

MOTIVATION, SELF-EFFICACY AND HIGH ACHIEVING PRIMARY SCHOOL PUPILS' ACADEMIC PERFORMANCE IN IBADAN METROPOLIS

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Abstract

This study examined motivation, self-efficacy and high achieving pupils' academic performance. A correlational survey research design, carried out at ex-post 80 high ability pupils were selected using purposive sampling techniques. The instruments used were Intrinsic and Extrinsic Motivation Scale ($\alpha = .73$) Academic Self-Efficacy Scale ($\alpha = .73$) and Pupils Academic Record (PAR). Three null hypotheses were tested at 0.05 level of significance and result obtained revealed that there is a significant relationship between pupils' self-efficacy and academic performance, hence, 0.602 at $p < 0.05$ level of significance. Also, intrinsic motivation and pupil's self-efficacy have significant relationship on the academic performance of pupils (0.225 at $p < 0.05$ level of significance). While extrinsic motivation did not correlate with pupils' academic achievement, hence, (0.021 and $p > 0.05$). Thus, on the basis of this finding the researchers offered appropriate recommendations to teachers, parents and the government.

Key Words: Intrinsic Motivation, Extrinsic Motivation, Self-Efficacy, Academic Performance

Introduction

Research on academic achievement would continue to be unabated as long as the desired outcome of learning performance remains unattainable; hence, there is need for researchers to continue to explore this frontier of knowledge. Ajayi (2017) described the poor academic performance in public examinations as a symptom of pervasive national failure that has affected every facet of our national endeavour. The crux of the matter appears to be the kind of attitude, which the pupils bring to bear on their studies. However, acquiring exquisite academic success at each level of education has always been the goal of every parent. Even the indolent ones among the pupils want to achieve success in any examination. This accounts for why they engage in all forms of examination malpractices. It is on this premise that the need to carry out further research on academic achievement is anchored.

The gifted and talented can only be found among the population of high ability pupils. The gifts and talents that some pupils possess set them apart from their regular counterpart which nurturing and care may blossom into contributions a society value. Pupils who are academically motivated perform better in school, value their schooling and possess the academic confidence and positive feelings of self-worth so necessary to increase academic achievement. A classic distinction in motivation is between intrinsic and extrinsic. Intrinsic motivation is the natural tendency to seek out and conquer challenges as well as pursue personal interests and exercise capabilities (Deci & Ryan, 2012). When we are intrinsically motivated, we do not need incentives or punishment because the activity itself is rewarded. In contrast, when we do something in order to have a grade, avoid punishment, please teachers, or for some other reasons that have very little to do

with the task itself, we experience extrinsic motivation (Woolfolk, and Bulke-Sapero 2015). We are not really interested in the activity for its own sake; we care only about what it will benefit us.

Madrid and Perez Canado (2021) perceived three components in achievement motivation. These are: (a) cognitive drive, which is task oriented in the sense that the enquirer is attempting to satisfy the need to know and understanding and the reward of discovering new knowledge resides in the carrying out of the task; (b) self-enhancement which is ego oriented or self-oriented and represents a desire for increased to prestige and status gained by doing well scholastically, and which leads to feelings of adequacy and self-esteem; and (c) a broader motive of affiliation which is a dependence on others for approval. Satisfaction comes from such approval irrespective of the cause, so the individual uses academic success simply as a means of recognition by those on whom he or she depends for assurances. Parents and later, teachers play active parts in the young child's affiliation needs.

Understanding how to motivate pupils in the classroom continues to be one of the most important unresolved issues in education. Recent studies have demonstrated that praise for academic performance can affect pupils motivation, and lead them to attribute their performance to external or internal causes. Previous research in this area of educational psychology has primarily focused on the effects of praises in controlled settings. Motivating pupils to achieve success in school is of great practical concern to teachers and parents, and of great theoretical concern to researchers. Also, it should be added that one of the greatest challenges and opportunities of the 21st Century will be for schools at all levels to focus more on assisting pupils to become motivated in order that they can succeed in school (Graham and Weiner, 2016).

