emotional intelligence scale or MEIS, T-test, Pearson correlation coefficient and Regression line coefficients. All of these could further improve the validity of the test since these are used and tested by psychologists for years. Aside from this, the group would also conduct a post test to the participants to analyze whether there are any improvements or changes in their IQ and EQ tests and a week of screen time observation.

## **Reliability**

The researchers deemed the questionnaire to be reliable and exact since it has been tested for 5 times by the researchers before submitting it to their research adviser. After which, it was run down 3 more times before forwarding it to the participants to ensure that the survey is working efficiently. The pilot testing accurately depicted the researchers' goal to obtain consistent results to be yielded and studied.

The data is accurately reliable since it follows Likert's model in asking questions for the survey, there were also sufficient options for the participants to insert screenshots of their screen time, IQ, and EQ tests to guarantee that the data obtained are factual. All throughout the survey, the researchers utilized multiple choice test questions so that the participants will have the opportunity to accurately choose their answers. Moreover, closed questions are utilized by the researchers in their survey because there are only 2 possible answers: yes or no. Even though the survey included "others" as an option and the participants need to type in their answers, the questions that they need to answer are only limited to identifying the social media used, duration of work in a day and projected screen time. Thus, ensuring that all the data collected will be less likely erroneous and invalid.

## **Data Collection Techniques**

The Data Collection Techniques are based on the Data Privacy Act stipulated on the first page of the survey. The participants have the liberty to accept or reject the terms and conditions of the researchers with there being two options to click on. To comply with the Data Privacy Act

(DPA) of 2012 and its Implementing Rules and Regulations (IRR), the researchers assured the participants that their personal data will be handled accordingly and their anonymity will be protected. As such, the researchers introduced themselves and gave their email addresses to the participants for formality, confidentiality, and contact, should there be queries. The consent form also included the duration of the handling of data as every personal data will be deleted once the data collection, analysis, and results are discussed thoroughly after the study. Moreover, the participants are given code letters by the researchers to ensure their anonymity all throughout and they are also given transcripts of their answers automatically after they submit the survey to assure them of the data obtained.

The researchers provided a table below wherein it follows the format and numeration of the questions in the survey. Based on the information and data given by the participants, the table will identify whether it is deemed valid or invalid.

<b>DATA TO BE COLLECTED</b>	<b>VALID</b>	<b>INVALID</b>
Age range	$18 \geq x \leq 24$ 18-24 years old	$x < 18$ ; $x > 24$ Below 18 years old & above 24 years old
# of working days (in a week)	1-7 days	No working day & more than 7 days
Duration of work hours	1-12 hours	More than 12 hours
Social media used	All social media platforms are VALID	
Average time in using social media	3 hours and above	Less than 3 hours
Effect of social media platforms to mood	All data collected are VALID (used Likert's scale)	
Daily average screen time	3 hours and above	Less than 3 hours
Total screen time for the week	20 - 168 hours	Less than 20 hours
Emotional quotient test results	All are VALID	
Intellectual quotient test results	All are VALID	
Social media occurrences that affected the participant	All are VALID	
Effect of social media mentally	All are VALID	

## **Elaborate Procedure of Data gathering**

The method of data gathering that is going to be used in this research, is a planned survey through google forms for the duration of the experiment. The participants will be asked specific questions in relation to the specific criteria that is imposed in this research, such as the age and if they are working part time or full time and the amount of time and days they work, and other questions that are related to the use of social media. The respondents are also required to answer an IQ and EQ test by psychologists that can be found online to measure their respective IQ and EQ. Then, they will undergo a week of using social media, they may choose to record their screen time during these times, after which they will answer an IQ and EQ test again.

## **Statistical Methods**

The following statistical methods would be used to answer the research questions:

### ***Multifactors emotional intelligence scale or MEIS***

The Multifactors emotional intelligence scale or MEIS will be used in order to come up with a result on the participant's emotional and intellectual quotient. This test will be used to measure the participant's Emotional Quotient (EQ) and Intellectual Quotient (IQ) in which will be used for the group's pretest and posttest. The test examines the participant's capacity to recognize, use, interpret, and manage emotions through a sequence of questions. The Multifactors emotional intelligence scale measures the participants ability to respond to social tasks, read facial expressions, and handle emotional difficulties using questions based on real-life scenarios in order to come up with an EQ and IQ result. Through this test, the researchers will be able to compare the EQ and IQ results of the participants in the pretest and posttest and relate it to other variables used in the experiment.

There are four common assumptions in psychological testing and these are the following; first is that people vary when it comes to important traits, second, these attributes may be quantified, third, the traits are reasonably stable or constant, and lastly, trait evaluations are related to real behaviours or such. Psychological tests like MEIS are reliable however, there can still be a small chance of inaccuracy or miscalculations.

### ***T-test***

The T-test is the type of statistic that will be utilized in the research to determine and compare whether there are any differences in the groups. Moreover, it would help in the data that are being recorded as the outcome, and it would follow a normal distribution. This T-test is also applied as a hypothesis testing tool, that allows the researchers to test the assumption that could be applied to determine the population of the topic. Also, the t-distribution values could determine the statistical significance of the test and determine the degrees of freedom. Through this, the researchers would be able to further examine and analyze the 2 variables that are

present in the research: Emotional and Intellectual Quotient and the effects of social media on the participants.

The common assumptions of the researchers in the T-test are about the scale of measurement, random sampling, normality of data distribution, adequacy of sample and equality of variance in standard deviation. First, for the scale of measurement, this will be used to apply to the gathered data the ordinal scale. Second, the random sampling could help the group in the collection of results that are randomly selected in the overall population. Third, the normality of data distribution that could help in analyzing the level of probability for acceptance. Fourth, the adequacy of the sample will be utilized to the distribution of the large sample size to the normal bell-shaped curve. Lastly, the equality of variance is used when comparing the standard deviations of samples.

In the group's questionnaires, the T-test will be used in questions 6 to 13. For questions 6 - 9, this would help in determining the factors of social media that affect the emotional quotients of the respondents. On the other hand, T-test will help the researchers for questions 10 - 13 to examine whether technology has a positive or negative effect on young adults' Intellectual Quotient and Emotional Quotient.

### ***Regression line coefficient***

As the Regression line coefficient was designed in obtaining the relationship between two variables as well as in allowing researchers to predict results of much greater values in the variable. The researchers have opted to utilize this with two of their variables which are Emotional/Intellectual Quotient and Screen Time. From this method, they would be able to determine if the variables are directly or inversely proportional to each other which would help them answer their research question, "Has the use of technology during the pandemic influenced Young Adults' in a positive way?".

