

**Citation:** Kelly, A & Ileri, A. M. (2022). Academic Resilience and Self-Efficacy as Predictors of Academic Achievement Among Form Three Students in Trans-Nzoia County, Kenya. *Journal of Popular Education in Africa*. 6(6), 92 – 108.

**Academic Resilience and Self-Efficacy as Predictors of Academic Achievement Among Form Three Students in Trans-Nzoia County, Kenya**

By

Kelly Angeline

Masters Student Kenyatta University

Email: nanyaosi@gmail.com

Dr. Anthony Muriithi Ileri

Lecturer, Department of Educational Psychology, Kenyatta University

Email: ireri.anthony@ku.ac.ke

**Abstract**

The past four years, 2016 to 2019 has shown a low academic achievement in Kenya Certificate of Secondary Education (KCSE) among students in Trans-Nzoia County. Little has been done in this area to establish how academic achievement relates with academic resilience and academic self-efficacy among form three learners. This study aimed to find out the relationship between academic resilience, academic self-efficacy and academic achievement. The study also aimed at establishing whether there are gender differences in academic resilience and academic self-efficacy. This study was informed by Flach's theory of resilience and Bandura's social cognitive theory. The study used correlational research design with a target population of 1500 form three students in Kiminini Sub County in the year 2021. Kiminini Sub County, public secondary schools and form three students were selected using purposive sampling. Proportionate sampling was used to select the number of participants per school. Simple random sampling was used to select 306 students to participate in the study. Data were collected using academic resilience scale and academic self-efficacy. Students' academic achievement was obtained from students' progressive records. Data analysis was done using SPSS (Version 21). Pearson product moment correlation and multiple regression analysis techniques were used to test the research hypotheses. The results indicate that there exists a strong positive and significant relationship between academic resilience and academic achievement,  $r(279) = .65, p < .05$ . There was a moderate positive significant association between academic self-efficacy and academic achievement,  $r(281) = .46, p < .05$ . The results also showed statistically significant gender differences in academic resilience,  $t(279) = -4.11, p < .05$ . The study recommends that teachers should utilize the findings to come up with suitable instructional methods and guidance programs to help students to enhance their self-efficacy and resilience skills for better learning outcomes.

**Keywords:** Academic Resilience, Self-Efficacy, Academic Achievement

**Citation:** Kelly, A & Ileri, A. M. (2022). Academic Resilience and Self-Efficacy as Predictors of Academic Achievement Among Form Three Students in Trans-Nzoia County, Kenya. *Journal of Popular Education in Africa*. 6(6), 92 – 108.

**Academic Resilience and Self-Efficacy as Predictors of Academic Achievement Among Form Three Students in Trans-Nzoia County, Kenya**

By

Kelly Angeline and Dr. Anthony Muriithi Ileri

## **1. Introduction**

Academic achievement is significant in the progressive development of the young generation in any community. Students who are successful in their studies are more likely to transition into adulthood and achieve their educational, occupational and economic success (Lakhani et al., 2017). According to Kpolovie et al. (2014), secondary education is key to further studies and also for the development of a nation. The quality of education of a child is monitored on the basis of their academic achievement (Singh & Choudhary, 2015).

Academic resilience is defined as the ability to recover from adversities with the aim to succeed in academics (Alao, 2015). Academically resilient students are competent, inherently motivated, hopeful, self-confident, and adjust fast to their environment. They also show concern, are solution oriented, show sense of friendship, determination, assertiveness, and possess appropriate and suitable communication skills (Herman, et al., 2021). These characteristics may lead to progressive academic achievement among such students. Globally, academic resilience has been perceived as a significant predictor of academic achievement (Abolmaali & Mahmudi, 2013; Anakwe, 2016; Kamalpour et al., 2017). Studies in Kenya, indicate that academic resilience is significantly associated with academic achievement (Mwangi et al., 2015; Mwangi et al., 2018; Ricketts, 2015).

Adika et al. (2013) define self-efficacy as a person's confidence and trust in self-ability to succeed. Learners with high self-efficacy belief can easily face stressful situations as compared to learners with lower levels of self-efficacy beliefs (Yahsuan & Jodie, 2015). Highly efficacious students easily seize classroom opportunities in terms of behaviors, learning and, motivation than learners with low self-efficacy (Hermita & Thamrin, 2015). In addition, confident students, have high self-efficacy beliefs and accept challenging tasks (Deci & Ryan, 2012).

Academic resilience and academic self-efficacy have a close link. The ability to learn from failure and experience are associated with self-efficacy which is considered one of the key characteristics of resilient adolescents (Ungar, 2008). Adolescents' experiences and failures will help them develop self-efficacy as they learn from each other which is an essential protection against adversity (Kellan, 2004). Studies show that there is an association between academic resilience and academic self-efficacy (Cassidy, 2015; Speight, 2009). Therefore, this study looked at how academic achievement is associated with academic resilience and self-efficacy. It also examined if there are gender differences in academic resilience and self-efficacy among students in form three in Kiminini Sub County, Trans-Nzoia County, Kenya.

**Citation:** Kelly, A & Ileri, A. M. (2022). Academic Resilience and Self-Efficacy as Predictors of Academic Achievement Among Form Three Students in Trans-Nzoia County, Kenya. *Journal of Popular Education in Africa*. 6(6), 92 – 108.

