The Relationship between Self-Esteem, Narcissism, and Extraversion and Usage of

Instagram: A Study on International Students of Chulalongkorn University

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Abstract

This study aims to investigate whether self-esteem, narcissism, and extraversion could predict people's usage of Instagram, a photo-sharing application. 85 participants were asked to complete a questionnaire in which participants were asked to complete their demographic information, Self-Esteem Scale (SES), Narcissistic Personality Inventory-16 (NPI-16), and Ten Item Personality Inventory (TIPI). The data was processed and analyzed using descriptive statistics, Pearson's correlations, and multiple regression via SPSS software. The hypotheses investigated are as follows: 1) Self-esteem will be positively correlated with usage of Instagram; 2) Narcissism will be positively correlated with usage of Instagram; 3) Extraversion will be positively correlated with usage of Instagram; 4) the combination of self esteem, narcissism, and extraversion could possibly predict Instagram usage. As a result, there were positive correlation for the 2nd and 3rd hypotheses but no correlation for the 1st and 4th hypotheses. Despite this, additional results yielded interesting and speculative results for Instagram usage predictors.

Keywords: Instagram, Self-esteem, Narcissism, Extraversion, Social Media

Field of study: Psychology   **Student's Signature…………………...**

Academic Year: 2016   **Student's Signature…………………...**

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Chapter 1

Rationale

It is without a doubt that social media usage in Thailand is rising every year. Statistics from Zocial Inc, an online analysis service based in Thailand, show that despite a population of 67 million, there are 30 million social media users on mobile phones (Leesa-nguansuk, 2015). From 2013 to 2014, Instagram users in Thailand saw a sharp rise of 29% percent from 1.5 million to 2 million users. This can be explained by the fact that in 2012, Suvarnabhumi International Airport and Siam Paragon Shopping Mall was the top two most geotagged location in the world (Instagram). Social media usage, specifically Instagram, is also facing a noticeable rise in usage with users aged 15-24 years dominating the usage statistics. With the staggering amount of usage and activity in Instagram, we therefore believe that it is important to assess and analyze the personality traits behind Instagram usage. Previous studies, such as Hughes et al. (2011), concluded that various personality traits were indeed related to social media usage. Another study also examined personality traits, namely extraversion and narcissism, in adolescents and how it affected their self-representation on Facebook. In the context of Instagram however, we would be examining different activities since both applications differ in terms of usage. Users of Instagram are able to share photos and short videos to their news feed, which is followed by other users, and also tag the location that the picture was taken. Captions for photos are also available to be expressed by that user as well as comments and likes from their followers. What makes this application more accessible for users on other social media platforms is the fact that you are able to connect your account to those very platforms, making the pictures more widespread.

We believe that the lack of research in Instagram usage, especially with a Thai population, needs to be addressed. As done by the aforementioned studies in the previous

paragraph, we similarly aim to link three personality traits (narcissism, extraversion, and self-esteem) to Instagram usage.

When it comes to posting pictures of one, narcissism plays a factor in one's activity. However, since most prior literature deal with narcissism as a clinical construct, we will approach narcissism as a personality trait. Buffardi and Campbell (2008) describe narcissism as a personality trait that includes an exaggerated belief in one's own importance coupled with an inflated view of the self in terms of physical appearance, intelligence, social status, and power. Another significant aspect of narcissism that we will focus on is the fact that it also includes a yearning for admiration and attention from others (Cozma, Javadian, Gupta, & Canever, 2014). The rationale behind this trait is that many users of various social media platforms evaluate other users based on appearances, which inadvertently links with perceived attractive (Buffardi & Campbell, 2008). Another rationale behind choosing narcissism is the strong interaction between that of narcissism and social interaction (Emmons, 1984). Individuals with narcissism tend to utilize social relationships as a means for regulating self-esteem and tend to be adept at initiating social relationships, as one would be able to do in a social media platform such as Instagram (Emmons, 1984). Narcissism was also found to associate with high degrees of extraversion, which we believe would transfer to social media usage (Miller & Campbell, 2008).

Self-esteem is also a trait that could determine one's behavior of posting pictures. Self-esteem can be described as "the degree to which one prizes, values, approves, or likes oneself. Hence, self-esteem is evaluative attitudes towards one self "(Blascovich & Tomaka, 1991). Past research revealed that individuals with higher self-esteem tend to decoratively describe themselves in their social media profile. On the other hand, individuals with lower self-esteem expose less of themselves on social media (Krämer & Senokozlieva, 2008). This suggests that there is a positive relationship between self-esteem and usage of social media.

Various forms of social media have become increasingly popular each day. However, some social media users may fail to see how much of an impact it has on their self-esteem. In this study, we are going to focus on 'Instagram', which is a non-verbal form of social media. Like other social media platforms, Instagram has its purpose to enable connectivity with family and friends, to keep the users up-to-dates of what is happening around the world, and to explore the network by seeing other people's lifestyles and interests. However, many Instagram users concerned about how many 'comments' and 'likes' they can they receive, and how many followers they gain. These variables are perceived as indicators of successfulness and popularity. Without a lot of 'likes' or 'followers', some users may perceive themselves as "not good enough" and this can consequently impact one's self-esteem. Henceforth, the rationale behind choosing self-esteem is to further investigate its existing relationship with social media, specifically Instagram.

Other than narcissism and self-esteem, extraversion is also another personality trait that plays an important role on determining if the person would use the social media platform extensively or not. Extraversion can be described as one being social, talkative, open, and keeps on engaging with the external world. As mentioned before, in relationship with narcissism, extraverts tend to engage in using social network sites to a great extent (Miller & Campbell, 2008). Many past researchers have looked at the types of personality that engages in social media the most, and the result points to extraversion. The rationale behind using extraversion as a variable is that since extraversion plays such a major role in predicting social network usage behaviors, then it is a requirement to include extraversion in the research. Moreover, the majority of the research on social media mostly surrounds Facebook as the main social media platform; however, Facebook is not the only social media platform that people use. Hence, this research will be able to gain some insight to see if there are similar patterns within the Instagram social media platform.

This research aims to investigate whether self-esteem, narcissism, and extraversion could predict people's usage of Instagram. In order to do that, we will conduct questionnaires to examine people's demographic informations, self-esteem, narcissism, extraversion scores, and usage of instagram. Base on past research, these three variables are strong predictors of social media usage; hence, it would be interesting to see if Thai international students would yield similar behavior patterns. If behaviors are not the same, we could then further investigate the differences of Thai people with people from other cultures.