From the online article titled, "Four Assumptions of Linear Regression" from [statology.org](http://statology.org), the researchers would also base the assumptions of linearity, Independence, Normality, and Homoscedasticity. Linearity assumes that there is a linear relationship between the two variables. Whereas, Independence assumes that there is no relation between the variables. Normality in which residual errors are normally distributed and Homoscedasticity assumes that residuals have a constant variance at every level of X.

### ***Pearson correlation coefficient***

Despite some similarities of Pearson correlation and Linear regression, the researchers would utilize both of them to answer different research questions as we believe that it would produce results that are more appropriate for certain questions. In the research question, "How does social media affect young adults mentally", the researchers have identified the two variables of work hours in a day & screen time of games and entertainment in a day. As they

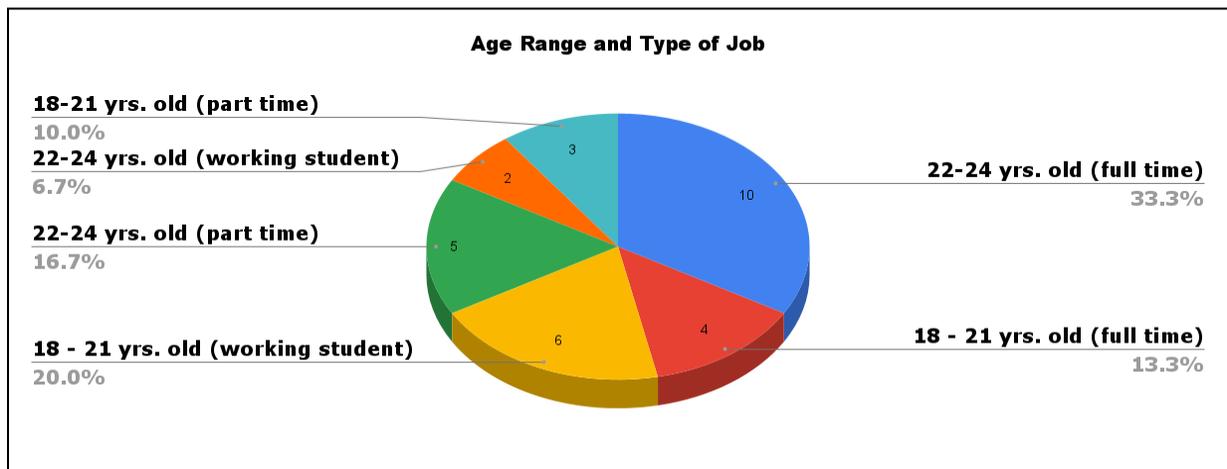
want to know if there is a strong or weak correlation between the variables , we would use Pearson correlation for this particular question.

The assumptions that will be made are Level of Measurement, Related Pairs, Absence of Outliers, Normality of Variables, and Homoscedasticity. Level of Measurement assumes that each variable is a continuous one. Related Pairs mean that per participant both variables are obtained. Absence of outliers assumes that there will be no outliers which may affect the data result. Normality, just like in the previous statistical method, assumes that residual errors are normally distributed and Homoscedasticity assumes that residuals have a constant variance at every level of X.

# Chapter 4: Results and Discussion

## Results Charts and Tables: Descriptive

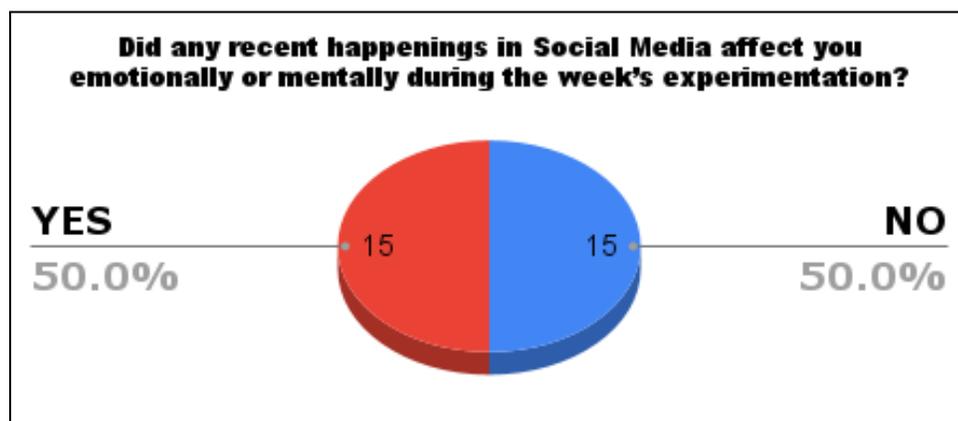
### Age range and Type of Job



*Figure 1.1 Age Range and Type of Job*

Among the 30 participants, it was recorded that (1) 33.3% or 10 young adults are within the age range of 22 to 24 years old and works full time, (2) 20% or 6 young adults are within the age range of 18 to 21 years old and works as a working student, (3) 16.7% or 5 young adults are within the age range of 22 to 24 years old and works part time, (4) 13.3% or 4 young adults are within the age range of 18-21 years old and works full time, (5) 10% or 3 young adults are within the age range of 18 to 21 years old and works part time and lastly, (6) 6.7% or 2 young adults are within the age range of 22-24 years old and works as a working student.

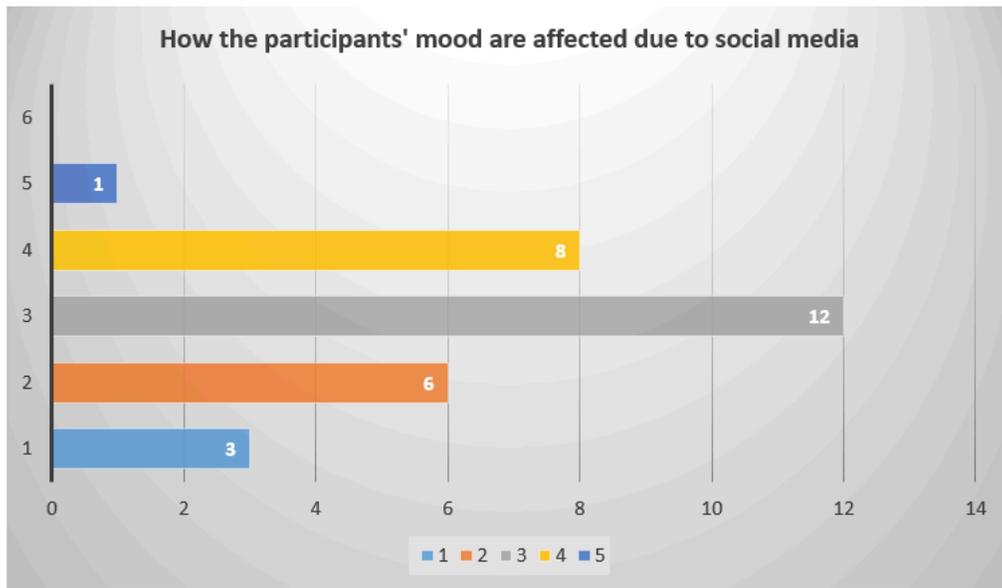
### Emotional and Mental Effect of Social Media



