

# *The Correlation Between the Big-Five Personality Traits and Social Media Use among Young Adults*

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**Abstract:** Whether people's personality traits are correlated with social media use and addiction has been a widely favored research topic among psychologists in recent years. However, there has not been an adequate number of studies focusing on the relationship between social media post content lookup preference and users' personality traits, specifically among young adults. To this end, participants ( $N=50$ ) who are of college age were recruited and volunteered to take a survey that investigates their social media use frequency. The results did not show a strong correlation between social media use and school/work-family balance. No statistical significance was found between social media post content lookup preference and specific personality traits, such as neuroticism and extraversion. Those who spend more time on social media were found to be the ones with extravert personality traits. These findings emphasize the need for further research on such topics which will help with the understanding and treatment improvement of social media addiction from the personality perspective.

**Keywords:** The Big-Five Personality Traits, Social Media Use, Neuroticism personality trait, Extraversion personality trait

## 1. Introduction

With the development of Internet technology and the popularity of home networks, social media is becoming closely related to our daily lives today. Because of its advantages of not being restricted by regions, time, and space, social media has become a platform that facilitates the communication of people, getting news, and entertainment. Even though the Internet has brought humans countless benefits, people have come to realize that the increased use of social media has not only led to a low level of school/work-family balance but also affected people's personality traits' shaping and developing.

For this research paper, the question of whether people with different personality traits, described in the Big-Five model, tend to search for different content on social media is being measured. Here are the hypotheses: those social media users who constantly look up posts that involve negative emotions such as anxiety and fear tend to have a neuroticism personality trait; but those social media users who focus on posts that include positive emotions such as encouragement, adventure, sympathy, and diligence tend to have extraversion, openness (to experience), agreeableness, and conscientious personality traits. To examine those hypotheses, it is intended to use the Big-Five personality test and the survey method to collect and measure participants' answers.

## 2. Literature Review

Social media addiction has led people into trouble that many users start to lose the balance between school/work – family balance, perform poorly on the job or schoolwork, and become less satisfied with life.

The core article that is written by Zivuska et al. [1], which discusses the impact of social media use on job performance, specifically looking at work-family balance and job burnout, is reviewed. It is believed that with the development of social media, people become addicted to the online environment and gradually lose the balance between work and family. Also, job burnout might be reinforced by social media addiction [1]. By gathering participants from university students, using the Likert scale, and measuring data from social media addiction and reactions, work-family balance, and job burnout, the research group concludes that the result supports their theoretical framework that social media addiction and reactions decrease job performance in two different ways. Firstly, from the physical pathway, social media addictive behaviors could hinder the achievement of work-family balance. Secondly, the emotional pathway proves that the reactions people get from social media experience could affect emotional burnout [1]. As a result, they have found a negative relationship between social media addiction and work-family balance [1].

Ozkaya and Larose [2] study the relationship between social media use and life satisfaction. The research team aims better to interpret the positive outcome of social media use and clarify the issues behind it. It is suspected that having a healthy relationship and communication on social media and making good friends can increase people's social support and positively promote the life satisfaction of social media users [2]. The team then uses a series of multilevel and path models to examine the relationships [2]. The results show that social media could influence psychological well-being with supportive interaction and positive feelings after the interaction [2]. This positive feedback that social media users get is positively associated with perceived social support and life satisfaction [2].

Personality traits are thought to be one of the most significant factors in social media use, which is why there have been so many researchers done studies on this topic based on the Big-Five personality traits. The Big-Five Model identifies five kinds of personality traits, including neuroticism, extraversion, openness (to experience), conscientiousness, and agreeableness [3]. Neuroticism refers to the kind of personality that is easily shifted from one extreme to the other. People with neuroticism personality traits tend to have a low level of emotional stability and control [3]. Extraverts are energetic and good at social skills [3]. They tend to be more comfortable around people and become the center of people's focus. Openness (to experience) type of personality demonstrates those who like to seek adventure and have a high level of creativity and imagination [3]. Those with conscientiousness traits, on the other hand, are governed by their rules and discipline. Dependence and methodical are the common compliments others give to them. Finally, those who are highly sympathetic, gentle, and easy-going are categorized as having the agreeableness personality trait [3]. They would love to be the company of those who claim to need them. Based on these five kinds of personality traits, psychologists have done countless research trying to figure out their influence on people's behavior and mental states, as well as this research.

