PERSONALITY TRAITS AND SMARTPHONE ADDICTION AS CORRELATES OF ACADEMIC PERFORMANCE

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ABSTRACT
The study examined personality traits and smartphone addiction as correlates of academic performance among undergraduates. The participants were 55 undergraduates who volunteered from a randomly selected level in the department of psychology in Nnamdi Azikiwe University Awka. Participants comprised of 22 males and 33 females with mean age 23.09 years and standard deviation 8.47 years. The study adopted correlation design, and data analysis was done using Pearson Product Moment Correlation Coefficient. Result reveal that personality traits were significant in all its domains except Openness to experience. Also, smartphone addiction was significant at r = .16, p < .05. All hypothesis were confirmed. It was concluded that both personality traits and smartphone addiction predicted academic performance among undergraduates in Nnamdi Azikiwe University, Awka.

INTRODUCTION

Background to the Study
Academic performance has been a concept that is often used to assess students' intellectual abilities. It is common for teachers, lecturers, and examiners to administer some sort of tests in order to measure academic performance of students. The phenomenon of academic performance of students, has been looked into and reviewed overtime**,** in various researches conducted around the globe (Gajghat et al., 2017). Consequently, scholars have examined this concept with intention to figure out ways it could be strengthened, or factors that may impede it (Hussain et al., 2019; Oladebinu et.al, 2018; & Sibanda et al., 2015). Yet, in the midst of these efforts by scholars, it appears like the problem still remains the same. More recently, it is common to hear about male dropout, and low male enrolment in school (Whitmire, 2020). Also, among the ones in school, more recent information is that students are more engaged with fast means of acquiring wealth, at the detriment of their studies and college graduation (Oludayo, 2016). Literature on smartphone use and academic performance has been quite scant (Bjerre-Neilsen, 2020). If this situation is not addressed, soon we may have school systems remaining in form of buildings and not institutions where humans explore knowledge. In the foregoing, it appears to the researchers that studies in the relationship between personality traits and smartphone addiction as correlates of academic performance are quite scant.

Academic performance has been defined by many scholars as a measure of how well an individual is able to assimilate, retain, recall and communicate his knowledge of what has been learnt (Joe et. al., 2014), the confirmation that the student's requirement are met by the student, which is reflected in the positive or negative assessment of the student's benefit and results from the teacher's evaluation (Tomsik, 2018), a measure of how well students have performed in the various assessment items set for them based on some educational criteria determined by professions or educators (Lee, 2019), performance outcomes that indicate the extent to which a person has accomplished specific goals that were the focus of activities in instructional environments, specifically in school, college, and university (Steinmayr et al., 2020), and how well a student meets the educational standards set out by the institution (Bell, 2020). In most

academic institutions, student's academic performance is usually measured by teacher-made tests or standardized tests (Kpolovie et al., 2014. ~~p. 77~~). Later, these results obtained from these tests are generally divided by credit units and finally emerges Grade Point Average (GPA). Literature hold that the importance of academic performance cuts across almost every section of individual and national development. For instance, Ali et.al., (2009) posit that a student's academic performance plays an important role in producing the best quality graduates who will become great leaders and manpower for the country, thus, responsible for the country's economic and social development. Similarly, Regier (2011), opines that academic success is important because it is strongly linked to the positive outcomes, we value such as having stable employment, disposed to increased employment opportunities, entitled to earn higher salaries, more likely to have health insurance, less dependent on social assistance, less likely to engage in criminal activity, are more active as citizens, and are healthier and happier. Similarly, Regier (2011) argues that, academically successful adolescents have higher self-esteem, have lower levels of depression and anxiety, socially inclined, and are less likely to abuse alcohol and engage in substance abuse. Also, negative consequences of academic performance have been identified as low self-esteem to the learner and stress to the parents (Manizheh, 2016). Furthermore, scholars report that poor performance in colleges spells doom for the students whose lives become uncertain and full of misery (Oladebinu et. al., 2018, p. 43). According to Aremu and Sokan (2003) the stress that comes with academic failure is not only frustrating to the students and the parents, its effect is equally grave on the society in terms of dearth of manpower in all spheres of the economy and politics.