*Figure 1.2 Emotional and Mental State*

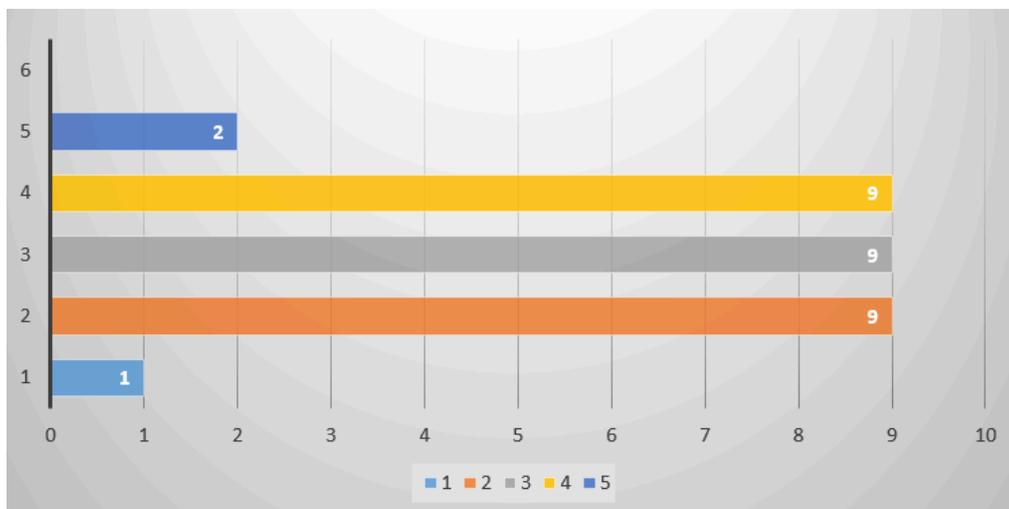
Out of all the 30 young adults who participated in the experimentation, the yielded results showed that there is an equal dissemination on whether social media has emotionally or mentally affected the participants. (1) 50% or 15 young adults stated that

social media affects them emotionally and mentally and another (2) 50% or 15 young adults stated that social media did not affect them emotionally and mentally.



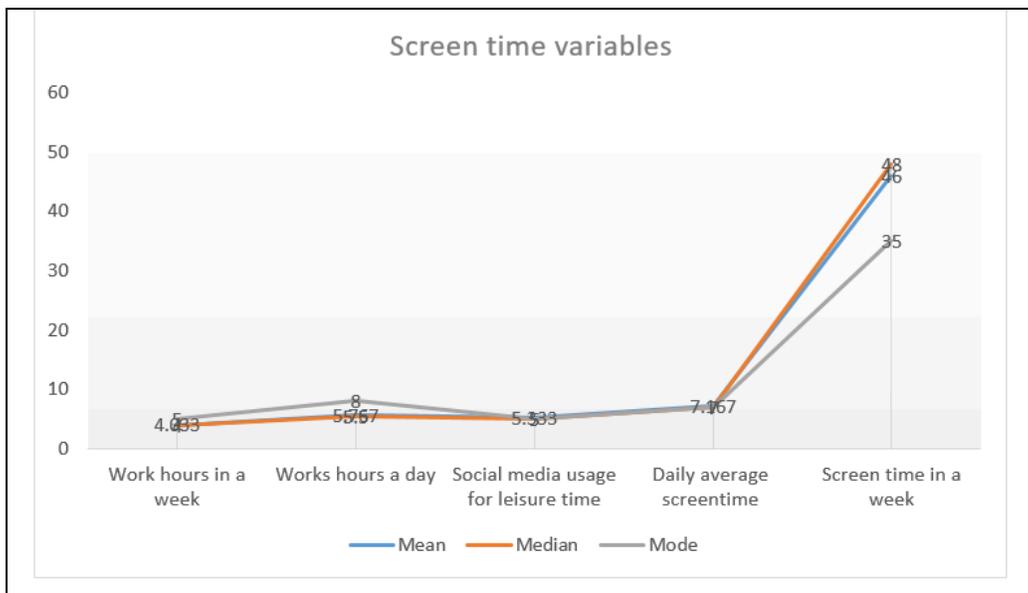
**Figure 1.3 How the participants' mood are affected by Social Media**

The graph shows that the participants' mood are moderately affected whenever they are using different social media platforms because the majority of them answer 3 with a total of 12 votes followed by 4 with 8 votes and 2 with 6 votes.



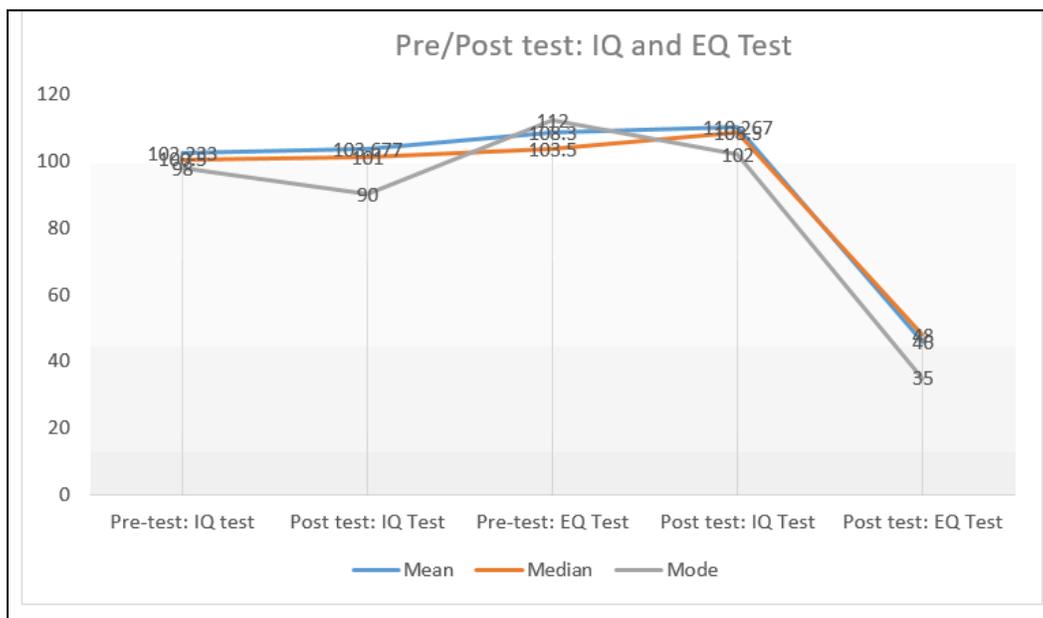
**Figure 1.4 How social media affected the participants mentally during the experimentation**

