

## PSYCHOLOGICAL CAPITAL COMPONENTS AND ASSOCIATION OF STUDENTS' ACADEMIC ACHIEVEMENT IN SECONDARY SCHOOLS IN ANAMBRA STATE

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### **Abstract**

Academic achievement is the hub around which teaching and learning revolve and should be the target of every student enrolled on any academic programme. Without determination coupled with matched personal resources, students could feel encumbered and end up not achieving maximally in their studies as required. This study, therefore, examined psychological capital components and their association with students' academic achievement in Anambra State. Two research questions and one null hypothesis tested at 0.05 level of significance guided the study. The correlational research design was adopted for the study. The population of the study comprised 20,156 senior secondary class 2 (SS2) students from 261 public secondary schools in Anambra State. The sample of the study consisted of 1,008 SS 2 students, estimated at 5% of the total population drawn through a multi-stage sampling procedure. A set

of instrument titled Psychological Capital Scale (PSC) adapted from the work of Luthans et al (2007) was used for the study in conjunction with students' mean achievement scores of 2019/2020 third term result. Reliability of PSC was determined using Cronbach Alpha method and an alpha coefficient of 0.73 was obtained. The data were analyzed using Correlation and Regression statistical analysis. The results indicated that there is a positive and significant relationship between psychological capital components and academic achievement of secondary school students in Anambra State. There is a joint contribution of psychological capital components to the academic achievement of secondary school students in Anambra State. Based on the findings of the study, it was recommended among others that teachers should devise various strategies for motivating students, discouraging all forms of unhealthy competitions in the classroom and also focus on building the students' strengths instead of focusing on and punishing their weaknesses; to foster a positive psychological state in them.

**Keywords:** Psychological Capital, Secondary School Students, Academic Achievement, Anambra State

### **Introduction**

The evidence of proper teaching and adequate learning should manifest in students' academic achievement. Academic achievement is the hub around which teaching and learning revolve and should be the target of every student enrolled on any academic programme. Students' efforts and commitment towards their academic endeavours are rudiments of academic success. For students to achieve maximally, they need to cultivate the personal resources and attributes necessary for undertaking academic tasks and responsibilities. Without determination coupled with matched personal resources, students could feel encumbered and end up not achieving maximally in their studies as required. That is to say that, for students to be motivated to achieve maximally in academic

activities, they must feel and believe that they have personal attributes and resources for taking up academic tasks. These personal attributes and resources are contextually referred to as psychological capital.

Psychological capital (PsyCap) could be defined as positive psychological resources of an individual (Rani & Chaturvedula, 2018). It can also be defined as one's resources and a person's positive view of his potential and ability to responsibly manage and impact on his environment (Ahmed et al., 2017). PsyCap is concerned with the development of an individual's positive psychological state needed to dispose of one into action. It serves as a positive catalyst and an asset in an individual. PsyCap is a relatively new construct which drew much attention from scholars and researchers mostly in the organizational setting. Many studies such as Etodike et al. (2020) and Ikwuka et al. (2020) have demonstrated that students' cognitive task accomplishment could be stimulated; hence, psychological capital may be devised for this purpose also. For instance teachers' attitude was found to be powerful psychological capital motivating the use of ICT. PsyCap as used in this study is a multi-dimensional construct with four components. The components of PsyCap are primarily: self-efficacy, hope, resiliency and optimism. These components are the key factors needed to form a PsyCap structure in a student. Self-efficacy has been defined as the confidence in one's ability to carry out the necessary actions required to produce the desired result (Ezurike et al., 2019). Optimism implies making a constructive ascription about being able to succeed now and in the future (Anierobi & Unachukwu, 2020; Datu et al., 2018). Resilience results from one's ability to adapt and persevere to achieve desired result when confronted by challenging situations in any area of one's life (Unachukwu, et al., 2020). Hope is defined as being proactive about the future, formulate a plan for a set goal, devise strategies and work towards achieving the set goal (Grobler & Joubert, 2018).

Previous research which assessed PsyCap in high school students and undergraduates found direct associations with academic performance (Carmona-

Halty et al., 2018; Liao & Liu, 2016), intrinsic motivation (Jafri, 2017). PsyCap was also found to have associations with learning empowerment (You, 2016), study engagement (Ahmed et. al, 2017), academic adjustment and student well-being (Datu& Valdez, 2016). Many researchers have also linked components of PsyCap to the academic outcomes of students.

