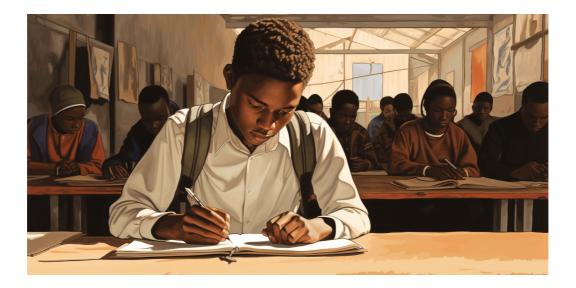


**Open Peer Review on Qeios** 



# Assessment of Learner Satisfaction in Secondary School Education

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#### **Abstract**

Learner satisfaction is a crucial element to quality learning and has an influence on academic performance. This study aimed to assess the level of learner satisfaction with teaching and learning and determine its influence on academic achievement in public secondary schools in Kisumu East Sub- County, Kenya. A mix of stratified random sampling was used to determine 303 respondents. There was a total of 128 (42.29 %) males and 175 (57.71 %) females. Majority of the respondents were aged 18 years 87 (28.72%) with 78 learners (25.71%) having a mean grade of C+. Learners reported the highest satisfaction with the manner in which the teachers encouraged interaction among learners which enhanced learning. Learners were least satisfied with the equipment of library. Overall learner satisfaction was 4.08 (1.147), showing learners were generally satisfied with teaching and learning. There was a significant positive correlation r = 0.238 (p = 0.002) between learner satisfaction and academic achievement. Further studies should be done to identify other aspects that influence learner satisfaction. The relevant stakeholders should provide schools with the necessary facilities to ensure quality education.

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Introduction

According to Wu et al. (2015), learning satisfaction takes into account how the teaching and learning sessions affect the learner. In educational institutions, learner satisfaction is a key component of high-quality learning and a good indicator of a learner's overall academic achievement (Rajabalee & Santally, 2021; Virtanen et al. (2017). According to Gonzalez Rogado et al. (2014), a satisfied learner is open to the teaching and learning process, more likely to report higher academic accomplishment, and less likely to give up on their studies. Low academic performance and high dropout rates in Kenya's education system have been related to low learner satisfaction and internal inefficiency (James et al., 2016), among other problems. Numerous studies (Oluoch & Gogo, 2022) have shown that public secondary schools continue to report poor academic performance.

Social and cultural factors, peer pressure, learner attitudes, school administration, dating, and gender have all been reported to have an impact on academic achievement (Clark & Mathur, 2012; Nzoka & Orodho, 2014; S. Odanga, 2018). However, there is little information available on learner satisfaction and how it affects academic achievement in Kenyan secondary education. According to a review of the literature, no study has been done to assess the level of learner satisfaction with teaching and learning in public secondary schools in Kenya. According to some studies done in higher education institutions around the world, learner satisfaction significantly affects academic performance (Gopal et al., 2021; Jegathesan et al., 2018; Rashidi & Moghadam, 2014).

Purpose of the study

To assess the level of learner satisfaction and determine its influence on academic achievement among learners in public secondary schools in Kisumu East Sub-County, Kenya.

Specific objectives

The study aimed to determine the following within the public secondary schools in Kisumu East Sub- County:

• The level of learner satisfaction with teaching and learning.

• The level of importance learners place on teaching and learning.



• The relationship between learner satisfaction and academic achievement.

#### Conceptual framework

It is conceptualized that the academic achievements of learners depend on their satisfaction with teaching and learning within the school environment. As a result, both good and negative effects on a learner's academic success can be attributed to their level of learner satisfaction. The teaching and learning process is one factor that will affect learner satisfaction. These make up the study's independent variables. These elements are probably going to have an impact on learners' academic achievement, indicated by their grades. The availability of sufficient instructional resources, and qualified academic instructors increases learner satisfaction.

