

Influence of Self-efficacy on Academic Competence of Secondary School Students in Osun State

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Abstract

The study ascertained the level of academic competence of secondary school students in Osun State and also determined level of self-efficacy of the students. It investigated the influence of self-efficacy on the students' academic competence. These were with a view to providing information on factor that could influence the academic competence of secondary school students. The study adopted descriptive survey research design. The population for the study comprised senior secondary school students in Osun State. The sample size comprised 600 respondents, selected using multistage sampling technique. One Local Government Area (LGA) was selected from each of the three senatorial districts in the State using simple random sampling technique. From each LGA, four senior secondary schools were selected using simple random sampling technique (12 schools in all) and from each school, 50 students were selected from senior secondary II using simple random sampling technique. Three instruments were used to collect information for the study, namely: Academic Competence Evaluation Scale (ACES), and General Self-Efficacy Scale (GSES). Data collected were analyzed using percentages and ANOVA. The results showed that 9.41%, 60.21% and 30.37% of secondary school students in Osun State demonstrated low, moderate and high levels of academic competence respectively. The results of the study also indicated that there was a significant positive influence of self-efficacy on academic competence of the students ($F = 69.35$; $p < 0.05$). The study concluded that self-efficacy influenced academic competence of secondary school students in Osun State.

Keywords: Academic Competence, Self-efficacy, Secondary School.

1. Introduction

It is expected that most students when coming to school at the beginning of the term will develop aspirations for a better future for themselves through the achievement of academic goals and competence. They also bring with them varying levels of confidence to complete those academic goals. However, secondary school experience is unique to every student; while some students find it easy to succeed (competent) and some students find it difficult to succeed (incompetent). Academic competence is one of the variables that measure an individual's success or failure in academic or school activities. The goal of every educational programme is to ascertain that learners are able to apply or use related skills and knowledge to perform assigned task (academic competence).

Competence may be referred to as use of set of related knowledge and skills required to successfully perform a task. Competencies often serve as the basis for skills standards that specify the level of knowledge, skills and abilities required for success in the task (Rajesh, 2014). Academic competence is the capability of students to apply or use a set of related knowledge, skills and abilities required to be successful in an academic task. According to Gettinger (2002), academic competence refers to a cluster of related abilities, skills, knowledge and dispositions of cognitive and non-cognitive nature that allow students to perform the necessary academy activities in the school. Academic competence also involves the ability of students to work on their academic goals without being influenced

by other party. For instance, if students feel they cannot handle a given task, they intend to experience fear and avoid the task. On other hand, if learners believe that they can succeed, first, they accept the responsibility of the task given to them. Indeed, if learners think that they can learn and understand with reasonable effort; they will put forth greater effort, do not give up in the face of obstacles, and use a variety of strategies to achieve their goals (Hoy, 2010). Academic competence can also be associated with knowledge and use of effective study skills (Gettiner & Seubent, 2002). Academic study skills are one of the important concepts of academic competence. Study skills are directly linked with student academic competence and it is also fundamental to academic competence. Effective study skills are associated with positive outcomes across multiple academic content areas. Capable students at all grade levels may experience difficulty in school, not because they lack ability, but because they lack good study skills. Although some students develop study skills independently, even normal achieving students may go through school without acquired effective approaches for study (Nicaise & Gesttinger, 2005). The competence (academic achievement) plays an important role in producing the best quality graduates who will become great leader and manpower for the country thus responsible for the country's economic, social and educational development (Ali, 2009). Academic competence in a school setting include skills, attitude and behavior of learners towards teaching and learning activities in the school which may translate to academic success and academic competence.

The researcher observed that many of the secondary school students in Osun State may not have proper study skills, attitude and behavior to achieve academic success and academic competence due to unconducive learning environment, lack of availability of materials, teacher's lack of subject content and relevant resources which could help students to possess academic competence. When there is no availability of necessary and required materials in the school, this may also affect student's academic competence. This lack of academic competence of secondary school students in Osun State has become worrisome to the populace. However, there has been sparingly research especially on the combined influence of self-efficacy and task-value on academic competence. This therefore formed the premise of this study.