## **2. Statement of the Problem**

Despite the Kenyan government's effort to enhance academic achievement among students through performance contracting for head teachers, introduction of free education, county government bursaries, reduction of compulsory examinable subject in KCSE and increasing the number of optional subjects, academic achievement among secondary school students in Trans-Nzoia County has been consistently low from the year 2016 to 2019. The mean scores for the year 2016, 2017, 2018 and 2019 were 6.37, 4.37, 3.91, 3.76 and 3.82 respectively.

This trend may lead to many students missing opportunities to advance their education and in the end the community may have inadequate required human labor and resources for socio-economic development. In addition, the affected students may end up being involved in substance abuse, suffer mental disorders, poor health, low self-esteem and stress to the parents. Although academic resilience and academic self-efficacy have been studied in USA, Iran, Nigeria, Uganda and Kenya, academic resilience and academic self-efficacy have been found to significantly relate to academic achievement, therefore, there was need to find out the relationship between academic resilience and self-efficacy, and students' achievement in academics in Trans-Nzoia County.

## **3. Objectives of the Study**

- i. To test whether academic resilience is associated with academic achievement.
- ii. To examine how academic self-efficacy correlates to student's academic achievement.
- iii. To examine if there are gender differences in students' academic resilience and academic self-efficacy.

## **4. Review of Related Literature**

### **4.1 Relationship between Academic Resilience and Academic Achievement**

Ricketts (2015) carried out a research on the correlation between academic resilience and perceptions of students in mathematics. The study participants were 237 and 279 male and females respectively who were drawn from South Eastern United States among a low-income urban school. Rasch analysis was used in this study where participants were exposed to a pre-test and post-test in mathematics. The mathematics scale was completed by participants and the results indicated that students' perception in mathematics was related with academic resilience. Academic resilience was found to correlate positively with both pre-test and post-tests scores in mathematics. This study limited itself to how academic resilience relates to academic achievement perception of mathematics only. The current study filled the gap by showing how academic resilience relates with academic achievement on overall performance of learners in all subjects.

Abomaali and Mahmudi (2013) did a study on how academic achievement relates with classroom environment perception and resilience among female high school students in Tehran. A sample of 374 participants were randomly selected. Questionnaires were used to collect data. Collected data were subjected to multiple regression. The results showed that resilience and degree of perceived challenge significantly predict academic achievement. The current study fill the gap by using both male and female for the study

Oke et al. (2016) conducted a research among secondary school students in Ogun estate in Nigeria on academic motivation, satisfaction and resilience in relation to academic confidence.

**Citation:** Kelly, A & Ileri, A. M. (2022). Academic Resilience and Self-Efficacy as Predictors of Academic Achievement Among Form Three Students in Trans-Nzoia County, Kenya. *Journal of Popular Education in Africa*. 6(6), 92 – 108.

The participants of the study were 2160 students, 24 secondary schools were sampled using random sampling technique. Descriptive survey research was adopted by the researcher. Collection of data was done using questionnaires and analyzed using simple percentage and stepwise-multiple regression. The study findings showed that academic motivation, satisfaction and resilience positively correlated with students' academic confidence. Based on this study, the use of multiple regression did not show the relationships among the variables, the current study used Pearson correlation coefficient to fill the gap.

In Kenya, Mwangi (2015) did a research on how academic resilience correlates with academic achievement. The research was done among form three students in Kiambu County with a sample size of 390 students (198 boys and 192 girls). Participants age ranged from 15-24 years old. The study participants were drawn from Kiambu among 10 secondary schools. Academic achievement of the students was obtained from school performance records. The researcher used questionnaires to collect data. The results attained indicated that academic achievement positively relates with academic resilience. Based on this study, the present study was executed in Kimini Sub-County to establish if the results may be generalized beyond that given geographical area.

#### **4.2 Relationship between Academic Self- efficacy and Academic Achievement**

A research by Tiyyuri et al.(2016) examined how academic performance correlates with self-efficacy. The study participants were 320 post graduate students from Jordan. Students from each school were sampled using proportionate stratified and simple random sampling techniques. Data were collected using Philips and Russell's research self-efficacy and demographic questionnaires, and grade point average. Data were analyzed using t-test, ANOVA, Pearson correlation and multiple linear regression using SPSS programme. This study revealed that self-efficacy scores of post graduate students were at an acceptable level, except quantitative and computer skills that needed appropriate educational intervention. Informed by this study, the current study targeted secondary school students to compare the findings.

Another study by Kolo et al. (2017) sought to find out how self-efficacy beliefs relate to academic performance. The participants were Nigerian College students aged 19-34 years. Simple random and stratified sampling techniques were employed to select a total of 334 participants. The researcher employed correlational research design. Collection of data was done by use of questionnaire. It was established that the respondents had higher self-efficacy beliefs. This study targeted respondents from university, the current study targeted secondary school from public secondary schools aged between 16-18 years old. This study laid a foundation for the current study.

Relatedly Matovu (2020) designed a study in Uganda among university undergraduate students on how academic performance predicts academic self efficacy. The sample of 140 and 153 female and male respectively were drawn from public and private universities using stratified and purposive sampling techniques. Both statistics that is descriptive and inferential were used to analyze data. The results indicated a positive significant correlation between the two variables; academic self-efficacy and academic performance. However, this study confined itself to students from university setting, the current study involved students from secondary school setting.

**Citation:** Kelly, A & Ileri, A. M. (2022). Academic Resilience and Self-Efficacy as Predictors of Academic Achievement Among Form Three Students in Trans-Nzoia County, Kenya. *Journal of Popular Education in Africa*. 6(6), 92 – 108.

