
| RESEARCH ARTICLE

Analysis of the Effects of Personal Traits and Internet Addiction on Indonesian Students' Learning Motivation

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| ABSTRACT

The purpose of this study is to determine the relationship between personality type and internet addiction behaviour and learning motivation among Indonesian students. In addition, each personality type is examined in relation to internet addiction and learning motivation. This study involved 337 students from South Sulawesi, Indonesia. Using multiple linear regression, the study's statistical analyses were performed. The study's findings indicate that personality type and internet addiction behaviour influence learning motivation with a significance value of 0.00 ($p < 0.05$) and a R square value of 0.77 or 7%. This indicates that these two variables influence learning motivation by 7 percent. Furthermore, learning motivation depends on each individual's unique personality. There are three personalities significantly correlated with learning motivation: agreeableness ($\text{sig} = 0.00$; $\text{sig} < 0.05$), conscientiousness ($\text{sig} = 0.00$; $\text{sig} < 0.05$), and openness to experience ($\text{sig} = 0.01$; $\text{sig} < 0.05$). Extraversion, with a value of $\text{sig} = 0.367$ ($\text{sig} > 0.05$), and neuroticism, with a value of $\text{sig} = 0.137$ ($\text{sig} > 0.05$), are the only two of the big five personality traits that are not correlated with learning motivation. Personality factors influence internet addiction. Extraversion with a value of $\text{sig} = 0.045$ ($\text{sig} < 0.05$), agreeableness with a value of $\text{sig} = 0.021$ ($\text{sig} < 0.05$), and neuroticism with a value of $\text{sig} = 0.02$ ($\text{sig} < 0.05$) are three of the big five personality traits that correlate with internet addiction behaviour. On the other hand, there are two Big Five Personality traits that are not associated with internet addiction: conscientiousness with a sig value of 0.189 ($\text{sig} > 0.05$) and openness to experience with a sig value of 0.704% ($\text{sig} > 0.05$).

| KEYWORDS

Personality, Big Five Personality, internet addiction, learning motivation, Indonesian students

| ARTICLE INFORMATION

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1. Introduction

In 2022, there are 109 million internet users in Indonesia, a significant increase from the present level. Numerous websites, including social media, Facebook, Instagram, YouTube, and online games, have been accessed. The current Internet is designed to facilitate interpersonal communication in cyberspace. Additionally, the Internet is used as an information source. According to research conducted by Yi (2008), 73% of students use the internet more than libraries for research, and 79% of students agree that internet use has a positive impact on academic experience.

The vast number of Internet users in Indonesia, combined with the numerous benefits offered by internet-enabled devices, generates both advantages and disadvantages in their use. Internet users will gain if they use the Internet at a moderate intensity. Normal internet users utilise the internet for their daily needs and reasonable interests, are able to exercise self-control while using the internet, and exhibit normal behaviour when not using the internet (Young, 1998; Davis, 2000; DiNicola, 2004; Kesici & Sahin, 2009 in Cardak, 2013).

However, excessive Internet use will lead to problems. Individuals who use the Internet excessively experience psychological issues, such as an inability to resist the urge to use the Internet for an extended period of time. Individuals spend more time on the

internet and disregard other predetermined schedules (Young, 2008; Alam et al., 2014). This compulsive use of the Internet causes individuals to develop internet addiction.

In addition to psychological problems, teenagers' lack of interest in learning or motivation to learn is another consequence of long-term Internet use. This occurs because other activities are carried out for extended periods of time, causing learning activities to be neglected. According to Masfiah and Putri (2019), adolescent internet use, particularly playing online games, will indirectly affect their learning motivation. Teenagers, for instance, will delay completing assignments, become unmotivated to study, spend more time playing online games than studying, and spend more time playing while studying.

Based on the findings of Masfiah and Putri's (2019) observations and interviews with three adolescents, it was determined that the negative impact of playing online games was a decline in the academic achievement of the three adolescents. They exhibit negative behaviours such as a lack of motivation to study, as well as disruptions in eating and communication with other family members.

Jannah, Mudjiran, and Nirwana (2015) added that the rapid development of information and communication technology influences the loss of learning motivation among adolescents. These innovations have produced a variety of entertaining electronic visual media, including social media and online games.

Based on descriptive quantitative analysis, Jannah, Mudjiran, and Nirwana's (2015) research on learning motivation and addiction to online games reveal a significant negative correlation between the two. The correlation coefficient of -0.301 indicates that the level of online gaming addiction is negatively correlated with learning motivation. When you have a high level of learning motivation, you will have a low level of online gaming addiction.

Internet factors, such as personality, influence learning motivation in addition to external factors, such as internet addiction. Personality patterns will influence the development of an individual's behaviour. According to Balgies (2018), the big five personality traits influence student achievement.