Several inspiring studies that have directed this research are reviewed. First, the research, which was done by Ozguven et al. [4], discusses the influence of using social media on people's personality traits. According to the research, people who spend more time on the Internet will end up with social, behavioral, and personality changes, and those with whom they communicate online [4]. The research group predicts that there will be a positive relationship between social media use and the Big-Five personality traits, life satisfaction, gender, income, and education. The researchers use the survey method to collect information. As a result, they found out that those who are conscientious, open to experience, and satisfied with their lives tend to use social media more [4]. Concerning education and

income levels, the higher the educational and income levels the people have, the more frequently they use social media [4].

Secondly, Correa et al.'s [5] research focuses on making certain whether personality traits, specifically, extraversion, emotional stability, and openness to experience, according to the Big-Five Model, are the determinant factors in the usage of social media. According to the nationwide sample tests, the results only prove a positive relation between extraversion and openness to experiences and social media use [5]. Moreover, Blackwell et al. [6], whose research goal is to figure out what factors are responsible for social media addiction, discovered that personality traits such as neuroticism predict social media use dynamics.

### **3. Methods**

#### **3.1. Participants**

There are about 50 participants in this research who are students from the Psych 209-course section A in Summer 2020 of the University of Washington. Student groups are from the United States, China, and other countries. The demographics of the study are expected to be typical of an average college course. They are recruited because they are taking this course. The incentive the participants get to be involved in this research is to earn the course credits in the form of Weekly Exercise points.

#### **3.2. Measures**

The two variables that are taken into consideration for this research topic are personality traits - specifically extraversion - and social media usage. The operational definition of the extraversion personality trait in this study is whether the participant considers himself as an overall happy person. Social media usage is operationally defined as the amount of time and the frequency of the participants' use of social media.

Participants' usage of social media will be measured by the survey method. On the survey, items 1, 2, 3, and 4 ask questions regarding social media use. Questions such as "on average, how many minutes per day do you spend on social media," "how likely are you to receive news and entertainment from social media in comparison to other sources", and "how often do you communicate on social media in comparison to other forms of communication" are included in the survey. Item 2, a close-ended question which uses a frequency scale ranging from 1 to 8, with the choices of "never", "almost never", "sometimes", "often", "very often", "almost always", "always", and "prefer not to answer". People who score high on those questions will be considered to use social media very often and constantly. Rather, a low score represents their preference for not using social media that much.

Additionally, the school/work-life balance is measured in the same way as social media use. The survey contains four questions that intentionally ask for this variable. Items 5, 6, 7, and 8 focus on measuring the participants' balance between school to life with the close-ended questions that state, "I do a good job of meeting the role expectations of critical people in my family life." Item 7 uses the agreeableness scale that ranges from 1 to 8, with the choices of "strongly disagree", "disagree", "somewhat disagree", "neither agree nor disagree", "somewhat agree", "agree", "strongly agree", and "prefer not to answer". The participants who score high on those questions perform a good balance between school to life; rather, scoring low means their lack of balance between school and life.

The results of school/work-life balance and social media use variables are measured by the teaching staff, and a composite score will be conducted to be discussed. The composite scores will be created for the social media use and school/work-life balance variables from a set of four items each. The scores from each item will be added together to create the composite score, and the possible range of each of the composite scores will be reported.

To measure the participants' personality traits, the Big-Five personality test is used. This study will specifically focus on extraversion personality traits. However, because of the limitations of this course and the inconvenience of reaching the participants, the survey method is applied to measure the personality traits. The specific question that relates to people's personality traits is survey item number 11 which says, "I am generally a happy person". This close-ended question ranges from 1 to 8 and uses the agreeableness scale, with the choices listed "strongly disagree", "disagree", "somewhat disagree", "neither agree nor disagree", "somewhat agree", "agree", "strongly agree", and "prefer not to answer". If the participant scores high on survey item number 11, then we classify this participant as having an extraversion personality trait.