# Methodology

#### Research design

The research adopted a qualitative correlational research design, were data from focus group discussion and semi-structured questionnaires were used to collect views from learners. The study was carried out in public secondary schools in Kisumu East Sub- County. The sub- county is located 365 Km West of Nairobi. It covers an area of 135.9 square kilometers and lies within the longitudes 33°20'E and 35°20'E and latitudes 0°20'South and 0°50'South. The Sub County has a total of 15 public secondary schools with a student population of 1433 (Kisumu County Education office, 2022). The target population was to be obtained from fifteen (15) public secondary schools in Kisumu East Sub- County. The population was composed of learners distributed between the four-year levels of secondary education. Stratified random sampling was used to select learners to take part in the study.

# Sampling and research group

The study was carried out in the fifteen (15) public secondary schools in Kisumu East Sub- County. Cochran's formula (Cochran 1977) was used to calculate the sample size. Stratified random sampling was used to select three hundred and three (303) learners. The learners were distributed through the four levels of secondary education in Kenya.

#### **Procedures**

Data was gathered from the sampled learners using a semi – questionnaire with researcher guidance. The study questionnaire gathered the demographic data of the participants, looking at how satisfied they were with teaching and learning and how important they were to them individually, as well as their academic achievement (grades). Once the learners had filled the questionnaires, focused group discussions were done to identify areas of commonality with respect to satisfaction. Cronbach alpha coefficient was calculated to assess the internal consistency of the questionnaire items. To determine the applicability of the questionnaire, a pilot study with 30 learners who completed the questionnaires was



used. The researcher took the time to walk the learner through the questionnaire and show them how to fill in the responses.

## Data analysis

Statistical software (SPSS version 25) was used. Independent sample t-test was used to compare the means for each questionnaire item between low-satisfaction group (LSG) and the high-satisfaction group (HSG). Learners were placed in the HSG group if their response to the satisfaction question was agree or strongly agree, and in the LSG group if it was strongly disagree, disagree, or neutral. The relationship between academic achievement and learner overall satisfaction was evaluated using linear regression. The academic grade A learners received on their end-of-term exams served as a measure of their academic achievement.

#### Research approval

Approval to conduct the study was sought from National Commission for Science, Technology & Innovation (NACOSTI), License No. NACOSTI/P/23/22973.

#### The role of the researcher

The researcher had a brief meeting with learners prior to the administration of the questionnaires. He gave an overview of the research questions and asked for any clarifications the learners sought in the filling of the questionnaire. To avoid victimization for poor scores, learner identifiers were not captured and the questionnaires were strictly collected and stored by the researcher.

#### Results

## Demographic information

Demographic data of the respondents is detailed in Table 1 below.

**Table 1.** Demographic information of respondents (n = 303)



Biodata	Frequency	Percentage (%)
Gender		
Male	128	42.29
Female	175	57.71
Age (years)		
14	2	0.57
15	17	5.71
16	45	14.86
17	74	24.57
18	87	28.72
19	48	16.00
20	23	7.43
21	2	0.57
22	3	0.99
23	2	0.57
Academic grade (Points)		
B+ (10)	5	1.71
B (9)	17	5.71
B- (8)	16	5.14
C+ (7)	78	25.71
C (6)	45	14.86
C- (5)	48	16.00
D+ (4)	52	17.14
D (3)	14	4.57
D- (2)	23	7.43
E (1)	5	1.71

Male respondents made up 128 (42.29%) of the total, while female respondents made up 175 (57.71%). The majority of responders 87 (28.72%) were 18 years of age. Seventy- eight respondents (25.71%) had a mean grade of C+.

#### Level of learner satisfaction

The learners were required to respond to twenty-three questions on a Likert scale 1- 5 highlighting the level of satisfaction they attributed to the various questions with 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, and 5= Strongly Agree

The results are displayed in Table 2 below.