In addition to the correlation and influence between personality and learning motivation, this research will describe the background of personality and internet use. All of these behaviours are, of course, under the control of the Internet user. Every person has a distinct personality. Personality is a collection of physical and psychological characteristics that influence human behaviour. In addition, an individual's personality can be used to distinguish his or her behaviour from that of another. Personality as a component of an individual's behaviour will undoubtedly affect internet usage.

According to previous research, internet use affects the personality of the user. Danfort (2003) adds that personality type influences the emergence of addiction severity among internet users. Additionally, Ghufroon (2004) explains how internet use and self-control are personality traits. According to the findings of Ghufroon's (2004) study, each individual possesses two distinct personality traits in controlling behaviour. Self-control is the activity of controlling one's behaviour when using the Internet, including goals, types of websites and media to be used, duration, and location.

In research conducted by Allport, Cattell, and others, Pervin (1993) identified five fundamental personality factors. According to John and Srivastava (1999), these personality factors are fundamental traits that have the potential to manifest in individual behaviour. According to Cloninger (2008), factor analysis, which is based on Cattell's research, is widely utilised in personality research. Cloninger (2008) argues that Cattell's view that the empirical purpose of the trait model can encompass the entire personality is supported by The Big Five model.

The Big Five is a personality model that can measure the five fundamental components of personality. These five factors can be derived from the words individuals use to describe their personalities on a daily basis through factor analysis. According to Feist and Feist (2006), the Big Five Personality has an approach that seeks to identify personality components by analysing which factors can be used to describe personality traits.

The Big Five personality emerged from more than a decade of research on personality, was based on Cattell's 16 Factors theory, and has since become the most widely accepted personality model. This model has been translated into numerous languages and applied to tens of thousands of cultures, resulting in not only the recognition of the big five as a personality theory but also the expansion of its international validity. These five factors do not provide exhaustive explanations of personality, but they are referred to as the "Big Five" because they account for a significant portion of the term personality (Ackerman, 2017).

The Big Five model classifies personality traits broadly. This model divides human personality into five dimensions of traits. The first characteristic is neuroticism, which reflects emotional stability and the propensity for psychological problems. Sensitivity to psychologically threatening circumstances is correlated with high levels of neuroticism. The second personality trait, extraversion, reflects a propensity to be sociable and to experience positive emotions, as well as a person's level of sociability and sociability. The third characteristic, openness to experience, represents a person's willingness to consider alternative approaches, intellectual

curiosity, and appreciation for the arts. The fourth trait, agreeableness, is an additional aspect of interpersonal behaviour that reflects a tendency to be trustworthy, sympathetic, and cooperative. The fifth trait, conscientiousness, indicates the extent to which individuals are organised, diligent, conscientious, and self-controlled (Ross et al., 2009; Muscanell & Guadagno, 2011 in Samarein et al., 2013).

The purpose of this paper is to examine the relationship between each personality factor (big five personalities) and internet addiction and learning motivation among students in South Sulawesi, Indonesia, based on the description of several research results concerning internet addiction and personality.

2. Methods

This research combines quantitative research methods with psychological analysis in the form of evaluation so that the relationship and influence between variables and the scope of in-depth analysis can be determined. Students in South Sulawesi, Indonesia, provided information for this study. The total number of respondents is 337 students. The measurement is the instrument designed and applied in this study. Students are given three scales: the big five personality scale, which contains 44 statements; the internet addiction scale, which contains 20 statements; and the learning motivation scale, which contains 32 statements.

3. Result and Discussion

This article analyses the relationship between big five personality and internet addiction and learning Motivation among Indonesian students. Multiple linear regression was used to test the hypothesis regarding the effect of the big five personality traits and internet addiction on learning motivation.

Table 1. Regression Test

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	4602.871	2	2301.436	15.069	.000 ^b
	Residual	51011.455	334	152.729		
	Total	55614.326	336			

Examining the F test or hypothesis testing results in table 1, the F value is 15,069 with sig.000 (sig. 0.05), indicating that the big five personality variables and internet addiction behaviour have a significant effect on student learning motivation in South Sulawesi, Indonesia so that the study's hypothesis can be accepted.

Table 2. Regression Test

Model	R	R Square	Adjusted Square	RStd. Error of the Estimate
1	.288 ^a	.083	.077	12.358

According to table 2, the R square value is 0.077, or 7%. It further indicates that the influence of internet addiction and the big five personality traits on learning motivation is 7%. The remaining amount is influenced by factors unrelated to the research conducted.

The final analysis will examine the correlation between each personality type and learning motivation, and internet addiction. The results of the analysis are shown in the table below.