Literature Review

The basis of our research will rely on the measurement and analysis of three variables: self-esteem, narcissism, and extraversion. In order to fully comprehend and grasp the concepts of these personality traits, a literature review must be conducted. The literature reviews will serve as a magnification and will further provide understanding of the personality traits. This is done to ensure that the operational definitions and various concepts of each traits are clear so that the reader fully comprehends the objectives and goals of the researchers.

Self-Esteem

Definition. Self-esteem is a significant concept in the social sciences and everyday life. The popular concept of self-esteem is rather straightforward. Dictionary definition defines it as " to esteem a thing is to prize it, to set a high mental valuation upon it; when applied to persons, esteem carries also the warmer interest of approval, cordiality, and affection". However, the common parlance of this concept can be defined the degree to which one prizes, values, approves, or likes oneself. Hence, self-esteem is evaluative attitudes towards one self (Blascovich & Tomaka, 1991).

The concept of self-esteem goes by different names, such as self-regard, self-respect, self-acceptance. However, Chen and her colleagues (2006) argued that these three components combine to become self-esteem.

Background. Self-esteem was assumed to be trait-like, which implies that it is a relatively stable characteristic. Consequently, self-esteem can be described in terms of degrees: high, medium, and low (Mruk, 2006). However, the concept of self-esteem has become more complex nowadays. It became apparent that self-esteem could be thought of as multidimensional, with each distinctive element making a specific influence to self-esteem. Thus, self-esteem and be seen as both 'trait' and 'state'. As a consequent, it may also be essential to see it in terms of ranging from being stable to unstable instead of merely understanding it as ranging on a scale of high to low levels.

The idea that people are strongly motivated to maintain high levels of self-esteem and that this motive underlies a great deal of human behavior has been a essential topic in psychological theorizing, stretching from the very early days of scientific psychology to the current day (Pyszczynski, Greenberg, Solomon, Arndt & Schimel, 2004). This notion is so pervasive that most theorists utilize it as a postulate or paradigmatic assumption without proposing further justification or explanation. Such diverse forms of behavior as altruism and aggression, love and hatred, and conformity and deviance, have all been clarified as deep-rooted in the human need to perceive ourselves as valuable. Some theorists advance the possibility that people can achieve a more adaptable form of self-esteem that is relatively immune to threat and does not require defense. Nevertheless, they also recognize the existence and pervasive influence of the motive to maintain and defend positive evaluations of self.

Components. As mentioned, self-esteem is comprised of three components, namely self-regard, self-acceptance, and self-respect (Chen, Cheung, Bond & Leung, 2006). Self-

regard can be defined as the motive to possess, enhance and preserve positive self-views. Research suggests that positive self-regard is fundamental to achieve positive mental health (Heine, Lehman, Markus & Kitayama, 1999). Self-accept is also essential for mental health as it is to "accept oneself can lead to a variety of emotional difficulties, including uncontrolled anger and depression" (Carson & Langer, 2006). Self-respect is also an important component to build up self-esteem. Past research revealed that self-respect plays a crucial role in reviving interest in virtues, and other moral and political theories.

Relationship with Social Media. Perpetual connectivity is one of the unique social functions that social media has to provide for its users. Nevertheless, a heavy reliance on technology to validate social connection may have psychological implications, including developing addictions of technological devices. According to Ehrenberg et al. (2008), the individual difference variable of self-esteem could affect mobile phone behavior.

Some research revealed that there is a positive relationship between self-esteem and usage of social media. More specifically, the characteristics of social media expression by that user, such as – content selection, frequency of posts, the use of non-verbal media, or amount of interaction with other users. Individuals categorized as those with high self-esteem showed a tendency to elaborately describe themselves in their social media profile, whilst on the contrary, those who have low self-esteem utilized minimal words and revealed less of themselves on social media. In regards to usage of non-verbal media, high self-esteem personnel used more pictures and animations of idolized figures in their profile – this correlates with the degree in which the person identifies themselves with idolized figures (Krämer & Senokozlieva, 2008). However, another study argues that there is also a negative relationship between self-esteem and social media usage (Ehrenberg, Juckes, White & Walsh, 2008). Specifically, individuals with lower self-esteem spend more time on social medias. Furthermore, the study revealed that individuals with lower self-esteem have reported higher

problematic mobile phone use. Also, individuals with lower self-esteem use more instant messages, rather than voice calls and are reported stronger addictive tendencies. Thus, this research will further investigate the existing relationship between self-esteem towards social media usage among international students of Chulalongkorn University.

Narcissism

Definition. In the scope of psychology and personality, narcissism has been defined in many aspects and ways. However, in order to integrate it into this study, we will be using the construct of narcissism as proposed by Buffardi & Campbell (2008) and Cozma et al (2014). These definitions describe narcissism as a personality trait that includes an exaggerated belief in one's own importance and an inflated perception of one's own traits such as physical appearance, intelligence, social status, and power. Narcissism is further elaborated as a trait that yearns for admiration and attention from others (Cozma et al., 2014).

Background. Narcissism has been heavily associated with Freud's psychoanalytic theory with many studies coupling it with his libido theory (Russell, 1985). Ellis (1898) originally coined the term as when one views them as a sexual object. Freud's theory goes on to elaborate that narcissism is an attachment to the self by regulating libido. This regulation would further strengthen the individual's positive view toward themselves even if it meant sacrificing warmth and caring for others (Freud, 1914/1957). These so-called Freudian theories however, are largely considered outdated with much advancement in narcissism leaning towards personality-based studies rather than psychoanalytic constructs (Russell, 1985). Despite this, the Freudian concept of narcissism is still used as a reference point to modern theories about narcissism. Therefore it is important to consider Freud's theories as imperative in fully grasping the concept of narcissism.

Even though the majority of research of narcissism was conducted with narcissism as a pathological disorder rather than a personality trait, many previous studies that used it a

personality have relied on research used in a clinical construct (Emmons, 1987; Cozma et al., 2014; Ames, Rose, & Anderson, 2006). Raskin & Terry (1988), whom the Narcissistic Personality Inventory (NPI) was developed by, did one of the most widely used studies of narcissism as a personality trait. In developing this scale, they identified the four main facets of narcissism by drawing on research by Emmons (1987). These four facets enabled the researchers to measure narcissism by relying on the measurement of the four facets as a personality (Cozma et al., 2014). The four facets, as identified by Emmons (1987) consist of entitlement, authority, superiority and arrogance, and self-admiration. Entitlement is defined as belief that one has the right to manipulate others and should be allowed to do so (Cozma et al., 2014). Authority on the other hand, refers to the need to have authority and leadership over others (Emmons, 1987). Superiority or arrogance is the aspect of narcissism that emphasizes the thought that one is better than others as well as confidence in one's self. Finally, self-admiration refers to the idea that one is special and unique in an extraordinary way than others (Raskin & Terry, 1988).

