

Antecedents Of Academic Procrastination And Its Relationship To Academic Achievement In Kiambu County, Kenya

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Abstract: *The aim of the study was to examine the antecedents of academic procrastination and its relationship to academic achievement. The study objectives includes the relationship between test anxiety and academic procrastination and the link between academic procrastination and academic performance in Kiambu County, Kenya. The study was guided by temporal motivation theory and it adopted a correlational research design. Purposive sampling, proportionate sampling and stratified random sampling were used to select 410 form three students (98 females, 93 males and 219 (both females and males) ranging from 15 to 17 years) from 19 public secondary schools in Gatundu South, Kiambu County. Piloting of questionnaires was done in one of the public secondary school. Data was collected using test anxiety scale (Cassady & Johnson, 2004), academic procrastination scale (Steel, 2010) and the researcher adopted academic achievement proforma table. Academic performance was obtained from their third term examination scores. Pearson's Product Moment Correlation Coefficient and Multiple Regression Analysis were used to test the stated null hypotheses set at $\alpha=0.05$. Analysis of the collected data was done using SPSS version 20.0 for windows while descriptive statistics such as means, percentages and frequencies were used to summarize the collected data. The results provided evidence that there was a positive correlation between test anxiety and academic procrastination and a negative correlation between academic procrastination and academic achievement. Recommendations of the study was that students can learn effective study skills and time management in order to curb academic procrastination and to enhance their overall academic achievement.*

Keywords: *Antecedents of Academic Procrastination, Test Anxiety, Academic Achievement.*

I. INTRODUCTION

Worldwide, educational attainment in most cases is gauged by academic achievement which is seen by many as the key determinant of success in life. Without substantial investment in human capital, no country can achieve sustainable economic development. In order to play effective roles in the society and to overcome prevailing challenges, education is expected to provide an all-round development of its recipients. More often there is disappointment and frustrations when learners do not obtain the cut-off grade for admission to join colleges and higher institutions of learning. Parents suffer a lot of stress and the number of the

unemployed in the society also increases. Under-achievement has various implications for adolescents like, school dropout, loss of focus and hope (Uys, 2011).

Under-achievement among the students poses as a major challenge all over the world as expressed by many education policymakers and analysts. Many countries like USA are concerned about their students' under-achievement. The students are usually examined using international tests and their performance is verified. Data released from international math and science assessments indicated that USA students continued to rank behind many developed nations. In a period of three years, PISA which was one of the biggest cross-national tests was conducted among 15-year-olds in dozens of

developed countries. It measured reading ability, science literacy and mathematics and from 2015 PISA results, USA was placed number 24 in science and 38 in mathematics out of 71 countries (Martin & Richard 2015). Education reformers frequently invoked the high rate of underachievement of USA students to justify school policy changes.

In South Africa TIMSS tests are conducted after every four years among African countries to examine students' performance. Likewise under-achievement poses as a challenge among South African students. A report of *November (2016) showed that South Africa was near the bottom of the rankings, according to TIMSS which was a quadrennial test sat by 580,000 pupils in 57 countries. Further findings revealed that 27 percent of pupils who have been in school for a period of six years could not read. After five years of schooling, 50 percent of the students could not divide 24 divide by 3 to get 8. In addition only 37 percent of the students starting school were able to pass the matriculation exam and just 4 percent were able to earn a degree* (Wilson & Aditi 2017). Education analysts have tried to come up with various school policies and strategies to enhance the performance of the students.

In Kenya, the Kenya Certificate of Secondary Examination (K.C.S.E) is an annual national examination that marks the end of secondary school cycle. Therefore KCSE examination acts as a gatekeeper guarding entry to higher institutions of learning. However, analysis from 2019 KCSE results statistics indicated that students' performance was below average. The analysis illustrated that out of a total of 693,263 students who sat for the exam, only 125,746 of them attained a mean grade of C+ and above, which is only 18% of the students who managed to get university admission. A total of 248,147 students attained a mean grade of C, C- and D+, hence joined TVET institutions to learn technical skills. In addition a total of 319,370 of the students attained a mean grade of D and below; whereby 137,713 attained grade D, some 152,339 had D- while 29,318 candidates scored E. This ranged at 46% of the students who were not admitted to university or TVET institutions.