X-raying the potency of self-efficacy as pointed out in the study of Stajkovic and Luthans (2019) the meta analysis indicated that self-efficacy beliefs accounted for a 28% increase in performance. Pupils who have mastered the process of new venture creation and the running of small business would likely have increased in their self-efficacy. Nicholas and Steffy (2015) also examined an alternative learning programme in a large urban school district in the Midwestern United States to determine if the specific alternative learning programme could have a positive effect on pupils' motivation, goal orientation, self-efficacy, and self-esteem. The study was based on existing research in motivational theory. Data were gathered through pre and post questionnaire administered to 32 pupils who successfully completed the programme and returned to their home school. The results offered guided support for the alternative educational programme. Pupils' motivation and self-esteem appear to be positive outcomes of the programme. However, the positive outcomes were significantly noted only for pupils who successfully completed the programme. Woolfolk, and Burke - Spero (2015) in a large scale study on the teachers' disposition to self-efficacy as a correlate of pupils' performance academically found out a significant performance difference when teachers possessed sense of efficacy rows from real success with pupils.

Norwich (2021) reported a study of 70 primary school female pupils in Mathematics classes over a period of 7 weeks and found that self-efficacy was the best predictor of learning intentions. O'Brien (2021) remarked that 282 (59.7%) female pupils who were attached to their mothers selected careers consistent with their abilities and felt highly efficacious about their career choice while Okolo and Andi (2021) offered

recommendations for enhancing the achievement motivation of elementary pupils with mild disabilities which addresses five areas: learner control, reward, pupils interest, classroom structure, and self-efficacy and attributions.

Pajares and Johnson (2014) had investigated four pupils' perception of the evolution of their efficacy beliefs about writing and of the relationship between these beliefs are strongly predictive of academic performance. Although they tested 'influence of writing, self-efficacy, writing apprehension and writing aptitude on 181 ninth grade pupils. Aptitude and self-efficacy had direct effects on performance. Girls and boys did not differ in aptitude or performance but girls reported lower writing self-efficacy. Native English speaking Hispanic pupils had lower aptitude performance scores, lower self-efficacy and higher apprehension.

Yamauchi and Greene (2020) reported that social cognitive theory suggests that individual's beliefs about their efficacy in specific contexts, such as school, influence their motivation in those settings. The relationship between various socio-cultural factors and the development of pupils' perceived academic self-efficacy are investigated. Participants were 202, drawn from grades 3 and 4 at a rural primary school in an Island Community they completed several measures of self-efficacy. The pupils' responses were compared to those of mainland pupils and analysis suggested that the Island pupils reported lower perceived self-efficacy for academic achievement in all academic domains except Basic Science. This exception could be explained by the fact that the pupils' rural Island lifestyle made them more familiar and thus more comfortable with plants and animals. Results indicated that being male and being a native Islander was associated with lower self-efficacy for self-regulated learning. It is suggested that the socio-regulated context provides different information to native boys and girls regarding their performances at home and at school (Ogundokun, 2016).

A plethora of research findings indicated that self-efficacy correlates with achievement outcomes (Bandura, 2007; Schunk, 2015). Self- efficacy also correlates with indexes of self-regulation, especially use of effective learning strategies. Self-efficacy, self-regulation and cognitive strategy use are positively intercorrelated and predict achievement (Pintrich and De Groot, 2020). Pupils with high self-efficacy for successful problem solving display greater performance monitoring and persist longer than do pupils with lower self-efficacy (Bouffard-Bouchard, Parent and Larivee, 2022). Writing self-efficacy correlates positively with pupils' goals for course achievement, creative product, satisfaction with potential grades and actual achievement (Zimmerman and Bandura, 2014).

The predictive activity of self-efficacy has also been tested using causal models. Schunk (2015) employed path analysis to reproduce the correlation matrix comprising long-division instructional treatment, self-efficacy, persistence and achievement. The most parsimonious model showed a direct effect of treatment on achievement and an indirect effect of self-efficacy on achievement and persistence. Mathematics self-efficacy has been found to be a better predictor of Mathematics performance than Mathematics self-concept, Mathematics anxiety, perceived usefulness of Mathematics, or prior experience and it is as powerful a direct effect on Mathematics performance as does mental ability, a variable often presumed to be the strongest predictor of academic achievement (Pajares and Miller, 2015). Self-efficacy affects achievement directly and indirectly through its influence on goals (Zimmerman and Bandura, 2014).