The graph reveals there have been 3 variables specifically, 4, 3 and 2, with 9 votes and total of 27 votes, have same amount of results regarding the quotations whether any recent happenings in the social media affected the participants mentally in the span of the week's experimentation



**Figure 1.4 The Screen Time and Work hours Results**

In this graph, the blue line represents the mean, the orange line signifies the median and the gray line shows the value for the mode. This means that the values of the mean are 4.033, 5.767, 5.333, 7.167, and 46. On the other hand, the values of median are 4, 5, 5, 7, and 48. Lastly, the values of the mode are 5, 8, 4, 5, 6, 7, and 35.



**Figure 1.5 The Results of the IQ and EQ Test**

Based on the graph, the blue line represents the mean, orange for median and gray line for the mode. It shows that the values gathered for the pre-test IQ are 102.233 for the mean, 100.5 for the median, and 98 for the mode. On the other hand, the pre-test EQ shows that the mean being 108.3, and 103.5 for the median and lastly 102, 112 for the mode. The post test of the IQ test shows that the value of the mean is 103.677, 101 for the median and 90, 98 for the mode. And finally, the values of the Post Test for the EQ test are the following: 110.267 for the mean, 108.5 for the median and 102 for the mode.

Note:

N = 30

Max hours in a week = 168

Max hours in a day = 24

Figure 1.1 Values for Screen Time and Work Hours

Variables	Mean	Median	Mode
Work hours in a week	4.033	4	5
Works hours a day	5.767	5.5	8
Social media usage for leisure time	5.333	5	4,5,6
Daily average screen time in a week	7.167	7	7
Screen time in a week	46	48	35

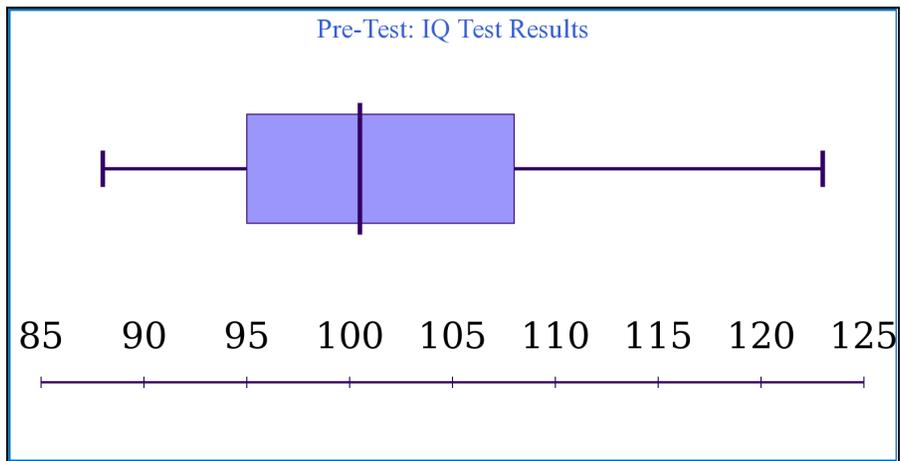
The values presented on the table showed that the mean for work hours in a week is 4.033, while the median is 4 and the mode is 5. The work hours a day shows the mean being 5.676, median 5.5, and mode 8. The social media usage for leisure time's mean is 5.333, median is 5, and mode is 4, 5, and 6. The daily average screen time in a week's median is 7.167, median is 7, and mode is 7. The screen time in a week's mean is 46, median is 48, and mode is 35.

Figure 1.2 Values for IQ and EQ tests

Variables	Mean	Median	Mode
PRE-TEST: IQ TEST	102.233	100.5	98
POST TEST: IQ TEST	103.677	101	90, 98
PRE-TEST: EQ TEST	108.3	103.5	102, 112
POST TEST: EQ TEST	110.267	108.5	102

The table shows the pre-test result of the IQ test, with the mean being 102.233, median 100.5, and mode 98. The post test result of the IQ test, with the mean being 103.677, median 101, and modes being 90 and 98. The pre-test result of the EQ test, with the mean being 108.3, median 103.5, and modes 102 and 112. The post test result of the EQ test, with the mean being 110.267, median 108.5, and mode 102.

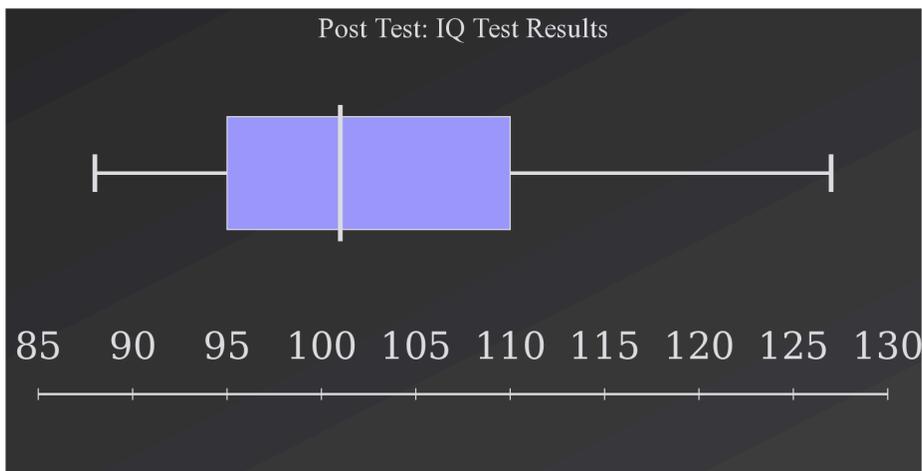
**PRE-TEST:  
INTELLECTUAL QUOTIENT TEST RESULTS**



**Table 2.3: IQ Pre-Test Results**

The pre-test for the IQ test shows that the lowest value is 88, highest value is 123, and the range is 35 with the population being 30.