For instance, self-efficacy was pointed out as a factor that enables students to confront challenging tasks to acquire knowledge for success instead of perceiving the tasks as threats to shy away from (Ezurike et al., 2019). Students who are academically efficacious and resilient have a better perception of their studies and could express greater involvement with related activities (Ahmed et al., 2017). Similarly, Ogunmakinand Akomolafe (2013) aver that self-efficacy makes students diligent and persistent even when faced with challenging academic tasks and this promotes academicsuccess. This is to say that self-efficacy determines the extent to which one's opinionabout being in chargeof one's fate and thereby,makingdecisions on his way forward (Bandura, 1977). Little wonder, Oyuba et al., (2019) found a positive relationship between self-efficacy and academic performance of high school students in Kenya.Unachukwuet.al (2020), equally observed a significant influence of self-efficacy and resilience on academic achievement of students in Aguata LGA, Anambra State.

Optimism has been identified to be positively associated with academic performance (Anierobi&Unachukwu, 2020). Similarly, Jafri (2017) noted that optimistic individuals have a positive outlook, and expectations of positive outcome enhance their willingness to put more efforts into academic activities. This implies that optimistic students have positive expectations of their capability, efforts and success and these expectations should keep them engaged in academic activities. Thus, optimistic individuals having these self-beliefs will no doubt, expect to succeed when confronted with a challenge. Similarly, Ekeh and Oladayo (2015) posited that optimistic students have tendencies to

surmount challenges because to them, with persistence through motivation, they can successfully tackle demanding academic circumstance. This persistence to overcome academic difficulties could keep students actively engaged in academic activities. Anierobi and Unachukwu (2020) in their study with undergraduate students found a moderate and positive relationship between academic optimism and academic engagement.

Hope has received growing attention given its linkages with positive outcomes in life domains, especially in education. Researchers have found that higher hope is associated with greater academic achievement (Seirup & Rose, 2011). Similarly, Gokben and Meneske (2015) construed that students' level of hope is effective in academic achievement. It was posited that a person with high hope develops the necessary willpower and be able to strategize towards achieving the goal (Snyder et al., 1991 in Jafri, 2017); and this can only be possible by getting students engaged in the in-class and out-of-class activities. Hope also influences the energy a person can spend on pursuing a goal, according to Cimen and Ozgan (2018), as those with high levels of hope can predict the obstacles in their way and produce alternate pathways to achieve their goals.

Resilience is viewed primarily as one's ability to recover from persuasive, challenging, unpredictable and dangerous activities as well as adjust to them. Resilience means not only pushing hard in challenging circumstances, but also in favourable situations, which can also present difficulties (Luthans & Youssef-Morgan, 2017). Gokben and Meneske (2015), opined that people who are resilient in their traits experience positive emotions even when they are in the middle of stressful events, which may illustrate their capacity to rebound successfully despite difficulties. In their study, Abolmaali and Mahmudi (2013) observed that academic resilience can significantly predict academic achievement of students. Similarly, Zuzill (2016) reported that resiliency has a statistically significant positive relationship with reading achievement but no relationship between

resiliency and students' GPA. That is to say, that resiliency has both a direct and indirect impact on students' academic outcome.

### **Framework**

This study was hinged on Self-Determination theory propounded by Deci and Ryan (1970). The theory suggested that man has three basic psychological requirements that are important for motivation: autonomy, relatedness and competence. They claim that the level of motivation in an individual is shaped by the degree to which he or she meets these basic needs. The theory maintained that out of fundamental interest and pleasure in the operation itself, when individuals are naturally inspired, they complete tasks. This indicates that the efforts of students to achieve the best may be borne out of self-determination emerging as an internal motivator from their optimistic psychological condition (self-efficacy, motivation, hope and resilience). Without any iota of doubt, stakeholders of education expect that every student should achieve maximally in their academic life. However, there have been fluctuations in the academic achievement of secondary school students in Anambra State especially in external examinations (The Federal Republic of Nigeria, 2019) and psychological capital components have been underscored as necessary resources for positive academic outcomes. Consequently, there is a need to ascertain the relationship between psychological capital and the academic achievement of secondary school students in Anambra State. To give direction to this study, the following research question and hypothesis tested at 0.05 level of significance were postulated:

- What is the relationship between psychological capital components and academic achievement of secondary school students in Anambra State?

- What is the relative contribution of each of the psychological capital components (self-efficacy, optimism, hope, resilience) to the academic achievement of secondary school students?
- There is no significant relationship between psychological capital components and academic achievement of secondary school students in Anambra State.

### **Method**

This study employed a correlational research design. The population of the study comprised 20,156 senior secondary class 2 (SS2) students in 261 public secondary schools in Anambra State. The sample of the study consisted of 1,008 SS 2 students, estimated at 5% of the total population drawn through a multi-stage sampling procedure. In the first stage, the schools were clustered according to the six education zones in the State. From each of the zone, one local government was picked at random. Thirdly, three co-educational schools were picked at random from each of the LGA making it a total of 18 co-educational schools. Finally, all the SS 2 students present at the moment of the study were used from each of the 3 schools.