Instructional variables affect self-efficacy in part through the intervening influence of attributions. Schunk and Gunn (2016) examined the effects on changes in children's division achievement due to use of strategies, attributions, and self-efficacy. Achievement was influenced by use of effective strategies and by self-efficacy. The strongest influences on self-efficacy were ability attributions for success. Research in diverse settings has explored the effects of instructional and other classroom processes on self-efficacy. Processes beneficial for developing self-efficacy include proximal and specific learning goals, strategy instruction and verbalization, social models, performance and attritional feedback, and performance-contingent rewards (Schunk, 2015). These processes inform pupils of their capabilities and progress in learning and this information motivates pupils to continue to perform well.

Leper, Corpus and Iyengar (2015) were of the opinion that extrinsic rewards sometimes can negate the effects of intrinsic motivation. Going by this assertion, extrinsic motivation is seen as a powerful influence at determining self-efficiency of high achieving pupils academic performance as opposed to intrinsic motivation.

Ogunniyi (2016) equally explained that school related factors that influence academic performance include the adequacy or inadequacy of the following: physical environment, personnel and learning facilities, workshop and quality of teaching. Other factors are number of the pupils in a classroom, laboratories, instructional materials and library facilities.

Although, many factors contribute to the academic performance of pupils, the role of the parents has consistently been shown to be a factor of great importance, and the environment in which the learner acquires knowledge should be reinforcing and learner friendly. It was also reported that several factors including: teaching method, interpersonal relationships among the school personnel, nature of curriculum and the school topography could influence the academic performance of the learners either positively or negatively depending on the adequacy or inadequacy of such factors, (Ogundokun, 2016).

High achievement is a virtue everyone loves to acquire. However, very few pupils have the ability to perform at the higher level of the echelon. All things being equal, all the efforts being made by the parents, government, school administrators, researchers, teachers and government agencies to ensure high academic performance are yet to yield appreciable result. Thus, the fact that few pupils are academically successful in most public examinations while many of them fail therein makes it highly imperative to study these factors; self-efficacy and motivation as predictors of academic achievement of high achieving pupils.

Certain factors like the individual learning styles, mental ability, psychological factors like self-efficacy and motivation play significant role in the academic performance of pupils. If such factors are identified in individual learners and accordingly facilitated to enhance their performance, the better for such pupils as this will bring about higher academic performance. Hence, this study investigated motivation and self-efficacy and high achieving pupils' academic performance.

Purpose of the Study

Based on the above stated problem, the purpose of the study is:

1. To examine the relationship between academic self-efficacy and academic performance of high achieving pupils
2. To determine the relationship between intrinsic motivation and academic performance of high achieving pupils.
3. To investigate the relationship between extrinsic motivation and academic performance of high achieving pupils.

Hypotheses

- i. There is no significant relationship between self-efficacy and academic performance of the high achieving pupils. .
- ii. There is no significant relationship between the intrinsic motivation and academic performance of the high achieving pupils.
- iii. There is no significant relationship between the extrinsic motivation and academic performance of the high achieving pupils.

Methodology

The study adopted a correlational survey research design using the ex-post facto type. This is because variables to be investigated have already manifested, they could not be subjected to any control or manipulation. The relationship among the variables was examined as they manifested themselves in the field. A total of eighty high academic ability pupils participated in this study from across four public primary schools. The participants were picked from the following schools: Methodist Primary School, Elekuro, Ibadan (20 participants), Public Day School, Orita-Aperin, Ibadan (20 participants), Christ School, Mapo III, Ibadan (20 participants), and Wesley College Practising School, Elekuro, Ibadan (20 participants). The sampling technique that was employed for this study was purposive sampling. The reasons for the choice of this sampling technique were: reduction in sampling costs and the ease of field administration.

