

Effect of Self-Esteem of Over-Age Learners on their Academic Achievement in Public Secondary Schools of Butula Sub County, Kenya

Elizabeth N. Wasioya¹
Prof. Moses W. Poipoi²
Joel J. P. Ogutu³

¹namaromeelizabeth@yahoo.com (+254722717587)

²wpoipoi@mmust.ac.ke (+254714361166)

³jogutu@mmust.ac.ke (+254713094452)

^{1,2,3}Masinde Muliro University of Science and Technology, Kakamega, Kenya

ABSTRACT

Just like food, education is a basic need for everyone in Kenya. With introduction of free primary in 2003 and subsequently free day secondary education in 2008 in Kenya there has been an increased urge for education by over-age learners in schools. Academic achievement has remained low in public secondary schools in Butula Sub County despite the efforts made by the government to make it better for every learner. Over-age learners are among those who contribute to the poor academic achievement in public secondary schools in Butula Sub County. The purpose of this study was to establish the effect of self-esteem on academic achievement of over-age learners in public secondary schools of Butula Sub County. The study employed Walberg's theory of Academic Achievement and descriptive research design. The target population was 2306 form four students and 54 teachers from 27 public secondary schools. 321 over-age learners and 10 teachers from 5 secondary schools gave their views in this study. Stratified random sampling, simple random sampling and purposive random sampling were used to sample schools, students and teachers respectively. Questionnaire and interview schedules were used to collect data. Descriptive statistics such as percentages, mean, median, standard and Analysis of variance, (ANOVA) for inferential statistics were used to analyze data. The findings reveal that (58.6%) of over-age learners agreed that they feel useless about their academic achievement at times, (71.7%) disagreed to the statement 'I feel I am a person worthy in my academic achievement, at least on an equal plane with others'. ANOVA indicated a significant effect of over-age learners' self-esteem on their academic achievement; $F(18, 259) = 1.771, P = 0.028$. The findings of this study concluded that there is a statistically positive effect of self-esteem on academic achievement of over-age learners. It was recommended that there is need to explore the use of guidance and counseling as interventions to inspire and motivate learners into appreciating self-worth so as to nurture strong self-esteem and academic achievement.

Key words: Academic Achievement, Effect, Over-Age Learners, Self-Esteem, Public Secondary Schools

I. INTRODUCTION

Studies have produced contradicting results on self-esteem as predictor of academic achievement among overage learners. For example, Chema and Bhardwaj (2021) asserts that a positive correlation exists between self-esteem ratings and academic achievements among overage learners. This implies that higher self-esteem scores give raise to higher academic performance. Contrarily, Booth and Gerard (2011) on the other hand opined that a decrease in self-esteem among learners is associated with several measures of academic success in subsequent years. According to Zheng et. al (2020), youth with high self-esteem showed relative increase in grades and test scores, and youth with higher grades showed relative increases in peer relationship self-esteem. Therefore, high self-esteem led into high academic achievement.

The self-worth that influences psychological functioning of individuals also constitutes an individual's self-esteem. For instance, learners with high self-esteem would feel good about themselves, they would be able to cope effectively with the challenges of life and not affected by negative feedback, and they will feel they live in a social world where people value and respect them (Elyamany et al., 2020). In contrast, learners who experience low self-esteem they filter negativity from the world around them. They naturally hate themselves and perceive everything around them undesirably (Hepper, 2023).

The relationship between education and the labour market, as well as entrepreneurial skills and competencies, is emphasized in Vision 2030 in the Kenyan constitution. This is pertinent to learning success, which can be affected by several variables. Vision 2030 similarly emphasizes the significance of having individuals who are literate and establishes specific goals to improve adult literacy to 80% (Republic of Kenya, 2012). The Kenyan Ministry of Education lacks regulations on the restricted age range for students. On average, children begin attending first grade at the age of 5 or 6, and they graduate from high school at the age of 17. Although this is often the situation, it is not

uncommon to encounter 15-year-old children still enrolled in primary school and students over 21 years old in high school. Nevertheless, age is already regarded as one of the independent factors that significantly impacts pupils' academic performance. The development of cognitive abilities, motivation, and desire to learn are age-related elements that are essential for a learner to attain good success (Smith et al., 2015)