Table 2: Descriptive statistics of learner responses on the level of satisfaction



Q. No	Questionnaire item	Overall mean (SD)	HSG Mean (SD)	LSG Mean (SD)	MD	Cronbach's alpha	p- value
						0.966	
1	The course outlines were provided for the subject/units	3.818 (1.292)	4.5 (0.502)	1.977 (0.913)	2.523		<.001
2	The subject objectives were clearly stated	4.090 (1.074)	4.568 (0.497)	2.286 (0.667)	2.282		<.001
3	The stated objectives were met	3.963 (1.024)	4.470 (0.501)	2.524 (0.707)	1.946		<.001
4	The teacher had a thorough knowledge of subject content	4.345 (0.954)	4.707 (0.457)	2.536 (0.693)	2.171		<.001
5	The teacher used different methods to make learning enjoyable	4.365 (1.030)	4.719 (0.435)	2.208 (0.932)	2.511		<.001
6	The teacher treated learners with respect	4.128 (1.222)	4.672 (0.471)	2.000 (0.874)	2.672		<.001
7	The teacher provided opportunities to ask questions	4.503 (0.853)	4.721 (0.450)	2.267 (0.799)	2.454		<.001
8	Teacher provided answers to questions and issues raised by the learners	4.368 (0.939)	4.664 (0.474)	2.363 (0.848)	2.301		<.001
9	The teacher encouraged interaction to help learners learn better	4.523 (0.745)	4.671 (0.471)	2.363 (0.674)	2.307		<.001
10	The teacher observed punctuality	4.076 (1.143)	4.654 (0.478)	2.409 (0.816)	2.244		<.001
11	The teacher was approachable	4.061 (1.037)	4.579 (0.496)	2.605 (0.728)	1.974		<.001
12	The teacher provided help when I needed it	4.220 (1.091)	4.620 (0.487)	2.038 (0.871)	2.581		<.001
13	The classroom at school provides a good environment for learning.	4.194 (1.041)	4.603 (0.491)	2.276 (0.751)	2.327		<.001
14	The school library is well equipped with adequate reference materials to aid in learning.	3.535 (1.484)	4.57 (0.497)	1.831 (0.858)	2.739		<.001
15	The laboratory is well equipped.	3.884 (1.298)	4.605 (0.491)	2.061 (0.827)	2.544		<.001
16	The school environment is appropriate for learning.	4.237 (1.025)	4.617 (0.488)	2.321 (0.863)	2.296		<.001
17	General infrastructure of the school is good and adequate for learning.	4.012 (1.177)	4.613 (0.489)	2.279 (0.797)	2.333		<.001
18	I knew I was going to be examined	4.190 (0.893)	4.468 (0.501)	2.409 (0.796)	2.059		<.001
19	The method of examination was fair	4.018 (1.042)	4.520 (0.502)	2.512 (0.746)	2.008		<.001
20	The examination content was in line with content taught in class	4.137 (1.132)	4.644 (0.481)	2.278 (0.849)	2.366		<.001
21	The examinations were done at appropriate intervals	4.204 (1.004)	4.562 (0.498)	2.240 (0.779)	2.322		<.001
22	The examination results were provided on time	3.982 (1.314)	4.630 (0.485)	1.872 (0.864)	2.758		<.001
23	Overall, I am satisfied with teaching and learning	4.080 (1.147)	4.571 (0.497)	2.114 (0.867)	2.457		<.001

From the table of learner satisfaction, the learners rated mean scores of 4.523 (Q9) and 4.503 (Q7) for teacherencouraged interaction and teacher provision for opportunities to ask questions respectively.

The learners rated the mean satisfaction of suitability of class environment for learning (Q13) and school environment (Q16) as 4.194 (1.041) and 4.237 (1.025) respectively. Satisfaction with the equipment of the library (Q15) had the lowest mean of 3.535 (1.484). Learners rated examinations done at appropriate intervals (Q21) the highest, with a mean of 4.204 (1.004). Examination results provided on time (Q22) had a mean of 3.982 (1.314).