Earlier, educators, trainers, and researchers have also been interested in exploring variables contributing effectively to the quality of performance of learners. These variables have been pointed out to be within and outside the school environments and consequently affect students' quality of academic performance. Scholars refer to such factors as student related factors, home related factors, institution or school related factors, and peer related factors (Sibanda et al., 2015; Mwaura, 2011; Ogbogu, 2011; Rogel, 2012; Crosnoe et al., 2004; Jeynes, 2002; McMilan & Western, 2000). These factors include: involvement of parents in the academics of their children, home problems, socioeconomic status of guardians or parents, qualification of teachers, lecturer motivation, teaching method, school environment, poor infrastructure, peer influence, reading habit of student, interest in a course and, health and well-being of student. Studies found positive association between personality traits and academic performance (Tomsik, 2018; Poropat & Vendel, 2017; & Veresova, 2015).

According to the American Psychological Association (APA, 2020), personality is defined as the enduring configuration of characteristics and behavior that comprises of an individual's unique adjustment to life, including major traits, interests, drives, values, self-concept, abilities, and emotional patterns. Yet, scholars have defined personality trait as defines personality as the unique combination of characteristics and qualities that makes you "you" across situations and contexts (Poropat & Vendel, 2017), and the characteristic ways that people differ from one another (Diener et al., n.d.). Others define personality traits as the consistent traits of an individual which make him different from other individuals (Kumari, 2014). According to (Diener et al., n.d.) these traits reflect people's characteristic patterns of thoughts, feelings, and behaviours. Personality trait is concerned with the characteristic way of thinking, feeling, and behaving.

According to Kumari, (2014) is one of prominent models in contemporary psychology, and it defines personality in terms of five broad factors, namely, Neuroticism, Extraversion, and Openness to Experience, Agreeableness, and Conscientiousness These factors or traits are often represented by the acronym- OCEAN. These traits have been explained in a variety of ways by scholars (Lim, 2020; Soto, 2018, Diener et al., n.d.). Openness to experience represents differences in intellectual curiosity, aesthetic sensitivity, and imagination. Conscientiousness

represents differences in organization, productiveness, and responsibility. Extraversion represents individual differences in social engagement, assertiveness, and energy level. Agreeableness captures differences in compassion, respectfulness, and acceptance of others. Neuroticism (sometimes referred to by its socially desirable pole, Emotional Stability) captures differences in the frequency and intensity of negative emotions. Earlier, Willingham et al., (2002) and Veresova (2015), identified other factors associated with willingness to perform, such as: attendance, initiative, involvement in non-academic activities, and attitudes to study, as predictors of academic performance and these factors are linked to the traits of agreeableness, conscientiousness, and openness to experience. An important feature of personality traits is that they reflect continuous distributions rather than distinct personality types. According to Diener et al., (n.d.) when personality psychologists talk about introverts and extroverts, they are not really talking about two distinct types of people who are completely and qualitatively different from one another, rather, they are talking about individuals who score relatively low or relatively high along a continuous distribution". It is believed that the intensity of these traits, whether high or low, affects various decisions that an individual takes in everyday life. An example of these decisions is the addictive use of smartphones. For instance, Kim et al., (2015), posits that the decision to use or avoid the addictive use of smartphones is linked to individuals' psychological characteristics , such as the introvert and extrovert personality traits.

The benefits of smartphone have been quite tremendous. For instance, Chen & Ting (2020 p.215) posit that smartphone offer quick access to the Internet and social media, which facilitates message transmissions or communication. Similarly, Kiran et al., (2019, p.82), opine that due to technological advances, human dependency increased and led to an irreplaceable position of phone in our daily life. Also, Kiran et al., (2019, p.82) argue that the rapid development of smartphones provides a rich selection of functions and improved portability that increases the prevalence of smartphone use, which may lead to its addiction, especially among young people. In line with such huge benefits, it appears that in the near future, human life may totally depend on social media.