Over-age learners constitute the population of learners both in primary and secondary schools in Kenya. Although grade repetition is forbidden in the education system of Kenya, repetition is particularly prevalent in grades 4, 7, and 8. Grades 7 and 8 as a result of the high-stakes exams that are anticipated at the conclusion of the eighth grade (Keith et al., 2011). The phenomenon of repetition results in the emergence of over-age students as they advance through the stages of education, ultimately giving rise to a cohort of over-age learners in secondary schools. Child-headed homesteads also contribute to over-age learners. Learners are compelled to withdraw from school to take care of their younger siblings only to return to school later either voluntarily or due to government initiatives and legislative actions by the Education for All (EFA) for the intended aim of inclusion.

1.1 Statement of the Problem

The government of Kenya established laws and procedures as well as launched a vigorous door-to-door effort to identify all eligible students who were not attending school for various reasons in order to accomplish a 100% transition, (Maina et al., 2021). The Daily Nation further reported that the practice resulted in an excessive number of students being enrolled in public secondary schools. The implementation of the 100 percent transition strategy has greatly and efficiently improved pupil enrolment. According to the Ministry of Education, between 2013 and 2018, the number of secondary schools rose from 8,734 to 11,399 and the number of students rose from 2 million to 2.9 million. This programme facilitated the transition of students with diverse determinants of academic achievement to secondary schools.

Over-age learners were not excluded as several regulations were implemented to ensure that all learners who completed their primary school education progress to secondary school. As a consequence of repeating grades 4, 7, and 8, some of these over-age students do transition from primary schools when they are already over-age (Keith et al., 2011). Therefore, due to the growing number of students in secondary schools, the number of students who are over the legal age in secondary schools in Butula Sub County has also significantly and consistently increased each year. In 2019, 2020, and 2021, the number of form four students enrolled was 1999, 2219, and 2393, respectively, according to the Butula Sub County Education Office.

Despite the diligent efforts made by the stakeholders to ensure the provision of education of superior quality, the academic performance of students in public secondary schools in Butula Sub County continues to be formidable. Sub County joint tests conducted annually among form four students have shown a lack of academic success, as evidenced by their mean scores of 3.6489, 3.934, and 3.8818 in the years 2019, 2020, and 2021 correspondingly as obtained from Butula Sub County Education Office. The given mean scores are derived from a cumulative mean score of 12.0 and therefore indicate a low academic achievement in Butula Sub County. There are no documented studies that have been conducted in Butula Sub County to find out the effect of self-esteem of over-age learners on their academic achievement, despite their growing population. The objective of this study was to investigate the effect of self-esteem on academic achievement of over-age learners in public secondary schools in Butula Sub County.

1.2 Research Objective

To find out the effect of self-esteem on academic achievement of over-age learners in Butula Sub County, Busia, Kenya.

1.3 Research Hypothesis

HO₁: there is no significant effect of self-esteem on academic achievement of over-age learners in public secondary schools.

II. LITERATURE REVIEW

2.1 Theoretical Review

2.1.1 Walberg's Theory of Academic Achievement

The study was grounded on Walberg's theory of academic achievement. As stated by Reynolds and Walberg (1992) Walberg's theoretical framework on academic achievement suggests that the psychological traits of individual students and their immediate psychological environment impact educational outcomes, including cognitive, behavioral, and attitudinal aspects. Walberg further identified nine key factors including age/developmental stages and school environment that govern educational outcomes. He further pointed out that age among other factors had a distinct impact

that may hinder the academic achievement of children if not properly guided. Walberg contended that increased levels of self-esteem reliably lead to enhanced academic achievement.

Within Walberg's theoretical framework, the age variable includes not only the chronological age but also the developmental level and stage of maturation, (Keith, 2002). Within his research, Walberg made a deliberate effort to keep the age variable constant. Age has a significant impact in academic achievement as the relationship between age and academic success diminishes as learners' age increase.

Therefore, academic achievement is dependent on various factors including school environment, self-esteem and the age of the learners. High self-esteem will greatly increase academic achievement of over-age learners.