These four facets of narcissism do not necessarily refer to all of the traits a narcissist must have but are rather used for measurement purposes. As studied and analysed by many researchers, these four facets form the basis of many measures of narcissism.

Another theoretical construct that we will utilize for narcissism is Campbell & Foster's (2007) "Basic Ingredients of Narcissism". This study emphasizes that the three ingredients of narcissism are: a positive self, a relative lack of interest in warm and caring personalities, and reliance upon self-regulatory strategies. The first ingredient, the positive self, is based on the implication that narcissists will generally think they are better than others (Campbell, Rudich, & Sedikides, 2002). The positive-self concept goes on to elaborate that the self-belief of narcissists tend to not match completely with objective measures and the evaluation of trained observers. In summary, their self-views and perceptions are usually

skewed in their own favour (Gabriel, Critelli, & Ee, 1994). Another facet of the positive self

concept is the fact that narcissists' positive self-views are usually most visible in agentic

domains such as status, power, appearance, and dominance to begin with (Gabriel, et al.,

1994). This facet implies that narcissists will rarely or hardly have positive self-views in

interpersonal domains such as warmth, care, and morals (Bradlee & Emmons, 1992).

However, an issue with this, as elaborated by Campbell & Foster (2007) is that this facet of

the positive self is that it reflects an extreme agentic domain of narcissism rather than the

personality trait of narcissism. The final facet of the positive self-views of narcissists involves

their apparent selfishness, which translates into their inflated concept of entitlement (Cozma

et al., 2014; Russell, 1985).

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narcissism as elaborated by Campbell & Foster (2007) is the apparent lack of interest in

warm and caring interpersonal relationships emitted by narcissists. This ingredient of

narcissism stems from the choices that said narcissists in relationships and how they regulate

themselves in terms of the physical appearance and likeability (Raskin & Terry, 1988). Third,

and what is considered the most relevant concept to our study, are the strategies that

narcissists use to regulate the self (Campbell & Foster, 2007). Narcissists are considered to be

individuals that utilize various social skills and capabilities to influence how they self-regulate and present themselves (Bradlee & Emmons, 1992). This translates to them having the ability to easily form relationships, which would primarily cater to their self-enhancement despite being in unfamiliar social settings.

Relationship with Social Media. The relationship between various personality traits and social media is a body of research that is continuously being explored and developed. Many researchers believe that self-reporting personalities such as the Big Five can predict social media activity online (Ong et al., 2010; Buffardi & Campbell, 2008). Since the majority of the social media platforms allow individuals to self generate content such as photos and descriptions and interact with other members, social media has become somewhat of a gateway for self-promotion and self-regulation. This enables researchers to link narcissism and social behaviour to that on social media platforms. As mentioned in the literature review of narcissism in this context, social media has turned out to be a very effective platform for narcissists due to the ease and efficiency of self-regulation (Buffardi & Campbell, 2008). Narcissists are able to make a great amount of friends quite easily, control what is presented about themselves, and basically control their self-presentation (Ong et al., 2010).

Extraversion

Definition. Extraversion is defined as a person who possesses several characteristics: approachable, sociable, cheerful, friendly, lively, optimistic, energetic, active and talkative. The trait is marked by pronounced engagement with the external world. Extraverts enjoy interacting with people, and are often perceived as full of energy. They tend to be enthusiastic, action-oriented individuals. They possess high group visibility, like to talk, and assert themselves. Extraversion is related to several belongingness-related constructs.

Generally, extraverts have more friends, higher quality friendships and more satisfying romantic relationships than introverts.

Background. The concept of extraversion originated from The Big Five personality traits that was developed by Goldberg (1990). It was categorized as one of the main traits to distinguishes people apart from each other. The Big Five personality traits categorize people into different "description of personality", which consist of extraversion, agreeableness, conscientiousness, emotional stability, and openness to experiences. Later on, researchers started to look into the trait, extraversion, individually. People, who are extraverts, are found to be more outgoing and social when compared to introverts. These findings have strengthened the validity of such specific personality trait.

Amongst the Big Five personality traits, extraversion has been consistently found to be the most important personality trait in predicting SNS usage.

Extraversion relates to the preference to seek social interaction. There are two competing hypotheses on the relationship between extraversion and computer-mediated communication (CMC) usage. The 'social compensation' hypothesis proposes that introverts gain more from CMC usage as CMC platforms compensate for their relatively weaker social skills. Conversely, the 'rich-get-richer' hypothesis posits that extraverts gain more from CMC usage as their offline sociability is transferred to CMC platforms. Recently, researchers found extraversion to be positively related to social media usage and to be the most important predictor of SNS usage for emerging adults. Extraverts also made more contact to friends and broadcasted their events on SNS, suggesting that extraverts self-disclose through much self-generated content. In addition, extraversion has been related to larger social networks on SNS, possibly because an individual's SNS friends are often first made offline (Ong et al., 2011).

Components of Extraversion. Extraversion is characterized by breadth of activities (engagement of external activities), and energy creation from external means. The key component of an extravert is the engagement with the external world. Individuals who are sociable and tend to seek excitement are high in Extraversion (Quercia, Kosinski, Stillwell, & Crowcroft,).

Relationship with Social Media. Social media have just started to be used all world. When one looks back 20 years, there wasn't a single trace of social media users. Now, the majority of the people have their eyes stuck to their mobile or computer screen and talking to others, even though there are miles apart. This phenomenon has intrigued researchers and caused them to look into the kind of people that use social media the most. In which, the type of people that use social media the most were extraverts. Extraversion is associated with greater Facebook use. Research shows that extraverts use Facebook to communicate with others by contacting friends and commenting on friends' pages. Surprisingly, introverted individuals are more likely to report using Facebook to keep up with friend; however, extraversion was positively associated with viewing others' Facebook pages. Thus, it is unclear how extraversion is related to the use of Facebook to learn about others, but the current study will test this relationship.