Surprisingly, scholars define smartphone addiction as a substance free psychological addiction that has a physiological and neuronal basis (Rizwan & Saha, 2021), type of addiction that harms the social relations of users by using excessive and uncontrolled smartphones (Fidan, 2016; Ozen & Topçu, 2017), the action of continuously using a smartphone without the ability to control the usage despite knowing its harmful effects (Cha & Seo, 2018). Researchers in the present study define smartphone addiction as an overwhelming use of smartphone that impairs personal development. negative consequences of smartphone addiction have linked introvert and extrovert personality traits to the risk to smartphone addiction (Rahim et al., 2021, p.129). According to Cohn (2016) individuals who identify themselves as introverted or shy would use information and communication technology to build their social life, meet their social needs, and promote natural tendencies without face-to-face interactions. Similarly, Enez et al., (2016), introverts are more vulnerable to developing smartphone addiction as they depend on smartphones to lessen their social anxiety. Furthermore, extroverts are more likely to treat smartphones as convenient and effective communication devices, they are also more likely to be addicted to using their smartphones (Lin et al., 2014). On the contrary, Cho et al., (2017) reported that neuroticism and extraversion can have significant mediating effects on smartphone addiction. Other negative consequences of smartphone addiction include declined mental health, behavioral problems (De-Sola et al., 2016, p.129), declined physical health (Kim et al., 2015, p.129), poor academic performance (Khan et al., 2019), and declined social relationships (stress, anxiety, depression, loneliness, trouble completing tasks at work or home) (Shahrestanaki et al., 2020), poor health: fatigue, insomnia, sedentary life, decreased immune system, back or eye fatigue, wrist syndrome, neck muscles fatigue, stiffness, social isolation, family relationship problems,

cyberbullying, sexual assault and school failure (Demir, 2018; Gross, 2004). Other studies found that smartphone device leads to problematic use in schools and colleges (Rajesh & Santhi, 2020).

In summary, personality traits which reflect people's characteristic patterns of thoughts, feelings, and behaviours are consistent overtime may be linked to how well students perform in their academics, as well as their everyday choices and decisions. Also, smartphone addiction which involves the excessive use of smartphone without the ability to control the usage, which also impedes concentration and attention, could also be linked to poor academic performance of a student. In the present study, researchers seek to investigate the correlation between personality traits and smartphone addiction on academic performance among undergraduates.

Statement of the Problem

In recent times, institutions of higher learning across the country, have resorted to various ways of ensuring college completion. One of such means of college completion is amnesty approval by university senate. In this regard, scholars have sorted out various ways to enhance academic performance of undergraduates. On the contrary, earlier works focused on the relationship between conscientiousness and openness on academic performance (Rad et al., 2011), the correlation between the Big Five personality traits and academic performance (Neuenschwander et al., 2013), conscientiousness trait and academic performance (Veresova, 2015), and the impact of the Big Five personality traits on academic performance (Tomsik, 2018). While others focused on smartphone use on grade point average (Lepp et al., 2015), the relationship between smartphone use and academic performance (Foen et al., 2017; Kundhavai et al., 2018), smartphone addiction and academic performance (Baert et al., 2016), the impact of smartphone addiction on academic performance (Arooba et al., 2020; Rajesh and Santhi, 2020). Furthermore, others implicate smartphone use for the fallen standard of education (Akiri & Ugborugbo, 2009; Bamidele & Bamidele, 2013). Yet, it appears that no work has been done in the area of five domains of personality traits and smartphone addiction as correlates of academic performance among the present sample using the Ten-Item Personality Inventory by Gosling et al (2003).

Hypotheses

1. There will be a significant and positive correlation between personality traits and academic performance among undergraduate.
2. There will be significant and positive correlation between smartphone addiction and academic performance among undergraduate.

