

RELATIONSHIP BETWEEN PHYSICAL SELF CONCEPT AND ACADEMIC PERFORMANCE AMONG SENIOR SECONDARY SCHOOL STUDENTS IN KONTAGORA, NIGER STATE

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Abstract

The study investigated the Relationship between Physical self concept and academic performance among senior secondary school students in Kontagora, Niger state, Nigeria. The study was guided by one research objective one research question and one hypotese all were formulated and tested at 0.05 level of significance. A correlational research design was employed, involving a sample of 324 students drawn from 12 secondary schools. Data were collected using the Students' Academic Self-Concept Questionnaire (SASCQ), the Students' Academic Performance Questionnaire one dimensions of physical self-concept and academic performance, —were analyzed to determine the influence on academic performance. Results revealed that physical self-concept had a moderately strong and significant positive correlation with performance value The reliability index of the instrument were 0.,331 and was obtained. the findings of the study, it was revealed that, significant relationship exists between Physical self-concept and academic performance. However, hypotheses (1] was rejected. and none was retained. The study recommended among others that, students should be made to appreciate their Academic skills they possess, so that, they will be able to strive with their peers and compete positively in their academic performance .These findings highlight that students with stronger physical self-concepts tend to perform better in core subjects, The study underscores the centrality of educational self-concept as a critical determinant of achievement, aligning with international and African evidence on the predictive role of physical self-concept in student outcomes. It recommends that educators, counselors, and design interventions to build students' physical self-beliefs, while fostering realistic intellectual self-assessment, to improve motivation, study habits, and learning outcomes in English and Mathematics. The study also concluded that Students should appreciate their posture, appearance so that they will be able to strive with their peers and compete favourably for positive academic achievement.

Keywords: Physical Self concept, Academic Self Concept, English, mathematics, Senior Secondary school

Introduction

Physical self-concept refers to ability of an individual's to understand themselves in areas of physical ability and appearance. Physical ability includes concepts such as physical strength and endurance, while appearance refers to attractiveness. Adolescents experience significant changes in general physical self-concept at the on-set of puberty, about 11 years old for girls and about 15 years old for boys. Moore (2019), the aspect of the physical self is an individual's assessment of every thing that an individual has, including his body, clothing, and objects .physical self-concept encompasses two main components: physical and sports capacity (Esnaola et al., 2018). Other authors like Fox (2018) registered domains such as physical condition, physical attractiveness and strength, while Bracken

(2022) made reference to physical and sporting competence, physical appearance, physical fitness and health.

Physical self-concept has been conceptualized as the cognitive-social construction that reflects the attributes of an individual consciously recognizes in their own person and the personal self-image that they understand themselves, linked to the appreciation of their physical capacity (Esnaola et al., 2018). Literature have shown that the physical self-concept is related to both positive and negative results in the intention to be physically active and emotional regulation (Murci et al., 2018, Goñi&Zulaika, 2020). More specifically, the higher a person's physical self-concept is, the greater is their intention to be physically active (Moreno-Murcia et al., 2018). Regarding emotional regulation, negative physical self-concept is associated with the use of dysfunctional and passive emotional strategies (Morales, 2017), such as blame others, catastrophizing and rumination, and positive ones with active and functional strategies (Carver et al., 2019) as acceptance or positive refocusing.

Literature further revealed that physical self-concept encompasses two main components: physical and sports capacity (Esnaola et al., 2018). Other authors like Fox (2018) registered domains such as physical condition, physical attractiveness and strength, while Bracken (2022) made reference to physical and sporting competence, physical appearance, physical fitness and health. Currently, one of the most recognized models divide into four subdomains: physical ability, physical condition, physical attractiveness and strength (Blanco et al., 2019; Esnaola et al., 2019). Physical ability refers to the optimal personal perception of athletic and sports competition (the individual is seen as having optimal qualities, skills, learning capacity, safety in the practice of physical activity and predisposition to sport) (Goni&Zulaila, 2020). The physical condition includes the resistance evaluation, energy and confidence in the practice of sport (Navas et al., 2018). Physical attractiveness is linked to physical appearance and assesses satisfaction with body image. Finally, the strength takes into account the opinion of the practitioner about the feeling of security when developing exercises that require lifting weight (Cheng-Chen et al., 2018). The identification and differentiation of the subdomains of the physical self-concept is vital because it is easier to modify one of its subdomains than the entire physical self-perception of the subject. In addition, the literature also, reveals that the evolutionary trajectory of physical self-concept is not linear, this means that physical self-concept is minimized in preadolescence and is maximized during adolescence and youth (Navas et al., 2018).

Previous researches such as Grao-Cruces et al., 2016; Lau et al., 2019) found that there are differences in perceived physical self-concept in relation to gender, resulting in worse adjustment in women. Specifically, men tend to configure a more optimal image in the physical capacities considered stereotypically as masculine (endurance, sports competence and physical strength) compared to women who have worse perceptions of strength, physical ability, attractiveness and self-esteem (Esnaola et al., 2018).

Research Objective

This study provided answers to the following research objective

- i. Determine Physical self-concept correlate with academic performance in English and Mathematics among senior secondary school students in Kontagora, Niger State, Nigeria?

Research Questions

This study provided answers to the following research questions

- i. How does Physical self-concept correlate with academic performance in English and Mathematics among senior secondary school students in Kontagora, Niger State, Nigeria?

Hypotheses

The following hypotheses are formulated for this study:

- i. There is no significant relationship between physical self-concept and academic performance in English and Mathematics among Senior Secondary School Students in Kontagora, Nigeria.