In Kenya, Ochieng (2015) designed a study, to find out whether academic achievement relates with academic self-efficacy. The study participants were 390 secondary school students in Nyakach Sub County, Kenya. The research employed descriptive research method. The findings revealed that self-efficacy was higher and lower among female and male students respectively. The study further indicated that students who performed well in mathematics had higher self-efficacy compared to those who performed poorly. However, this study confined itself to one subject (mathematics), the current study filled the gap by basing itself on the overall performance of learners in all subjects.

### **4.3 Gender Differences in Students' Academic Resilience and Academic Self-efficacy**

#### **a. Gender Differences in Students' Academic Resilience**

A research by Albert (2014) investigated on gender differences in resilience among university academic deans in a state university of Phoenix in USA. The study participants were all academic deans employed in public universities, comprising of 87 university deans. The researcher adopted survey method for data collection, personal resilience questionnaires were also employed. The results showed that female deans resilience level were high as compared to male counterparts.

In Malaysia Nor et al. (2017) designed a study on resilience to look into the differences in gender and field of study among undergraduate students. The participants of the study were 2604 (796 male and 1808 female). The researcher adopted the questionnaires for data collection. The study findings revealed that undergraduate students from health science school showed higher mean score compared to their female counterparts, from electrical engineering school. However, this study confined itself in evaluating gender differences in the field of study of university students. The current study addressed the gap by using secondary school students.

Mwangi and Ileri (2017) carried out a study to test differences in gender in academic resilience and academic achievement. The study was conducted in ten Sub County schools in Kiambu County with a sample size of 390 (198 female and 192 male) form three students. The study adopted ex-post facto research design to look into the differences in gender in academic resilience. The study used questionnaires to collect data and the study findings indicated that there were gender differences in academic resilience, female students were more academically resilient compared to the male counterparts. It was necessary to conduct the current study given the differences in the study location.

#### **b. Gender Differences in Students Academic Self-efficacy**

A research by Atoum and Al-Momani (2018) examined how academic achievement relates with perceived self-efficacy and gender. The study participants were Jordanian secondary school students. Sample sizes of 356 (210 males and 146 female) participants were randomly chosen using sections of various schools as assignment unit. The study results showed that most of the learners possessed moderately high level of perceived self-efficacy in favor of high achievement students. The findings also indicated negative significant effect for gender or interaction of academic achievement and gender on self-efficacy. The study was carried out in an urban setting and the findings may not be generalized to rural settings. Therefore, the current study was done in a rural setting in order to produce results which maybe generalized to such areas.

**Citation:** Kelly, A & Ileri, A. M. (2022). Academic Resilience and Self-Efficacy as Predictors of Academic Achievement Among Form Three Students in Trans-Nzoia County, Kenya. *Journal of Popular Education in Africa*. 6(6), 92 – 108.

Mohammed (2019) did a study to test differences in gender in academic self-efficacy and academic achievement of students in Niger estate, Nigeria. Descriptive survey design with a sample of 435 students (294 males and 141 female) were selected through proportionate stratified random sampling techniques. ASES and academic achievement test in English language and mathematics were used to collect data. There was non-significant differences in academic self-efficacy between both male and female students. However, the mean value of male students indicated a higher level of academic self-efficacy over the female students. This study confined itself to two subjects, the current study filled the gap by using overall performance of learners in all subjects.

A study by Vilani and Udari (2017) was carried out among university students of Sri Jayewardenepura in Asia to test differences in gender on the levels of academic self-efficacy among university students. Data were collected using questionnaires. The findings obtained indicated that self-efficacy beliefs were higher among female students than their male counterparts. The current study used secondary school students to ascertain if there are gender differences in academic self-efficacy.

In Kenya, Odanga and Aloka (2015) studied the correlation of teachers self-efficacy on gender in public secondary schools in Kisumu County, Kenya. Social cognitive theory by Albert Bandura, 1986 guided the study. The study targeted 1790 teachers in 143 public secondary schools with a sample size of 327 teachers. Stratified random sampling was adopted for the study. Questionnaires and scheduled interview were used to collect data. The researcher used descriptive statistics and multivariate analysis of variance to analyze data. The MANOVA results revealed that there were no statistically significant gender differences in teachers self-efficacy. However, this research confined itself to teachers, the present study addressed this gap by using secondary school students.

## **5. Methodology**

### **5.1 Research Design and Target Population**

Correlational research design was used. This design is a non-experimental research design which is important in describing the relationship between or among variables in the study (Lillykuty & Samson, 2018). The target population was 1500 form three students studying in 26 public secondary schools in Kiminini Sub County.

### **5.2 Sampling Techniques and Sample Size**

Kiminini Sub County, public secondary schools and form three students were selected using purposive sampling. The sample size for the study was 306, (156 boys and 150 girls) students. Krejcie and Morgan, (1970) table was used to select the students involved in the study.

### **5.3 Research Instruments**

Questionnaires and a pro forma summary for students' examination results were used to collect data. Academic achievement score for each student was obtained from students' progressive records. This information was obtained from the class teachers.

**Citation:** Kelly, A & Ileri, A. M. (2022). Academic Resilience and Self-Efficacy as Predictors of Academic Achievement Among Form Three Students in Trans-Nzoia County, Kenya. *Journal of Popular Education in Africa*. 6(6), 92 – 108.