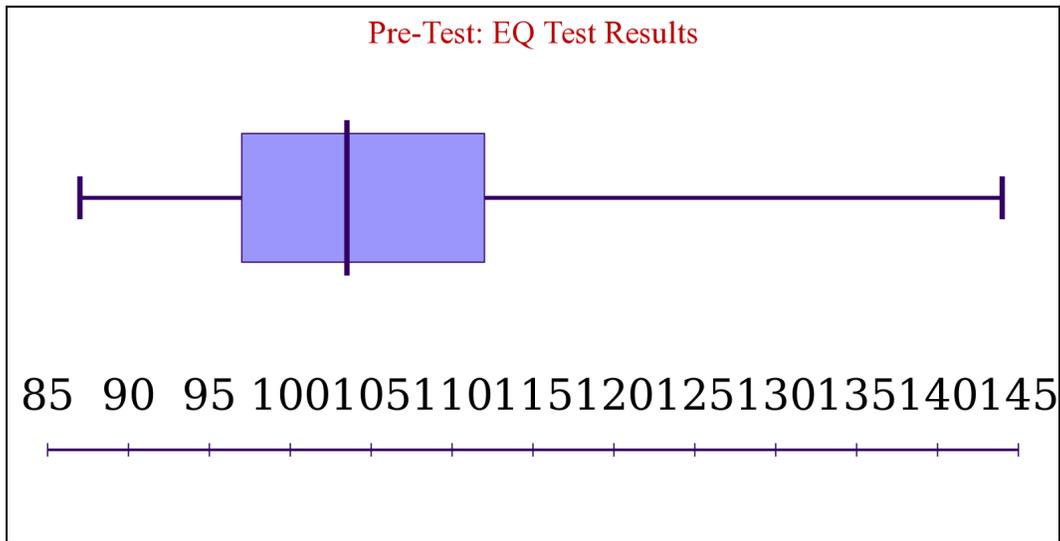
**POST TEST:  
INTELLECTUAL QUOTIENT TEST RESULTS**



**Figure 2.4: IQ Post Test Results**

Based on the post test results of the IQ test, it can be concluded that the lowest value is 88, highest value is 127, and the range is 39 with the population being 30. The data is parallel to the pre-test results as it only showed minimal differences.

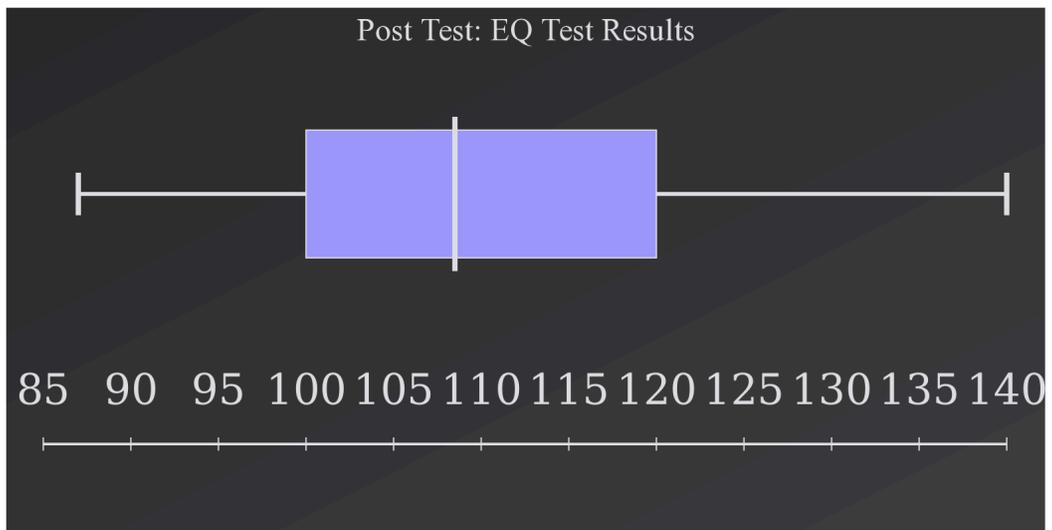
**PRE-TEST:  
EMOTIONAL QUOTIENT TEST RESULTS**



**Figure 2.5: EQ Pre-Test Results**

The pre-test result of the EQ test shows that the lowest value is 87, highest value is 144, and the range is 57 with the population size being 30. It also shows that there's a huge range between the lowest and highest values compared to the IQ pre-test.

**POST TEST:  
EMOTIONAL QUOTIENT TEST RESULTS**



**Figure 2.6: EQ Post Test Results**

The EQ post test shows that the lowest value is 87, highest value is 140, and the range is 53 with the population size being 30. It is similar to the pre-test with minimal differences.

# Inferential Results

## T-test

### EQ PRETEST & POSTTEST

Null hypothesis: Social Media usage affects young adults' emotional and intellectual quotient more than their professions.

Alternative hypothesis: Social media usage does not affect young adults' emotional and intellectual quotient more than their professions.

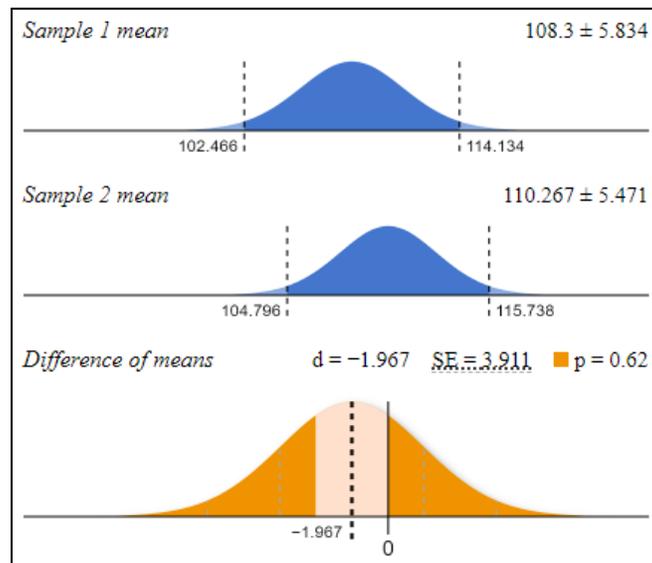


Figure TT1

The p-value in the t-test for the EQ's pre test and post test or Figure TT1 is 0.62, indicating that there is a 62% chance that the results from the data obtained happened only by chance. Since the p-value is more than 0.05, this suggests that no statistical correlation and significance exists in the observed variables which are the EQ's pre test and post test results. Hence, the result is considered statistically insignificant and the null hypothesis is rejected.