Table 3. Correlation Test between each personality type and learning motivation

Model	Sig.
Extraversion	0.367
Agreeableness	0.00
Neuroticism	0.137
Conscientiousness	0.00
Openness to experience	0.01

The correlation between each independent variable (big five personality traits) and learning motivation is examined in Table 3. If the value of sig is less than 0.05, correlation can be assumed, and vice versa. Five forms of personality types in the big five personality were individually tested for correlation in table 3, with the results indicating that three personality types are significantly correlated with learning motivation: agreeableness with a value of sig = 0.00 (sig 0.05), conscientiousness with a value of sig = 0.00

(sig 0.05), and openness to experience with a value of sig = 0.01 (sig 0.05). Extraversion, with a value of sig = 0.367 (sig > 0.05), and neuroticism, with a value of sig 0.137 (sig > 0.05), are the only two of the big five personality traits that are not correlated with learning motivation.

Tabel 4. Correlation Test based on each personality type and internet addiction

Model	Sig.
Extraversion	0.045
Agreeableness	0.021
Neuroticism	0.002
Consciousness	0.189
Openness to experience	0.704

Table 4 examines the relationship between each independent variable (big five personality traits) and internet addiction behaviour. If the value of sig is less than 0.05, correlation can be assumed, and vice versa. Three of the big five personality types correlate with internet addiction behaviour, namely extraversion (sig = 0.045; sig 0.05), agreeableness (sig = 0.021; sig 0.05), and neuroticism (sig = 0.02). On the other hand, there are two Big Five Personality traits that are not associated with internet addiction: consciousness with a sig value of 0.189 (sig > 0.05) and openness to experience with a sig value of 0.704% (sig > 0.05).

After data collection, scoring, and analysis using multiple linear regression to test the research hypotheses, it was determined that there is a relationship between the big five personality traits and internet addiction behaviour and student learning motivation in South Sulawesi, Indonesia. Thus, the study's proposed hypothesis is accepted.

According to Cloninger's (2008) theory, personality is the underlying cause of a person's behaviour and experiences. The explanation of the research's results is consistent with this theory. Behavior is used to describe an individual's personality. The scope of Cattell's belief that the empirical purpose of the trait model can encompass the entirety of personality, where there is a model known as The Big Five, is expansive.

Internet addiction behaviour can be linked to the Big Five personality traits, which together influence the motivation to learn. Several studies on this topic, including Danfort (2003), demonstrate that personality type influences the emergence of addiction intensity among internet users. Ghufon (2004) also discusses the relationship between Internet use and self-control, which are personality traits. According to the findings of Ghufon's (2004) study, each individual possesses two distinct personality traits in controlling behaviour. Self-control is the activity of controlling one's behaviour when using the Internet, including goals, types of websites and media to be used, duration, and location.

In research conducted by Allport, Cattell, and others, Pervin (1993) identified five fundamental personality factors. These personality factors are fundamental characteristics that may manifest in individual behaviour. According to Cloninger (2008), factor analysis, which is based on Cattell's research, is widely utilised in personality research. Cloninger (2008) argues that Cattell's view that the empirical purpose of the trait model can encompass the entire personality is supported by The Big Five model.

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In addition, the big five personality traits and learning motivation. According to Halim and Chieng (2016), the big five personality model is most commonly used to explain individual learning behaviour. Personality and motivation are two factors that drive or motivate an individual's behaviour.

Motivation is a change in a person's internal energy that is characterised by the emergence of active (emotions) and reactions in order to accomplish goals. Personality is a crucial factor in predicting learning motivation. First, there is a tendency to behave that is reflected in personality and can influence certain academic motivation-related behaviours, such as perseverance, awareness, and the tendency to like to talk.

Second, while cognitive ability describes what a student does, personality describes what a student will do. Thirdly, personality, in addition to cognitive abilities, will be able to predict a student's achievement, particularly personality related to learning motivation. According to research conducted by Supian, Rahmi, and Sovayunanto (2020), there is an influence of learning motivation on each of the big five personality traits of students at the Kaltara nursing academy.

Jannah, Mudjiran, and Nirwana (2015) added that the loss of learning motivation among adolescents is due to the rapid growth of information and communication technologies. These innovations have produced a variety of entertaining visual electronic media, including social media and online games.

Based on descriptive quantitative analysis, Jannah, Mudjiran, and Nirwana's (2015) research on learning motivation and addiction to online games reveal a significant negative correlation between the two. The correlation coefficient of -0.301 indicates that the level of addiction to online games is negatively correlated with motivation to learn. When you have a high level of learning motivation, you will have a low level of online gaming addiction.