Out of a total of 3,188 students who sat for the KCSE exam, only 454 of them attained a mean grade of C+ and above. This was only 14% of the students who managed to get university admission (Education office, Gatundu South). This percentage was slightly below the national cumulative percentage of 18.1% for the year 2019. A total of 1154 which was 36% of the students attained a mean grade of C, C- and D+, hence were not admitted to TVET institutions to acquire technical skills. In addition a total of 1,580 of the students attained a mean grade of D and below; whereby 632 attained grade D, some 801 had D- while 147 candidates scored E. This meant that 50% of the students did not manage to pursue any professional course or acquire technical skills.

Research studies have indicated that there are many factors that affect students' academic achievement. These include physical environment, class size, teachers experience and attitudes, parental involvement and teachers competency and training (Lippman, 2010). A lot of literature has focused on environmental factors as well as psychological factors. Psychological factors include among others; self esteem, self efficacy, self regulation, fear of failure, perfectionism,

academic procrastination among others. According to Pychyl and Flett (2012), academic procrastination is a serious issue that affects the students, community and society and therefore must be addressed urgently. Hence the current study focused on academic procrastination as a major psychological factor and one of it's antecedents is test anxiety. However there is limited local literature concerning antecedents of academic procrastination (test anxiety) as a psychological factor which might in one way or another affect academic achievement.

Ellis and Knaus (2002), gave an explanation of procrastination as the desire to avoid an activity and the use of excuses to justify avoidance behaviours. A procrastinator is someone who knows what they want to do, can be able do it, is trying to do it but doesn't do it (Popoola 2005). Due to delayed completion of assignments and the last minute preparation for the exams procrastinating students' academic performance is usually below average (Balkis, Duru & Buluş, 2013). Consejero, et al., (2006) stated that academic performance of students largely depends on the proper organization of the study time and this includes finding time to pursue work related goals.

There is a link between academic procrastination and test anxiety among students. Test anxiety is physiological, phenomenological and behavioural responses that accompanies students regarding negative consequences of failure in the face of exams. Test anxiety comprises of cognitive and physical aspects whereby cognitive test anxiety occurs when the student thinks about the consequences of failure, has a problem in recalling facts and faces difficulties of reading and understanding the questions. Physical test anxiety occurs when the student has insufficient study skills and physical discomfort (Onyeizugbo, 2010). A study by Jelena and Aleksandra (2018), has given support that an increase in anxiety led to an increase in the level of academic procrastination.

Majority of the previous studies were conducted in developed countries and the respondents were mostly university and college school students with limited studies on high school students. The results reported on studies on association between antecedents of academic procrastination (test anxiety) and academic achievement has been contradicting and inconclusive. Thus, there was need for this research to be conducted in secondary schools in Kenya, in order to acquire knowledge of the importance of test anxiety and academic procrastination in relation to academic achievement.

STATEMENT OF THE PROBLEM

Under-achievement is a major challenge among the secondary school students in Kiambu County This was evidenced by 2019 KCSE analysis results which revealed that out of 3188 students who sat for the exam only 454 of them, which was only 14% attained a mean grade of C+ and above. The students had the opportunity to join universities in order to acquire professional courses. A total of 1154 which was 36% of the students attained a mean grade of C, C- and D+, were placed in TVET institutions to be trained on different technical skills. Finally a total of 1580 which was 50% of the students attained a mean grade of D and below. These students

were neither accommodated in the universities nor in the TVET institutions, therefore they were not to be trained on any course or technical skills. The data presented in table 1 shows the county mean score for the year 2019.

Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E	Mean Score
Kiambu Entry (3188)	0	10	46	99	130	169	302	358	494	632	801	147	4.048
National Entry (693263)	627	5796	13366	24478	35340	46139	63102	83358	101687	137713	152339	29318	4.298

Table 1: Kenya Certificate of Secondary Education Overall Grade Summary for the year 2019

The low performance has thus necessitated the researcher to conduct a study to examine the relationship between test anxiety, academic procrastination and academic achievement among form three students in Kiambu, Kenya.

OBJECTIVES OF THE STUDY

This study was guided by the following objectives:

- ✓ To find out the relationship between test anxiety and academic procrastination.
- ✓ To examine the relationship between academic procrastination and academic achievement.

ALTERNATIVE HYPOTHESES

The following alternative hypotheses were formulated as per the objectives of the study.

H_{a1}: There is a significant relationship between test anxiety and academic procrastination.

H_{a2}: There is a significant relationship between academic procrastination and academic achievement.

THEORETICAL FRAMEWORK

This study was based on Temporal Motivation Theory (TMT) (Steel & Konig, 2006). This theory suggests that procrastination is a reflection of a temporal pattern of discounting behaviours. A student who procrastinates has the tendency to suspend completion of learning tasks that are associated with long term goals that have greater benefits in order to attend to available short term goals. The principles of this theory include; task desirability, expectancy, value, sensitivity to time and delay. According to this theory, enjoyable learning tasks that provide the students with immediate satisfaction are highly valued and therefore have high probability of being attended to. Assessment of the value and utility sometimes may result to cognitive dissonance which is described as a situation of conflicting beliefs. Cognitive dissonance among students may lead to stress that has adverse psychological effects. It is also associated with academic anxiety which creates states of psychological disequilibrium. Psychological imbalance makes the students to procrastinate academic tasks which negatively affects academic achievement.

Learning among secondary school students comprises of academic, social and talent development issues. In most educational settings, there is a lot of emphasis on academics but the students are also given opportunities to develop their talents and interact with peers and teachers for social and

emotional development. As a result the students are presented with many competing goals which they are supposed to achieve. Some students end up focusing more on other activities at the expense of academic work. The competing goal makes the students to concentrate on activities that offer immediate gratification such as entertainment and co-curricular activities, a situation which makes them to postpone academic activities or procrastinate. Under such circumstances, academic work is considered to be of less utility but when examination approaches its' utility increases. Even though the utility of academics increases during examination period, it offers little opportunity for meaningful learning. Consequently students who are fond of academic procrastination end up performing dismally in achievement tests.

There is empirical evidence that this theory has been useful in other studies. A study was conducted by Dorothea and Yovensius (2018) in Indonesia on goal orientation, self efficacy, test anxiety on procrastination. The study reported a significant positive association between test anxiety and academic procrastination. However self efficacy correlated negatively with academic procrastination.

This theory provides a very important conceptual foundation of academic procrastination. It provides an appropriate hypothesis for the antecedents of academic procrastination and how they relate with academic achievement of the students. Informed by this theory, the researcher sought to find out the association between antecedents of academic procrastination and academic achievement among form three students in Kiambu County, Kenya.

II. REVIEW OF RELATED LITERATURE

The reviewed literature looks at how test anxiety relates to academic procrastination and the relationship between academic procrastination and academic performance.

A study by Jelena and Aleksandra (2018), aimed at revealing the link between anxiety and academic procrastination among students. The participants were 60 second year students from Latvia University in Europe who were aged between 20-27 who had been enrolled in the faculty of Engineering. The study showed that 48% of the participants had high level, 27% medium level and 25% low level of academic procrastination. The link between situational and personal anxiety and academic procrastination was revealed. Situational anxiety was a condition characterized by subjectively experienced emotions like; nervousness, anxiety, stress and inability to make a decision while personal anxiety was the tendency to perceive situations as threatening and reacting to them with anxiety. The findings showed that an increase in situational and personal anxiety, increased the level of academic procrastination. The study utilized a small sample size of 60 students thus its' results could not be generalized to the current study which had a relatively larger sample size of 410 students. The respondents were aged between 20-27 years thus they were older as compared to the respondents in the current study who were aged between 16-18 years. The study focused on the impact of situational and personal anxiety on

academic procrastination, whereas the current study focused specifically on cognitive and physical anxiety and their relationship with academic procrastination.