Personality Traits and Academic Performance

Rad et al., (2011) reported a study on conscientiousness and openness to experience personality traits on academic performance. A total number of 250 college students in Iran participated. Instruments used were the NEO PI- R by Costa and McCrae (1992) to measure the personality traits, and academic performance was assessed by Grade Point Average (GPA). Results indicated that both conscientiousness and openness predicted academic performance. Also, openness to experience predicted achievement. Neuenschwander et al., (2013) reported a study on the existence of the possible correlation between the Big Five personality traits and academic performance. A number of 446 students participated in this study. The instrument used was the Big Five Inventory. Results showed that the personality traits extraversion and agreeableness had no correlation with academic performance, while the trait openness to experience had a significant correlation with academic performance. (Correlation was significant at .010 level). Neuenschwander et al., (2013) report appears to be different from (Rad et al., 2011) in the aspect of instrument used, and appears similar in the aspect of openness to experience and academic

performance. In another study by Veresova (2015) participants for the study were 254 students in a Slovak university. Results from this study indicated that the trait conscientiousness, was said to have emerged as bearing the highest positive correlation with academic performance. Other studies appear to differ from the work of Veresova (2015) in the area of personality trait (conscientiousness) and academic performance. In a related study, by Tomsik (2018), on the impact of the Big-Five personality traits on academic performance. The sample utilized were first grade university students which were 402 in number. The instruments used for data collection were the Five Factor Inventory (FFI) for measuring personality traits, and the Grade Point Average (GPA), reported by the students for measuring academic performance. Results showed that only the personality trait conscientiousness was positively related to academic performance (GPA). Tomsik (2018) result appears to be similar with Veresova (2015), and different from those of Rad et al., (2011), Neuenschwander et al., (2013), and Veresova (2015).

Smartphone Addiction and Academic Performance

Lepp et al., (2015), reported a study with the use of a sample size of 536 undergraduates from 82 self-reported majors at a public university. They reported that students who used their smartphones more on a daily basis were likely to have a lower GPA than students who used it less. In another study, Foen et al. (2017), reported their findings on the relationship between smartphone addiction and academic performance among undergraduate students in a Malaysian university. A total number of 176 students recorded their daily smartphone use for learning for a period of seven consecutive days. The results from this study showed that there was a significant but weak inverse correlation between smartphone addiction and academic CGPA. Foen et al. (2017), findings appear to be similar to the work of Lepp et al., (2015), in the area of inverse relationship between smartphone addiction and academic performance. Kundhavai et al., (2018) reported a study which involved 373 participants. Results showed that there was no significant relationship between smartphone addiction and academic performance. This study appears different from those of Lepp et al., (2015) and Foen et al. (2017). Baert et al. (2016) reported another study which centered on the causal or correlational relationship between smartphone addiction and academic performance. A number of 696 students out of 767 of them consented to taking part in the study. The survey of smartphone overuse was through the means of three indicators. One of the instruments used was the Smartphone Usage Subscale by Rosen et al., (2013). Results from the study indicated that there was a one-standard deviation increase in the overall smartphone use of the students while studying. This result suggests a difference in earlier works of Lepp et al., (2015) and Foen et al. (2017) and Baert et al. (2016).

However, Rajesh and Santhi (2020) reported a study on the level of impact of smartphone overuse on academic performance. A total number of 200 medical students participated in this study. The instrument used was a structured questionnaire with items including self-reported smartphone usage, and effect of its use in academic activities. Results showed that the students themselves felt that smartphone overuse was the main reason for their poor academic performance. This study reveal a similarity with Lepp et al., (2015), and, Foen et al. (2017). But differs from Kundhavai et al., (2018). In a study Arooba et al., (2020) reported their findings on the impact of addiction on academic performance. A sample size of 500 respondents participated in the study. The research results show that behavioural intention of smartphones had a significant positive effect, which in fact, impacted smartphone addiction on academic performance of college students. This study appears similar with Lepp et al., (2015), and, Foen et al. (2017) and Rajesh and Santhi (2020) on negative and inverse relationship between smartphone addictions on academic performance but differ from Kundhavai et al., (2018).