2.2 Empirical Review

Enhanced self-esteem among learners is often reflected in their academic performance, and achieving higher grades and test scores fosters more favorable self-perceptions (Zheng et al., 2020). Self-esteem was defined as the emotional state of feeling improved about oneself. Therefore, as learners' self-esteem grows, they demonstrate greater progress in their grades, resulting in a rise in academic success.

Furthermore, Obi (2016) showed that self-esteem and accomplishment objectives are influential elements on academic performance among elementary school pupils. Furthermore, she emphasized that self-esteem has always been seen as a fundamental element of optimal mental well-being. Larsson and Regbon (2019) noted that older children in the classroom established superior student-teacher relationships and had superior academic performance, resulting in above-average self-esteem compared to their classmates. This indicates that older learners were well-adapted and so possessed great confidence, which in turn boosted their self-esteem and consequently improved their academic performance.

Cvencek et al., (2017) examined the self-concept, self-esteem, and academic performance of primary school children from both minority and majority backgrounds. A sample of 188 primary school pupils, aged 5 to 10, from a native American reserve, comprising both minority and majority groups, participated in assessments measuring their academic self-concepts and self-esteem. Academic performance, attendance records, and classroom conduct were gathered. Findings indicated that both majority and minority pupils reported high levels of self-esteem. Elementary school pupils from minority backgrounds had poorer levels of academic self-concept and accomplishment compared to their majority counterparts. Moreover, this phenomenon was shown to be more pronounced in senior classes compared to junior classes. Among older students, academic self-concept was found to be positively correlated with achievement, while among younger students, achievement was significantly correlated with self-esteem. Although the previous study established a correlation between the academic performance of older students and their self-concept, and the academic performance of younger students was strongly linked to their self-esteem, the present study aimed to investigate the impact of self-esteem on the academic performance of over-age learners in public secondary schools in Butula Subcounty.

Hassan et al. (2016) looked at how pupils who were on time and those who were chronically absent fared academically. A selective sample of 200 children was included in the study, with 100 identified as Truant and 100 as Punctual. The age range extended from 12 to 18 years. Research findings demonstrated that students who were punctual attained significantly greater academic success in comparison to those who were truant. A positive association was observed between the academic achievement and self-esteem, regardless of their truancy and punctuality rate. Domains of self-esteem that were found to be significant predictors of self-concept among truant students include self-competence, self-acceptance, and academic self-competence. There was no evidence indicating that the association between self-esteem and academic self-construction was influenced by truancy/punctuality. The present study focused on scrutinizing the self-esteem and academic achievement of form four learners aged 18 years and above in public secondary schools, in contrast to the previous study which analyzed the outcomes of learners aged 12-18 years.

III. METHODOLOGY

3.1 Research design and setting

Descriptive research design was used to help collect both quantitative and qualitative data to describe characteristics and patterns of behavior of respondents, without manipulation of the settings. The use of descriptive research design ensured easy collection of quantitative data and a high response from age population (Jones et al., 2013).

3.2 Study Area

The study sites were public secondary schools in Butula Sub County, Kenya. This study area was chosen as this was a part of a larger area with critical mass of overage learners in secondary schools.

3.3 Study Population

The participants in the study were 2306 form four learners and 54 teachers from 27 public secondary schools in Butula Sub County.

3.4 Sampling Procedure

Stratified random sampling was employed to classify schools into four strata. Using simple random sampling technique all the 321 participants had equal chance of being selected for the present study. Purposive sampling was used to sample teachers in charge of Guidance and Counseling and teachers in charge of academics as key informants since they had regular contact with the learners; they held vital information about them that was necessary for the study.

3.5 Variables

The independent variable was self-esteem while academic achievement was the dependent variable while school environment was the intervening environment. The aforementioned variables were employed in order to forecast the dependent variable, being academic achievement

3.6 Data Collection

Data was collected using the questionnaire for over-age learners. Interview schedules were used to collect data from teachers in charge of Guidance and Counselling and those in charge of academics.

3.7 Data Analysis

Data collected were analyzed using SPSS version 22. Both descriptive and inferential statistics were used to analyze the collected data. Hypothesis was tested using One way ANOVA. Hypotheses were accepted at a 0.05 level of significance. Descriptive statistics which involved percentages, means and standard deviations were also used to analyze data. The interview schedules provided qualitative data that served to support the quantitative data obtained from the questionnaire.