Ezdihar (2017), investigated the association between test anxiety and academic procrastination with self-efficiency among university students based on gender variables. The study included a sample of 702 male and female university students in Mu'tah university, Jordan. The findings showed a significant and positive statistical relationship between test anxiety and academic procrastination among the participants. Additionally there were virtual differences between the means for students responses on the test-anxiety, academic procrastination and the self-efficiency scales based on both gender and specialty variables. In addition to test anxiety the study involved extra variables which were self-efficiency and gender while the respondents were university students, however the current study focused only on one variable that is test anxiety and the respondents were secondary school students.

In Jordan, Abdu (2013), conducted a study to explore the association procrastination, test anxiety, satisfaction with study and academic performance. The study selected 573 high school students from Jordan. The students were in grades 10-12 with an average of 17 years. The study found that academic procrastination was significantly associated with test anxiety. This implies that high levels of test anxiety are associated with high tendency of academic procrastination behaviours. Test anxiety was found to be positively correlated with academic procrastination, poor academic achievement and study satisfaction. It was also found that students who are less satisfied with their studies delay completion of assignments compared to those students who are more satisfied with their academic work. The study's respondents were only male students, it focused on two extra variables which are academic performance and study satisfaction. However the current study's respondents were both male and female students and it focused only on two variables which are test anxiety and academic procrastination.

A study by Nwamuo and Ihekwa (2014), studied the level of test anxiety among college students in Owerri, Imo State in Nigeria. The study targeted 2050 university students out of which a sample of 205 students were sampled to be involved in the study. The sample size was 10% of the target population. To obtain the sample size, the students were randomly selected using a systematic approach. The findings revealed that a majority of the students had high levels of test anxiety. The high levels of test anxiety was found to affect concentration and academic performance. The researcher also revealed that students who experience test anxiety tend to be easily distracted during a test, experience difficulty with comprehending instructions and have trouble recalling relevant information. The sample were college students and it researched only on test anxiety variable, while the current study's sample were secondary school students and is focusing on test anxiety and academic procrastination variables.

In Ghana, James (2010), conducted a study on the relationship between academic procrastination and test anxiety in statistics among graduate students. The sample was 103 Master of Education graduate students from University of Education, Winneba in the Central Region of Ghana. The

results showed that high rate of students had problems which were linked with procrastination especially when studying for examinations, reading and completing writing assignment papers. The findings further revealed that academic procrastination resulting from task averseness and fear of failure correlated significantly to worth of statistics, test and class anxiety, computational self-concept, interpretation anxiety and fear of asking for help from the statistics lecturer. The study utilized a small sample size of 103 students and the respondents were post graduate students from Central Region of Ghana, hence there was a need to conduct a study with a larger sample size of 410 secondary school students from a different country that is Kenya.

A more elaborate study was conducted by Gichohi (2019), on the influence of anxiety on academic performance among Technical University students in Kenya. The researcher employed correlational and regression designs and later obtained a sample size of 357 out of a population of 5,000 students. Stratified sampling method was used to ensure that there was equal representation in Mechanical, Infrastructure and Built environment, Electrical and Electronic, Architecture and Survey departments. Purposive sampling was used to exclusively focus on final year students. The findings were that, anxiety affected majority of the students in higher institutions of education especially among those who were pursuing demanding and difficult courses. The study concluded that high anxiety levels were a contributor to dismal academic achievement. Although the study was conducted in Kenya, the respondents were undergraduate students and this necessitated the researcher to conduct a study in a secondary school setting. More so the study focused on the influence of anxiety on academic performance while the current study focused on the relationship between test anxiety and academic procrastination and its subsequent influence on academic achievement.