Psychological Capital components were measured using an instrument titled Psychological Capital Questionnaire (PCQ) adapted from the work of Luthans, Avolio and Avey (2007) which was a 24-item questionnaire comprising four sub-scales (Self-efficacy, resilience, hope and optimism). It was structured on a six-point Likert scale. In adapting the instrument for the present study, four items considered not suitable for the population under study were not included in the final draft for use. Hence, there were 20 items in the PCQ. The items were restructured on a four-point scale response of Strongly Agree (4), Agree (3), Disagree (2) and Strongly Disagree (1). Items 1-5 in the present scale measure self-efficacy; items 6-10 measure optimism; items 11-15 measure hope and items 16-20 measure resilience. The minimum score for the scale is 20 while the

maximum score is 80. Thus scores of 40 and above will be considered high PsyCap while scores below 40 will be considered low PsyCap.

Likewise, for academic self-efficacy, the minimum score is 5 while the maximum score is 20. A score of 10 and above will be considered high academic self-efficacy while a score below 10 will be considered low academic self-efficacy. For resilience, the minimum score is 5 while the maximum score is 20. A score of 10 and above will be considered high academic resilience while a score below 10 will be considered low academic resilience. For hope, the minimum score is 5 while the maximum score is 20. A score of 10 and above will be considered high academic hope while a score below 10 will be considered low academic hope. For optimism, the minimum score is 5 while the maximum score is 20. A score of 10 and above will be considered high academic optimism while a score below 10 will be considered low academic optimism. In scoring the instrument, items 4, 16 and 18 which were negatively worded were reversed.

An average score of each of the sampled students' 2019/2020 third term result was used in measuring their Academic Achievement. PSQ was validated by experts. To determine the reliability of the instrument, the Cronbach alpha reliability method was used and an alpha coefficient of 0.73 was obtained. Data collected were analyzed using Pearson Product Moment Correlation and Coefficient of Determination for answering the research questions and regression statistical analysis for testing the hypotheses. The data were analyzed using Statistical Package for Social Science (SPSS) version 20.

## Results

Table 1: Matrix of the Pearson Product Moment Correlation of Psychological Capital Components with Academic Achievement of secondary school students

S/N	Variables	Mean	SD	1	2	3	4	5
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1	Self-efficacy	14.94	1.94	1				
2	Optimism	15.62	1.89	.276	1			
3	Hope	15.55	1.76	.437	.514	1		
4	Resilience	16.12	1.88	.255	.291	.437	1	
5	Academic Achievement	62.64	5.38	.665	.724	.792	.690	1

N = 1008

Answering research question one on what is the relationship between psychological capital components (self-efficacy, optimism, hope, resilience) and academic achievement of secondary school students, data in Table 1 reveal the association of psychological capital components with academic achievement of secondary school students in Anambra State. It reveals that psychological capital components have a positive relationship (self-efficacy:  $r = .665$ ; optimism:  $r = .724$ ; hope:  $r = .792$ ; resilience:  $r = .690$ ;  $N = 1008$ ) with academic achievement of secondary school students in Anambra State.

Table 2: The relative contribution of psychological capital components (self-efficacy, optimism, hope, resilience) on Academic Achievement of secondary school students

Variables	B	Std, Error	$\beta$	t	Sig.	P
Self-efficacy	1.25	.021	.440	60.479	.000	<.05
Optimism	1.17	.020	.412	57.548	.000	<.05
Hope	1.09	.020	.397	56.078	.000	<.05
Resilience	0.50	.022	.167	23.054	.000	<.05

N = 1008

Answering research question two on what is the relative contribution of each of the psychological capital components (self-efficacy, optimism, hope,

resilience) to the academic achievement of secondary school students, data in Table 2 show that the contribution of each of the components of psychological capital to the prediction of academic achievement among secondary school students. It revealed that self-efficacy made the highest contribution to the prediction of academic achievement among secondary school students ( $\beta = 0.440$ ,  $t = 60.479$ ,  $P < 0.05$ ) and followed by others in the following magnitude: Optimism ( $\beta = 0.412$ ,  $t = 57.548$ ,  $P < 0.05$ ), Hope ( $\beta = 0.397$ ,  $t = 56.078$ ,  $P < 0.05$ ) and finally, Resilience ( $\beta = 0.167$ ,  $t = 23.054$ ,  $P < 0.05$ ).