IV. FINDINGS & DISCUSSION

4.1 Demographic Data of the Participants

Majority of responses 213(67.8%) were male, while only 101 (32.2%) were female, suggesting that the research was not biased towards any gender, both genders were involved in the study and also that most over-age learners who were available to respond to the questionnaire in form four were males. The response rate for the 314 questionnaires received by the researcher translates to 97.8%. (Kothari & Garg, 2014) believe a response rate of 70% or more to be suitable for analysis, hence the number of replies received for this study is enough as illustrated in table 1 below.

Table 1

Response Rate

Category	Sample Size	Response	Percentage (%)
Students	321	314	97.8%
Teachers in charge of G and C	5	5	100%
Teachers in charge of Academics	5	5	100%

Age range of 18 – 20 recorded 263 (83.8%), 21 – 23 had the lowest at 11 (3.5%) while 24 and above had 40 (12.7%). The three categories of age were all put under one entity that is over- age learners. This is evident that over-age learners are present in public secondary schools in Butula Sub County as shown in table 2 below.

Table 2

Age of Respondents

Age	Frequency	Percent
18-20	263	83.8
21-23	11	3.5
24 and above	40	12.7
Total	314	100.0



4.2 Effect of Self-esteem on Academic Achievement of Over-age Learners

Table 3

Response on self-efficacy of over-age learners

	Strongly Disagree		Disagree		Agree		Strongly agree		Total	
	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	M	SD
I am satisfied with my academic achievement	38	12.1	70	22.3	123	39.2	83	26.4	2.80	.97
At times I think I am no good at my academics at all	47	15.0	113	36.0	82	26.1	72	22.9	2.57	1.00
I feel that I have a number of good grades in my academics	76	24.2	116	36.9	81	25.8	41	13.1	2.28	.97
I am able to achieve more in my academics as most other students	156	49.7	100	31.8	28	8.9	30	9.6	1.78	.96
I feel I do not have much in my academic achievement to be proud of	58	18.5	103	32.8	77	24.5	76	24.2	2.54	1.05
I certainly feel useless about my academic achievement at times	44	14.0	86	27.4	91	29.0	93	29.0	2.74	1.03
I feel that I'm a person of worth in my academic achievement, at least on an equal plane with others	97	30.9	128	40.8	60	19.1	29	9.2	2.07	.93
I wish I could have more achievement in my academics myself	190	60.5	82	26.1	13	4.1	29	9.2	1.62	.94
All in all, I am inclined to feel that I am a failure in my academic achievement	44	14.0	42	13.4	86	27.4	142	45.2	3.04	1.07
I take a positive attitude in my academic achievement towards myself	128	40.8	110	35.0	37	11.8	39	12.4	1.96	1.01
Average									2.34	.993

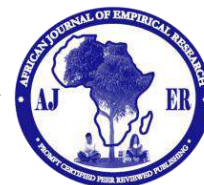
Descriptive statistics on Self-esteem of Over-age learners on their Academic Achievement

Key: (M=Mean, SD=Standard deviation)

From Table 3 a significant percentage of 39.2% of over-age learners agreed that they are satisfied with their academic achievement, 26.4% strongly agreed that they were satisfied with their academic achievement while 34.4% of the learners disagreed with the statement that they are satisfied with their academic achievement (M=2.80, SD=.97). 49% of over-age learners agreed with the statement ‘At times I think I am no good at my academics at all’ while 51% disagreed with this statement (M=2.57, SD=1.00). About a half of these over-age learners acknowledged that they are not good at their academics and this population signifies the general low academic achievement of over-age learners indicated by the many low grades. On the statement, ‘I feel that I have a number of good grades in my academics’, 38.9% of over-age learners agreed with it while 61.1% disagreed with it (M=2.28, SD=.97).