According to Gettiner & Seibert (2002), students who are equipped with excellent study skills, attitude and behavior perform well in their studies. Students acquiring academic competence may be affected due to teacher's role, study skills, psychological, economic, environmental and personal factors etc. These factors have strong influence on the student academic competence, but these factors vary from person to person and country to country. Several researchers have documented students who do not possess academic competence, as having weak study skills, and experiencing learning problems (Leskey, 2000). Teacher role is to adjust with a view towards quality and quantitative education so as to being in agreement with self-development, accrue knowledge, competencies and crucial skills. The competencies required for learning from the teacher is called academic competency and which is been expressed in terms of knowledge, skill and academic capability (Orhstein & Lasley, 2000). Capable students at all levels, especially secondary school may experience difficulty in school not because they lack ability, but because they lack good study skills, attitude and behavior toward learning and this is common among secondary school students in Osun State. The researcher observed that secondary school students in Osun State may not have proper study, behavioural skills and attitude to achieve academic success and academic competence due to unconducive environment, lack of availability of materials, relevant resources, lack of trust in their abilities, nonchalant attitude, lack of parental care, peer influence and so on. However, there has been sparingly research in local settings on the combined influence of self-efficacy and task-value on academic competence of secondary school students. However, there has been sparingly research especially in local settings on the combined influence of self-efficacy and task-value on academic competence. This therefore formed the premise of this study in order to add to existing research on it. Other factors such as teachers related factors, students' factors, environmental factors, peers factors, family factors and so on can play good roles in influencing students' academic competency. Differences in academic competence can surely be explained by differences in cognitive aptitude, but variable like self-efficacy may also intervene. Various variables are known to influence academic competence; consequently, educational researchers and other allied discipline are usually interested in such variables. Recently, there is focus on the student's sense of self as a principal component of academic competence (Pajares & schunk, 2001). Parjares and Schunk (2000) asserted that this focus is grounded on the assumption that the beliefs that students create, develop and hold to be true about them are vital forces in their success (competence) or failure (incompetence) in school. If someone holds a strong belief for success, then success will be achieved but if there exists an element of doubt in one's ability to do well or be competent, then the possibility of incompetence will be high.

The variable of interest is self-efficacy. Self-efficacy refers to individual belief(s) in his/her competency, ability to perform a task, achieve the goal, and overcome the obstacles. It also stands for the abilities of people to produce desired levels of competence that exercise impact over events which affect their lives. Self-efficacy is defined as a person's conviction and belief that he/she can successfully achieved the desired levels and goals in some academic scenario (Feltz, 2008) and beliefs that personal efficacy affect level of motivation, life choice,

quality of work, resilience to hardship, susceptibility to depression and stress (Ciccarelli & Meyer 2006), capable of executing those behaviours successfully. Other psychologist such as Al-Harthy & Was (2013) and Al-Harthy, (2010) also shed light on self-efficacy as a motivational variable. Findings from different studies conducted at the high school levels have demonstrated the importance of self-efficacy as a predictor of students' academic competence (Goodarzi & Hosseinzadeh, 2012). For instance, Barkley (2006) study investigated whether sixth, seventh, and eighth grade students' efficacy beliefs were predictors of reading comprehension achievement as measured by a reading comprehension subset score on the Standford Achievement Test. There was also a survey designed to measure the students' efficacy about four categories that improve reading comprehension(prior knowledge, self-monitoring, cooperative learning, and using graphic organisers), and the results of the study demonstrated a positive correlation between subjects' efficacy beliefs regarding prior knowledge, self-monitoring, graphic organizers, and their reading comprehension achievement. It can be deduced here that self-efficacy can influence student's academic competence. For instance, when a student believes in his/her ability or capability to successfully perform a task, he or she may be successful in the task. Another variable that may influence student's academic competence is task-value.

