

## INFLUENCE OF GENDER ON SELF-CONCEPT AND ACADEMIC PERFORMANCE AMONG SECONDARY SCHOOL STUDENTS IN KANGEMA CONSTITUENCY, MURANG'A COUNTY, KENYA

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### ABSTRACT

*This study sought to examine the influence of gender (male and female) on self-concept and academic performance among secondary school students in Murang'a County, Kenya. The study employed a descriptive survey design targeting all the 6,168 students and 24 teacher counselors in the 24 secondary schools. Twelve secondary schools, (6 boys'/girls', and 6 mixed), were selected to take part in the study. From each of the sampled schools, 20 students were selected using stratified random sampling. In mixed schools, 10 boys and 10 girls were selected to ensure gender balance, giving a sample size of 240 students, that is, 120 boys and 120 girls. Twelve teacher counselors were also selected to participate. A questionnaire for students and an interview schedule for teacher counselors were used as the main tools for data collection. Quantitative data was analysed using descriptive statistics, (frequencies, means and percentages) and inferential statistics, (t-test and Pearson's correlation), at 0.05 level of significance. The Statistical Package for Social Sciences (SPSS) version 18.0 was used to analyse data. The study established that there were statistically significant gender differences on students' self concept and academic performances. The study established that female students had a more positive self concept than male students. However, with regard to academic performance, it was established that male students were performing well in academics compared to the female students. The study recommends that guidance and counseling services should be provided to the female students based on self-concept to improve academic performance; frequent counseling sessions should be organized in schools especially among male students based on self-concept to improve in the domains of verbal, honesty, trustworthiness and same sex relations; administrators and teacher counselors should guide and counsel students on their self concept in order to improve their academic performance.*

**Keywords:** Self concept, Academic performance, Gender, Gender role

### INTRODUCTION

Education is a vital tool in achieving greater autonomy, empowerment of women and men, boys and girls, and addressing gender differences in the distribution of various available opportunities and resources (Muganda, 2002; Muthaka and Mwangi, 2002). Achievement of gender equity in education may require collaborative participation of learners (boys and girls), parents, communities and development partners, the civil society, private sector and the government. Globally, boys and girls at adolescence use gender as an organizing theme to classify and understand their perceptions about the world (Myers, 2002). Gender differences are influenced by society's beliefs about the traits of female and males, that impact greatly on processing of social information and self- concepts. Gallagher, (2001) explains that social and cultural factors such as, student's familiarity with the subject, changes of career aspirations, gendered perceptions of specific subjects, presentational styles of boys and girls and teacher expectations are the major reasons leading to gender differences

in self-concept and academic performance. However, unlike biology the social and cultural factors are changeable by modifying the context of education.

According to Kumari and Chamundeswari (2013) self-concept is the cognitive aspect of self and generally refers to the totality of a complex, organized and dynamic system of learned beliefs, attitudes and opinions that each person holds to be true about his or her personal existence. Fayombo (2001) define self-concept as the image an individual has of himself/herself which is a composite of the beliefs he or she has about himself or herself, including his or her physical, academics, psychological, social and emotional characteristics, aspirations and achievements. Self concept and academic achievement among the students are dynamically interactive and reciprocal. Previous studies have reported a significant influence of self-concept on academic performance (Hughes, 2004; Cockley, 2003). For instance, a study by Nalah (2014) revealed that there was significant relationship between students' self-concept (high or low) and academic performance. This finding is supported by Long (2002) who found out that learners with high levels of self-concept, have strong desires for learning and use of problem-solving skills. Such learners have the capacity to engage in independent learning activities, and manage their own learning. However, Nalah further established that there was no significant relationship between the self-concept and academic performance of male and female students.

It is imperative to note that individual's belief about themselves are strongly related to successful learning, and successful learners are more confident of their abilities and believe that investment in learning can make a difference. Students with high self-concept are therefore more likely to approach school related tasks with confidence, and success on those tasks reinforces this confidence. The opposite pattern is likely to occur for students with low self-concept. Students, who lack confidence in their ability to learn what they judge to be important, are exposed to failure, not only at school but also in their adult life. According to the Programme for International Students Assessment, (2002), it is important to note that in all countries all over the world, males tend to express a higher level of self-concept in sciences/technical subjects while females express a high level of self-concept in humanities and languages. This suggests that gender differences in students academic performance need to be scrutinized, reviewed and analysed in close relationship with the habits, attitudes and self-concepts of secondary school students in various parts our country to enhance efforts in academic performance for better results. This study sought to determine the influence of gender on self-concept and academic performance among secondary school students.

## **OBJECTIVES OF THE STUDY**

The main purpose of the study was to establish the influence of gender on self-concept and academic performance among secondary school students in Kangema constituency, Murang'a County, Kenya. Specifically, the study sought to (i) find out the influence of gender on academic performance among secondary school students and (ii) determine the influence of gender on self-concept among secondary school students.