#### **5.4 Data collection Procedures, Analysis and Presentation**

Before data collection, the researcher applied for a research permit from National Commission for Science Technology and Innovation (NACOSTI). During data collection process, the researcher visited the schools and made arrangements with the school principals on the day and date of data collection. Questionnaires were self-administered to the respondents. Quantitative data were collected, coded into the computer, and analyzed using SPSS. The results were presented using tables.

### **6. Results and Discussions**

#### **6.1 General and Demographic Information**

The respondents background information collected were school category and gender.

**Table 1: School Category of the Respondents**

School category	<i>F</i>	%
Boys boarding	70	24.9
Girls boarding	56	19.9
Mixed day	128	45.6
Mixed boarding	27	9.6
Total	281	100.0

Source: Field Data (2022)

In Table 1, it is indicated that among the students who participated in the study, 70(24.9%) were from boys boarding, 56 (19.9%) were from girls boarding while 128 (45.6%) and 27 (9.6%) students came from mixed day and mixed boarding schools respectively. The results showed that the mixed day schools had the highest number of students sampled.

**Table 2: Gender of the Respondents**

Gender	<i>f</i>	%
Male	143	50.9
Female	138	49.1
Total	281	100.0

Source: Field Data (2022)

Table 2 shows that 143 male students participated in the study which accounts for 50.9 % while the female students were 138 representing 49.1%. The results show that both male and female students were sampled but male students were slightly higher than the female students.

#### **6.2 Relationship Between Academic Resilience and Academic Achievement**

This study's first objective was establishing the relationship between academic resilience and academic achievement.

**Citation:** Kelly, A & Ileri, A. M. (2022). Academic Resilience and Self-Efficacy as Predictors of Academic Achievement Among Form Three Students in Trans-Nzoia County, Kenya. *Journal of Popular Education in Africa*. 6(6), 92 – 108.

**a. Hypothesis Testing**

In order to find out the nature of the link between the two variables the following hypothesis was tested:

There is no significant relationship between academic resilience and academic achievement.

The hypothesis was tested using the Pearson correlation and the findings were as shown in Table 4.

**Table 4: Correlation Between Academic Resilience and Academic Achievement**

	Academic Achievement	
Academic Resilience	Pearson Correlation	.65**
	Sig. (2-tailed)	.00
	N	281

Source: Field Data (2022)

The results indicate that there exists a strong positive and significant relationship between academic resilience and academic achievement,  $r(279) = .65, p < .05$ . Thus the null hypothesis was rejected. This implies students with a high academic resilience score high in academic achievement while those with low academic resilience get low academic achievement scores.

**b. Discussion of the Results**

The results of the study established a positive and significant connection between academic achievement and academic resilience. This suggests that a student who exhibits high academic resilience will get high academic achievement scores and vice versa. The findings corroborate with the results of other researchers. Similar to our study findings are the results of Karabiyik (2020). The study was conducted among preservice English language teachers from a Turkish foundation university. The main objective of the study was to examine the relationship between academic resilience and academic accomplishment. The results of the descriptive statistics showed that participants scored highly on academic resilience. Furthermore, resilience was found to be significantly related to academic achievement. In the multiple regression analysis, resilience significantly predicted GPA. The results confirmed the importance of academic resilience in school achievement. The current study found that most students involved in the study had low and average academic resilience, which may be attributed to low academic achievement among a majority of the students.

Furthermore, Fang et al. (2020) found similar results that academic resilience was found to play a key role in academic achievement. Academic resilience was found to play a significant intervention role in teacher wellbeing and a partial intervention role in peer support on children's academic achievement. This study examined how family, peers and teachers social support influences low-income household children's mainly between ages 13 to 15 years' academic resilience, as well as how academic resilience reconciles the link between social support and children's academic achievement. The study findings showed that below average household children's academic resilience is linked to their family, peer, and teacher support; peer support

**Citation:** Kelly, A & Ileri, A. M. (2022). Academic Resilience and Self-Efficacy as Predictors of Academic Achievement Among Form Three Students in Trans-Nzoia County, Kenya. *Journal of Popular Education in Africa*. 6(6), 92 – 108.

and academic resilience of below average household children are positively related to their academic achievements. Children with high academic resilience performed better than those with low academic resilience. The results demonstrate the importance of academic resilience in learning and school achievement. This was in line with Flach's theory of resilience which states that highly resilient students easily find ways of dealing with challenges in order to succeed in academics.

Mwangi et al. (2015) carried out a similar study in Kiambu County and found similar results. The goal of this research study was to find out if there existed a link between academic resilience and academic accomplishment among Kiambu County secondary school students. Academic resilience and academic achievement were found to have a positive and significant association. These findings confirm the importance of academic resilience in school achievement. Academic resilience enables students to cope with stressful events that they encounter in the school setup while pursuing their academic goals. Academic resilience entails the psychological strength needed to successfully navigate academic challenges which leads to better learning outcomes.

Furthermore, the current study findings corroborate the results of Mwangi et al. (2018). The study explored association between school type, academic resilience, and academic achievement among secondary school students in Kiambu County. The study employed a correlational strategy with students who were selected from boys boarding, girls boarding, co-educational boarding, and coeducational day schools. When the type of school was taken into account, academic resilience scores showed a significant mean difference. This was in favor of girls' boarding schools. Boys' boarding schools had the lowest academic resilience and academic accomplishment than girls' boarding, boys' day, and mixed day secondary schools. It was suggested that educational stakeholders view the type of school as a fundamental contributor to secondary school students' educational achievement. The results suggest that learning context may be related to the student's academic resilience. The results corroborate the postulations of the Flach's theory of resilience that learning experiences play a role in the development of academic resilience among students.