Early studies on individuals' online activities with regards to personality traits found that extraversion was positively related to social media use and mobile use. Those high in extraversion were not as heavy Internet users as their more introverted, more neurotic counterparts but they have the motive to share online entertainment knowledge with others. Extraversion also has an effect on online political engagement particularly via Facebook and photo sharing. Extraversion, a person who possesses characteristics as approachable, sociable, friendly, lively, optimistic and energetic proved to be affected by the usage of Instagram

According to Quercia, Kosinski, Stillwell, and Crowcroft there has been few studies on how personality impacts interactions on social media. Extroverts tend to find social media easy to use and useful. Moreover, the personality traits that correlates the most with number of social contacts is Extraversion.

According to Correa, Hinsley, and Zuniga (2010), this study seeks to expand the literature by investigating the relationship between personality and social media use and the effect of gender and age on that dynamic in a national sample of US adults. Hypothesis 1: People who are more extraverted will use social media more frequently. This hypothesis is drawn from research that has found there is a propensity for people high in extraversion to be more regular users of social media – instant messages and social networking sites – than those individuals who are more. They examined differences in gender; for men, extraversion was positively related to social media use and for women, extraversion and openness to experience were positively related to social media use. When examining differences in age, extraversion was the only personality predictor that was related to social media use for people that are 18-29 yrs old. For the older adult group (30 and older), extraversion and openness were positively related to social media use. This study supported the hypothesis that extraversion was positively related to social media use. The first studies that explored the relationship between personality and different uses of the Internet found extraversion was negatively related to uses of social services such as chat rooms. The argument was that social interactions through these online applications differed from offline interactions due to the lesser importance of physical appearance and physical proximity. As a result, introverted people as well as those who experience social anxiety and loneliness tended to use the Web to assuage their real-world isolation in these early studies of Internet use

According to Ehrenberg, Juckes, White, and Walsh (2008), personality traits of extraversion (depth and intensity of interpersonal interactions), neuroticism (level of

emotional stability and adjustment), agreeableness (differences in levels of cooperation and social harmony), openness to experience (pursuing and enjoying new experiences), and conscientiousness (control, regulation, and direction of goals and impulses), as well as the individual difference variable of self-esteem (evaluative attitudes towards oneself), may predict mobile phone behavior. Personality and self-esteem were stronger predictors of addiction tendencies, with more neurotic individuals reporting stronger mobile phone addictive tendencies and those lower in self-esteem and more disagreeable with stronger instant messaging addictive tendencies.

Gosling, Augustine, Vazire, Holtzman, and Gaddis (2011), examined the personality correlates of self-reported Facebook usage (Study 1) and some ways in which personality traits are expressed in terms of observable information found on Facebook profiles (Study 2); they also examine the extent to which observers are sensitive to the ways in which personality is manifested on profiles. As a result, those higher in extraversion possess more social capital, spend more time socializing in general, and report using the Internet with greater frequency. As such, those higher in extraversion should also socialize more on Facebook and, thus, report increased use of a variety of Facebook features. Online-social networks (OSN) seem to be used by extraverts as yet another medium through which to exercise their need for socialization. Specifically, extraversion was correlated with a large number of self-reported Facebook behaviors, especially those related to maintaining an up-to-date presence and tending to social bonds. Similar to other studies, extraversion was related to the observable information associated with maintaining social connections with others; for example, extraversion was strongly correlated with the number of friends overall and the number of friends in the local network. Moreover, Extraversion predicted not only self-reported frequency of Facebook usage (Study 1), but also engagement in the site, with extraverts (vs. introverts) leaving observable traces of higher levels of OSN activity (Study

2). Consistent with socialization in offline contexts, extraverts seek out virtual social contact and are more engaged during online social experience than are introverts. The analyses of impressions based on Facebook profiles (Study 2) showed that observers can make effective use of observable profile information when they form their impressions. This effect was particularly evident for extraversion.

Kramer and Winter (2008), studied the relationship between (offline) personality and the patterns of (online) self-description. Extraverts rather than the shy users who engage in more elaborate online self-presentations; extraverted people more frequently host weblogs within their homepages and use them to present aspects of their own lives or opinions on different topics. The results indicate a positive relationship between extraversion and a more "experimental" profile picture.

Ong et al. (2011) This study examined the relationship of narcissism and extraversion on adolescents' self- presentation in four Facebook profile features (profile picture, status updates, social network size, photo count), as reported by Grade 7–Grade 9 adolescents. Results were consistent with general findings that extraverts do not use Internet communication tools as substitutes to offline social interaction. Moreover, social network size and photo count can be significantly predicted by extraversion, and narcissism did not contribute unique variance beyond that. Such implies that increasing online social network size or tagging photos have not been adopted as narcissistic self-presentational strategies yet.

Table 1

Comparison of Variables Relationship Between Narcissism, Extraversion, and Self-esteem.

Variable	Relationship
Narcissism vs Extraversion	Higher level of both variables influenced adolescents' rating of attractiveness in social media pictures (Ong et al.,2010) Narcissism in rater is a stronger predictor of attractiveness (Ong et al., 2010) Narcissism is linked with high levels of extraversion and low levels of agreeableness (Miller & Campbell, 2008)
Narcissism vs Self- Esteem	Majority of theoretical models on narcissism state that narcissists will use social relationships to regulate self-esteem (Buffardi & Campbell, 2008) Self-esteem is positively correlated with narcissism (Twenge et al., 2008) Narcissism is known to be used to manage self-esteem (Campbell & Foster, 2007)
Extraversion vs Self-Esteem	Personality and self-esteem were significant predictors of both time spent using SNSs and addictive tendencies (Wilson et al., 2010) Extraverted individuals had many connections with others via social networking sites and in the "real world," and also tended to have higher self-esteem (Correa et al., 2010)

Research Objective

To study relationships between self-esteem, narcissism, and extraversion and usage of

Instagram.

