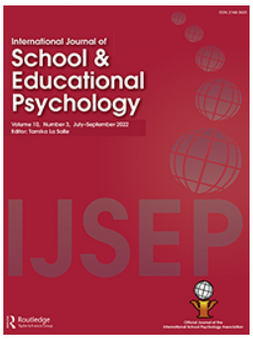

International Journal of School & Educational Psychology

ISSN: (Print) (Online) Journal homepage: www.tandfonline.com/journals/usep20

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To cite this article: Godwin Ocansey, Christian Addo, Henry K. Onyeaka, Johnny Andoh-Arthur & Kwaku Oppong Asante (2022) The Influence of Personality Types on Academic Procrastination Among Undergraduate Students, International Journal of School & Educational Psychology, 10:3, 360-367, DOI: 10.1080/21683603.2020.1841051

To link to this article: https://doi.org/10.1080/21683603.2020.1841051

INTERNATIONAL JOURNAL OF SCHOOL & EDUCATIONAL PSYCHOLOGY
2022, VOL. 10, NO. 3, 360–367
https://doi.org/10.1080/21683603.2020.1841051

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The Influence of Personality Types on Academic Procrastination Among Undergraduate Students

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ABSTRACT

Procrastination on academic tasks is a common problem affecting learning and achievement of university students globally. In Western and developed countries, personality types have been implicated in academic procrastination, but such evidence has not been adduced within the Ghanaian context. This study was therefore conducted to explore the possible role of personality types on academic procrastination among undergraduate students. Two hundred (200) students (Mean age = 20.78 years; *SD* = 2.27) conveniently sampled completed the Academic Procrastination Scale and the Big Five Personality Inventory. Correlational analysis showed that academic procrastination was negatively associated with openness, conscientiousness, extraversion, and agreeableness but positively related to neuroticism. Further standard multiple regression analysis showed only two dimensions of the personality traits: Neuroticism and openness made significant prediction of academic procrastination. Neuroticism made the strongest unique predictor of academic procrastination ($\beta = 0.23$; $t = 2.74$; $p < .01$) followed by openness ($\beta = -0.20$; $t = -2.18$; $p < .05$). The current study provides important information needed for the development of intervention programs that will help reduce academic procrastination among students, with specific emphasis on implicated personality traits.

KEYWORDS

Academic procrastination; personality traits; University students; Ghana

Introduction

Procrastination behavior is a widespread phenomenon, and its prevalence in the general population ranges from 15% to 32% (Beutel et al., 2016; Ferrari et al., 2005). Although procrastination is inevitable, it appears to be a common behavioral pattern for some people than others. Research in academic settings has shown that college students are particularly vulnerable, with approximately half of this population reporting problems due to procrastination (Atalayin et al., 2018; Mahasneh et al., 2016; Ozer et al., 2009). Academic procrastination negatively impacts learning and significantly impedes academic success. Prior studies have shown that college students who postpone tasks tend to have poor academic performance (Gareau et al., 2019; Hen & Goroshit, 2014; Steel et al., 2001). Apart from its detrimental effect on academic outcomes, procrastination has also been linked to decreased general well-being as well as poor physical and mental illness (Sirois, 2015; Stead et al., 2010; Steel et al., 2001). A previous longitudinal study followed 44 students over the course of a semester and reported that procrastinators demonstrated a higher level of stress and illness susceptibility and scored worse in exams at the end of the semester (Tice & Baumeister, 1997).

The concept of procrastination is viewed as intentionally putting off an intended course of action despite being aware of the negative effect that accompanies such delay (Steel, 2007). Various theoretical explanations have been propounded for procrastination, including Kuhl's (1984) Action Control Theory. According to this theory, control strategies used to bolster the intention and inhibit competing action tendencies underlie successful translation of an intention into action. Thus, poor motivation and emotion control can increase susceptibility to distractions from competing action tendencies and thus threaten the successful completion of intended action. Some researchers have proposed a grounded theory of academic procrastination in which informants' perceptions of procrastination were used to construct a five-component paradigm model that includes adaptive and maladaptive dimensions of

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procrastination (Schraw et al., 2007). The adaptive dimension included cognitive efficiency and peak experience; fear of failure and postponement were part of the maladaptive dimensions. According to the authors, these dimensions in turn are related to conditions that affect the amount and type of procrastination as well as cognitive (i.e., prioritizing, optimization) and affective (i.e., reframing, self-handicapping) coping mechanisms.