Overall learner satisfaction was 4.08 (1.147), showing learners were generally satisfied with teaching and learning.

Level of importance learners place on selected aspects of teaching and learning process



Learners were required to respond to the level of importance they individually placed on the 22 questions in a Likert-scale 1-5 with 1= Very unimportant, 2 = Unimportant, 3 = Neutral (neither important or unimportant), 4 = important and 5 = Very important. Their responses are displayed in the graph below.

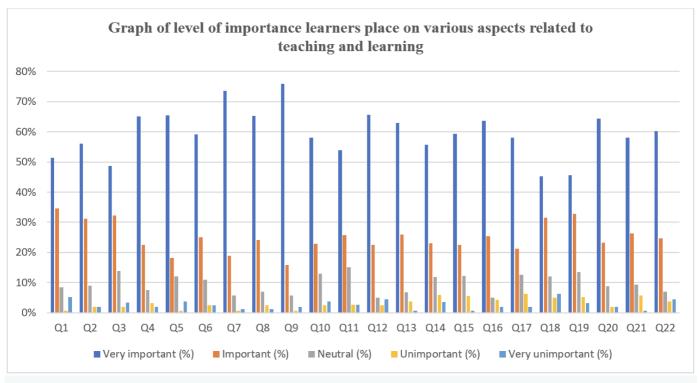


Fig. 1. Graph of the level of importance that the learner places on various aspects related to teaching and learning.

From the graph above, 65% considered the teacher thorough knowledge of subject content and the adoption of different methods of learner by the teacher made learning enjoyable as very important (Q4 & 5). Five percent of the learners reported that course outline provision was least important (Q1). Seventy-four percent of the learners considered the opportunity to ask questions as very important. Seventy six percent of the learners reported that teacher-encouraged interaction was essential.

With regard to learning facilities, 89% of the learners indicated that the classroom and school environment was important for proper learning (Q13 &16). Eighty-one percent of the respondents agreed on the importance of a well-equipped laboratory in promoting learning (Q15).

Eighty- five percent of the learners considered timely issuance of examination results (Q22) as important, while eighty-seven percent of the respondents agreed on the importance of the examination being in line with the content taught in class(Q20).

Ninety percent of the learners reported being satisfied with teaching and learning (Q23).

## Quadrant analysis



A quadrant analysis linking learner perceived level of satisfaction and its perceived importance was done (Douglas et al., 2006). For each question, the percentages of learners who were satisfied or very satisfied as well as those who thought that a particular aspect was important or very important were calculated and recorded. Thereafter, the median score for importance and satisfaction was calculated. For each percentage score, the distance from the median was determined. The satisfaction scores and importance score were plotted on the X and Y axis, respectively. The responses were categorized into four categories as shown in Table 3 below.

Table 3. Importance - satisfaction grid for all learners	
High Importance and Low satisfaction (A)  The course outlines provided for the subject/units  The subject objectives are clearly stated  The examination content is in line with the content taught in class  Timely submission of examination results	High Importance and High satisfaction (B)  Teacher thorough knowledge of subject content  Teacher providing opportunities to ask questions  Teacher providing answers to questions and issues raised  Teacher encouragement of interaction to help in learning  Teacher providing help when needed  Classroom is a good environment for learning  School environment appropriate for learning
Low Importance and Low satisfaction (C)  Stated objectives are met  Teacher punctuality  Teacher being approachable  School library equipment with adequate reference materials  Laboratory adequate equipment  General infrastructure of the school  Method of assessment	Low Importance and High satisfaction (D)  Teacher use of different teaching methods  Teacher treatment of learners with respect  Knowledge of time of assessment  Interval of conduct of examinations

## Regression Analysis

The findings of the regression analysis between learner satisfaction (independent variable) and academic grade (dependent variable) are displayed in Table 4 below.