Hypothesis

Hypothesis 1 Self-esteem will be positively correlated with IG usage

Hypothesis 2 Narcissism will be positively correlated with IG usage

Hypothesis 3 Extraversion will be positively correlated with IG usage

Hypothesis 4 The combination self-esteem, narcissism, and extraversion will be

positively correlated with IG usage

Theoretical Framework
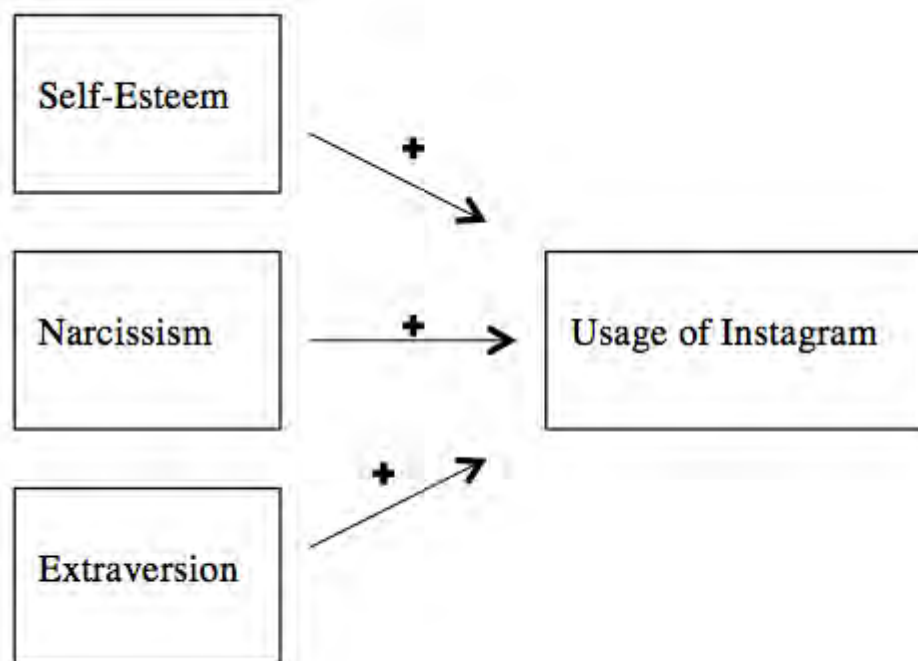
Sampling & Variables

1. Samples in this research are 85 English-speaking undergraduate students in

    international programs of Chulalongkorn University that have voluntarily

    participated.

2. Variables

    2.1 Independent variables

        2.1.1 Self-Esteem

        2.1.2 Narcissism

        2.1.3 Extraversion

    2.2 Dependent variable

        2.2.1 IG usage (which includes frequency, likes, number of posts, etc)

Operation Definitions

1. Self-Esteem: a personality trait which can be defined as the extent to which one prizes, values, approves, or likes oneself. It is a basic need for people to be reassured that they are positively valued and approved. People with higher self-esteem show confidence in their own capabilities and they are certain that they are capable to develop their own skills. They are also more likely to persist in the face of difficulties longer than individual with low self-esteem.

2. Narcissism: a personality trait that involves an exaggerated belief in one's importance and an inflated perception of one's own physical appearance, intelligence, social status, and power. Narcissism also includes the yearning for admiration and attention from others.

3. Extraversion: a personality trait that interacts with the external world. Extraverts tend to have more friends and possess more social capital, spend more time socializing in general, and report using the Internet with greater frequency. Moreover, they possess several characteristics: approachable, sociable, cheerful, friendly, lively, optimistic, energetic, active and talkative.

4. Usage of Instagram: The usage of Instagram is defined by the total usage of Instagram per day, posts upload per week, uploads of pictures or videos of themselves, and uploads of pictures or videos of themselves only.

Expected benefits

1. To understand relationship between the three factors of interest

2. To understand the relationship between the three factors and usage of Instagram

3. To understand the behavior of young adults in Thailand in Instagram usage

4. To contribute to the theoretical understanding of the association between the three independent variables on Instagram usage

Chapter 2

Methods

Sampling

The sample and population was allocated using the convenient sampling method as proposed by Hair, Black, Babin, and Anderson's (2010) rule of thumb for sample size. Hair et al's (2010) rule of thumb for sample size stipulates twenty samples per one variable at the significance level of .01. Therefore, since there are a total of four variables, at least 80 samples have to be considered. However, to provide the body of research with a robust effect, an extra 20 samples will be added to the 80 samples making it an estimated total of 100 samples.

All in all, 100 copies of questionnaires were distributed and 90 copies were collected back. Within the 90 samples, only 85 were usable for data collection. The five samples that were omitted have not completed the questionnaire, hence they were not included in the final results.

Measurements

Demographic information. Before starting the questionnaires, participants were required to fill out their gender, age, faculty, reasons for Instagram usage, and frequency of Instagram usage.

Self-Esteem Scale (SES). The Self-Esteem scale used in this experiment was proposed by Rosenberg (1965). This scale is a unidimensional measure of global self-esteem. It is consisted of ten items that could optimize ease of administration, economy of time, uni-dimensionality, and face validity. Five items were positively worded, which higher scores would indicate higher level of SE (e.g., "I feel that I have a number of good qualities."). Five items were reverse-scored, which higher scores would indicate lower level of neuroticism (e.g., "I certainly feel useless at times."). A 4-point Likert scale was used,

which ranged from 1 = *strongly agree*, 2 = *agree*, 3 = *disagree*, and 4 = *strongly agree*. I The Cronbach's Alpha from the original study was ranged from 0.77 to 0.88. In this research the scale showed Cronbach's Alpha of 0.83.

     Narcissistic Personality Inventory-16 (NPI-16). The Narcissism scale used in this experiment was originally created by Raskin and Terry (1988). The original scale consisted of 40 items that are able to cover the major components of narcissism. However, since the 40-item scale was deemed too lengthy for a questionnaire, we decided to utilize a shorter version of it: the NPI-16. The NPI-16 was developed and tested from the original scale by Ames, Rose, and Anderson (2006). All items were positively worded, which higher scores would indicate higher level of narcissism (e.g., "I have a natural talent for influencing people." And "I really like to be the center of attention). A dichotomous scale was used, which the participant would have to choose between two answers for one question. The Cronbach's Alpha from the original study was 0.72. In this research the scale showed Cronbach's Alpha of 0.65.

     Ten Item Personality Measure (TIPI). The Extraversion scale used in this experiment was created by Gosling (2003), which was used for measuring The Big Five personality traits. This scale consisted of 10 items. Each personality trait has two items, which one is be positively worded and one is reversed-scored (eg., "Extraverted, enthusiastic" and "Reserved, quiet"); in which, only two items that are related to extraversion were used. A 7-point Likert scale was used, ranged from 1 = *disagree strongly*, 2 = *disagree moderately*, 3 = *disagree a little*, 4 = *neither agree nor disagree*, 5 = *agree.* Overall, the TIPI can stand as reasonable proxies for longer Big-Five instruments, especially when research conditions dictate that a very short measure be used. The 10-item instrument is psychometrically superior, it can be used for latent variable modeling, it allows researchers to assess for acquiescence bias and check for errors. *a little*, 6 = *agree moderately*, 7 = *agree*

strongly. The convergence correlations, $r = .77$. The test-retest reliability, $r = .72$. The

Cronbach's Alpha from the original study was 0.68. In this research the scale showed

Cronbach's alpha is 0.63.