It conducted construct validity testing on the amount of time and frequency of social media usage, the degree of school/work-life balance, and whether the participant is an extravert by the survey method. The survey measures what we claim to be measuring. The result will illustrate the correlation between social media use and school/work-life balance and the relationship between personality traits and social media use.

For the second step, this study conducted content validity by using four items for social media use, four items for school/work-life balance, and one item for personality traits. For the variable of social media use, three close-ended questions use the frequency scale, Likert scale, and agreeableness scale ranging from 1 to 8. The other open-ended question asks about how many times participants spend on social media per day and requires answers in minutes. The four items for the variable school/work-life balance contain all close-ended question that uses the agreeableness scale ranging from 1 to 8. For the variable of personality traits, the item is a close-ended question that uses the agreeableness scale ranging from 1 to 8 to identify whether the participant classifies himself as an overall happy person. The composite score for social media use and school/work-life balance is measured by the teaching staff. The content adequacy validity is therefore conducted.

### 3.3. Procedures

The participants complete a survey that contains 45 questions which include two questions that can help determine their personality traits. The survey is available online to be completed with a cell-phone or computer before the set deadline. Once started, there is no time limit. Participants answer mostly close-ended questions that have answers based on the Likert or satisfaction scale, and some open-ended questions that include a "prefer not to answer" choice or the option to leave the item blank. Participants will be instructed to answer items thoughtfully and honestly and only receive a completion grade that counts towards the project as a whole.

### 3.4. Results

#### 3.4.1. Social media use

From the collected data record, the composite score of how much social media use the responders engage in is out. Based on the score range from 4 to 28, the mean score shows that average participants spend a moderate amount of time on social media, and most participants scored close to this value ( $M=19.04$ ,  $SD=4.04$ ). The mode value is 20.00, which is considerably high. It should also be noted that half of the sampled participants scored relatively high in terms of the time and frequency they spend on social media ( $Mdn=20.00$ ).

#### 3.4.2. School/work-life balance

School/work-life balance is one variable that has been included in the core article, and it is demonstrated in the introduction section. It describes how one balances the time he spends on either

school or work to life and family. Here, from a score range from 4 to 28, the composite score for the mean represents the fact that average participants have good control over the balance between school or work to life, and most participants scored close to this value ( $M=21.78$ ,  $SD=3.16$ ). The data on school/work-life balance in this sample group is high.

### 3.4.3. Correlation between social media use and school/work-life balance

As a result, the correlation score between social media use and school/work-life balance is .02. Therefore, the positive  $r$  value shows a statistically nonsignificant correlation between social media use and school/work-life balance,  $r=.02$ ,  $p \geq .05$ . Generally, the participants who spend moderate time on social media tend to have a considerably high control between school or work to life balance.

### 3.4.4. The “New Variable” and the correlation to social media use

The new variable of this study is the personality traits. On a scale of 1 to 8, average participants tend to be a generally happy person, and most participants scored close to this value ( $M=4.96$ ,  $SD=1.56$ ). The mode, which shows the most often appeared scores of those participants is 5.00. It should also be noted that half of the sampled participants scored relatively high in terms of their rate of happiness ( $Mdn=5.00$ ). The correlation score between personality traits to social media use is  $-.13$ . Therefore, the negative  $r$  value shows a statistically nonsignificant correlation between social media use and personality traits,  $r=-.13$ ,  $p \geq .05$ . Generally, the extravert participants tend to spend considerable time on social media.