Recent studies support the notion that academic procrastination represents a failure in learning self-regulation (Pychyl & Flett, 2012; Steel, 2007). Self-regulation learning involves the use of cognitive, motivational, and behavioral strategies to cope and adapt during the learning process. Therefore, a failure of self-regulation learning occurs when students lack the necessary skills for regulating their learning process. Another common explanation for procrastination is the argument by some researchers that procrastination of a given task results from a combination of four factors: the expectation of achieving the task, impulsiveness, timing of the task, and the value of the task (Blake, 2019; Steel, 2007). Other studies suggest both internal triggers and external triggers of academic procrastination (Prihadi et al., 2018). Self-esteem, learned helplessness, laziness, stress, motivation, and self-efficacy have been some of the factors reported to internally trigger academic procrastination (Duru & Balkis, 2017; He, 2017); external triggers of academic procrastination include peer influence (Chen et al., 2016) and negative evaluation from others (Saddler & Buley, 1999).

Personality traits are one of the internal triggers that have been found to be a significant predictor of academic procrastination (Johnson & Bloom, 1995; Steel, 2007; Steel et al., 2001). Personality refers to a set of underlying traits that determine how an individual typically behaves, thinks, and feels (McGeown et al., 2014). It has been widely agreed by contemporary personality psychologists that there are five main domains of traits that form one's personality and shape social landscape. These traits are broadly categorized as extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience (McCrae & Costa, 1997).

So far, the majority of the studies exploring how personality traits influence procrastination have been conducted in developed countries (e.g., Kim & Seo, 2015; Steel, 2007; Steel & Klingsieck, 2016). Further, there is also considerable literature on how to overcome procrastination (Glick & Orsillo, 2015; Krause & Freund, 2014; Owens et al., 2008). Anecdotal evidence shows that procrastination is a social issue affecting academic performance and excellence among students (Ghana News Agency, 2018). In Ghana, researchers have also revealed that students are more likely to procrastinate academic work that involves writing of term papers, studying for examinations, and completing weekly reading assignments, and fear of failure and task aversiveness were found to be associated with procrastination (Azure, 2011). Additionally, personality traits have been found to influence academic achievement and dietary habits of university students (Intiful et al., 2019; Nyarko et al., 2016). For example, Intiful et al. (2019) found that extraversion was positively associated with neophagia and food interest, and conscientiousness was associated with variety and sugar moderation. Furthermore, in their study of university students, Nyarko et al. (2016) found that among the five types of personality traits, conscientiousness was the only factor that significantly predicted students' academic achievement. Thus, studies have generally pointed to academic procrastination as a common behavioral pattern with deleterious consequences on both academic success and general well-being among groups, including college students (Sirois, 2015; Stead et al., 2010; Steel et al., 2001).

Despite this evidence, to the best of the knowledge of the researchers, no study has explored how personality traits influence academic procrastination among university students in Ghana. Therefore, this study sought to investigate the relationship between personality and academic procrastination in the Ghanaian context. It is hoped that the findings of this study will help in the development of educational programs to help curb the rate at which students postpone their academic activities.

Methods

Research design and participants

The study used a cross-sectional survey design. This design was used because it entails surveys or other pre-structured means, which helps to obtain a common data set on some preselected variables. Research participants were selected using a convenience sampling approach that allowed the researchers to sample participants within a short period of time. A total of 200 students—with an equal number of males and females and an average age of 20.78 years (SD = 2.27)—were sampled. The age range of the participants was 17–30 years. Fifty participants each from first year to fourth year were selected.

Procedure

Ethical clearance to conduct the study was obtained from the Research and Ethics Committee of the Department of

Psychology. Those who participated in the study met the following two inclusion criteria: being a registered student and not being less than 16 years old. During the period of collecting data, the first author approached students in their lecture halls or after lecture and invited them to participate in the study. All the key ethical principles of informed consent, voluntary participation, anonymity, and confidentiality were adhered to during the data collection process. Administration and completion of the questionnaire by the participants took approximately 45 minutes. Students were neither reimbursed nor induced for their participation. Data were collected over a period of six weeks.

Measures

Personality

Personality was measured with the Big Five Inventory (BFI; John et al., 1991). The BFI is a self-report measure of five broad personality traits: extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience. Using a 5-point Likert scale from 1 (*strongly agree*) to 5 (*strongly disagree*), participants rated themselves on 44 descriptive phrases, such as "is talkative" or "is sometimes rude to others." The BFI is an internationally well-established instrument for assessment of the Big Five, and its reliability and validity have been proven in numerous studies (e.g., John & Srivastava, 1999). The BFI has been used widely in Ghana and shown to be valid (e.g., Nyarko et al., 2016; Parimah et al., 2016). Internal consistency in this study ranged from acceptable to excellent: 0.86 for neuroticism, 0.79 for extraversion, 0.80 for openness, 0.75 for agreeableness, and 0.85 for conscientiousness.