Data collection

Data will be collected via hard copies distributed by hand respectively. The completed

hard-copy questionnaires will then be processed to test out statistical analysis.

Statistical analysis

The data collected were analyzed in the IBM SPSS statistical software version .21. The

analysis will include:

- Descriptive analysis: Frequency and percentage of each items or variables

- Pearson's and Spearman's correlations between each main variable

- Multiple regression was used to see whether v1, v2 together predict criterion. To

  understand whether there is a positive or negative correlation.

Chapter 3

Results

As shown in Table 2, demographic information regarding participants' information, such as gender, age, faculty in university, and their behaviors on Instragram were collected. The sample consisted of 85 students, who are studying within the international programs of Chulalongkorn University. The age of participants ranged from 16 to 24 years of age, 27.1% were male and 72.9% were females (23 males, 62 females). Majority of the sample population were from the Joint International Psychology Program (JIPP) and Communication Arts (COMMARTS) as the second largest group. However, two participants did not state which faculty they are studying in, hence, the total number was finalized to 83. Out of the 85 participants, two participants do not own an Instagram account. For the participants who use Instagram, the majority spends one to two hours (45.9%) and three to four hours (37.9%). In which, the most popular platform to access Instagram was reported to be mobile phone (88.2%). The three top reasons for the use of Instagram are entertainment (22.1), personal (20.7%), and photography (18.2). Moreover, within the 'others' category, participants stated "food", "art", and "stalking". Most of the participants uploads one to two pictures or videos onto their Instagram account per week (81.2%). The uploaded pictures or videos varies widely with pictures posted of themselves and of only themselves. The difference between uploaded pictures of themselves and themselves only, is that posting pictures of themselves are allowed to have others in the pictures too, while posting only themselves may only include themselves and no others. The overall Instagram usage score for each participants were calculated by including hours spent on Instagram per day, picture or video uploads per week, posting picture or videos of themselves, and posting picture or videos of only themselves.

Table 2

Demographic Descriptive Data

	Demographics	Frequency	%
Gender	Male	23	27.1
	Female	62	72.9
	Total	85	100
Age	18 and below	20	23.5
	19 – 21	47	55.3
	22 and above	18	21.2
	Total	85	100
Academic Year	1	44	51.8
	2	11	12.9
	3	7	8.2
	4	23	27.1
	Total	85	100
Faculty	JIPP	53	62.4
	BBA	4	4.7
	BALAC	6	7.1
	BSAC	2	2.4
	ISE	2	2.4
	INDA	3	3.5
	EBA	1	1.2
	COMMARTS	12	14.1
	Total	83	97.6
IG Account	Yes	83	97.6
	No	2	2.4
	Total	85	100

Hours Spent on IG per day	None	2	2.4
	1-2	39	45.9
	3-4	32	37.6
	5-6	8	9.4
	7+	4	4.7
	Total	85	100
Platform for IG	Mobile phones	73	88
	Tables	4	4.8
	Computers	6	7.2
	Total	83	100
Purpose of IG	Personal	62	20.7
	Entertainment	67	22.1
	Photography	55	18.2
	Traveling	29	9.6
	Business	5	1.7
	Advertisement	6	2
	Animal	15	5
	Relationships	18	5.9
	Shopping	28	9.2
	Fame	1	0.3
	Teaching	1	0.3
	Learning	7	2.3
	Others	8	2.6
	Total	303	99.9%
Uploads per week	None	3	3.5
	1-2	69	81.2
	3-4	10	11.8
	5-6	1	1.2

	7-8	1	1.2
	9+	1	1.2
	Total	85	100
Posting picture or video of themselves	All the time	9	10.6
	Often	26	30.6
	Sometimes	23	27.1
	Barely	21	24.7
	Never	6	7.1
	Total	85	100
Posting picture or video of only themselves	All the time	3	3.5
	Often	26	30.6
	Sometimes	24	28.2
	Barely	24	28.2
	Never	8	9.4
	Total	85	100

As shown in Table 3, analysis of the Pearson's r and Spearman's rho correlation between Self-esteem, Extraversion, Narcissism, and Overall IG usage are presented. In this study, there was no significance reported between Self-esteem and IG usage. There was a significant positive correlation between Extraversion and IG usage, $r(83) = .22, p<.05$, which indicated that people who are extraverts would more likely use Instagram. The Narcissism questionnaire was a dichotomous scale, so Spearman's rho correlation was used. There was a significant positive correlation between Narcissism and IG usage, $r(83) = .25, p<.05$, which indicated that people who are narcissist would use Instagram more.

Table 3

Correlational Tables between Self-Esteem, Narcissism, Extraversion, and IG Usage

	M	*SD*	1	2	3	4
1. IG Usage	8.95	2.79	1			
2. Self-Esteem	20.24	4.10	-.142	1		
3. Extraversion	8.77	2.42	.224*	-.370**	1	
4. Narcissism	4.28	2.78	.25*	-.485**	.393**	1

*p<.05 one-tailed, **p<.01 one-tailed

As shown in Table 4, multiple regression analysis revealed a marginal significance for all predicting variables, $R^2 = .092$, $F(3, 84) = 2.73$, $p=.049$. However, when accounting the variables individually, there were no significance: self-esteem, $\beta = .022$, *ns*; extraversion, $\beta = .145$, *ns*; Narcissism, $\beta = .23$, *ns*.

Table 4

Multiple Regression Analysis Table for Predicting Variables and IG Usage

Independent Variable	Unstandardized Coefficients		Standardized Coefficients	*t*	Sig
	B	SE_B	β		
(Constant)	6.187	2.467		2.508	.014
Self-Esteem	.015	.085	.022	.181	.857
Extraversion	.167	.136	.145	1.229	.223
Narcissism	.232	.126	.230	1.842	.069

Note: Constant = IG Usage, $R^2 = .092$

Additional Results

Within the scope of Instagram usage, there were different reported aspects. For example, there is hours spent on Instagram, number of posts on Instagram, number of pictures posted of themselves, and number of pictures of themselves only. In this additional results, the purpose was to see if there are any differences with how people use Instagram.

As shown in Table 5, analysis of the Pearson's r and Spearman's rho correlation between self-esteem, extraversion, narcissism, hours spent on IG per day, uploads on IG per week, posting pictures or videos of themselves, and posting pictures or videos of only themselves are presented.