Methodology

The correlational research design is adopted for the study. According to McMillan, (2014), correlational research design is a research design in which information on at least two variables are correlated in order to investigate the relationship between the variable. In correlation design, the researcher did not attempt to manipulate any variables. Instead, the researcher is more concerned to determine the extent to which the multiple predictor explain the outcome variable, but does not necessarily conclude that one variable cause the other variables (Schmidt & Brown, 2009). The researcher used correlational design because the study is aimed at finding the relationship that exists among the variables in the study. As noted, a correlation research design is used to establish the statistical association between two or more variables, physical self-concept and academic performance. The population of this study comprised twelve 12 senior secondary school students in Kontagora, Nigeria; with the total population of 3573 which include both males 1,930 and females 1,643 with their age ranging from 15 – 20 years.

The sample size of the study was 346 selected from 12 senior secondary school in Kontagora, Nigeria. The samples were drawn from the total population by proportion. The proportions were arrived at by dividing the total number of population on a particular school by the grand total number of the population of the sampled school and then multiplying by the targeted number of the samples. In this case, 3,573 and then multiplying by 100 produced the percentage covered by each proportion.

Instrumentation

Instruments were used for data collection in this study.

Students' Academic Self Concept Questionnaire

Two instruments were used for data collection: the Students' Academic Self-Concept Questionnaire (SASCQ) and the Students' Academic Performance Questionnaire (SAPQ), both adapted from Bilal (2017) with minor modifications. The SASCQ consisted of two sections: Section A captured respondents' demographic information (gender, age, class, and location), while Section B contained items measuring students' academic self-concept across various dimensions. Similarly, the SAPQ was structured into two sections, with Section A covering demographic details and Section B containing test items on academic performance. Academic performance was assessed through two subject-based tests—English and Mathematics—each comprising 25 questions. The instruments were administered to selected secondary schools in Kontagora Local Government Area, Niger State, and were designed to capture variations across gender and location (urban and rural).

English and Mathematics Performance Test

The academic performance tests in English and Mathematics were developed by subject specialists from God Foundation Secondary School and Belfast International School, in line with the SS II syllabus. Each test comprised 25 items, with the English test scored out of 100 marks (4 marks per item), while Mathematics scores were computed and averaged to ensure comparability. The average performance scores from both subjects were then compared with students' responses on the Academic Self-Concept Questionnaire (SASCQ) to establish the relationship between self-concept and academic achievement.

Analysis of Data

Table 1: Relationship between Physical Self-Concept and Students’ Academic Performance

Variable	Mean	Std. Deviation	Mean Difference
Physical Self concept	39.62	5.875	0.12
Academic Performance	39.50	5.099	

Table 1: revealed the mean and standard deviation difference for physical self-concept and students’ academic performance. The table shows that the physical self-concept has a mean and standard deviation values of 39.62 and 5.875 respectively; while the mean and standard deviation values for students’ academic performance are 39.50 and 5.099. The mean difference between the two variables is 0.12 in favour of physical self-concept. This implies that physical self-concept has effect on academic performance of senior secondary school students in Kontagora, Nigeria. This also suggests that significant relationship might exist between physical self-concept and students’ academic performance in the further analysis of the corresponding hypothesis.

Results

The 1 hypotheses were Formulated to guide the conduct of the study. The null hypotheses were tested with Pearson r-statistics at of 0.05 alpha level.

Hypothesis 1: There is no significant relationship between physical self-concept and academic performance among Senior Secondary School Students in Kontagora, Nigeria.

Table 3: Relationship between Physical Self-concept and Students’ Academic Performance

Variables	N	r-value	p-value	SD
Physical Self-concept	324	0.331	0.000	4.802
Academic Performance				5.099

The table2: revealed a calculated r-value of 0 .331 and p-value of .000. Since the calculated p-value of .000 is less than 0.05 level of significance; thus, the hypothesis which states that there is no significant relationship between physical self-concept and academic performance of secondary school students in Kontagora, Nigeria is rejected. Hence, significant relationship exists between physical self-concept and students’ academic performance ($r = .331$ and $p = .000 < 0.05$).

Discussion of Findings

The finding of this study revealed that significant relationship exists between physical self-concept and students’ academic performance ($r = .331$ and $p = .000 < 0.05$). The relationship is positive; which means that the higher the physical self-concept of a student, the higher his/her academic performance and vice-versa. This finding is consistent with the finding of Senejohnnyand Hadiyan (2013) which showed that physical self-concept has significant relationship with students’ academic performance. The result of this research work is also similar to that of Oluwatayo (2021) who found out self-concept moderately correlates with the performance of students in mathematics. The finding of this study is similar with the previous finding even though the location and the educational level of the students are different from the previous study. This suggests that, irrespective of social status, student who is satisfied with his/her physical appearance and skills possessed will be more motivated to strive for success, thus, become more successful in their academic pursuits than those with low physical appreciation, which may lead to discouragement to strive for success or endure academic rigor; thereby, recording lower level of academic performance.

Conclusion

It can be concluded that physical self-concept plays a crucial role in the academic pursuits of secondary school students. Therefore, Students should appreciate their posture, appearance so that they will be able to strive with their peers and compete favourably for positive academic achievement which would contribute to the overall development of the society.

Recommendations

Based on the findings of this study, it was recommended that:

Students should appreciate their posture, appearance so that they will be able to strive with their peers and compete favorably for positive academic achievement.

Counselors should on a regular basis organize seminars and workshops for all education stakeholders on strategies they can adopt in improving students physical' self-concept and how such can be harnessed to achieve positive academic performance.

academic performance. Based on the findings of this study, it was recommended that:

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