Theoretical Framework

In this study, Self-efficacy theory is considered as the most fit theory to explain the relationship between the three variables (smartphone addiction, personality traits, and academic performance), thereby providing a framework for this study. As earlier established, self-efficacy is a highly effective tool in efficient and productive functioning. It is evident that smartphone addiction, deals with the belief that an undergraduate has about his capacity to purchase and use of his/her phone on internet for any purpose. Therefore, the belief in one's ability seems to be a driving force that motivates the use of smartphone while the reward, recreation and satisfaction the internet provides sustains the behaviour. Furthermore, each individual is entirely different from one another. As a result, personality theorists hold that differences may have been as a result of variations in personality traits. Also, beliefs in each individual may further vary as a result of dispositional experience acquired while growing up. According social learning theory these experiences may be acquired by watching models within the environment (Bandura, 1977). Self-efficacy as a person's particular set of beliefs that determine how well one can execute a plan of action in prospective situations, and also as the individual's conviction of being able to master specific activities, situations or aspects of his or her own psychological and social functioning (Bandura, 1982), the aforementioned assumption is further buttressed. In respect to relationship between personality traits and academic performance, studies reveal positive association (Willingham et al., 2002).

Personality traits are relatively consistent, they tend to slightly change as the individual grows older. For example, Soto and John (2012) tracked the developmental trends of the Big Five traits. They found out that overall agreeableness and conscientiousness increased with age. There was no significant trend for extraversion overall although gregariousness decreased and assertiveness increased. Openness to experience and neuroticism decreased slightly from adolescence to middle adulthood (Lim, 2020). These personality changes may be assumed to be as a result of the individual's decisions and choices that were made overtime, which further supports the individual basis of this theory of self -efficacy. For a student to perform optimally in his academic field, he must possess a conviction of being able to deal with whatsoever academic task that is placed before him. In summary, since it has already been established that self-efficacy basically involves the individual's belief in his ability to succeed (Ackerman, 2018) or fail, and Bandura (2001) already describing self-efficacy as a motivational orientation that stimulates grit when faced with difficulties, enhances deliberate actions, encourages long-term view, fosters self-regulation and allows for self-correcting whenever necessary, it could therefore be inferred that the individual is solely left with the choice to either succeed or fail, progress or decline, or to either do what is right or not.

Participants

Sixty- five (65) undergraduates in two hundred level from department of Psychology Nnamdi Azikiwe University who volunteered took part in the study. The faculty of Social Sciences was randomly selected from the faculties in Nnamdi Azikiwe University Awka. Thereafter the department of psychology was selected from the various departments in Social Sciences and finally, 200 level was selected from the various levels in Faculty of Social Sciences. The ages of the participants were between 18 – 29 years and mean age of 23.09 years and standard deviation of 8.47 years. Thirty-three of the participants were female, while 22 were males. Participants were all Christians.

Instruments

Two instruments were used by the researcher to carry the study. They include the Ten-Item Personality Inventory (TIPI) and the Smartphone Addiction Inventory (SPAI). A third scale was

academic performance in which the researchers made use of second semester result of Introduction to Social Psychology (PSY 253) was utilized.

The Ten-Item Personality Inventory (TIPI)

The Ten-Item Personality Inventory ((TIPI) is comprised of 10 items designed by Gosling et al., (2003), which measures the Big Five phenotypic traits which are Openness to Experience, Agreeableness, Conscientiousness, Extraversion, and Neuroticism. Each of the 10 items consists of two descriptors, and each Big Five personality trait is measured by two items. The TIPI is scored in a 7-point Likert scale ranging from 1 (Disagree Strongly) to 7 (Agree Strongly), and the total personality score (10-70) is obtained by summing the subscale scores. Items 2,4,6,8, and 10 are reversely scored, while items 1,3,5,7, and 9 are scored directly. Ehrhart et al., (2009) reported a Cronbach alpha of .57, and also a test-retest reliability estimates of .68 (with neuroticism being the highest) and .38 (agreeableness being the lowest).