In addition to the main discussion, another discussion of the conducted research examines the models of the five big five personalities on internet addiction and learning motivation individually. Extraversion, agreeableness, and neuroticism were found to be correlated with internet addiction in the minor hypothesis test regarding the big five personality traits and internet addiction. This is supported by the findings of research proposed by Stodt et al. (2018) that there are cultural differences in the process of internet addiction among the five big five personality types. This result is consistent with global comparative studies, one of which indicates that East Asian countries have low extraversion scores. High scores for agreeableness and neuroticism in China.

In accordance with this stereotype, the population of both Germany and China possesses a strong will. In addition, the distinct characteristics of each personality type influence the various correlations in the hypothesis. Extraversion possesses personality traits that can predict a variety of social behaviours. Extraverted individuals have positive social interactions.

Additionally, possess self-control and intimacy in social interactions. Extraverted individuals can contribute to group work when present. These individuals belong to the category of those who are affable, affectionate, and talkative.

Extraverted individuals always appear happy and exhibit positive emotions, and they are more responsible. Appears more active, energetic, and adaptable to its surroundings (Cloninger, 2008). According to Robbins and Judge (2008), extraversion individuals are sociable, talkative, and assertive. Therefore, individuals of this type will lose track of time while surfing the Internet. More preoccupied with communicating in cyberspace, either individually or when joining communities and groups.

Individuals with a personality whose agreeableness is referred to as social adjustment, which indicates a friendly attitude, a personality that always concedes, avoids hostility and prefers to be around others. They are compassionate and have tender hearts. Individuals with high agreeableness scores demonstrated helpful, forgiving, and compassionate behaviour in one study (Cloninger, 2008).

According to De Raad (2000), agreeableness is a dimension that allows one to concentrate on interpersonal relationships. According to Hogan (De Raad, 2000), agreeableness enables individuals to overcome life-related problems.

Yellowlees and Marks (Zeng, Sanchez, & Drew, 2010) also suggested that the online activities of some individuals with Internet use issues are to blame. Griffiths (Zeng, Sanchez, & Drew, 2010) stated similarly that the majority of individuals who use the Internet excessively do not cause addiction on their own but that the internet has an effect on other addictions.

Aside from the type of online activities, external factors, such as communication issues, are the reason why people become addicted to the Internet. Individuals choose virtual social relationships as their primary means of communication. In addition to practical factors, it is caused by the absence of physical presence and various emotional expressions that can lead to deeper social connections (Daft & Lengel, 1984 in Ramdhani, 2008). The appeal of online communication is the ease of forming relationships with other online users.

The mode of online communication can be used as a factor that influences social support, such as community building and increasing social support and group closeness. Similar to the culture of most communities, online culture consists of ethics, values, norms, and language (Kiesler, Siegal, & McGuire, 1984 in Zeng, Sanchez, & Drew, 2010). The evolution of proximity in online communication is much more rapid than in offline communication.

In contrast to agreeableness and extraversion, neuroticism is an opposing personality type. Nonetheless, this type is also linked to internet addiction. The type of neuroticism is defined as referring to individuals who frequently struggle with negative emotions such as anxiety and insecurity. Individuals with low levels of neuroticism exemplify this belief, as they are calm and at ease. High levels of neuroticism are not always associated with harmful emotional responses. In various circumstances, this can motivate self-protective behaviour (Cloninger, 2008). So that individuals with this personality type are more likely to use the Internet as a means of diversion or expression.

Caplan also suggests that psychosocial problems can result in increased and compulsive computer-mediated (CM) social interactions, which can exacerbate pre-existing issues (Caplan, 2003). One of Caplan's theories has been empirically tested to demonstrate that individuals prefer CM interactions to face-to-face interactions and are more productive in online settings. The relationship between each personality type and learning motivation is another minor hypothesis. According to the findings of the analysis, agreeableness, consciousness, and openness to experience are related to learning motivation. Raza, Shah, and Nida (2017)

found that agreeableness, consciousness, and openness to experience have a strong positive correlation with academic motivation. Individuals with high levels of openness, extraversion, and conscientiousness exhibit the strongest learning goal directions.

4. Conclusion

Based on the research findings and discussion in the previous chapter, the following are the conclusions of this study; there are relationships between the big five personality traits and internet addiction behaviour and student learning motivation in South Sulawesi, Indonesia. Each personality type is also investigated in connection to internet addiction and learning motivation. This study involved 337 Indonesian students from South Sulawesi. The findings of the study reveal that personality type and internet addiction determine learning motivation.

The contribution of this study is that it shows a strong influence between personal traits and internet addiction on students' learning motivation. In this study, there are limitations in terms of the subjects covered, which are limited to students across the province of South Sulawesi and do not represent students in Indonesia thoroughly. In order to give more thorough research results, the researcher recommends the appearance of further research that encompasses all provinces in Indonesia.

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