For self-esteem, there was a significant negative correlation with posting pictures of themselves on IG, $r(83) = -.196, p<.05$, which indicate that people with high self-esteem do not tend to upload pictures of themselves.

For extraversion, there were significant positive correlations with posting pictures or videos of themselves, $r(83) = .278, p<.01$, and with posting of themselves only, $r(83) = .253, p<.01$, which indicates that people who are extraverts tend to post pictures of themselves and only themselves onto IG.

The narcissism questionnaire was a dichotomous scale, so Spearman's rho correlation was used. There was a significant positive correlation between Narcissism and uploads per week, $r(83) = .311, p<.01$, which indicated that people who are narcissists would upload more pictures onto their IG. There was a significant positive correlation between Narcissism and posting pictures or videos of only themselves, $r(83) = .184, p<.01$, which indicated that people who are narcissists would more likely post pictures or videos of only themselves on IG.

Table 5

Correlational tables for hours spent on IG per day, uploads on IG per week, posting pictures or videos of themselves, posting pictures or videos of only themselves, self-esteem, extraversion, and narcissism

	M	*SD*	1	2	3	4	5	6	7
1. Hrs/day			1						
2. Uploads/week			.441**	1					
3. Posts			.179	.279**	1				
4. Post only self			.336**	.224*	.635**	1			
5. Self-Esteem			-.071	-.093	-.196*	-.039	1		
6. Extraversion			.014	.047	.278**	.253**		1	
7. Narcissism			.101	.311**	.135	.184**			1

*p<.05 one-tailed; **p<.01 one-tailed

Chapter 4

Discussion

The aim of this study is to investigate the relationship between self-esteem,
narcissism, and extraversion and usage of Instagram. We examined whether Instagram usage
is affected by self-esteem, narcissism, and extraversion.

Four hypotheses were proposed in this study: 1) Self-esteem will be positively
correlated with usage of Instagram; 2) Narcissism will be positively correlated with usage of
Instagram; 3) Extraversion will be positively correlated with extraversion; 4) the combination
of self esteem, narcissism, and extraversion will be positively correlated with Instagram
usage.

Hypothesis I: Self-esteem will be positively correlated with IG usage.

There is no significant correlation between self-esteem and Instagram usage in this
study. However, findings from past research conducted by Krämer and Senokozlieva (2008)
suggested that individuals with lower self-esteem expose less of themselves on social media.
This is consistent with this study's additional results, which suggested that the result showed
in this study could possibly support Kramer and Senokzleva's results. Although, there is no
actual significance, there is still a negative direction. Hence, future studies could still use
self-esteem as a variable, but should use a larger sample for better results.
However, on a final note, failing to support hypothesis I, we deem the rationale inconclusive.
This means that further research in the domain of this study has to be done in order to
establish the rationale of why the hypothesis was rejected. Since the literature review and the
majority of studies conducted with self-esteem and social networks display a positive
correlation, this could be attributed to the language barrier of the questionnaire, which will be
elaborated further in the limitations section. Conclusively, we believe that more research into
the reason why this was rejected needs to be conducted.

Hypothesis II: Narcissism will be positively correlated with IG usage.

When looking at the additional result, narcissism have significant positive correlations with the amount of uploads on Instagram per week and posting pictures of themselves only. This also is consistent to Ong et al. (2011) and Buffardi & Campbell (2008) in that people who are high in narcissism tend to only share about themselves and striving to be the center of attention. Specifically, in Ong et al.'s (2011) study examining the relationship of narcissism and extraversion towards social media platforms, narcissism was highlighted as a personality trait that could predict social media usage. Ong et al. (2011) concluded that there was indeed a positive correlation between narcissism and frequency of social media usage, since social media usage allows narcissism to thrive and manifest. This corresponds with the findings reported here.

Buffardi & Campbell (2008) also garnered similar results to this study where social media is an effective platform for people to showcase themselves and self regulate efficiently. This ties to Cozma et al.'s (2014) where self-regulation is one of the vital traits of a narcissist. In conclusion, findings from both of these mentioned studies support and almost duplicate the results of this study. Therefore, it is logical that our hypothesis in which individuals with high levels of narcissism would use Instagram more frequently.

As for the additional results, we found that individuals with high narcissism would most likely post pictures and/or videos of themselves only.

Hypothesis III: Extraversion will be positively correlated with IG usage.

Consistent to a study conducted by Correa et al. (2010), Gosling et al. (2011), Kramer and Winter (2008) and Ong et al. (2011) that showed a positive relationship between extraversion and usage of social media. Extraverts tend to engage socially to the external world and social media platforms are one of the ways to allow them to share with others and engage in social activities (Ehrenberg et al., 2008; Ferwerda, Schedl, Tkalcic, 2015). Hence,

it is no surprise that there was a positive correlation between extraversion and usage of Instagram.

In this study, the significant positive correlation between extraversion and usage of Instagram was weak. This could be due to the questionnaire used, which is the TIPI, to evaluate the participants' extraversion score. Only two out of ten items of the questionnaire evaluates extraversion specifically. The other eight items measures the other aspects of the Big Five personality traits. Hence, the weak significant positive correlation between extraversion and usage of Instagram could be due to the questionnaire. When looking at the additional result, extraversion has significant positive correlations with posting pictures or videos of themselves and only themselves as well. This showed that extraverts tend to focus on sharing outward to the external world. This again is consistent with the past studies.

Hypothesis IV: The combination self-esteem, narcissism, and extraversion will be positively correlated with IG usage.

The results showed that extraversion, narcissism, and self-esteem, when combined, would predict the person's behavior on Instagram. However, the result is only marginally significant ($p=.049$) with the predictability of only 9 %. This is the reason that the beta weights for all predicting variables were not significant when conducting the multiple regression models. Hence, despite being marginally significant, the result should not be generalized and applied.