This present study investigated to what extent the variability in academic competency of the participants is attributed to self-efficacy. Studies have been done on the related issue around the globe, but the present study is focused on a Nigerian sample and Osun State to be precise.

The specific objectives of the study are to:

- Ascertain the level of academic competence of secondary school students in osun state;
- Determine level of self-efficacy of secondary school students;
- Investigate the influence of self-efficacy on academic competence of the students

2. Research Questions

The following questions were reviewed

- What is the level of secondary school students' academic competence in Osun state?
- What is the level of self-efficacy of the students?

3. Research Hypotheses

There is no significant influence of self-efficacy on academic competence of secondary school students in Osun State.

4. Methodology

The study adopted descriptive survey research design. The population for the study comprised senior secondary school students in Osun State. The sample size comprised 600 respondents, selected using multistage sampling technique. One Local Government Area (LGA) was selected from each of the three senatorial districts in the State using simple random sampling technique. From each LGA, four senior secondary schools were selected using simple random sampling technique (12 schools in all) and from each school, 50 students were selected from senior secondary II using simple random sampling technique. Two instruments were used to collect information for the study, namely: Academic Competence Evaluation Scale (ACES), General Self-Efficacy Scale (GSES). The questionnaires were used to elicit information from the respondents in order to investigate the influence of self-efficacy on academic competence of secondary school students in Osun State. This consists of three sections: section A is the bio-data of the respondents while section B and C were academic competence and self-efficacy scale respectively. The instruments were validated with the help of experts in Tests and Measurement and Psychology of Education at Obafemi Awolowo University, Ile-Ife. Kaiser-Olkin Measure of Sampling Adequacy (KMO) and Bartlett's Test of Sphericity (BTS) were carried out to ascertain the usability of factorial validation for the validation of the items in each section of the questionnaire and each item yielded uniform data. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) value for academic competence and self-efficacy scale were 0.85 and 0.925 respectively which is greater than critical value at 0.05 level of significance and so is acceptable. The Cronbach's Alpha approach was adopted in determining the reliability of the scale and it yielded a coefficient of 0.852 and 0.895.

5. Results

Research Question 1: What is the level of academic competence of secondary school students in Osun State?

In order to answer research question one, items in Academic Competence Evaluation Scale (ACES) were scored such that “strongly Agree” response was allotted 4. Reverse scoring was used for item 2 and 10. Individual responses to each item were computed and the mean and standard deviation values were 68.0 and 4.3 respectively ($\bar{X} = 68.0$ & $SD = 4.3$). The minimum and maximum scores obtained in this scale were 59 and 78 respectively. Students whose rated scores on this scale were 1 standard Deviation below the mean (i.e 43-62) score were adjudged as having low level of academic competence. Those whose scores were within 66 to 70 were adjudged as moderate level of academic competence while those whose scores were 1 standard deviation above mean score (i.e 71 and above) were adjudged as high level of academic competence. The summary of the results is presented in Table 2.

Table 1. Level of Academic Competence of Secondary School Students

Levels	Frequency(563)	Percentage (%)
Low	53	9.41
Moderate	339	60.21
High	171	30.37
Total	563	100

Table 1: shows the distribution of the level of academic competence of secondary school students in Osun State. It can further be inferred that 9.41% of the students had low level of academic competence, 60.21% of them had moderate level of academic competence while the remaining 30.37% had high level of academic competence. The finding of this study indicated that more than half of the secondary school students in Osun State had moderate level of academic competence.

Research Question 2: What is the level of self-efficacy of the students?