## **LITERATURE REVIEW**

### **Influence of Gender on Academic Performance**

Weerakkody and Ediriweera (2008) did a study on the influence of gender on academic performance. The study sample comprised of 382 students from the Department of Human Resources Management at University of Kelaniya. Findings of the analysis revealed that significant differences existed between the academic performance of the male and female students in this study. Exploratory data analysis indicated that in all the course units

considered, female students tend to perform better at university examinations than their male counterparts. Similarly, Zembar and Blume (2011) attested that girls rather than boys achieve better in schools. In yet another setting, Adigun et al. (2015) carried out a research with an aim of establishing the relationship between student's gender and academic performance in computer science in New Bussa, Borgu local government of Niger State. The results of the analysis showed that although male students were performing better than female students, the difference was not significant at  $p < 0.05$  level. This means that male and female students did not differ in academic performance.

However, Anagbogu (2002) observed that there is a general belief that boys are superior to girls in terms of cognition and logical reasoning and even in academic performance. As such, girls are being encouraged and sensitized into developing positive attitudes towards science. Previous researchers found that there are still significant differences in the cognitive, affective and psychomotor skill achievements of students in respect of gender (Aguele & Uhumniah, 2008; Billings, 2000; Kolawole, 2007). Supporting these findings, Okeke (2003) asserted that factors that affect students' academic achievement in science subjects include sex role stereotype, masculine image and female socialization process and inability to withstand stress.

### **Influence of Gender on Self-Concept**

Jyotsna, (2006) pointed out that gender is a social construct, referring to the ways in which societies distinguish women and men, boys and girls, and assign them social roles. It is a conceptual category referring to masculine and feminine qualities, behavior patterns, roles and responsibilities. According to Amittai, (2008), gender is the social area in which men and women, girls and boys, are differently and unequally raised, treated, and valued. It is thought of as something that society construct on top of the biological facts. Igbo, Onu and Obiyo (2015) examined the influence of gender stereotype as a predictor of secondary school students' self-concept and academic achievement. The results of their study revealed that gender stereotype has significant influence on students' self-concept and academic achievement in favor of the male students. On the other hand, school location has significant influence on academic achievement of students but has no significant influence on students' self-concept.

In Kenya, Mutweleli (2009) investigated the relative influence of students' self concept, academic achievement, Knowledge about careers and home background in predicting occupational aspirations of secondary school students. One of the specific goals of this study was to find out whether students' gender influence their self concept. The study findings revealed that there were no significant gender differences found between male and female students in terms of self-concept. However, in relation to the specific domains, a significant gender difference was found with regard to emotional self and this was in favour of male students.

## **RESEARCH METHODOLOGY**

### **Research design**

The study employed the descriptive survey design, which according to Kothari (2007), is concerned with describing, recording, analysing and reporting conditions that exist or existed.

### **Target population and Sample Size**

The study targeted all 6,168 secondary school students and 24 teacher counselors from Kangema constituency of Murang'a County, Kenya. From this population, simple random sampling was used to select a sample of 12 schools (3 girls only, 3 boys only and 6 mixed

schools). From each of the 12 sampled schools, 20 students were selected using stratified random sampling, totaling to 240 students. In addition, purposive sampling was used to select 12 teacher counselors.

**Data collection and Data analysis**

Data used for the study was collected using a questionnaire. Data was analyzed using inferential and descriptive statistics. Inferential statistics used included t-test whereas descriptive statistics used included frequency counts, percentages, means and standard deviations.

**STUDY FINDINGS AND DISCUSSIONS**

**Influence of Gender on Students’ Academic Performance**

**Table 1. Students’ perception towards the influence of gender on academic performance**

Statement	SA		A		U		D		SD		Mean	Std Dev.
	F	%	F	%	F	%	F	%	F	%		
Drugs are a big threat to the boy child’s education	145	60.4	55	22.9	5	2.1	12	5.0	23	9.6	4.2	1.28
Boys can handle more serious and difficult responsibilities than girls	85	35.4	55	22.9	21	8.8	20	8.3	59	24.6	3.4	1.61
Girls are more favored by parents and teachers in school than boys.	67	27.9	37	15.4	36	15.0	42	17.5	58	24.2	3.0	1.56
Boys tend to ask more trivial questions to gain teachers attention than girls.	36	15.0	60	25.0	50	20.8	35	14.6	59	24.6	2.9	1.41
Boys have more advantages in Maths and Sciences than girls.	38	15.8	43	17.9	36	15.0	42	17.5	81	33.8	2.7	1.49
Boys are more serious in school than girls.	36	15.0	32	13.3	64	26.7	36	15.0	72	30.0	2.7	1.41
Boys are more interested in Education than girls.	37	15.4	29	12.1	40	16.7	0	0.0	104	43.3	2.4	1.51
Most parents prefer educating boys than girls	23	9.6	28	11.7	57	23.8	35	14.6	97	40.4	2.4	1.36
Almost all careers tend to favor boys than girls.	21	8.8	36	15.0	30	12.5	47	19.6	106	44.2	2.3	1.38
Girls are more talented on academic than boys.	12	5.0	26	10.8	53	22.1	62	25.8	87	36.3	2.2	1.91