Table 4. Regression Coefficients<sup>a</sup>



Model		Unstandardized Coefficients		Standardized Coefficients	т	Sig.
		В	Std. Error	Beta		oig.
1	(Constant)	2.529	.958		2.638	.009
	Satisfaction	.742	.230	.238	3.225	.002

<sup>&</sup>lt;sup>a</sup> Dependent Variable: Score

A linear regression equation, Y = 2.527 + 0.742 X, was created. A substantial positive association with a p-value of 0.002 and r = 0.238 was revealed by correlation analysis.

#### Learner satisfaction and its influence on academic achievement

The importance of learner satisfaction has increased with the globalization of education (Salinda Weerasinghe et al., 2017). A high degree of learner satisfaction is crucial for attracting new learners and keeping existing ones. Additionally, it is crucial for ensuring that learners receive satisfactory academic grades and obtain the necessary competencies to succeed in the workforce (Kirmizi, 2015). The world at large, stakeholders, the institution, and learners themselves are all impacted by how satisfied they are with teaching and learning. According to Annamdevula and Bellamkonda (2016), learner motivation is positively impacted by learner satisfaction. Additionally, it contributes to the growth of a positive attitude toward the process of teaching and learning. It fosters collaboration, positive academic experiences, confidence, enhances academic performance, and ensures high completion rates (Gee, 2018).

The institution is greatly impacted by learner satisfaction as well. It supports the institution's achievement of its primary training mandate and further instills the institution's vision and mission in the learner (Ali et al., 2016). It strengthens and expands the institution's competitive advantage. In addition, it encourages the creation of exchange programs, has an impact on grant funding from donors, and fosters the expansion of the alumni network. From literature, it is evident that learner satisfaction is very important and it's crucial that their inputs are considered. Currently, the majority of research on the quality of educational services has heavily depended on expert academic input while omitting that of the learners themselves (Hasan & Masri, 2015).

A review of the literature reveals a complex link between learner satisfaction and academic success and. Learner satisfaction and academic achievement have been linked in several studies (Malik et al., 2013; Saha & Karpinski, 2016). According to a study conducted at Malaysian Open and Distance Learning (ODL), universities reported a correlation between learners' academic achievement and satisfaction with course materials, assessments, and response time (Jegathesan et al., 2018). Learners who received grades that met their expectations expressed greater satisfaction. According to Lodi et al. (2017), academic effectiveness and average grade points were substantially correlated with satisfaction.



#### Discussion

Teacher providing learners the opportunity to ask questions (Q7) and teacher interaction during teaching (Q9) had the highest mean of 4.503 and 4.523, respectively. This indicates a high level of learner satisfaction. Aspects related to teacher competence have been reported to be key determinants of learner satisfaction (Iqbal et al., 2019; Suswanto et al., 2017). In this study, the learners rated instructional attributes high, with a mean of 4.365 (SD=1.03). This corroborates other studies reporting the key importance of instruction techniques on learner satisfaction. In addition, satisfaction with teacher mastery of the content had a mean of 4.345. Teacher mastery of content is an important aspect in learner satisfaction (Jan, 2017).

Respect to learners, teacher approachability, learner opportunities to ask questions, and teacher-learner interaction have been reported to be key determinants of learner satisfaction (Bell, 2022; Green et al., 2015; McLeay et al., 2017). This is corroborated in the present study where the means for teachers with respect to learners, teacher punctuality, and approachability, had means of 4.128, 4.076, and 4.061 respectively. This shows a very high level of satisfaction with aspects related to teacher-learner interaction.