### **6.3 Relationship Between Academic Self- efficacy and Academic Achievement**

#### **a. Hypothesis Testing**

The study hypothesized that there is none significant correlation between academic achievement and academic self-efficacy. Pearson correlation was used to test the hypothesis and the results were shown in Table 5.

**Table 5 : Correlation between Self-efficacy and Academic Achievement**

		Academic Achievement
Academic self-efficacy	Pearson Correlation	.46**
	Sig. (2-tailed)	.00
	N	281

Source: Field Data (2022)

**Citation:** Kelly, A & Ileri, A. M. (2022). Academic Resilience and Self-Efficacy as Predictors of Academic Achievement Among Form Three Students in Trans-Nzoia County, Kenya. *Journal of Popular Education in Africa*. 6(6), 92 – 108.

There was a moderate positive significant correlation between academic self-efficacy and academic achievement,  $r(281) = .46, p < .05$ . Thus, the null hypothesis was rejected. This implies that high academic self-efficacy is associated with high academic achievement and low academic self-efficacy is associated with low academic achievement.

### **1. Discussion of the Results**

The study findings showed that there exists a positive significant relationship between academic self-efficacy and academic achievement. Globally, in Africa and Kenya researchers have documented similar findings as the results of the current study. Kolo et al. (2017) reported similar findings in a study conducted to determine how academic achievement correlates with self-efficacy beliefs. The findings showed that while in college learners have high levels of self-efficacy. Learners who had high self-efficacy beliefs scored better in academics than those who had low self-efficacy. The social cognitive theory asserts that self-efficacy influences the goals one chooses to pursue and the efforts that are put in them, how long one desires to endure the misfortunes and the feedback expected. This plays a major role in academic goals one chooses to pursue and the level of effort they input to achieve set targets. Therefore, high academic self-efficacy is associated with academic success. This is consistent with the results of the present study which found that self-efficacy skills are significantly related with performance in academics.

The findings of Hayat et al. (2020) also corroborate the current study findings. The goal of the study was to examine if metacognitive learning strategies and learning-related emotions could mediate the link between academic self-efficacy and academic performance among medical students. The findings of structural equation modeling demonstrated that students' self-efficacy influences their learning-related emotions and metacognitive learning strategies, which affects their academic achievement. Furthermore, learning-related emotions affect metacognitive learning techniques, which regulate the impact of emotions on academic achievement. The students emotions could be as a result of a number of factors such as pressure from parents and teachers and bullying from other students. The Flach's theory of resilience argues that such temporary negative environments for the students molds them to overcome past issues and come up with better ways to overcome challenges. This enhances the student's self-efficacy which enhances academic outcomes. In our current context the students in Trans Nzoia County may not be performing well in academics due to low and moderate levels of academic self-efficacy among a majority of the students.

In Uganda, Matovu (2020) did a study among Ugandan university undergraduate students on the link between academic self-efficacy and academic performance and reported similar results. The findings showed that academic self-efficacy and academic achievement were correlated. The current study drew a sample of secondary school learners while Matovu involved a sample of university students. The results show that regardless of level of study, academic self-efficacy is an important factor in academic achievement. This is in line with the social cognitive theory which states that self-efficacy is important in learning and achievement. The theorist argued that individuals influence their learning environment provided learning occurs in a social context. Therefore, students play a key role in the development of their self-efficacy and academic achievement.

**Citation:** Kelly, A & Ileri, A. M. (2022). Academic Resilience and Self-Efficacy as Predictors of Academic Achievement Among Form Three Students in Trans-Nzoia County, Kenya. *Journal of Popular Education in Africa*. 6(6), 92 – 108.

Relatedly, Akturk and Oztrurk (2018) carried out a similar study and the findings were in line with the current study findings. The study's goal was to investigate the relationship between teachers' TPACK levels, students' self-efficacy, and academic achievement. The study also investigated if there were gender differences in self-efficacy. According to the study findings, students' academic, social, and emotional self-efficacy, as well as teachers' TPACK levels account for 12% of students' academic achievement. Academic self-efficacy was the most important variable that determined students' general academic achievement. Similar to the current study findings there were significant gender differences in the students' self-efficacy and academic scores.

A study carried by Olivier et al. (2019) reported similar findings. The study investigated self-efficacy, student behavioral and emotional involvement, and academic accomplishment. The study's major aim was to determine whether one of the theoretical frameworks (self-efficacy theory, self-system model of motivational development, or expectancy-value theory) is indicative of the real-world context by following children in grades 4 through 6. In light of the evidence obtained, self-efficacy was found to be related to academic achievement. The study's results were in line with self-efficacy theory. From the results of the current study, high academic scores were recorded by students who had high academic self-efficacy beliefs. Students who persist in problem solving and do not give up easily believe that they have whatever it takes to succeed in academics. They are only motivated to learn, seek support and approach learning tasks with a positive attitude. These helps them to succeed in their academic endeavors.

#### **6.4 Gender Differences in Students' Academic Resilience and Academic Self-efficacy**

In the third objective, the study aimed to establish if there were gender differences in students' academic resilience and academic self-efficacy.