Gosling et al., (2003) reported that these scales showed high convergent validity with correlations ranging from .65 (Openness), .70(Agreeableness), .75 (Conscientiousness) to .81 (Neuroticism), and .87 (Extraversion) for the Big Five Inventory. The Cronbach's alpha coefficients obtained were found in the range .40-.73 for each subscale where; a= .40; Agreeableness, a= .45; Openness, a= .50; Conscientiousness, a= .48; Extraversion, and a= .73; Neuroticism. The norm scores for the TIPI were also reported thus; extraversion 4.44, agreeableness 5.23, conscientiousness 5.40, neuroticism 4.83, and openness to experience 5.38. Scores equal to or higher than the norms indicate that the individual manifests the specific personality trait while scores lower than the norm indicates that the individual does not manifest the specific personality trait.

The Smartphone Addiction Inventory (SPAI)

The Smartphone Addiction Inventory (SPAI) was developed by Lin et al., (2014) for the measurement of smartphone addiction. The 26 item Inventory is distributed into a four- factor structure consisting of compulsive behaviour, functional impairment, withdrawal, and tolerance. Items 2,3,4,5,10,20,23,25, and 26 measure compulsive behaviour, items 6,7,8,12,13,15,17, and 18 measure functional impairment, items 1,11,14,16,19, and 21 measure withdrawal while items 9,22, and 24 measure tolerance. The SPAI adopts a 4- point Likert scale which ranges from Strongly disagree (1) Somewhat disagree (2) Somewhat agree (3) and Strongly agree (4), so that the SPAI total score ranges from 26 to 104.

The reliability coefficient reported by Lin et al., (2014) are; Cronbach alpha internal consistency for the total score= .94, while Cronbach alpha of the four factors are; compulsive behaviour =.87, functional impairment =.88, withdrawal =.81, and tolerance = .72. A two- week test- retest reliability of the SPAI and its four subscales was obtained, resulting in .80 to .91. The structural reliability and validity obtained by Wang et al., (2018) were .98 and .98 respectively, with the use of Comparative Fit Index (CFI) and Tucker- Lewis Index (TLI).

Procedure

The participants for the study were 200 level psychology students of Nnamdi Azikiwe University, Awka, Anambra state. A total of 65 questionnaires were used for data collection for the measurement of the two independent variables (personality traits and smartphone addiction). The researchers met the students of 200 hundred level in their classroom just after a lecture ended. They were informed of the research and they willingly gave their consent. Immediately, they were issued with the copies of the questionnaires. The researchers assisted in making sure that each of the participants who was willing received a copy of the questionnaires. The total number of time it took to fill the questionnaires was about 12 minutes, afterwards the questionnaires were collected. The researchers thanked the participant for their cooperation in filling the

questionnaires and reminded them that their responses would be kept private. Data collected were subjected for analysis. A total of 75 questionnaires were distributed, 65 correctly filled were returned and subjected to data analysis. The study adopted correlation design and the statistic appropriate for correlation design is Pearson moment correlation coefficient. Data generated were analyzed using Statistical package for social sciences (SPSS) version 22.0

RESULTS

Table 1: Zero-Order Correlation Coefficient of Personality traits and Smartphone addiction on Academic performance

	1	2	3	4	5	6	7
Smartphone 1	**1**						
Extraversion 2	**.06**	**1**					
Agreeableness 3	**.16**	**.202**	**1**				
Conscientoiusness4	**.094**	**-.032**	**-.202**	**1**			
Openness 5	**-.14**	**.103**	**-.115**	**.265**	**1**		
Neuroticism 6	**.03**	**-.041**	**.042**	**.075**	**-.101**	**1**	
Academic performance 7	**.16**	**.12**	**.12**	**.178**	**.13**	**.17**	**1**