Strengths

Research on personality traits and social media has become increasingly popular in this day and age due to the surge in the usage of various social media platforms and applications (Zocial Inc, 2015). However, in respect to Instagram, there has been very little research done on this particular application. Most research on personality traits and social media applications has funneled into Facebook amongst other applications due to its immense

popularity. This adds strength to our study with it being one of the first of it's kind, deviating from the many studies on Facebook. Another positive strength for this experiment is its relevancy to Thailand's burgeoning social media boom. As mentioned in the introduction and rationale, Thailand has 2 million Instagram users and the personality traits behind this large amount of users are indeed a very interesting domain. The investigation into the personality traits behind Thai people's Instagram usage provides knowledge, insight, and rationale, which can uncover many questions as to why so many choose to use this application. This study also manages to build upon many other previous studies that examined various personality traits to social media applications in Western culture, which tend to be more individualistic. However, this study focuses on a specific collectivist-dominated culture such as Thailand. This presents a step forward in investigating the rationale and links behind personality traits and social media usage. However, there are limitations

Limitations

Due to the limited time at hand, data collection did not meet the originally planned quantity. This made the sample size dwarf in stature to other studies in a similar realm. Had the sample size been larger, the statistical results would have yielded more power in finding significant results. Another limitation to the study was the limited variation of samples that was allowed to participate in this study. The limited sample of Chulalongkorn students makes it difficult and nigh impossible to generalize with a larger population. This would have enabled results to be more relevant to the Thai public rather than only within Chulalongkorn University. The questionnaire distribution phase also presented various limitations to our study. The unsupervised data collection method in which was employed through participants filling out the questionnaire on their own also caused some confusion. It is speculated that the English language barrier affected many participants where they did not completely understand each question. Once this occurred, many of the participants did not deem it

significant enough to ask, but instead opted to complete the questionnaire based on their own inferences. This is reflected in 5 questionnaires where similar questions were left unanswered, leading to the conclusion that there was some confusion within the questions.

Future References

Since the results yielded significant correlations between extraversion and narcissism, it could be insightful and knowledgeable to further investigate the link these personality traits and social media. Self-esteem can also be assessed in larger sample size and variation given that there is evidence of significant correlation in the past papers. To do this, additional subscales and variations of each variable can be added to gain deeper insight into the link. Also, to prevent confusion and surpass the language barrier, future studies could develop a Thai version of the questionnaire. This could allow a larger sample size to be investigated and further generalized into the public. Also, had more time been allocated, a larger sample would have been available. Henceforth, a follow-up study with these mentioned references would greatly aid the study between personality traits and social media usage.

Implication

This paper, being a novel study, provides many implications for use in our world today. Even though one of the hypotheses was rejected, we still maintain the notion that this study is a precedent for future studies due to its promising findings. As mentioned, this novel study hopes to encourage other researchers to explore the domain of relationships between personality traits and social media usage, which is increasing day by day. Not only does it provide insight into why Thais use social media, it also presents unanswered questions regarding whether these findings are limited to Thai culture only. Ultimately, we hope this study raises more interesting topics of debates so that other researchers are inspired and can add to the already burgeoning field of the relationship between social media and personality traits.

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Appendix A

Demographic Questionnaire

<u>**Information/Demographic Sheet**</u>

Please fill out each section below.

Personal Information

Gender: _____   Age: _____

Faculty: _____   Year: _____

Instagram Information

How many hours do you spend on Instagram per day in the past month?

     1-2   *3-4*   *5-6*   *7-8*   *9 and above*

What is the platform that you most frequently use social media applications on [Please choose only one]?

    Mobile phones   *Tablets*   *Personal computers* *Others :* _____

Purpose of IG usage [You may circle **more than** one]:

   Personal   *Entertainment*   *Photography*   *Traveling*   *Business*

   Advertisement   *Animal*   *Relationships*   *Shopping*   *Fame*

   Teaching   *Learning*   *Others (please specify):* _____

How many images, videos, or pieces of content do you upload on your IG account per week [Please choose **only** one]?

     1-2   *3-4*   *5-6*   *7-8*   *9+*

How often do you post pictures and/or videos with yourself in them [could be along with other people]?

All the time   *Often*   *Sometimes*   *Barely*   *Never*

How often do you post pictures and/or videos with yourself ALONE in them [selfies, photoshoots, single shots]?

All the time   *Often*   *Sometimes*   *Barely*   *Never*

Appendix B

Rosenberg's self-esteem scale

	Questions	Strongly agree	agree	disagree	Strongly disagree
1	On the whole I am satisfied with myself.				
2*	At times I think that I am no good at all				
3	I feel that I have a number of good qualities.				
4	I am able to do things as well as most other people				
5*	I feel I do not have much to be proud of				
6*	I certainly feel useless at times.				
7	I feel that I am a person of worth, at least the equal of others.				
8*	I wish I could have more respect for myself.				
9*	All in all, I am inclined to feel that I am a failure.				
10	I take a positive attitude toward myself.				

Appendix C

Narcissistic Personality Inventory-40 (NPI-40)

Read each pair of statements below and place an "X" by the one that comes closest to describing your feelings and beliefs about yourself. You may feel that neither statement describes you well, but pick the one that comes closest. **Please complete all pairs**.

1. ___ I really like to be the center of attention
   ___ It makes me uncomfortable to be the center of attention

2. ___ I am no better or no worse than most people
   ___ I think I am a special person

3. ___ Everybody likes to hear my stories
   ___ Sometimes I tell good stories

4. ___ I usually get the respect that I deserve
   ___ I insist upon getting the respect that is due me

5. ___ I don't mind following orders
   ___ I like having authority over people

6. ___ I am going to be a great person
   ___ I hope I am going to be successful

7. ___ People sometimes believe what I tell them
   ___ I can make anybody believe anything I want them to

8. ___ I expect a great deal from other people
   ___ I like to do things for other people

9. ___ I like to be the center of attention
   ___ I prefer to blend in with the crowd

10. ___ I am much like everybody else
    ___ I am an extraordinary person

11. ___ I always know what I am doing
    ___ Sometimes I am not sure of what I am doing

12. ___ I don't like it when I find myself manipulating people
    ___ I find it easy to manipulate people

13. ___ Being an authority doesn't mean that much to me
    ___ People always seem to recognize my authority

14. ___ I know that I am good because everybody keeps telling me so
    ___ When people compliment me I sometimes get embarrassed

15. ___ I try not to be a show off
    ___ I am apt to show off if I get the chance

16. ___ I am more capable than other people
    ___ There is a lot that I can learn from other people

Appendix D

Ten Item Personality Measure (TIPI)

Disagree strongly	Disagree moderately	Disagree a little	Neither agree nor disagree	Agree a little	Agree moderately	Agree strongly
1	2	3	4	5	6	7

I see myself as:

1. _____ Extraverted, enthusiastic.

2. _____ Critical, quarrelsome.

3. _____ Dependable, self-disciplined.

4. _____ Anxious, easily upset.

5. _____ Open to new experiences, complex.

6. _____ Reserved, quiet.

7. _____ Sympathetic, warm.

8. _____ Disorganized, careless.

9. _____ Calm, emotionally stable.

10. _____ Conventional, uncreative.