The instruments used in carrying out this study included the following:

1. Intrinsic and Extrinsic Motivation Scale - (IEMS)
2. Academic Self-Efficacy Scale (ASES)
3. Pupils Academic Record

Intrinsic and Extrinsic Motivation Scale (IEMS):

Intrinsic and Extrinsic Motivation Scale (IEMS) is an instrument developed by Leper, Corpus and Lyengar (2015) and was adapted for the study to assess continuum of self-regulatory tendencies ranging from external to intrinsic, but also focuses exclusively on autonomy which captures the dimension of extrinsic motivation.

The scale consists of two sections. The first section deals with the items and factor loadings for intrinsic motivation scale with seventeen (17) items which are sub-divided into three. They are challenge, curiosity and independent mastery.

The second section consists of items and factor loadings for extrinsic motivation scale with fourteen items which are also divided into sub-group; easy work, pleasing teacher and dependence on teacher. The test is placed on four point Likert Scale of Strongly Disagree (1); Disagree (2), Agree (3) and Strongly Agree (4).

The reported reliability index for the intrinsic motivation was internally consistent at .90 while that of extrinsic motivation was found to be .77. The instrument reliability was established using Cronbach's Alpha method to arrive at .73.

Academic Self-Efficacy Scale (ASES):

The self-efficacy of the participants were measured by the adapted self- efficacy scale by Jinks and Morgan (1999). The original version is made up of 34 items, out of which 20 items were adapted by the researcher to which the respondents are to indicate the extent of their agreement or otherwise to the scale. The scale is placed on five points Likert type rating scale of Strongly Agree (5), Agree (4), Undecided (3), Disagree (2), Strongly Disagree (1). The individual's rating for the 20 items formed a single self-efficacy score. The reported reliability and validity estimate found by the original author was found to be .82. The Cronbach method was employed to determine the reliability index of this instrument for this particular study was .73.

Pupils' Academic Record:

Results of participating pupils from Primary 4 to Primary 6 on eight subjects were collected from the sampled schools. The researcher thereafter found the mean score for each of the participants.

Results

Hypothesis One: There is no significant relationship between pupils self-efficacy and academic performance among high achieving school pupils.

Table 1: Relationship between pupils' self-efficacy and academic performance

Variables	MEAN	SD	r	P.Value	Decision
Academic performance	3.49	1.17	0.602	0.00	Ho Rejected
Pupils Self-Efficacy	61.65	13.29			

Table 1 reveals that the calculated value of Pearson product moment correlation ($r=.602$ at $p=0.00$). This is significant at $p < 0.05$ level of significance. Thus, hypothesis one is rejected. This indicates that there is a significant relationship between pupils' self-efficacy and academic performance.

Hypothesis Two: There is no significant relationship between pupils' intrinsic motivation and academic performance among high achieving school pupils.

Table 2: Relationship between pupils' intrinsic motivation and academic performance

Variables	MEAN	SD	r	P.Value	Decision
Academic performance	3.49	1.17	0.225	0.00	Ho Rejected
Intrinsic Motivation	54.74	6.59			

In Table 2, the calculated Pearson product moment correlation value ($r = .225$ at $p = 0.000$). This is significant at $p < 0.05$ level of significance. Therefore hypothesis two is rejected. Thus, there is a significant relationship between pupils' intrinsic motivation and academic performance.

Hypothesis Three: There is no significant relationship between pupils extrinsic motivation and academic performance among high achieving primary school pupils.

Table 3: Relationship between Extrinsic Motivation and Academic Performance

Variables	MEAN	SD	r	P.Value	Decision
Academic performance	3.49	1.17	0.221	0.08	Ho Accepted
Extrinsic Motivation	59.375	5.76			

Table 3 shows that the calculated value of Pearson product moment correlation between extrinsic motivation and academic performance among high achieving primary school pupils. It was revealed that the correlation value of 0.221 is significant at $P > 0.05$ level. The null hypothesis is therefore accepted.

Discussion of Findings

The first hypothesis states that there is no significant relationship between pupils' self-efficacy and academic performance among high achieving primary school pupils. The hypothesis was tested and analysed, the result shows that there is a significant relationship between pupils self-efficacy and academic performance as can be seen in Table 1 where the calculated value of Pearson product moment correlation is 0.602 at $p < 0.05$ level of significance. The result is in consonance with the findings of Stajkovic and Luthans (2019) where it was discovered that higher level of self-efficacy is related to higher level of performance in schools.