Learning facilities are important in any education institution. Good learning environment and availability of supporting infrastructures ensure learners have access to quality education (Barrett et al., 2019). Majority of the learners (mean = 4.237) reported being satisfied with the school's environment and that it was conducive for learning. Leaner satisfaction with the level of school library and laboratory equipment was the lowest at a mean value of 3.535 and 3.884, respectively. This observation is consistent with other studies that have reported low availability of reference materials in the library in schools and inadequate equipment of laboratory facilities in secondary schools in Kenya (Kieti, 2018; Musyoka, 2018). A previous study reported that 55.7% of schools had no library and 55.6% of learners reported that the science laboratories were poorly equipped (Nyagah & Irungu, 2013). Science laboratory equipment has been reported to have a weak but significant relationship with students' achievements (Ojuok et al., 2020). Studies have shown that learner satisfaction can improve by having well-equipped libraries (Njaya & Murangwa, 2017). It is therefore imperative that low learner satisfaction with laboratory and library equipment be examined as studies show they are significant determinants of satisfaction and academic achievement.

Time, method, content and timely feedback on examination results are important determinants of learner satisfaction (Salinda Weerasinghe et al., 2017). Majority of the respondents (mean = 4.137) reported that the examinations' content was in line with content taught in class. This is a very good indicator of the presence of a good exam setting and moderating guidelines. Studies have reported high stress associated with unfair examinations administered to learners where the content does not test classroom instruction (Loh & Liew, 2016; Zhao et al., 2015). Examinations are key in ensuring the right knowledge is tested and appropriate learners are selected to various areas based on their abilities. This ensures proper selection and placement of learners, aids in informing policy decisions, and provides an opportunity for learners to realize their full potential.

From the results of the quadrant analysis, the learners reported a high satisfaction with accompanying high importance on



aspects touching on teacher competence, classroom, and school environment. These areas are key aspects that influence learner satisfaction (Han et al., 2019; Teven & Herring, 2005). Teacher expertise together with the manner of delivery of content is key in ensuring learners understand the expected content which in turn improves learner satisfaction which further enhances academic achievement. A good learning environment improves learner comfort, reduces anxiety and distractions, which will have a negative impact on the level of concentration. Equipment of the library was considered of low satisfaction and of low importance. Low satisfaction rating of the library shows a general lack of reading culture among the learners of text and materials outside the classroom's text. In addition, this could be explained by meager reading materials as has been reported (Wanjiku, 2013). School libraries play a role in promoting reading culture among secondary schools (Adejimoh et al., 2021). Lack of libraries and poor equipment of the libraries shows that the learners are not aware of the usefulness of the library as a resource center (Likoko et al., 2013; Onyara, 2013).

Regression analysis displayed a weak but significant linear relationship between leaner satisfaction and academic achievement. Academic achievement was taken as the mean grade of the end-term examination for the respective learners who took part in the study. Despite the examination being different in the different schools, it was considered standard since it was derived from the same syllabus that was being used across all schools within the country. Findings of this study corroborate previous studies that reported a correlation between academic achievement and learner satisfaction (Lodi et al., 2017; Saha & Karpinski, 2016). More studies should be conducted across the various levels of education to determine the extent to which learner satisfaction influences academic achievement. Ensuring learners are satisfied with teaching and learning process has a positive contribution towards academic achievement.

#### Conclusions and Recommendations

The teachers' encouragement of learner interaction and the teacher giving learners the chance to ask questions received the highest ratings from learners. Learners' satisfaction with the library's equipment was the lowest. The overall learner satisfaction score of 4.08 (1.147) indicates that learners were generally happy with the teaching and learning process. Learner satisfaction and academic success had a substantial positive link (r= 0.238; p = 0.002).

Additional studies should be done to identify other factors that affect learner satisfaction. Surveys can be useful instruments in assessing learner satisfaction with teaching and learning. To provide high-quality education in public secondary schools, the government and pertinent stakeholders should equip schools with the necessary infrastructure. There were some schools in the subcounty without functioning libraries, and those that did had outdated equipment. Additionally, this study can be repeated in other institutions of higher education to determine the level of learner satisfaction and how it affects various aspects of teaching and learning.

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