Procrastination

Academic Procrastination was measured with the Tuckman Procrastination Scale (Tuckman, 1991). The Procrastination scale was developed to assess college students' procrastination tendencies. The English version of the instrument included 16 items rated on a 4-point scale from 1 (*strongly disagree*) to 4 (*strongly agree*) and had a single factor structure. In the original study, Cronbach's α was.86 (Tuckman, 1991), and in a later study Tuckman (2007) reported Cronbach's α to be .89. In this study a reliability coefficient of 0.80 was obtained.

Data analyses

The Statistical Package for the Social Sciences (SPSS) version 23 for Windows (SPSS, 2016) was used to analyze the data. Pearson's *r* was used to examine the relationship among the study variables. Finally, standard multiple regression was used to determine which of the five personality traits significantly predicts academic procrastination. Only predictors that had significant correlation coefficients with the criterion variable were entered into the regression models. All statistical tests were performed using two-tailed examination, and a *p* value of .05 or less was considered statistically significant.

Results

Relationship among study variables

Correlational analysis as shown in Table 1 revealed that academic procrastination was negatively associated with openness to experience ($r = -.29$, $p < .001$), conscientiousness ($r = -.15$, $p < .05$), extraversion ($r = -.17$, $p < .01$), and agreeableness ($r = -.23$, $p < .001$) but positively related to neuroticism ($r = .31$, $p < .001$). A significant correlation was found among all the dimensions of personality types.

Personality traits as predictors of academic procrastination

Standard multiple regressions were conducted to determine which of the personality types significantly predicted academic procrastination. The Big Five Inventory with its five personality types were entered as independent variables (predictors), and academic procrastination as the dependent variable was fitted into the regression model. The results, as presented in Table 2, showed that the regression model was significant

Table 1. Correlation between academic procrastination and personality traits.

Variables	1	2	3	4	5	6
1. Academic procrastination	1	−0.29***	−0.15*	−0.17**	−0.23***	0.31***
2. Openness to experience	–	1	0.44***	0.43***	0.60***	−0.45***
3. Conscientiousness	–	–	1	0.31***	0.58***	−0.48***
4. Extraversion	–	–	–	1	0.32***	−0.33***
5. Agreeableness	–	–	–	–	1	−0.53***
6. Neuroticism	–	–	–	–	–	1

*$p < .05$; **$p < .01$; ***$p < .001$.

Table 2. Multiple regression analysis of the predictors of academic procrastination.

Model	*B*	*SE B*	*β*	*t*	*p* values
Openness	−.15	.07	−.20	−2.18	.031*
Conscientiousness	.05	.06	.07	.81	.418
Extraversion	−.02	.06	−.03	−.33	.740
Agreeableness	−.02	.07	−.02	−.23	.818
Neuroticism	.19	.07	.23	2.74	.007**
R^2		.127			
F		5.36***			

*$p < .05$; **$p < .01$; ***$p < .001$.

($F = 5.36$; $p < .001$) and accounted for 12.7% of the variance in academic procrastination ($R^2 = .127$). The results showed that only two dimensions of the personality traits—neuroticism and openness to experience—made a significant prediction of academic procrastination. Neuroticism made the strongest unique predictor of academic procrastination ($\beta = 0.23$; $t = 2.74$; $p < .01$) followed by openness to experience ($\beta = -0.19$; $t = -2.18$; $p = .031$).

Discussion

Procrastination on academic tasks is a common problem affecting learning and achievement of university students globally. In this study we sought to explore the influence of personality types on academic procrastination. Correlational analysis revealed that academic procrastination was negatively associated with openness to experience, conscientiousness, extraversion, and agreeableness but positively related to neuroticism. Further regression analysis showed that only two dimensions of the personality traits—neuroticism and openness—made a significant prediction of academic procrastination.

The results show that there is a significant positive correlation between neuroticism and academic procrastination. This implies that as a student becomes more neurotic, there is an increased chance of procrastinating academic activities, and as such traits decrease, there is a reduction in academic procrastination. This result is similar to what was obtained by researchers in this field (Johnson & Bloom, 1995; McCown et al., 1987; Rabin et al., 2011; Van Eerde, 2003; Watson, 2001). For example, a study assessed the relationship between procrastination and personality types among universities across two countries (Canada and Netherlands) and observed a significant correlation between neuroticism and delaying academic tasks (Schouwenburg & Lay, 1995). Similarly, a more recent study on 178 university students highlighted that neuroticism was positively correlated with active academic procrastination (Kim et al., 2017).