### IQ PRETEST & POSTTEST

Null hypothesis: Social Media usage affects young adults' emotional and intellectual quotient more than their professions.

Alternative hypothesis: Social media usage does not affect young adults' emotional and intellectual quotient more than their professions.

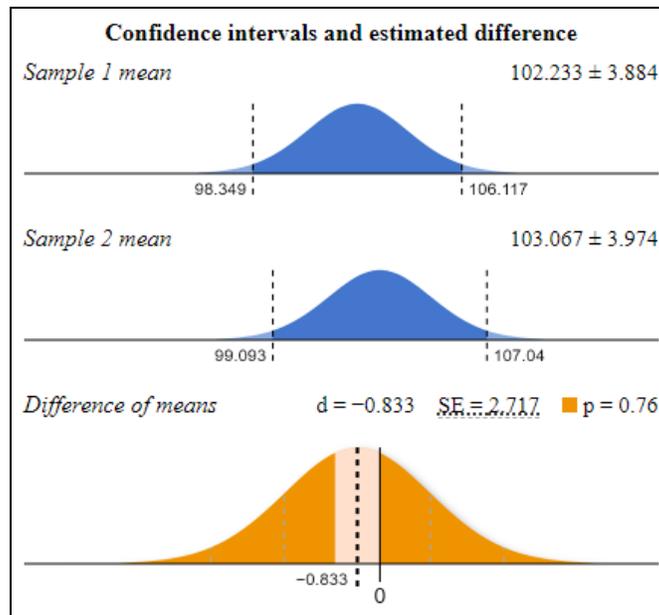


Figure TT2

As seen in Figure TT2's results, the researchers hypothesize that the results from the pretest and posttest scores for the intellectual quotients of the participants have no difference. It is identified that the p-value for the Intellectual Quotient's pretests and posttests is  $p=0.76$ . Thus, indicating that there is a 76% probability that the obtained results from the data occurred coincidentally and there is no statistical relationship between the observed variables (pretest and posttest results of emotional quotient). Since the obtained p-value is more than 0.05 ( $>0.05$ ), the results are deemed statistically insignificant and the null hypothesis is rejected.

## Pearson Correlation

### Work hours in a week and Screen time for Leisure

*Null Hypothesis:* There is zero correlation between work hours and screen time for leisure.

*Alternative Hypothesis:* There is a high correlation between work hours and screen time for leisure.

		Work Hours in a Week	Average Screen Time in a Week (for leisure)
Work Hours in a Week	Pearson Correlation	1	-.088
	Sig. (2-tailed)		.643
	N	30	30
Average Screen Time in a Week (for leisure)	Pearson Correlation	-.088	1
	Sig. (2-tailed)	.643	
	N	30	30

For the 30 respondents, the number of hours in a week and average screen time are not strongly related with only a value of  $r = -0.088$  which indicates a low degree of correlation. Therefore, we reject the alternative hypothesis of the two variables having a high correlation.

### Emotional Quotient and Social Media Usage

*Null Hypothesis:* There is zero correlation between emotional quotient and social media usage.

*Alternative Hypothesis:* There is a high correlation between emotional quotient and social media usage.

		Average Screen Time in a Week (for leisure)	Emotional Quotient
Average Screen Time in a Week (for leisure)	Pearson Correlation	1	-.053
	Sig. (2-tailed)		.781
	N	30	30
Emotional Quotient	Pearson Correlation	-.053	1
	Sig. (2-tailed)	.781	
	N	30	30

For the 30 respondents, the average screen time and emotional quotient are not strongly related with only a value of  $r = -0.053$  which indicates a low degree of correlation. Therefore, we reject the alternative hypothesis of the two variables having a high correlation.

### Intelligence Quotient and Social Media Usage

For the relationship between the emotional quotient and social media usage, the researchers also hypothesized that it would have a high correlation with each other.

		Average Screen Time in a Week (for leisure)	Intelligence Quotient
Average Screen Time in a Week (for leisure)	Pearson Correlation	1	.075
	Sig. (2-tailed)		.695
	N	30	30
Intelligence Quotient	Pearson Correlation	.075	1
	Sig. (2-tailed)	.695	
	N	30	30

For the 30 respondents, the average screen time and intelligence quotient are not strongly related with only a value of  $r = 0.075$  which indicates a low degree of correlation.

## Regression line

### Emotional Quotient & Screen Time

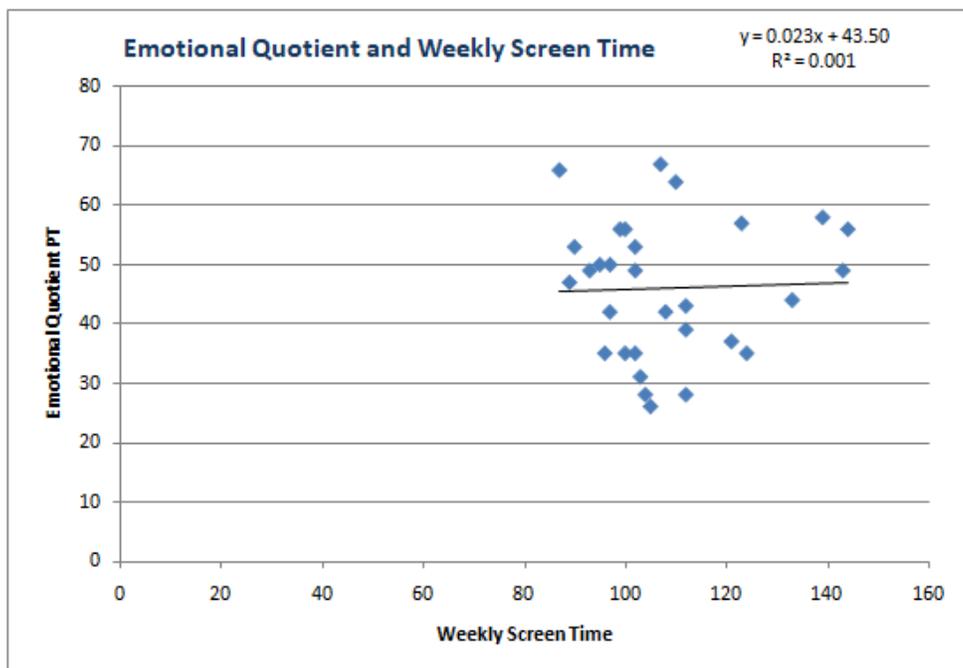


Figure LR1

The R-squared value for the linear regression of Emotional Quotient and Weekly Screen Time (Figure LR1) is equal to 0.001, implying that the two parameters, Emotional Quotient and Weekly Screen Time, have a very low or no correlation at all.