A study by Betul (2017), investigated the association between assignment, exam performances and the academic procrastination tendencies in Distance Learning and FtF learning environments among State University students in Instabul, Turkey. A study comprising of a sample of 88 university students in FtF and DL environments was conducted. The findings illustrated a negative association between students' academic procrastination and performance. However, in FtF environment only academic procrastination and examination scores were significantly related. In addition, a moderate correlation was found in FtF group while no correlation existed between total assignment and exam scores among distance learning students. The findings were as a result of research done in different learning environments (DL and FtF) in Turkey which is a developed country, however the current study was done in a FtF learning environment in Kenya which is a developing country.

Charine (2015) explored the association between academic procrastination and performance in academics among secondary school students in South Africa. The sample consisted of 349 students who were selected from grades 8 to 12. A total of 167 respondents were male representing 47.9% while 180 students were female representing 51.6%. The age of the respondents ranged from 12 years to 19 years. The results indicated that there was a negative correlation between

academic procrastination and academic achievement. This implies that higher levels of academic procrastination were associated with low scores in academic achievement and vice versa. Academic procrastination was not significantly related to demographic variables such as gender and age. The sample comprised of students from Black, Indian, Coloured and White races in South Africa whereas the current study focused on students in Kenya who are from Black race.

In their study Mojeed, Adedeji and Adeyinka (2007), researched on the correlates between mathematics achievement and academic procrastination among university undergraduate students. A sample of 150 students from the department of mathematics in the Universities of Ibadan and Lagos, Nigeria participated in the study. Findings showed that a significant correlation difference existed in the levels of procrastination and mathematics performance whereby low procrastinators performed better than students with moderate and high procrastination tendencies. Further results revealed that the students procrastinated the same way irrespective of their gender. The study focused only on mathematics achievement and the findings used a small sample size of 150 university students. Current study established the academic achievement of all the subjects taken by high school learners in Kenya and included a larger sample size of 410 high school learners. Academic achievement was the average grade acquired by the form three students during the end of term three exam in the year 2021 which was measured using Academic Achievement Proforma table.

A study by Chege (2015), investigated the effect of birth order on procrastination among KIM college students in Eldoret town, Kenya. The researcher adopted ex post facto design whereby a total of 30 male and 30 female respondents were involved. The sample included 20 firstborns, 20 middle children, and 20 last-borns who were purposively recruited. Results indicated that a total of 33 (55%) of the sample felt that birth order affected their motivation for doing things while a total 27 (45%) felt that they were not affected. A total of 28 (46.7%) procrastinated while 32 (53.3%) did not procrastinate. Meanwhile 35 (58.3%) respondents said that they usually gave up on difficult tasks while 25 (41.7%) of the respondents never did so. The conclusion was that there was a significant association between respondents' birth position and procrastination and most of those who procrastinated were a few middle borns and the last borns. The findings showed that there was a significant association between age of the respondents and procrastination. Out of the 28 respondents who procrastinated, 12 (42.9%) were males while 16 (57.1%) were females. The research used ex post facto design, sample size was 60 respondents and it focused on the relationship between procrastination, birth order, gender and the age of the students. However, the current study used a correlational design, a larger sample size of 410 respondents and it focused on the association between academic procrastination and academic achievement.

Majority of the studies reviewed were conducted in developed countries and the respondents were mostly university and college school students with limited studies on high school students. Thus, there was need for this research to be conducted in secondary schools in Kenya, in order to acquire knowledge of the importance of these two variables,

that is, test anxiety and academic procrastination in relation to academic achievement.

III. METHODOLOGY

This study used a correlational research design. The researcher wanted to establish the relationship between test anxiety and academic and also the relationship between academic procrastination and academic performance in Kiambu County. The researcher did not want to manipulate the variables and to establish causal relationships among them.

PARTICIPANTS

The participants of this study were 410 form three students (Girls = 98, Boys = 93, Both Boys and Girls 219) randomly selected from 19 public secondary schools in Kiambu county. Majority of the students were aged between 15 to 17 years.