To achieve this, the researcher conducted descriptive analysis of the scores and then tested the hypotheses using independent samples t-test.

**Table 6 : Descriptive Statistics of Academic Resilience and Self-efficacy by Gender**

Gender	N	Academic Resilience		Self-efficacy	
		Mean	Std. Deviation	Mean	Std. Deviation
Male	143	59.68	5.27	94.34	10.09
Female	138	61.89	3.53	99.64	8.55
Total	281	60.76	4.63	96.94	9.72

Source: Field Data (2022)

Table 6 shows that a total of 281 respondents were sampled (143 male and 138 female students). The male students had a mean score of 59.68 ( $SD = 5.27$ ) in academic resilience. The female students had a mean of 61.89 ( $SD = 3.53$ ). The female students performed better than the male students in academic resilience. The male students had a mean score of 94.34 ( $SD = 10.09$ ) in self-efficacy. The female students had a mean of 99.64 ( $SD = 8.55$ ). The female students performed better than the male students in academic self-efficacy.

**Citation:** Kelly, A & Ileri, A. M. (2022). Academic Resilience and Self-Efficacy as Predictors of Academic Achievement Among Form Three Students in Trans-Nzoia County, Kenya. *Journal of Popular Education in Africa*. 6(6), 92 – 108.

### **1. Hypothesis Testing**

To establish if there was a significant gender difference in students' academic resilience and academic efficacy, the data were analyzed using independent sample t-tests and Table 7 shows the results.

**Table 7: Independent Samples t- test for Gender Differences in Students' Academic Resilience and Academic Self-Efficacy**

	Academic Resilience			Academic Self-Efficacy		
	<i>t</i>	<i>df</i>	Sig. (2-tailed)	<i>t</i>	<i>df</i>	Sig. (2-tailed)
Equal variances assumed	-4.11	279	.00	-4.74	279	.00
Equal variances not assumed	-4.14	249.03	.00	-4.75	274.36	.00

Source: Field Data (2022)

The results showed that there was a statistically significant gender difference in academic resilience,  $t(279) = -4.11, p < .05$ . The girls had a higher mean score in academic resilience than the boys. Therefore, the null hypothesis was rejected. The results suggested that the girls were significantly better than the boys in academic resilience.

As shown in Table 4.44, there was a significant gender difference in academic self-efficacy  $t(279) = -4.74, p < .05$ . Thus, the null hypothesis was rejected. This implies that the girls scored a significantly higher mean score in academic self-efficacy than the boys.

### **2. Discussion of the Results**

The study found that there were significant gender differences in academic resilience and academic self-efficacy. Previous studies also reported similar findings while others found contradictory results. Vilani and Udari (2017) conducted a study in Asia at Sri Jayewardenepura University to assess academic self-efficacy levels based on gender and academic year. The study used a standardized questionnaire to collect data and the results revealed that female students exhibited stronger academic self-efficacy than male students. Furthermore, the data revealed that there were substantial differences in academic self-efficacy by academic year. The results were in support of the findings of the current research which revealed that female students had better scores in academic self-efficacy compared to male students.

On gender differences in students' academic resilience, most studies revealed that male and female students differ substantially on academic resilience. Nor et al. (2017) found similar results in a research which explored resilience among undergraduate students to establish if there were any changes based on gender and subject of study. The research was carried out in Malaysia's Penang. In comparison to their female counterparts from the school of electrical engineering, undergraduates from the school of health science had the highest mean score. Female students were academically more resilient than male students. This study was limited to

**Citation:** Kelly, A & Ireri, A. M. (2022). Academic Resilience and Self-Efficacy as Predictors of Academic Achievement Among Form Three Students in Trans-Nzoia County, Kenya. *Journal of Popular Education in Africa*. 6(6), 92 – 108.

examining gender differences among university students while the current research involved secondary school students. This clearly shows that there are gender differences in academic resilience across different levels of study.

Contradictory findings were reported by Mohammed (2019) in a research which looked at gender differences in academic self-efficacy and academic achievement among public school students in Nigeria. The study found that there were no significant differences in academic self-efficacy between male and female students. However, male students had a greater mean score on academic self-efficacy than female students. This was contrary to the findings of the current study which found that female students performed better in academic self-efficacy than male students. The contradictory results may be attributed to contextual differences in areas where the samples were obtained. Therefore, there is need for further research in this area to establish how learning context influence academic self-efficacy.

Similarly, Atoum and Al-Momani (2018) reported similar results. The research was conducted to determine the relationship between academic achievement, perceived self-efficacy and gender differences in the two variables. According to the findings, majority of students had a moderate level of self-efficacy. Top achievers had a high level of perceived self-efficacy while low achievers had low self-efficacy. The findings of the study showed that gender of the student did not significantly affect perceived self-efficacy of the students. Again the results may be attributed to the differences in learning experiences of the students that were involved in the studies.

A study by Mwangi and Ireri (2017) found that there were gender differences in academic resilience. The study participants were chosen from secondary schools in Kiambu County. The findings of the study revealed that academic resilience differed by gender, with female students being more academically resilient than their male counterparts. This was similar to the findings of the current research which showed that female students were more resilient than male students.

## **7. Conclusions**

The study concludes that students with a high academic resilience score better in academic achievement than those with low academic resilience. From the findings, students need to be trained and supported so as to improve their academic resilience to foster their academic achievement. Study findings established a positive significant correlation of academic achievement from academic self-efficacy. The findings corroborated earlier research studies which reported similar findings. Therefore, as per the current and previous studies, high self-efficacy corresponds to high academic scores while low scores in efficacy are associated with low scores in academics. Based on the results, learners should be guided on how to enhance academic efficacy to improve their academic achievement.