Table 3: Multiple regression analysis showing the joint influence of psychological capital components (self-efficacy, optimism, hope, resilience) on Academic Achievement of secondary school students

Source of Variation	Sum of Square	Df	Mean Square	F	Sig.
Regression	27639.281	4	6909.820	5478.472	.000 <sup>e</sup>
Residual	1265.052	1003	1.261		
Total	28904.332	1007			

Predictors: components of psychological capital (self-efficacy, optimism, hope, resilience)

Dependent Variable: Academic Achievement  $A.R = 0.978$ ,  $A.R^2 = 0.956$ ,  $A.R^2(\text{Adjusted}) = 0.956$ , Standard Error of Estimate = 1.1231

Testing for the hypothesis which stated that there is no significant relationship between psychological capital components and academic achievement of secondary school students in Anambra State, data in Table 3 reveal that the components of psychological capital (self-efficacy, optimism, hope, resilience) have a significant joint influence on the academic achievement of secondary school students ( $r = 0.978$ ,  $P < 0.05$ ). The combination of the components of psychological capital accounted for 95.6% of the total variance

on academic achievement among secondary school students (Adjusted  $R^2 = 0.956$ ). The analysis of variance of the multiple regression data yielded an F-ratio value which was found to be significant at 0.05 alpha level,  $F = 5478.47$ ,  $P < .05$ . Thus, the null hypothesis which stated that psychological components (self-efficacy, optimism, hope, resilience) will not jointly predict academic achievement among secondary school students was not accepted. Therefore, it means that psychological capital components (self-efficacy, optimism, hope, resilience) jointly predicted academic achievement among secondary school students in Anambra State.

### **Discussion of the Findings**

The finding of the study reveals that there is a positive relationship between each of the components of psychological capital and academic achievement among secondary school students. It also showed that the components of psychological capital jointly contributed to the academic achievement of secondary school students and in terms of the magnitude of their contributions, that self-efficacy made the highest contribution to the prediction of academic achievement among secondary school students and followed by others in the following magnitude: optimism, hope and finally, resilience. Finally, when tested statistically, the result indicated that psychological components (self-efficacy, optimism, hope, resilience) significantly and jointly predict academic achievement among secondary school students. The reason for this could be attributed to the fact that students strive to build and conserve positive psychological state and resources which are critical to academic success.

This result is consistent with the existing literature. It agrees with Carmona-Halty et al (2018) and Datu (2016) who found a direct positive association of psychological capital with academic performance of students. It aligns with Jafri (2017) and Ahmed et al. (2017) who found a positive association of psychological capital with intrinsic motivation and study engagement

respectively. When students are intrinsically motivated due to their positive psychological state, it will no doubt promote their study engagement which in turn will impact positively on their academic achievement. The findings of this study corroborate with Unachukwu et al. (2020) who found a significant influence of self-efficacy and resilience on academic achievement of students in Aguata LGA, Anambra State. It also aligns with Oyuba et al. (2019) who found a positive relationship between self-efficacy and academic performance of high school students in Kenya.

Furthermore, the finding of this study is consistent with Anierobi and Unachukwu (2020) who found a moderate and positive relationship between academic optimism and academic engagement in their study with undergraduate students. Similarly, the result aligns with Seirup & Rose (2011) that higher hope is associated with greater academic achievement and also with Gokben and Meneske (2015) who observed that students' level of hope is effective on academic achievement. The result of this study equally corroborates with Abolmaali and Mahmudi (2013) that academic resilience significantly predicts academic achievement of students. It finally agrees with Zuzill (2016) that resiliency has a statistically significant positive relationship with reading achievement.

### **Conclusion**

Based on the findings of this study, the researchers concluded that psychological capital components (self-efficacy, optimism, hope and resilience) have a joint and separate positive contribution to the academic achievement of secondary school students. It was also concluded that the associations of psychological capital components (self-efficacy, optimism, hope and resilience) with academic achievement is statistically significant.

### **Recommendations**

Based on the findings of the study, the following recommendations were posited:

1. The government should provide platforms such as scholarships, excursions, and well equipped secondary schools to help ignite positive psychological state in students

2. School authorities should ensure that students are treated with dignity and all forms of threats to their person removed

3. Teachers should devise various strategies for motivating students as a way of inclusiveness which can foster a positive psychological state in them. Teachers should focus on building the students' strengths instead of focusing on and punishing their weaknesses.

4. Guidance Counsellors should be readily available to identify students needing psychological assistance to render counselling and professional help to them.

5. Parents should pay close attention to creating a warm environment in the home. They should show love and acceptance to their wards to help them experience good psychosocial development.

6. The classroom should be devoid of any form of unhealthy competition among the students. This will erase any form of rivalry or withdrawal by the seemingly academically weaker students.

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