RESEARCH INSTRUMENTS

Data collection was done using a questionnaire consisting of two scales. The questionnaire had four sections. Section one included questions on the student's demographic data (age and gender) and school characteristics (type of school that is whether boys' boarding, girls' boarding or mixed day). Section two looked for information on participants test anxiety using test anxiety scale (Cassady & Johnson, 2004). Section three solicited information on academic procrastination using academic procrastination scale (Steel, 2010) and section four explored information on academic achievement using academic achievement proforma table. The developers of this scales established their internal consistency reliability to be .79 and .82. This value of internal consistency reliability indicates that the scales are reliable tools for collecting data among form three students.

DATA COLLECTION

Authorization to conduct this research study was obtained from Graduate School of Kenyatta University and National Commission for Science, Technology and Innovation. Afterwards, clearance to collect data from secondary school students in Kiambu County was obtained from locale's County Director of Education.

A pilot study was conducted using one public secondary school which was excluded from the actual data collection. A specific date for data collection at each school was arranged by the researchers and the school authorities. The questionnaires were administered to the students during the school days. Filling of the questionnaires took 40 minutes. Participants volunteered to participate after a briefing session on the intention of the research and assurance of confidentiality. Afterwards the questionnaires were collected and were ready for coding.

DATA ANALYSIS

The quantitative data collected using questionnaires was entered into the computer for analysis using SPSS (20.0). Descriptive statistics like percentages and frequencies were used to present the outcomes of the quantitative data and they assisted in interpreting, comparing and making conclusions on the study.

IV. RESULTS

In order to establish the relationship between test anxiety and academic procrastination the score of the participants in the test anxiety scale were correlated with academic procrastination scores. The results of the correlation are shown in table 2.

		Academic Procrastination
Test Anxiety	Pearson Correlation	.19**
No. of participant:	Sig. (2-tailed)	.00
	342	342

Correlation is significant at 0.05 level

Table 2: Correlation between Test Anxiety and Academic Procrastination

The results indicate that test anxiety and academic procrastination had a positive correlation, ($r(342) = .19, p = .00$). Null hypothesis had been formulated that “there is no significant relationship between test anxiety and academic procrastination”. This hypothesis was tested at 0.05 level of significance using Pearson product moment correlation. The correlation results were positive and significant. Therefore the null hypothesis was rejected. The findings indicate that an increase in test anxiety is associated with an increase in academic procrastination.

To determine the relationship between academic procrastination and academic performance of the learners correlation was done between academic procrastination score and academic performance scores as presented in table 3.

		Academic Procrastination
Academic Achievement	Pearson Correlation	-.173**
	Sig. (2-tailed)	.001
No. of participants	342	342

Correlation is significant at 0.05 level

Table 3: Correlation between Academic Procrastination and Academic Achievement

The results presented in table 3 indicate that there is a negative correlation between academic procrastination and academic achievement. The hypothesis that “there is no significant relationship between academic procrastination and academic achievement” was tested at 0.05 level of significance using Pearson product moment correlation. Academic procrastination and academic achievement had a negative correlation, ($r(342) = -.173, p < 0.00$). The correlation was statistically significant. The null hypothesis was thus rejected. The results implied that an increase in

academic procrastination resulted to a decline in academic performance.

V. DISCUSSION OF THE FINDINGS

The results of the study indicated a significant positive relationship between test anxiety and academic procrastination which supports the results of past research studies conducted in this field. A study by Khan et al. (2019), that was conducted among university students found that test anxiety and academic procrastination were significantly related. The study further reported that test anxiety and academic procrastination had a significant impact on a academic performance. The positive relationship between academic procrastination and test anxiety was attributed to the fact that students’ academic preparedness which was enhanced by accomplishment of academic tasks and assignment on time made them less anxious and more confident when taking academic tests while unpreparedness and failure to accomplish academic tasks on time led to increased test anxiety. Low levels of academic procrastination allow students to prepare adequately and hence become more confident about their ability to perform well in academics. This enables the students to control their arousal (test anxiety). On the other hand, learners with high levels of academic procrastination are usually unprepared which makes them to doubt their abilities resulting to increased levels of test anxiety.