Gender differences in the academic self-efficacy and resilience of the students were evident in this study. Female students performed better than their male counterparts in academic resilience and academic self-efficacy. Students with high academic resilience and high academic self-efficacy score higher marks in academic achievement compared to those with low marks. Both boys and girls need to be guided and supported to improve their academic resilience and academic self-efficacy for better scores in their academic achievement.

**Citation:** Kelly, A & Ileri, A. M. (2022). Academic Resilience and Self-Efficacy as Predictors of Academic Achievement Among Form Three Students in Trans-Nzoia County, Kenya. *Journal of Popular Education in Africa*. 6(6), 92 – 108.

### **8. Recommendations**

The researcher found that academic self-efficacy and academic resilience are significant predictors of academic achievement. Therefore, teachers should guide students to enhance self-efficacy and academic resilience.

Teacher trainers should enhance their teaching training on how to enhance academic resilience and self-efficacy of students so as to raise the overall academic achievement of the students.

**Citation:** Kelly, A & Ileri, A. M. (2022). Academic Resilience and Self-Efficacy as Predictors of Academic Achievement Among Form Three Students in Trans-Nzoia County, Kenya. *Journal of Popular Education in Africa*, 6(6), 92 – 108.

### References

- Abomaali, K., & Mahmudi, R. (2013). The perception of academic achievement based on resilience and perception of classroom environment. *Open Science Journal of Education*, 1(1), 7-12.
- Albert, I. J. (2014). Gender differences in resilience of academic deans. *Journal of Research and Education*, 24(1), 112-119.
- Adika, O., Adesina, O., & Oriyomi, R. (2013). Career self-efficacy, achievement motivation and organizational commitment to conflict motivation behaviour of lecturers in Oyo Town in Nigeria. *An International Multidisciplinary Journal of Ethiopia*, 7(30), 308-323. doi:<https://doi.org/10.4314/Afrer.V713.22>.
- Akturk. A. O, & Oztruk. (2018). Teachers' TPACK levels and students' self-efficacy as predictors of students' academic achievement. *International Journal of Research in Education and Science*, 5(1), 283-294.
- Alao. B. A. (2015). Adolescents and the changing world;. In *Road to Resilience*. Ibadan.
- Anakwe, A. I. (2016). An overview of resilience and academic achievement of adolescents in Nigeria. *Kampala International University Journal of Humanities*, 2(2), 95-101.
- Atoum, A. Y., & Al-Momani, A. (2018). Perceived self- efficacy and academic achievement among Jordanian students. *Trends in Technical and Scientific Research*, 3(1), 1-6.
- Bandura, A. (1986). Social Foundation of Thoughts and Actions. In *A Social Cognitive Theory*. NJ: Prentice Hall.
- Cassidy, S. (2015). Resilience building in students role of academic self-efficacy. *Frontiers in Psychology*.(6). doi:10.3389/Fpsyg.2015.01781
- David, E. (2020). Influence of Parenting Styles on Academic Achievement of Stunts in University of Port Harcourt. *American Journal of Psychology*, 2(1), 26-34. doi:<https://www.ajpojournals.org>
- Deci, E. L., & Ryan, R. (2012). The paradox of achievement: The harder you push the worse it gets. *Contribution of Social Science*, 4(2), 59-85.
- Fang G, C. K. (2020). Social support and academic achievement of Chinese low income children: A Mediation effect of academic resilience. *International Journal of Psychological Research*, 13(1), 19-23.
- Hayat. A. A, Shateri, K., Amini, M., & N, S. (2020). Relationships between academic self-efficacy, Learning related emotions and Metacognitive learning strategies and with academic performance of medical students: a Structural Equation model. *BMC Medical Education*, 20(1), 1-11.
- Herman, C, K., Sebastian, Reinke, J., Wendy.M, Huang, & Francis.L. (2021). Individual and School Predictors of Teacher Stress, Coping, and Wellness During COVID -19 Pandemic. *School Psychology*, 36(6), 483-493. doi:<https://doi.org/10.1037/spq0000456>
- Hermita, M., & Thamrin, W. P. (2015). Metacognition toward academic self-efficacy among Indonesian private University scholarship students. *Procedia-Social and Behavioral Sciences*, 171(2015), 1075-1080. doi: <https://doi.org/10.1016/j.sbspro.2015.01.268>.
- Karabiyik. C. (2020). Interaction between academic resilience and academic achievement of teacher trainees. *International Journal of Education and Teaching*, 7(4), 1585-1601.
- Kipngetch, K. F. (2021). Academic Motivation and Self Efficacy as Predictors of Academic Achievement among Form Three Students in Kitui County, Kenya. *International Journal*