A majority of the learners 49.7% of over-age learners strongly disagreed that they are able to achieve more in their academics as most other students while 31.8% disagreed with this statement. A dismal percentage of 18.5% agreed that they are able to achieve more in their academics as most of other students (M=1.78, SD=.96). Even though 48.7% of over-age learners felt they have much in their academic achievement to be proud of, majority of over-age learners, 51.3% disagreed with this statement (M=2.54 and SD=1.05). 29.6% of over-age learners strongly agreed that they feel useless about their academic achievement at times, 29.0% agreed to this statement, 27.4% disagreed to this while 14.0% strongly disagreed to this statement (M=2.74, SD=1.03). Most of the learners 40.8% disagreed that they feel they are people worthy in their academic achievement, at least on an equal plane with others, 30.9% strongly disagreed to this statement while 28.3% agreed to this statement (M=2.07, SD=.93).

The statement, I wish I could have more achievement in my academics myself was strongly disagreed with by 60.5%, who were the majority of the over-age learners, 26.1% disagreed with this statement, 4.1% agreed while 9.2% strongly agreed to it (M=1.62, SD=.94). ‘All in all, I am inclined to feel that I am a failure in my academic achievement’ was strongly agreed by a majority of over-age learners, 45.2%, 27.4% agreed to this statement while only a small percentage of 24.4% of over-age learners disagreed to this statement (M=3.04, SD=1.07). A 40.8% significant



percentage of over-age learners strongly disagreed that they take a positive attitude in their academic achievement towards themselves, 35.0% disagreed, 11.8% agreed while 12.4% strongly agreed to this statement (M=1.96, SD=1.01).

4.3 Academic Achievement

The researcher sought to establish the academic mean scores of the respondents who were form four over-age learners. The results as illustrated in Table 1 below were of the end of previous year exam done by over-age learners.

Table 4
Over-Age learners’ mean grades and mean points

Mean Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E
Mean points	80.00-100.00	75.00-79.99	70.00-74.99	65.00-69.99	60.00-64.99	55.00-59.99	50.00-54.99	45.00-49.99	40.00-44.99	35.00-39.99	30.00-34.99	0.00-29.99
Frequency	2	8	12	19	20	47	24	38	46	54	36	8
Percentage	0.6	2.5	3.8	6.1	6.4	15	7.6	12.1	14.6	17.2	11.5	2.5

Figure 1 indicates that a majority of respondents 54 (17.2%) scored grade D, trailed by D+ with 46 (14.6%). Respondents with A had 2(0.6%), while A- respondents recorded 8(2.5%). The other grades registered include B+ with 12(3.8%), B with 19(6.1%) and B- 20(6.4%) response. From Figure 1 those respondents with C+ were 47(15%), C were 24(7.6%) while C- were 38(12.1%). Lastly, those with D- were 36 (11.5%) and E grades recorded 7(2.2%). From the data, the lowest responses recorded for were of A with a frequency of 2 (0.6%) and E with a frequency of 8 (2.5%). From the results, it is clear that the highest frequency response lies between grade C+ and E while the modal grade is D. Most of the learners have a mean grade of below C+. Cumulatively, 206(65.6%) over-age learners attained mean grades of below C+. This indicates that most of over-age learners attained lower mean grades in relation to the pass mark grade in most of these schools which was a C+, hence low academic achievement. The mean scores given were an average of all over-age learners that responded to this study.

4.3 Hypothesis Testing

One-Way ANOVA test was run to test the hypothesis; There is no statistically significant effect of self-esteem on academic achievement of over-age learners in public secondary schools of Butula Subcounty, Kenya. The results were as shown in Table 4.4

Table 4:
Results of One Way ANOVA for Effects of Self-Esteem on Academic Achievement of Over- Age Learners

Academic mean point score					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	201.496	18	11.194	1.771	.028
Within Groups	1864.609	295	6.321		
Total	2066.105	313			

Results for One way ANOVA test as shown in Table 4; $F(18, 259) = 1.771, P = 0.028$, indicated that self-esteem had a significant effect on the academic achievement of over-age learners. The study therefore confirms that low self-esteem led to low academic achievement among over-age learners in public secondary schools in Butula Sub County.