The findings of Khan et al. (2019) support the descriptive statistics of the current study. The results indicate that students with low levels of academic procrastination had low levels of test anxiety. Another study by Balkish (2017) that was conducted among undergraduate students examined gender differences in academic procrastination, test anxiety academic performance. Aitken procrastination inventory and demographic form were used in the collection of data. The study results indicated that academic procrastination was negatively associated with academic performance and positively correlated to test anxiety. Furthermore, students postponing and delaying academic related tasks were associated with negative tendencies such as test unpreparedness and prior academic failure. The study results suggest that assisting students in academic preparedness can help them deal with test anxiety. Another study by Seadati et al.(2017) reported that meta-cognitive skills training based on behavioral approach was successful in the reduction of academic procrastination and test anxiety among female students.

Similar results were reported by El Masri (2020) in a study that was conducted in Lebanon. The research examined the link between test anxiety and academic procrastination. The findings showed that there was a moderate and significant relationship between test anxiety and academic procrastination. Students who were found to have high levels of test anxiety had high tendencies to procrastinate. The findings demonstrate that test anxiety is significantly related to academic procrastination regardless of level of education. The results fit well in the expectancy theory used in this study. The proponents of the theory asserted that in the face of unpleasant

academic experiences, students tend to postpone academic tasks.

The positive and significant association between test anxiety and academic procrastination seems to be consistent over time as evidenced by a study conducted by Onwuegbuzie (2004). The research investigated the association between the dimensions of test anxiety in statistics and academic procrastination among graduate students in USA. The study also examined the prevalence of academic procrastination among the participants. The results showed that most of the 135 students who were involved in the study reported significant levels of academic procrastination. It was also found that there was a positive association between test anxiety integration and academic procrastination. The findings indicated that high levels of test anxiety led to high levels of academic procrastination and vice versa. The results also confirm that test anxiety affects student's academic behaviours regardless of the level of education.

In the same vein, Bolbolian et al. (2021), reported that test anxiety was related to academic procrastination tendencies. The research was conducted among 152 university students. The research design used by Bolbolian et al. was related to the design used by the current study. Even though the study used t-test to examine if there were differences in academic procrastination among students with different levels of test anxiety, the results support the findings of the present study. The mean differences in academic procrastination behaviours were in favour of students' high levels of academic procrastination. Students with high levels of test anxiety reported high levels of academic procrastination tendencies compared to students with low levels of test anxiety. The results suggested that an increase in test anxiety could lead to an increase in academic procrastination tendencies and vice versa. These results are alike with those of the current research. Clearly, the results demonstrate that test anxiety is an important construct that should be addressed when training students on effective time management strategies.

The results of this research also showed that there exists a negative association between academic achievement and academic procrastination. The results were in line with the findings of Betul (2017) in a research conducted in Turkey. The study involved 88 participants selected from face-to-face (FtF) and distance learning environments. The findings of this study revealed that there was a negative correlation between academic procrastination and academic performance in both learning environments. It was also noted that academic procrastination and exam performance were correlated but only in the FtF learning environment. In DL environment no significant relationship was found between assignment scores and exam performance. However, a positive correlation was realized between assignment completion and academic performance in the FtF learning environment. This was attributed to the fact that students who procrastinate do not practice the concepts taught and hence end up forgetting most of the contents leading to poor academic performance.