## Intellectual Quotient & Screen time

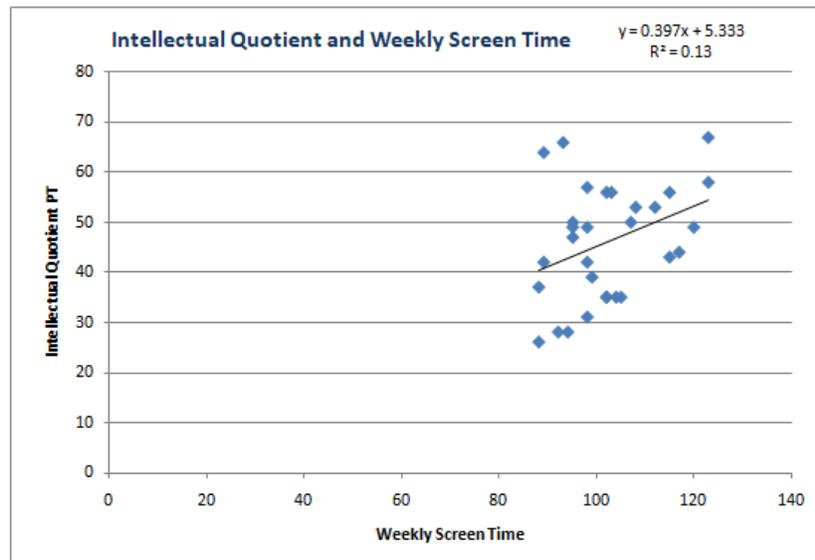


Figure LR2

The R-squared value for the linear regression of Intellectual Quotient and Weekly Screen Time (Figure LR2) is equal to 0.13, implying that the two parameters, Intellectual Quotient and Weekly Screen Time, have a low correlation and low probability.

## Discussion

Based on the results presented above, out of the 30 participants, half of them have stated that social media has affected them emotionally or mentally throughout the week's experimentation and the other half said that it didn't affect them emotionally or mentally. The results have shown that the mood of a young adult is only moderately affected whenever they use different social media platforms, and that there are only three variables that affected the participants mentally during the week's experimentation.

### EQ & IQ PRETEST AND POSTTEST

Using the t-test we could see that the result is considered as statistically insignificant due to the fact that the p-value is said to be more than 0.05 that suggests that there is no statistical correlation between the EQ's pretest and posttest. In the results we could see that the p-value in the t-test is 0.62 which means that the data obtained happened only by chance. As we can see in the results, there is no significant change in the lowest value in the pretest and posttest, the value (87) remained the same. Meanwhile for the highest value, it decreased by 4 in the posttest, in the pretest the highest value was 144 then after the posttest it decreased to 140. Lastly, the range also decreased by 4 in the posttest, from 57 in the pretest it became 53 in the posttest.

For the IQ's pretest and posttest, the results are also considered statistically insignificant because the obtained p-value is more than 0.05. The researchers have hypothesized that the

results from the pretest and posttest scores have no correlation at all. The p-value for IQ'S pretest and posttest is  $p = 0.76$  therefore there is 76% probability that the data gathered occurred coincidentally and that there is no statistical relationship between the observed variables. As we can see in the results, there is no significant change in the lowest value in the pretest and posttest, the value (88) remained the same. Meanwhile for the highest value, it increased by 4 in the posttest, in the pretest the highest value was 123 then after the posttest it increased to 127. Lastly, the range also increased by 4 in the posttest, from 35 in the pretest it became 39 in the posttest.

Thus we could conclude that the hypothesis, "*Social Media usage affects young adults' emotional and intellectual quotient more than their professions*", is null and not accepted.

### **CORRELATION BETWEEN SCREEN TIME AND EMOTIONAL QUOTIENT**

The researchers used the Pearson correlation and the regression line in order to find out if there is correlation between the emotional quotient and the amount of screen time a young adult has. Based on the results of the Pearson correlation, we could infer that there is no correlation between the work hours in a week and the screen time for leisure. To add to this, the results of the regression line shows that the emotional quotient of a young adult and its social media use has very low or no correlation at all. Therefore we conclude that the emotional quotient and social media usage is not strongly related.

### **CORRELATION BETWEEN SCREEN TIME AND INTELLECTUAL QUOTIENT**

Using the Pearson correlation and the regression line, the researchers ought to find out the correlation between the variables. Using the Pearson correlation, we could see that they have similar results to the correlation between the EQ and the screen time, which indicates that the intellectual quotient and screen time have a very low correlation. This kind of result is also seen in the data of the regression line which said that the intellectual quotient and weekly screen time have very low correlation. Thus, we could conclude that the correlation between the intellectual quotient and screen time has low correlation which is similar to the results we got from the correlation between the emotional quotient and screen time.

There are no factors of social media that may affect the emotional and intellectual quotient of young adults because based on the gathered data the correlation between a person's intelligence quotient and social media are not strongly related, and the emotional quotient and the amount of time a person uses social media have very low or no correlation at all. Thus we could say that social media only has minimal to none effects on a person's intellectual quotient and emotional quotient.

# **Chapter 5:**

## **Conclusion and Recommendation**

### **Summary of Results**

The researchers have gathered information from the 30 respondents of their survey regarding the effects of social media on the IQ and EQ of young adults. They formulated various questions, standardized tests, and kept track of the participants' screen time for a week in order to analyse and determine how social media impacts people's lives. Based on the results, the researchers have found out that social media has only minimal to none impact on young adults' Intellectual and Emotional Quotient because according to the linear regression, there are only low correlation between the Intellectual Quotient and Screen time due to the result of 0.13 R-squared value. In connection with this, the R-squared value of Emotional Quotient and Weekly Screen time is 0.001 which shows that the two parameters also have low correlation with each other. With this, the main research question, "In what ways can a person's emotional and intellectual quotient be gauged?", has been answered through the conduction of the survey and general findings because it is evident that there are various reasons that could affect one's IQ and EQ, however social media does not necessarily have a direct relationship with this. This signifies that it contradicts the theories in the theoretical framework because it was stated there that the social media usage and screen time will cause a decrease in an Individual's Emotional and Intellectual Quotient and Productivity in their jobs and the results have shown that these have low correlations with each other.