In this study, we observed a significant negative correlation between openness to experience and academic procrastination. The more a student is open to experience, the less the likely he or she will procrastinate his or her academic activities, and as such traits decrease, there is a high possibility that the student will engage in academic procrastination. In the literature, there are some mixed and uncertain findings about the correlation of openness to experience with academic procrastination (Lai et al., 2015; Nadeem et al., 2016; Steel, 2007). Though some studies have shown no association between openness to experience and delayed academic tasks (Lai et al., 2015), our results are in line with other studies that indicate that openness to experience was positively but weakly correlated with procrastination (e.g. Steel, 2007). Furthermore, we also found a significant negative correlation between conscientiousness and academic procrastination. This demonstrates that the more traits of conscientiousness a student has, the less the chances of engaging in academic procrastination and vice versa. Our results match the observations in prior studies that have documented the inverse association between conscientiousness and academic procrastination (Johnson & Bloom, 1995; Laverdière et al., 2013; Rastegar et al., 2016; Watson, 2001).

According to the other results of this study, neuroticism and openness to experience were found to be significant predictors of academic procrastination. Our findings suggest that neuroticism was the strongest predictor of procrastination. Based on the Action Control Theory of procrastination (Kuhl, 1984), it is believed that some people do not follow up with intended tasks even when they are able because they are subject to various external and/or internal forces that reduce their ability to concentrate on tasks and initiate and complete activity. Since neuroticism has to do with emotionality, it is possible that such students who are emotionally unstable are more likely to procrastinate academic assignments and exercises (Eckert et al., 2016; Grund & Fries, 2018). Our results are in line with the findings of prior studies regarding the contribution of neuroticism to academic procrastination (Bańka & Hauziński, 2015; Mohsen, 2015). Therefore, it is highly relevant to encourage the development of emotional regulation skills among students, particularly those who are likely to procrastinate.

The negative predictive effect of openness to experience on academic procrastination is not surprising (Krause & Freund, 2014; Rastegar et al., 2016). The literature suggests that individuals with high levels of openness are more adaptable to changing circumstances and are more willing and innovative and likely to think about new ideas (McCrae & Costa, 1997). It is also known that openness results in a much wider depth

and range of experiences. Therefore, it is possible that students with such personality traits are intellectually curious and able to manage their time better to avoid delaying tasks (Kim & Seo, 2015; Steel & Klingsieck, 2016).

Implications for research and practice

The findings of this study have some implications for research and practice. First, insights from this study can inspire research on procrastination and personality types among other demographic groups such as school-going children and adolescents at the pretertiary levels. Expanding research to include such population using both quantitative and qualitative designs can help ascertain the scope of the problem of procrastination among students as well as deepen the meaning of procrastination among various groups. This might eventually guide an effort toward formulation of context-relevant prevention measures. Second, regarding to practice, findings of this study and potential findings from studies on other demographic groups can be used to enrich student counseling services in our schools and universities. A comprehensive assessment of personality types of students and pupils at the beginning of their school years can help in the design of tailored programs for assisting potential academic procrastinators meet their academic needs. Doing this will also help reduce the incidence of mental health problems students encounter due to procrastination-related anxieties.

Strengths and limitations

This study investigated the influence of personality on academic procrastination among students in an institution of higher education in Ghana. The result of this study adds to the literature on academic procrastination research in Ghana as well as gives insight into how various personality types relate with academic procrastination among undergraduate students. Thus the study serves as a foundation for further studies into the relationship between personality and procrastination in other demographic groups. Despite this advantage, the cross-sectional nature of the study, the sampling technique, and the small sample size limit generalizability of the findings to other settings. Our results should also be interpreted cautiously due to the small-to-moderate correlation coefficients found among the study variables. Other factors such as self-efficacy, academic performance, and self-regulation (Kim et al., 2017; Klassen et al., 2008), which have been shown to influence academic procrastination, were not included in this study. Finally, social desirability could also have affected students' responses to the procrastination questionnaire.

Conclusion

This study represents the first attempt to investigate the role of personality types on academic procrastination in the Ghanaian literature. The study found that academic procrastination correlated with the five personality types, and of these, neuroticism and openness to experience were significant predictors of procrastination. Given that procrastination among students significantly lowers academic performance, future research should examine how to enhance the facets of personality that protect or reduce procrastination among students as well as how personality influences procrastination in other domains.

Disclosure statement

No potential conflict of interest was reported by the authors.

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