**Key: SA: Strongly Agree A: Agree U: Uncertain D: Disagree SD: Strongly Disagree**

One goal of this study was to find out the influence of gender on academic performance among secondary school students. To address this objective, students were first presented

with 10 aspects measuring their perceptions on influence of gender in academic performance. A likert scale comprising 5 levels was used. The scale ranged from 1-5, with a score of 1 denoting strongly disagree, score of 2 representing disagree, score of 3 uncertain, score of 4 agree and score of 5 representing strongly agree. The midpoint of the scale was a score of 3. Any score above 3 therefore, denoted that respondents agreed with the statements while scores below 3 denoted that respondents disagreed with the statements. Table 1 illustrates results obtained.

Mean scores obtained on the scale ranged from 4.2 to 2.2. Students obtained mean scores above 3 only on the following two statements; Drugs are a big threat to the boy child's education (4.2) and boys can handle more serious and difficult responsibilities than girls (3.4). However, majority of the respondents obtained scores below 3 in most statements, meaning they disagreed with them. The lowest ranked statements were; girls are more talented in academics than boys (2.2), almost all careers tend to favor boys than girls (2.3) and most parents preferred educating boys than girls (2.4) and boys are more interested in education than girls (2.4).

To test gender differences in academic performance, the mean scores for male and female students on scale measuring their academic performances were compared. Table 2 illustrates results obtained

**Table 2. Gender and Academic Performance Among Students**

<b>Gender of Students</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
Male	102	6.2025	2.14342
Female	87	5.6063	1.86875
<b>Total</b>	<b>189</b>	<b>5.9280</b>	<b>2.03826</b>

Table 2 shows mean scores obtained by 189 (102 male and 87 female students) students who indicated their mean scores in the end of term examination. Based on the results in the table, it emerged that male students obtained higher mean scores compared to the female students, meaning male students were performing well in academics compared to their female counterparts.

A t-test was conducted to find out whether there were statistically significant gender differences in academic performance (Table 3).

**Table 3. T-test Statistics for Gender Differences in Academic Performance**

	<b>t</b>	<b>df</b>	<b>Sig. (2-tailed)</b>	<b>Mean Difference</b>	<b>Std. Error Difference</b>
Equal variances assumed	2.021	187	.045*	.5962	.29505
Equal variances not assumed	2.043	186.903	.042	.5962	.29186

**\*Significant at  $p < 0.05$  level**

Results showed a significant gender difference on student's academic performance, at  $p < 0.05$  level, with male students obtaining higher mean scores than female students, meaning male students were performing well in academics as compared to the female students. This supports findings by Anagbogu (2002) who observed that boys outperform girls in academics. Similarly, researchers such as Aguele and Uhumniah (2008), Billings (2000), and Kolawole (2007) reported significant differences in students' academic achievement across gender.



On comparing the self-concept mean scores across gender, it was established that male students obtained a score of 1.90 while female students obtained a score of 1.97. This shows that female students had higher positive self concept compared to the male students. A t-test was used to find out whether the gender differences in self-concept mean scores were significant. The results (Table 5) showed that there were significant gender differences on students' self concept, at  $p < 0.05$  level. In line with the findings Igbo, Onu and Obiyo (2015) found out that gender stereotype has significant influence on students' self-concept and academic achievement. Gender disparities arise from the process of assigning boys and girls, specific social roles, privileges, rights, responsibilities and duties on the basis of the sexes of the persons concerned. In secondary schools, gender differences are observed in performance, self- concept, access, retention, transition and academic achievement. This findings were supported by Marsh (2002) theory on physical self concept which shows that there were differences in both boys and girls self concept. The theory revealed that boys have higher self-concept than girls in the areas of Mathematics, general self, physical appearance and physical abilities, whereas girls have higher self-concept in the domains of verbal, honesty, trustworthiness, same-sex relations and general school.