- Citation:** Kelly, A & Ireri, A. M. (2022). Academic Resilience and Self-Efficacy as Predictors of Academic Achievement Among Form Three Students in Trans-Nzoia County, Kenya. *Journal of Popular Education in Africa*, 6(6), 92 – 108.
- of Scientific Research and Management*, 9(6), 1732-1755. doi:<http://doi.org/10.18535/ijstrm/v9i06>
- Kolo, A. G., Munira, W. B., & Nobaya, A. B. (2017). Relationship between academic self-efficacy believed of college students and academic performance. *Journal of Humanities and Social Science*, 22(1), 75-80.
- Kplovie, P. J., Joe, A. I., & Okoto, T. (2014). Academic achievement prediction: Role of interest in learning and attitude towards school. *International Journal of Humanities, Social sciences and Education*, 1(11), 73-100.
- Krejcie, R., & Morgan, D. (1970). Determining sample size of research activities. *Educational and Psychological Measurement*, 30, 607-610.
- Lakhani, P., Jain, K., & Chandel, P. K. (2017). Social adjustment, motivation and academic achievement among students. *International Journal of Management and Social Science*, 7(10), 2249-2496.
- Matovu, M. (2020). Academic self-efficacy and academic performance among university undergraduate students. An antecedent of academic success. *European Journal of Education studies*, 7(3), 101-109.
- Mohammed, B. I. (2019). Analysis of gender differences in academic self-efficacy and achievement among senior secondary school students in Niger estate Nigeria. *International Journal of Social Science*, 5(3).
- Mwangi, C. N., & Ireri, A. M. (2017). Gender differences in academic resilience and academic achievement among secondary school students in Kiambu County, Kenya. *International Journal of Psychology and Behavioural Science*, 5(5), 1-7. doi:10.19080/PBSIJ.2017.05.555673
- Mwangi, C. N., Ireri, A. M., Mwaniki, E. W., & Wambugu, S. K. (2018). Relationship among type of school, academic resilience and academic achievement among secondary school students in Kiambu County, Kenya. *International Journal of Social Science*, 3(3), 1092-1107. doi:10.20319/pijss.2018.33.10921107
- Mwangi, N. C. (2015). Relationship between academic resilience and academic achievement among secondary school students in Kiambu County, Kenya. *International Journal of School and Cognitive Psychology*, 5(4), 2-5. doi:<https://doi.org/10.4172/2469.9837.S2-003>.
- Mwaura, M. (2021). Gender Differences in Academic Self-efficacy among Students in Public Secondary Schools in Nairobi County, Kenya. *International Journal of Multidisciplinary Research of Publications*, 4(3), 34-40.
- Nne, A. A., & Ekene, E. K. (2021). Academic Self Concept and Academic Self-Efficacy as Correlates of Academic Achievement in English Language of Secondary School Students in Anambria State, Nigeria e. *International Journal of Scientific and Management Research*, 3(4), 59-70.
- Nor, A. B., Amhad, K. Z., & Rahimi, C.-A. B. (2017). Assessing resilience among Malaysian university undergraduate. *Advanced in Social Science, Education and Humanities Research*, 133(3), 56-85.
- Olivier, E., Alchambault, I., Clereq, M., & B, G. (2019). Students self-efficacy, classroom engagement and academic achievement: Comparing three theoretical frameworks. *Journal of Youth And Adolescence*, 48(2), 326-340.

- Citation:** Kelly, A & Ileri, A. M. (2022). Academic Resilience and Self-Efficacy as Predictors of Academic Achievement Among Form Three Students in Trans-Nzoia County, Kenya. *Journal of Popular Education in Africa*, 6(6), 92 – 108.
- Ochieng, W. (2015). *Self-efficacy and academic achievement among secondary schools in Kenya: Mathematics Perspective*. Nairobi: University of Nairobi.
- Odanga, S. J., & Aloka, P. J. (2015). Influence of gender on teachers' self-efficacy in secondary schools in Kisumu County, Kenya. *Academic Journal on Interdisciplinary Studies*, 4(3), 189-193.
- Oke, K., Ayodele, K., & Aladenusi, O. (2016). Academic motivation, satisfaction and resilience as predictor of secondary school students' academic confidence in Ogun state, Nigeria. *Journal of Research and Method in Education ( IOSR-JRME)*, 6(6), 59-64. Retrieved from <https://doi.org/10.9790/7388-0606015964>.
- Ricketts, N. S. (2015). *Academic resilience in mathematics*. (Unpublished PhD Thesis): Emory University, USA.
- Singh, P., & Choudhary, G. (2015). Impact of social economic status on academic achievement of school students: An investigation. *International Journal of Applied Research*, 1(4), 266-272.
- Singh, Savita, M., & Priya, S. (2016). Factors affecting academic performance of students. *Jetir Research Journal*, 5(4), 367-994.
- Speight, N. (2009). *The relationship between self-efficacy, resilience and academic achievement among African-American urban adolescent students*. Howard University: Dissertation.
- Srivastava, A. (2017). Impact of Parent Pressure on Academic Achievement. *Career Point University , Kota Rajastham*, 7(3).
- Tiyuri, A., Saberi, B., & Salehiniya, H. (2016). Research on self-efficacy and its relationship with academic performance of post graduate students in Tehran university of medical science. *Journal of Education and Health Promotion*, 5, 176-178. Retrieved from [https://doi.org/10.4103/jehp\\_43\\_17](https://doi.org/10.4103/jehp_43_17).
- Vilani, S., & Udari, B. (2017). Measuring the academic self-efficacy of undergraduates: The role of gender and academic year experience. *International Journal of Educational and Pedagogical Science*, 11(11).
- Yahsuan, C., & Jodie, K. (2015). Examining the relationship among self-efficacy, coping and job satisfaction using social career cognitive theory. *Journal of Career Assessment*, 23(1), 35-47. doi:<https://doi.org/10.1177/1069072714523083>