****Correlation is significant at the 0.01 level (2-tailed)**

In the table above, zero order correlation coefficient result shows that smartphone addiction correlated positively with academic performance at r =.16, p < .05, and personality traits domains correlated positively with academic performance on extraversion at r = .06, p < .05; agreeableness at r = .16, p < .05; conscientiousness at r = .09, p < .05, openness at r = -.14, p < .05; and neuroticism at r =.03, p < .05. These results confirm the study hypotheses. Therefore, personality traits correlates positively with academic performance on all its domains except on openness to experience. Furthermore, smart correlated positively with academic performance.

Limitations of the Study

The major limitation of the study was the sample size of the participants. The sample is a small proportion of an entire population of undergraduates in Nnamdi Azikiwe University, Awka.

CONCLUSION

In this study, two hypotheses were tested. The first hypothesis which stated that there will be positive correlation between personality traits and academic performance among undergraduates was confirmed on all domains of personality traits except on openness to experience. This implies that openness to experience did not correlate positively with academic performance. This finding is consistent with earlier works. For instance, scholars and reported that openness to experience did not predicted academic performance (Tomsik, 2018, Veresova, 2015). However, other studies reported other domains of personality traits as predictors of academic performance. These studies include Neueschwander, et al (2013), and Rad et al.; (2011). Variations in findings with respect to personality domains and academic performance may have arisen as a result of participant characteristics and culture of the school settings. While findings appear inconsistent with these studies, it may be recalled that theory supports that personality traits exist in a continuum. For instance, an undergraduate that is termed extraverted, may be perceived to have low, medium or high level. Therefore, inability to tap the level or degree of traits may pose a fundamental challenge to variations in result findings. Furthermore, the theoretical framework, holds that the belief in one's ability to engage in a goal directed behavior and finish up successfully may explain variations in personality trait with respect to academic performance. The belief in one's ability is the first stage of self-motivation. At this point this may be regarded as intrinsic motivation. Now

the undergraduate sees self as being able to start and finish a task. At this point this belief may have risen from experiences of the past both in success and failure. Furthermore, if one has more failures than success it may be possible for that individual to incur failure in the present task. This may be as a result of the fact that success beget success. However, if the student had got more success comparatively, it may be a ready source of motivation to push forward and achieve. In view of this, the role of perseverance may not be ruled out. While some undergraduates are willing to stay longer on a task to achieve others are not just ready to pull beyond what is necessary to achieve on a task.

The second hypothesis which stated that there will be there will be positive correlation between smartphone addiction and academic performance among undergraduate students was confirmed. Earlier findings on smartphone addiction and academic performance appears to be inconsistent. for instance, Lepp et al (2015) reported low correlation between smartphone addiction and academic performance, Feon et al (2017) found inverse relationship between the two concepts, while Kundhavia et al (2018) reported of no correlation and Beart et al (2016) positive correlation between smartphone addiction and academic performance. Amidst inconsistent findings by scholars across the universe, it appears that the effects of smartphone have not been properly addressed. Or at best, the sample drawn in most studies had focused on undergraduates who were not smartphone addicts. For instance, in the present study, participants were drawn from a level irrespective of their status as smartphone addicts. In other wards it could as well meant that participants were basically utilizing the smartphone for academic purposes. As such findings may continue to be inconsistent with simple logic. Basically, if smartphone addiction implies negative consequences on human behavior, simple logic expects that it may be applicable among the present sample. Furthermore, the theoretical frame work embraces the fact that self-belief on one's capacity to start and finish a specific academic task holds that each individual is endowed with resource. Therefore, it appears that the present sample were using their smartphone for mostly academic purposes. Or at best that they did not make use of their smartphone during the lecture period since they were examined on the basis of their knowledge on the course. Finally, it appears that each student believes that he or she has capacity to regulate use of smartphone.

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