In order to answer research question two, items in General Self-efficacy Scale (GSES) were scored such as “Strongly Agree” response was allotted 4, “Agree” response 3, “Strongly Disagree” response 2, and Strongly Disagree response was allotted 1. Reverse scoring was used for item 9 and twenty. Individual responses to each item were computed and the mean and standard deviation values were 81.2 and 3.2 respectively ($\bar{X} = 81.2$ & $SD = 3.2$). The minimum and maximum scores obtained in this scale were 72.00 and 87.00 respectively. Students whose rated scores on this scale were 1 standard Deviation below the mean (i.e 72-80) score were adjudged as having low level of self-efficacy. Those whose scores were within 81 through 83 were adjudged as moderate level of self-efficacy while those whose scores were 1 standard deviation above the mean score (i.e 84 and above) were adjudged as high level of self-efficacy. The summary of the results is then presented in Table 3

Table 2. Level of Self-efficacy of the Students

Levels	Frequency(563)	Percentage (%)
Low	114	20.25
Moderate	385	68.38
High	64	11.37
Total	563	100

Table 2 shows the distribution of the level of self-efficacy of the students. It can further be inferred that 20.25% of the students had low level of self-efficacy, 68.38% of them had moderate level of self-efficacy while the remaining 11.37% had high level of self-efficacy. The finding of this study indicated that more than half of the secondary school students in Osun State had moderate level of self-efficacy.

Research Hypotheses: There is no significance influence of self-efficacy on academic competence of secondary school students in Osun State.

In order to test the research hypothesis on the influence of self-efficacy on academic competence, the data collected on the independent variable were coded. Having done this, the influence of independent variable was cross tabulated with the dependent variable using ANOVA. The results of the cross tabulated are presented in Table 4.

Table 3. The Mean and Standard Deviation of Influence of Self-efficacy on Academic Competence of Secondary School Students

	N	\bar{X}	S. D	Std. Error
Self-efficacy	563	81.16	3.22	0.044

Table.1, from table 1, the number of students is 563, the \bar{X} is 81.16 and the SD is 3.222

Table 4 Influence of Self-efficacy on Academic Competence of Secondary School Students

	Sum of Squares	Df	Mean Square	F	P
Between Groups	2124.899	9	236.100	69.346*	<0.05
Within Groups	1882.784	553	3.405		
Total	4007.684	562			

Significant at 0.05 level

Table 4 shows the ANOVA table of influence of self-efficacy on academic competence. The findings of the study showed that sum of square between groups is 2124.899 and within groups is 1882.784. The degree of freedom between groups is 9 and within groups is 553. The mean square between groups is 236.100 and within groups is 3.405. The F-value is gotten as 69.346 AT <0.05 level of significance. Hence, the null hypothesis is rejected. Therefore, there is a significant influence of self-efficacy on academic competence.

Table 5. Post-hoc Multiple Comparison of Difference in Self-efficacy on Academic Competence

Dependent Variable: Academic Competence						
(I) self-efficacy	(J) self-efficacy	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Low	Moderate	.43829*	.05578	.000	.3103	.5674
	High	.58865*	.06289	.000	.4582	.7438
Moderate	Low	-.43829*	.05578	.000	-.5674	-.3103
	High	.14726*	.04933	.008	.0326	.2637
High	Low	-.58865*	.06289	.000	-.7438	-.4582
	Moderate	-.14726*	.04933	.008	-.2637	-.0326

*. The mean difference is significant at the 0.05 level.

Table 5. is the post hoc test carried out to determine the mean difference between each of the self-efficacy level. The study revealed that the mean difference between low and moderate self-efficacy was .43829 and this value is significant. Also, the mean difference between low and high self-efficacy was gotten to be .58865 and this value is significant. The results also indicated the mean difference between moderate and high self-efficacy was .14726 and it is significant.

6. Discussion of Findings

The primary goal of this study was to determine the influence of self-efficacy on academic competence of secondary school students in Osun State. The result of the first research question showed that most of the secondary school students in Osun State had moderate level of academic competence which may lead to high academic performance. From this study, it could be seen that students possessed different levels across all subjects areas of academic competence as against Yusuf and Adigun (2010) and Kurumeh, Igyu and Muhammed (2013) which asserted that variables like school types (single school and mixed school) did not show any difference in academic competence. Available statistics of National Examinations Council (NECO) and West Africa Examinations Council, WAEC Chief Examiner's report (2014, 2015, and 2016) on senior Secondary School students' achievement as cited by