Also, Norwich (2021) reported a study on Mathematics class and found that self-efficacy was the best predictor of learning intentions. However, Pajares and Johnson (2014) in their findings, negated the present finding discovered a relationship between socio-cultural factors and the development of pupils perceived academic self-efficacy.

The result is in line with the findings of Woolfolk and Burke-Spero (2015) on Teachers' sense of efficacy. The study shows that teachers' sense of efficacy rows from real success with pupils. The teacher's belief that he or she can reach even difficult pupils to help them learn, appears to be one of the few personal characteristics of teachers that correlated with pupils achievement. In the same vein, when pupils are succeeding, they will work harder to achieve more.

The second hypothesis states that there is no significant relationship between pupils intrinsic motivation and academic performance of high achieving primary school pupils. The null hypothesis was rejected as an indication that there is a significant relationship between pupils intrinsic motivation and academic performance. This is in line with Madrid and Perez Conado (2021) research on school learning, as they perceived at least three components in achievement motivation. These are: (a) cognitive drive, which is task oriented in the sense that the enquirer is attempting to satisfy the need to know and understanding and the reward of discovering new knowledge resides in the carrying out of the task; (b) self-enhancement which is ego oriented or self-oriented and represents a desire for increased to prestige and status gained by doing well scholastically, and which leads to feelings of adequacy and self-esteem; and (c) a broader motive of affiliation which is a dependence on others for approval. Satisfaction comes from such approval irrespective of the cause, so the individual uses academic success simply as a means of recognition by those on whom he or she depends for assurances. Parents and later, teachers play active parts in the young child's affiliation needs.

The third hypothesis which states that there is no significant relationship between pupils extrinsic motivation and academic performance of high achieving pupils, the result of the analysis shows that the null hypothesis is accepted. This indicates that there is no significant relationship between pupils extrinsic motivation and academic performance. This is in line with the report of the research by Leper, Corpus and Iyengar, (2015). They suggested that extrinsic rewards can sometimes negate the effects of intrinsic motivation. They refer to this as over justification. If a child is working well at something intrinsically interesting and receives rewards for good performance, there is a possibility that the child will begin to attach more significance to the reward than to satisfying the intrinsic interest.

Deci and Ryan (2012) also pursued the question of teacher praise and found that it does not always work positively, particularly if it is not immediate. He concludes from the research that praise does not correlate highly with achievements and in some circumstances may have a negative correlation.

In summary, it was discovered that in the three hypotheses tested, academic self-efficacy and pupil's intrinsic motivation correlate highly with academic performance, while extrinsic motivation was found to have negative effects on academic performance of the pupils

Conclusion

It was observed that teachers are happy and feel satisfied when their pupils perform well in their academic. Parents also want to see their wards coming home with good results after their terminal examinations. This makes it imperative for both parents and teachers to work harmoniously on what they can do to support their children.

In the light of the above the study has been able to establish that high achieving pupils also need support from both parent and teachers alike, and that, motivation is generally considered desirable for pupils. Although intrinsic motivation is much more beneficial, notwithstanding, parents and teachers are advised to employ extrinsic motivation with caution.

This study was able to establish that high achieving pupils with a strong sense of self-efficacy are more likely to challenge themselves with difficult tasks and be intrinsically motivated as they put forth a high degree of efforts in order to meet their goals and objectives. Hence, academic self-efficacy is found to be a strong predictor of academic success with treatment packages i.e. intrinsic motivation and extrinsic motivation.

Recommendations

1. Parents and teachers have a major stake in discovering, encouraging and advertising each child's capabilities for the enhancement of self-esteem and self-actualization. For example, there is justification in believing that hungry or frightening children are less likely to fulfill the requirement of the school than well-fed and secure children.
2. Parents should show affection at home while teachers should equally show affection at school.
3. Parents should ensure that their children are well fed at home before going to the school.
4. Parents should maintain emotionally well balanced home backgrounds for their children.
5. Teacher and school should do much in identifying any source of difficulty being encountered by high achieving pupils and where possible, seek for remediation of these deprivations.
6. Teachers should also be able to give the learner believable reasons for the need to succeed, and encourage positive attitudes to learning.

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