**Table 5. T-test Statistics for Gender Difference on Students' Self Concept**

	<b>t</b>	<b>df</b>	<b>Sig. (2-tailed)</b>	<b>Mean Difference</b>	<b>Std. Error Difference</b>
Equal variances assumed	-2.437	238	.016*	-.08	.032
Equal variances not assumed	-2.496	190.253	.013	-.08	.031

**\*Significant at  $p < 0.05$  level**

### **CONCLUSIONS AND RECOMMENDATIONS**

Based on the findings presented above, the study concludes that:-

- i. There was a significant gender difference on students' academic performance. Male students were performing well in academics compared to the female students.
- ii. There was a significant gender difference on students' self concept. Female students had higher positive self concept compared to the male students.
- iii. Frequent counseling sessions should be organized in schools especially among male students based on self-concept to improve in the domains of verbal and trustworthiness.
- iv. Another study should be conducted to find out apart from gender, which are the other factors that influence students' self concept and academic performance in public secondary schools.

## REFERENCES

- [1] Adigun J., Onihunwa J., Irunokhai E., Sada Y., & Adesina, O. (2015). Effect of gender on students' academic performance in computer studies in secondary schools in New Bussa, Borgu local government of Niger State. *Journal of Education and Practice*, 6 (33), 1-7.
- [2] Aguele, L.I., & Agwugah, N.V. (2007). Female participation in science, technology and mathematics (STM) education in Nigeria and national development. *Journal of Social Science*, 15 (2), 121-126.
- [3] Anagbogu, M.A. (2002). Educating the girl child. *Psychology News*, 3, 17-18.
- [4] Azizi, Y., & Jaafar, S. L. (2005). *Development of self-concept*. Pahang: PTS Publishing Sdn Bhd.
- [5] Billings, D. (2000). Women's way of knowing and the digital divide.
- [6] Cockley, H. (2003). Gender differences in self-concept and academic performance. *Journal of Socio-Cultural Psychology*, 4(1), 106-18.
- [7] Fayombo, G.A. (2001). Improving the academic achievement of some Nigerian adolescents through self-concept grooming. *African Journal of Educational Research*, 7(1&2), 168-77.
- [8] Gallagher, T. (2001). *Equal opportunities commission conference on boys and girls in the 21<sup>st</sup> century: Gender Differences in Learning*. New York: New York Press.
- [9] Hughes, B. M. (2004). Academic study, college examination, and self-concept. *Journal of Applied Psychological Research*, 9 (1), 24-44.
- [10] Igbo, J.N., Onu, V.C., & Obiyo, N. O. (2015). *Impact of Gender stereotype on secondary school students' self-concept and academic achievement*. Retrieved from <http://www.uk.sagepub.com/aboutus/openaccess.html>.
- [11] Jyotsna, F.K. (2006). *Boys' underachievement in education: An exploration in selected commonwealth countries*. USA: Commonwealth of Learning.
- [12] Kolawole, E.B. (2007). Effects of competitive and cooperative learning strategies on academic performance of Nigerian students in Mathematics. *Educational research Review*, 3 (1), 33-37.
- [13] Kothari, C. R. (2007). *Research methodology: Quantitative techniques*. New Delhi: Vikas Publishing House PVT Ltd.
- [14] Kumari, A., & Chamundeswari, S. (2013). Self-concept and academic achievement of students at the higher secondary level. *Journal of Sociological Research*, 4(2), 18-29.
- [15] Long, M. (2002). *Evaluation of social psychology: Self-concept and school achievement*. New York: McGraw-Hill.
- [16] Marsh, H.W. (2002). Physical self-concept: Theory, measurement and research. *Keynote Address to International Congress of Sports Psychology, Skiathes, Greece. J. Hellenic Psychol. Soc.*, 9, 459 – 493.
- [17] Muganda, K.C. (2002). *Gender equity in education and children at risk: The role of distance and open learning*. Kampala-Uganda: Makerere University.
- [18] Muthaka, D., & Mwangi, S. K. (2002). *The role of university education in socio-economic development of the economy*. Nairobi: Kenyan University.



- [19] Mutweleli, S.M. (2009). *Relative influence of selected predictor variables on occupational aspirations of secondary school students in Nairobi Province, Kenya*. Kenya: Kenyatta University.
- [20] Myers, D. G. (2002). *Social psychology (7<sup>th</sup> Ed.)*. New York: McGraw-Hill.
- [21] Nalah, A. B. (2014). Self-concept and students' academic performances in college of education, Akwanga, Nasarawa State, Nigeria. *World Journal of Young Researchers*, 3(2), 31-7.
- [22] Okeke, E.A.C. (2003). *Gender, science and technology in Africa: A challenge to education*. Harvard: Harvard University Press.
- [23] Weerakkody, W.A., & Ediriweera, A.N. (2008). Influence of gender on academic performance: An empirical study of human resource management students (undergraduates) in university of Kelaniya, Sri Lanka. *Proceedings of International Conference on Business Management*, 5.
- [24] Zembar, M.J., & Blume, L.B. (2011). *Gender and academic achievement*. Retrieved from 222.education.com on 15/8/2014.