Josiah (2013) revealed a poor achievement. A number of factors are said to have contributed to students' poor achievements in the examinations. Ajewole (2000) stated that some of these factors include: poor study habits, lack of available resource materials, teachers' ineffectiveness, the teaching methods, and the type of learning of learning environment available to students to teachers. The poor performance of students in West Africa Examination Council (WEAC) and National Examinations Council (NECO) may be a reflection of the type of learning environment. Given self-efficacy as the factor, the findings is also in line with the current findings since performance in WAEC and NECO by secondary school students in Osun State is poor as a result of their self-efficacy levels and probably other factors. Conclusively, it can be observed that the academic competence of Osun State secondary school students is at moderate level (i.e most them of them possess moderate level of academic competence) despite their self-efficacy levels.

Another major finding of this study was that most of secondary school students in Osun state had moderate level of self-efficacy. This implies that larger proportion of the students have moderate self-efficacy level. Self-efficacy predicts and influence intellectual performance better than skills alone, and it directly influences academic performance through cognition. Perceived self-efficacy predicts future achievement better than past performance (Chemers, Hu, & Gracia, 2001). Fluctuations in performance may be explained by fluctuations in self-efficacy. For example, varying beliefs in self-efficacy or different levels of self-efficacy may alter in two different situations. The present findings is in accordance with the above findings since in Osun State there exists different levels of self-efficacy and the different levels of self-efficacy resulted in different levels of performance.

Self-efficacy had influence on academic competence of secondary school students in Osun State .The particular concern of educators is that failure to attach value and possessed academic competence may result to low self-efficacy and it may block the pursuit of careers and schooling. In high school students, self-efficacy influence academic competence and is a better influence of achievement, engagement and competence with activities in and out of the classroom. The likely explanation for having moderate self-efficacy has been observed in this research could be that, the prior mastery experience (i.e., scoring good results in the class, scoring good results in the Nigerian Higher Education Entrance Qualification Certificate Examination and getting an opportunity to join higher learning institutions) might have inspired students to have moderate and high self-efficacy. Self-efficacy and task-value are essential for students in acquiring academic competence. This is because, it has been consistently noted by Bandura in his social-cognitive theory, when compared to the other sources of self-efficacy beliefs (i.e., vicarious experience, verbal and social persuasions, and emotional and physiological states), prior mastery experience is the most dominant and plays a crucial role in enabling students to believe in their capability to be successful in related tasks and motivated to achieve their planned goals. According to Bandura, when students believe that their efforts have been successful (i.e. they experienced mastery in prior activities), their confidence (i.e., self-efficacy) to accomplish similar or related tasks is raised and they are highly motivated to succeed

It has been shown in this study, that self-efficacy is linked with academic competence. It is evident from numerous studies reviewed and results of these findings that self-efficacy will significantly influence academic competence.

Finally, it is therefore noteworthy that self-efficacy had the strongest influence on academic competence. From the study, it was discovered that students who possesses high level of self-efficacy will perform well in the school than those who have low self-efficacy. It is important to emphasize that student with high level of self-efficacy stands better chance of possessing academic competence.

7. Conclusion

The present study established that majority of secondary school students possessed moderate level of academic competence. It was also realized that the larger percentage of students had high self-efficacy which contributed to academic competence. Finally, it was concluded that academic competence depended on the influence of self-efficacy.

8. Recommendations

Arising from the findings and conclusion of this study, various recommendations were proposed to further enhance academic competence of secondary school students, which will result to academic excellence and high performance of the students. Therefore, this study should be applied in various educational and counseling settings. These recommendations are given subsequently.

There is a need for students to make realistic commitments to their academic pursuits with the intension to be successful academically. It is also important that secondary school students should develop high self-efficacy and this will also aid their academic competence not academic failure. School counselors should organize periodic

academic seminars for secondary school students on how to develop and maintain high self-efficacy and this will enhance their academic competence.

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