The findings indicate that although some over-age learners are satisfied with their academic achievement, majority of these learners are not achieving their expected high mean scores in their academics, partly as a result of low self-esteem. The findings are in agreement with Ahmad et al., (2018) positive association was observed between the academic achievement and self-esteem, regardless of their truancy and punctuality rate. They also seem to have no confidence in themselves as majority of them disagreed to the statement that they wish they could have more in their academic achievement meaning that they are satisfied with their academic achievement because they have. When interviewed, a teacher responded;

“Some of our over-age learners do report about the stigma they face both from teachers and their fellow learners especially when they have missed to accomplish a task successfully or when they have achieved low academically. Others lose their self-control and fight those stigmatizing them”

This means that the stigma they face at school contributes to their low self-esteem leading to their low academic achievement. To add on this, stigma leads into school environment not being conducive for their high academic achievement. Their low confidence is also depicted when a majority of them disagreed to take a positive attitude in their

academic achievement towards themselves. Some who are satisfied with their academic achievement are as well achieving low and might have lost the confidence and hope of achieving more. The findings also point out that a good number of learners have a negative attitude towards their academic achievement. This study supports the findings of Obi (2016), who noted a correlation between low academic performance among secondary school pupils and self-esteem factors that hindered their academic success. The research results also corroborate the findings of Ahmad et al. (2018), which demonstrated a substantial correlation between self-esteem and academic performance among students in senior secondary schools.

Within the present study, a significant proportion, 72.6%, of learners who were above the legal age acknowledged that they perceived themselves as unsuccessful in their academic endeavors. This statistic indicates a significant level of agreement with the statement, suggesting that a considerable proportion of these learners possess low self-esteem as a result of the stigma they face from their school environment leading to a low academic achievement. Another indication of low self-esteem is the fact that 81.5% of over-age learners expressed disagreement on their ability to outperform most other learners in their academic pursuits. 71.7% of these learners also expressed disagreement on their perception of their own academic worth, as compared to others, on an equal level. These data validate that over-age learners experience a strong sense of inferiority in their academic achievement, resulting in low self-esteem as they compare their academic achievements to others.

The findings align with the qualitative results established by Booth and Gerard (2011), which showed a correlation between a decrease in self-esteem and several measures of academic success in the following year. The present study found that 71.7% majority of over-age learners expressed disagreement with the statement 'I am a person of worth in my academic achievement, at least on an equal plane with others.' The majority of older learners, therefore, do not perceive themselves as valuable in comparison to others, resulting in diminished self-esteem. Furthermore, low self-esteem has significantly contributed to the low academic achievement of over-age learners as indicated by another teacher;

“Most of them struggle to achieve their academic goals but when given the right information and approaches, they are better placed to achieve their academic goals”

The results from test of hypothesis, $F(18, 259) = 1.771$, $P = 0.028$ of the current study concur with Maina et al (2021) who in their study found a significant positive relationship between self-esteem and academic achievement among respondents ($P = .006$). This research therefore concurs with the current research that low self-esteem leads to low academic achievement and vice versa. The present study findings indicate a strong positive correlation between the good self-esteem of pupils and their academic achievement. These is in agreement with the research findings of (Bhagat 2016) which revealed a strong and statistically significant relationship between high self-esteem and academic achievement.

V. CONCLUSIONS & RECOMMENDATIONS

5.1 Conclusion

Descriptive findings of this study deduce a statistically significant positive effect of self-esteem on academic achievement of over-age learners as indicated by a very low standard deviation of .993. Inferential results also depict a statistically significant effect of self-esteem on academic achievement of over-age learners, $F(18, 259) = 1.771$, $P = 0.028$. As learners face stigma in school environment, lose confidence in themselves tend to have low self-esteem and in return achieve low in their academics. Learners with low self-esteem risked achieving low academically and the contrast is true. The null hypothesis is therefore, rejected.

5.2 Recommendations

The study recommends the need to explore the use of guidance and counseling as interventions to inspire and motivate learners into appreciating self-worth so as to nurture strong self-esteem and academic achievement. There is also need to develop a policy at school level on self-esteem among over-age learners to facilitate improvement in their self-worth and belongingness.

Conflict of interest

The authors declare no conflict of interest.