### **Conclusion**

To conclude this research entitled, "The effect of social media usage to the emotional and intellectual quotient of young adults", based on the data we have gathered, social media has minimal to none effect on a young adult's emotional and intellectual quotient. The researchers gathered 30 young adults to participate in this research study. Majority of the participants are working full time, 26.7% are working part time, and 26.7% are working students. Through these specific factors we are able to compare if their profession would have a bigger impact on their intellectual and emotional quotient more than social media. Our thesis statement claims that due to the abrupt rise of social media users, adults' emotional and intellectual quotient are greatly affected by their social media accounts rather than their jobs. From our collected data, it can be concluded that social media has minimal to no effect on a young adult's emotional and intellectual quotient, and thus the claims of our thesis statement is to be rejected.

The main issues presented in our study is the correlation between social media usage and its effect on a person's emotional and intellectual quotient, and the researchers have found very low to no correlation between them. Based on the results we collected, 50% of the

participants' have stated that social media usage has affected them mentally while the other 50% stated that social media has no effect on them mentally. With this, we can conclude that the usage of social media has minimal to no effect on a young adult's emotional and intellectual quotient.

## **Recommendations**

As the researchers have found low correlations between emotional quotient, intelligence quotient and screen time. They suggest finding other factors that may be affected by prolonged usage of cellphones. In line with this, they recommend future researchers to also focus on how social media and cell phones affect one's mood because from their data collection it is found that quite a lot of respondents agreed that social media has affected their mood to some extent. Through this we can create new research which focuses on this topic. They may track different hormones that affect one's mood such as dopamine, adrenaline, endorphins and many more as well as the symptoms that show signs of high or low levels of certain hormones. Once hormones are tracked before and after they use social media and find out the correlation between the two. Besides the suggestion of a new research, they also suggest conducting the current experiment for a much longer period of time which may bring a change of greater significance in the Intelligence and Emotional Quotient as the span of a week may not have been enough to see actual results in the variables.

# Appendix

## APPENDIX A - Survey Questions

SURVEY QUESTIONS	
LINK	<a href="https://docs.google.com/forms/d/1jmY3R7oz57DsxlktJqOZqKn5S7s1RTKJO TEDgr6vQ/prefill">https://docs.google.com/forms/d/1jmY3R7oz57DsxlktJqOZqKn5S7s1RTKJO TEDgr6vQ/prefill</a>
Q1	Age range and type of Job
Q2	How many days do you work in a week?
Q3	Duration of work hours a day
Q4	What are the social media platforms you use?
Q5	How much time do you spend on social media on average?
Q6	On a scale of 1 to 5, rate how your mood is affected whenever you are using different social media platforms.
Q7	Upload a screenshot of your weekly screen time
Q8	Type in your daily average screen time for the week
Q9	Type in your total screen time for the week
Q10	Upload the picture of your Intellectual Quotient Test Results made by Psych Tests (Classical IQ Test) for the PRE TEST <a href="https://testyourself.psychtests.com/testid/3109">https://testyourself.psychtests.com/testid/3109</a>
Q11	Upload the picture of your Emotional Test Results made by Psych Tests (Emotional Intelligence Test) for the PRE TEST <a href="https://testyourself.psychtests.com/testid/3979">https://testyourself.psychtests.com/testid/3979</a>

## Appendix B - Raw Data

PARTICIPANT	AGE RANGE AND TYPE OF JOB	# OF WORK DAYS IN A WEEK	DURATION OF WORK HOURS/DAY	AVERAGE TIME SPENT ON SOCIAL MEDIA (FOR LEISURE)	HOW MOOD IS AFFECTED WHILE USING SOCIAL MEDIA (1-5)	DAILY AVERAGE SCREEN TIME FOR THE WEEK	TOTAL SCREEN TIME FOR THE WEEK	IQ RESULTS PRE TEST	EQ RESULTS PRE TEST	ANY EFFECT OF SOCIAL MEDIA DURING THE EXPERIMENTATION (MENTALLY & EMOTIONALLY)	MENTAL EFFECTS OF SOCIAL MEDIA DURING THE EXPERIMENTATION (1-5)	IQ RESULTS POST TEST	EQ RESULTS POST TEST
1	22-24 full time	5	8	7	2	7	50	107	95	no	2	112	93
2	22-24 full time	5	8	9	3	9	64	89	110	no	4	92	113
3	18-21 working full time	5	8	8	3	9	66	93	87	yes	2	90	91
4	18-21 working full time	4	5	4	4	6	43	115	112	no	4	116	110
5	22-24 full time	4	5	7	2	8	57	98	123	yes	3	98	126
6	18-21 working student	3	5	6	1	8	56	102	100	yes	3	102	102
7	22-24 full time	5	8	4	3	4	28	94	112	no	3	95	115
8	22-24 part time	2	6	3	3	6	42	98	108	yes	2	100	110
9	22-24 part time	2	6	5	3	7	49	120	143	no	4	121	140
10	18-21 working student	4	5	6	3	7	50	95	97	yes	2	98	98
11	22-24 part time	4	4	5	3	5	35	105	96	no	2	102	105
12	18-21 working student	3	4	6	4	8	56	115	144	yes	4	110	132
13	22-24 full time	6	8	4	2	4	28	92	104	no	2	95	111
14	22-24 full time	6	6	5	2	5	35	102	124	yes	3	105	120
15	22-24 part time	4	5	6	3	7	49	98	102	yes	2	122	112
16	22-24 full time	5	6	3	2	5	37	88	121	yes	2	90	94
17	18-21 working student	2	3	8	4	10	58	123	139	yes	4	119	134
18	22-24 working student	2	3	5	3	8	56	103	99	no	1	106	118
19	22-24 full time	6	5	4	1	6	44	117	133	no	2	97	105
20	18-21 working full time	5	4	5	3	7	53	108	102	yes	3	114	126
21	22-24 full time	6	8	5	1	6	39	99	112	no	4	109	98
22	18-21 working student	3	8	6	2	8	35	102	102	no	4	100	123
23	22-24 full time	5	8	4	3	7	67	123	107	no	3	127	140
24	18-21 working full time	5	6	5	4	9	42	89	97	yes	5	88	103
25	22-24 part time	4	5	6	5	10	35	104	100	no	3	104	100
26	18-21 working student	4	4	4	4	8	26	88	105	no	3	90	107
27	18-21 part time	2	4	6	3	7	49	95	93	yes	4	93	91
28	22-24 working student	5	8	3	4	6	31	98	103	no	4	98	102
29	18-21 part time	3	4	7	4	9	53	112	90	yes	5	105	102
30	18-21 part time	2	6	4	4	9	47	95	89	yes	3	94	87

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