Balkis (2017), found that academic procrastination negatively affected the student's academic achievement. The aim of the study was to investigate the association between academic procrastination, life satisfaction and academic achievement. The study involved a sample of Pamukkale

university students in Turkey, while the current study involved a sample of high school learners. The findings confirmed that regardless of the level of study, the tendency to postpone academic tasks has a negative impact on academic achievement of the pupils. The study established that students with low academic procrastination tendencies performed better than students with high academic procrastination tendencies. This is consistent with the temporal motivation theory by Steel and Konig (2006) which asserts that students who give priority to activities other than learning do not experience meaningful learning and performance even when the utility of academics increases during examinations. The negative association between academic procrastination and academic achievement is that students who procrastinate do not get sufficient time to interact with the learning content. When such students are given achievement tests, they perform dismally because of poor mastery of learning content.

Another research by Goroshit and Hen (2019), was conducted among college students with learning disability in Israel. The results demonstrated that academic procrastination impacted negatively on academic achievement. The study further established that learning disability significantly moderated the relationship between academic procrastination and academic achievement. The study employed a research methodology similar to the one used by the current research. The studies only differed in terms of the samples used and the locale. The results indicate that academic procrastination negatively affects academic achievement for both students with and without learning disability. In the area of the current study, the below average performance in academics may be attributed to academic procrastination tendencies. Descriptive statistics of the data collected showed that a significant number of students involved in the study reported considerable levels of academic procrastination.

Consistent with the results of the present study, Hayat et al. (2020) found that there was a negative association between academic procrastination and academic achievement. The study was carried out among 317 medical students at Shiraz University, Iran. The aim was to establish the prevalence of academic procrastination and how it affected academic achievement. The findings showed that a majority of the students (49.9%) reported moderate levels of academic procrastination while 29.25% showed high levels of academic procrastination. High levels of academic procrastination were associated with low scores in academic achievement and vice versa. The study results also confirmed that academic procrastination is an issue of concern across different levels of study.

Mojeed et al. (2007), study aimed at examining the effect of procrastination on mathematics achievement. The research involved a sample size of 150 university students from two universities in Nigeria. During this study data collection was done using 35 items of academic procrastination. The findings of this study showed that academic procrastination and academic achievement in mathematics were correlated. In addition to that, the findings also revealed that students with low levels of procrastination performed better than those with high levels of procrastination. Results also showed that gender did not affect the levels of procrastination. Students who procrastinate assignments end up being overwhelmed by the

huge volume of assignments. This makes them lack time to revise for the exams leading to poor performance in examinations.

Similar findings were reported by Chege (2015). The study aimed at probing the effect of gender, birth order and age on procrastination. This study was conducted on a sample size of 60 students selected from Kenya Institute of Management in Eldoret, Kenya. Data collection was done using questionnaires. The findings of this study showed that 55% of the sample size felt birth order affected their procrastination levels while 45% felt it had no effect. It was also revealed that there was a significant connection between age and the procrastination levels. In addition to that, the findings showed that 58.3% of students did not continue doing the assignments when they came across something challenging in them. Students who fail to complete difficult assignments develop negative attitude towards the subject leading to low academic performance.

VI. CONCLUSIONS

This study has established that test anxiety relates positively to academic procrastination. Based on the results, secondary school students ought to be trained on how to curb test anxiety, to avoid academic procrastination. This can assist them to improve their level of preparedness during academic tests in order to enhance academic achievement.

Additionally a negative relationship exist between academic procrastination and academic performance. Based on these results, secondary school learners should be trained on how to curb academic procrastination by managing their time and scheduling their academic tasks properly in order to enhance academic achievement.

VII. RECOMMENDATIONS

This section presents recommendations for both policy and further research

Policy Recommendations

- ✓ Since test anxiety has been found to relate positively to academic procrastination, there is a need for the curriculum developers to integrate guidance and counseling in schools which includes strategies of coping with academic procrastination and exam anxiety.
- ✓ A negative relationship was found between academic procrastination and academic achievement hence the teachers and other stakeholders in education should assess students' needs and determine appropriate support measures that can have an impact on their academic achievement.

RECOMMENDATIONS FOR FURTHER RESEARCH

Further research may be carried out to provide a comprehensive regression model on other factors that can be manipulated to enhance academic performance in secondary schools and enhance knowledge in this area.

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