REFERENCES

- Ahmad, S. N., Muda, M. R., & Neoh, C. F. (2018). Self-esteem level and its relationship to academic performance among undergraduate pharmacy students in a Malaysian public university. *Indian Journal of Pharmaceutical Education and Research*, 52(2), 194–200.
- Bhagat, P. (2016). Relationship between self-esteem and academic achievement of secondary school students. *International Journal of Innovative Research & Development*, 5(7), 211–216.
- Booth, M. Z., & Gerard, J. M. (2011). Self-esteem and academic achievement: A comparative study of adolescent students in England and the United States. *Compare: A Journal of Comparative and International Education*, 41(5), 629–648. <https://doi.org/10.1080/03057925.2011.566688>
- Chema, G. K., & Bhardwaj, M. (2021). Study of self-esteem and academic achievement in relation to home environment among adolescents. *European Journal of Molecular & Clinical Medicine*, 8(1), 2515–2520.
- Cvencek, D., Fryberg, S. A., Covarrubias, R., & Meltzoff, A. N. (2017). Self-concepts, self-esteem, and academic achievement of minority and majority North American elementary school children. *Child Development*, 89(4), 1099–1109. <https://doi.org/10.1111/cdev.12802>
- Elyamany, M. E., Mahmoud, A. S., & Wahba, N. M. (2020). Social functioning and self-esteem among substance abusers at Port Said Psychiatric Health Hospital. *Port Said Scientific Journal of Nursing*, 7(3), 119–138.
- Hassan, A., Jami, H., & Aqeel, M. (2016). Academic self-concept, self-esteem, and academic achievement among truant and punctual students. *Pakistan Journal of Psychological Research*, 31(1), 223–240.
- Hepper, E. G. (2023). Self-esteem. In *Encyclopedia of Mental Health* (3rd ed.). Academic Press.
- Hungi, N., Ngware, M., & Abuya, B. (2014). Examining the impact of age on literacy achievement among grade 6 primary school pupils in Kenya. *International Journal of Educational Development*, 39(4), 249–259. <https://doi.org/10.1016/j.ijedudev.2014.06.003>
- Jones, T. L., Baxter, M. A., & Khanduja, V. (2013). A quick guide to survey research. *Annals of the Royal College of Surgeons of England*, 95, 5–7. <https://doi.org/10.1308/003588413X13511609956372>
- Keith, L., Wasanga, P., Wanderi, E., & Somerset, A. (2011). Participation and performance in education in Sub-Saharan Africa with special reference to Kenya: Improving policy and practice. *University of Sussex Report*.
- Keith, T. Z. (2002). Commentary: Academic enablers and school learning. *School Psychology Review*, 31(3), 394–402.
- Kothari, C. R., & Garg, G. (2014). *Research methodology: Methods and techniques* (3rd ed.). New Age International Publishers.
- Larsson, K., & Regborn, F. (2019). The relative age effect on self-esteem in the academic setting. (Master's thesis, Umeå University, Programme for Master of Science in Psychology).
- Maina, U. A., Abba, T. S., Hamza, H., & Dadingel, U. B. (2021). Influence of self-esteem on academic achievement of public senior secondary school students in Gashu'a Education Zone, Yobe State Nigeria. *African Scholars Journal of Contemporary Education Research*, 23(8), 2359–1991.
- Obi, B. (2016). The relationship between students' academic self-concept and study habits. (Master's thesis, Nnamdi Azikiwe University, Awka, Nigeria).
- Odhiambo, D. (2020, March 18). Standardize schools by 2030 as per CBC. *The Daily Nation Post*. Retrieved from <https://nation.africa/kenya/blogs-opinion/opinion/standardise-schools-by-2030-as-per-cbc-250226>
- Republic of Kenya. (2012). Taskforce on the re-alignment of the education sector to the Constitution of Kenya 2010: Towards globally competitive quality education for sustainable development. Report of the Task Force. Retrieved from <https://vision2030.go.ke>
- Reynolds, A. R., & Walberg, H. J. (1992). A process model of mathematics achievement and attitude. *Journal of Research in Mathematics*, 23, 306–323.
- Smith, M. C., Rose, A. D., Ross-Gordon, J., & Smith, T. J. (2015). Adults' readiness to learn as a predictor of literacy skills. Retrieved on October 23, 2024, from <https://piaac.squarespace.com>
- Zheng, L. R., Atherton, O. E., Trzesniewski, K., & Robins, R. W. (2020). Are self-esteem and academic achievement reciprocally related? Findings from a longitudinal study of Mexican-origin youth. *Journal of Personality*, 88, 1058–1074. <https://doi.org/10.1111/jopy.12550>