## 4. Discussion

From the data collection and analysis, it is shown that there is not a strong correlation found between social media use and school/work-life balance. Generally, the participants spend moderate time on social media in their daily lives, which is understandable why this group of participants has good control over the balance between school and work to life. Normally, college students today are the group that uses social media the most often and frequently. Such a high frequency of following social media dynamics will allow them to gain more knowledge and news. But to a certain extent, it also weakens the time that college students can spare for learning and companying the family. Interestingly, although many people’s answers revealed that they would use social media to communicate and socialize, when necessary, most of the participants did not spend a lot of time checking social media updates. The data shows that more than half of the participants think that social media is essential and indispensable to their lives. However, because of this situation, many young people cannot get a perfect balance between life and family. Although most participants believe that they have a good balance between work, study, and family, the time spent on social media is related to this balance to a certain extent.

In comparison to the results found in the core article, the two data analyses are not replicated. The existing measures do not appear to be even close to the data collection we have come out of. This could be explained in the sense that the existing measures may not be suitable for our research topic. Or, because most of the new psychological measures are variations of existing measures, the measures from the core article and the study might have differences. The lack of replication might also be one reason for this issue. It indicates the lack of credibility and validity of this study’s results based on the current data analysis for now. Since we are only analyzing one question of the new variable, which is personality traits, the correctness might be imprecise.

No statistically significant correlation was found between social media use and personality traits. Specifically for extraversion personality traits, it seems like the relationship between the use of social media and people's personality traits is mild and not clear. The lack of survey items could be

responsible for this conclusion. It would be farfetched to sort participants into different personalities based on two simple questions asking whether you consider yourself a happy or anxious person. However, similar results were also found in others' research. For instance, Hasani et al.'s [7] research aims to discover the association between personality traits and Internet Use Disorder (IUD) tendencies. In their study, no association was found between extraversion personality traits and IUD tendencies, while a positive relationship was found for neuroticism [7]. In addition, Akbari et al. [8], whose team was interested in finding the relationship between personality traits and problematic Facebook use, came up with the conclusion that besides extraversion (which they found to have no significance) and neuroticism (which is positively associated), other personality traits turn out to be negatively linked with problematic Facebook use. However, the results vary when changing to different types of assessment tools, which should also be taken into consideration when discussing the results of this research study.

## 5. Conclusion

To discover the correlation between social media use and people's personality traits, in combination with the research studies of Zivnuska et al. [1], Ozguven et al. [2], and Ozakava and Larose [3], a designed survey and personality tests were given to the participants and the proposed hypotheses were tested. According to the results, there is no strong correlational relationship found between social media use and school/work-family balance, and statistical significance is missing between social media post content lookup preference and users' personality traits.

Limitations exist in this study. First, the fact that when evaluating a variable from only one survey item, it is not sufficient to come out with a precise result. One question could not include every aspect that needs to be considered for this study, and it will influence the result and conclusion in a negative direction. If more than 10 questions could be asked to the participants, the analysis of the data and the results of this study would be more persuasive and valid. Secondly, doing a research study by oneself is limited not only in resources but also in mind-openness. If this study could be done by a small group of three to five people, the design of the procedure and methods could be more affluent. One person's knowledge and practical reasoning might not be sufficient for one scientific research study and might result in misleading or misunderstanding. Thirdly, because this study lacks replication, the test-retest reliability can not be evaluated and promised. The lack of replication might result in a decrease in data validity.

In talking about the future direction of this study, it is important to come up with a fully developed and determinant item in the survey for the responders. The Big-Five personality test should be included in the research to help determine the responders' personality traits. This part is important since people are trying to find the correlation between responders' personality traits and their social media use. It is not rigorous to determine one's personality traits from one simple survey item. Moreover, recruiting more participants and making sure that their demographics are various can enlarge the generalization of the result. Speaking of this, it is necessary to do the replication process after the result comes out. As explained in Alshakhsi et al.'s [9] article, it is necessary to take fear of missing out as one of the crucial influencers in the comprehension of the association between neuroticism and social media addiction in future research. What's more, gender differences should also be taken seriously because previous studies such as Bunker et al.'s [10] has emphasized the different social media activity outcomes of extraversion and neuroticism in female and males. Comprehensive results would be developed if more variables and details are included in the design.

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