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Correlating Students' Participation in Music and their Academic Performance in Public Secondary Schools in Kenya

Rose Okumu[1], Alexander Ronoh[2], Paul Maithya[3]
[1,2,3]Masaai Mara University, Kenya

***Corresponding Author:**
Rose Okumu
Email: roseokumu76@yahoo.com

Abstract: Co-curricular activities, including literary competitions, recreational activities, cultural activities and sports clubs, provide an opportunity to learn and socialize outside the classroom. In Kenya, many resources are allocated to support these activities in schools. However, there is little research on the importance of these activities in enhancing secondary students' academic performance in KCSE across the country. The purpose of this study therefore, was to assess the influence of student's participation in music and their academic performance in public secondary schools in Kenya. The study adopted the descriptive survey design with the target population comprising of 285 public secondary schools. The sample size was selected using the simple random sampling and purposive sampling technique and these were 86 public secondary schools from which 344 students' representatives, 86 teachers in charge of co-curricular activities and 86 head teachers were reached as respondents of the study. Data from the head teachers and teachers was collected using questionnaires, while that from the students' representatives was collected by use of interview schedules. Data collected was then analysed with the aid of the Statistical Package for Social Sciences computer software for descriptive statistics (frequencies, percentages and means) and inferential statistics such as Pearson moment correlation (r); z score analysis. The results were presented using tables and charts, and interpreted accordingly. The study found that participation in music is moderately correlated with students' academic performance. The findings of this study may be useful in informing the school administration on the benefits arising from students' participation in music and its relationship with academic achievement.

Keywords: Participation in Music, Kenya Certificate of Secondary education (KCSE).

INTRODUCTION

It is the aim of any educational institution to produce graduates equipped with both academic and non-academic competence and well-rounded personality. This aim is realized in complementing academic activities with co and extra-curricular undertakings that widen the horizon of students [1]. Also, to enhance their potentials, heighten their academic performance, develop them personally and eventually expand the curricula. Thus, co-curricular activities are encouraged and enjoined in all secondary schools. The terms extracurricular activities, co-curricular activities, and non-classroom activities have all been used interchangeably to mean experiences and activities such as debate, athletics, music, drama, school publications, student council, school clubs, contests, and various social events [2].

Over the past century, co-curricular participation has progressively played a greater role in schools and in individual students' lives [3]. Co-curricular activities create positive benefits in educational outcomes such as better school attendance, low rates of discipline issues, higher academic achievement, and greater sense of school loyalty or spirit. Students participating in co-curricular activities are more likely to be in school preparatory programs, achieve higher grades, and desire to enroll in and graduate from college [4]. How the influence of specific co-curricular activities on academic performance has not been well studied.

Co-curricular is a very important and essential part of an education system. It is the co-curriculum aspect of the education that prepares and molds the student to be holistic [5]. Nevertheless, more emphasis has generally been given to the curriculum aspect resulting from the students' inability to link the excellence in performance academically to the active participation in co curriculum [6]. Providers for education need to ensure that children are prepared properly in all spheres of life and be better positioned to counter societal needs and demands [7]. The education in the high school level is the prime concern here. Academic, skills and co- curricular activities are all part of education. Much emphasis is given to academic, as it is the deciding factor of a student's future. Parents, teachers, and all the other factors have made the academic factor in a students' education life in schools as the most important [8]. Stakeholders' involvement in

management of co-curricular activities shows how important CCA is as a precursor to students' academic achievement.

Studies on the influence of co-curricular activities on students' academic performance in Kenya have reported mixed findings. Some studies report positive influence of co-curricular activities on students' academic performance [9], while others report a negative influence [10]. This paradox needs to be unraveled. Arguably, without co-curricular activities, students will not be mentally, physically, socially and morally in order to perform well in KCSE. It has been reported that participation in co-curricular activities is not fully supported by most schools and the contribution of it to the students' self-concept and academic performance have not been clearly articulated to the educators, teachers, students and even parents.

Teachers in Kenya have been reported asking for more co-curricular activities funds. According to the Nakuru County Education official records, public secondary school students engage in numerous co-curriculum activities, chief among them being music. Parents and school personnel alike have had controversies on whether a great deal of time and money should be devoted to these activities especially in this time of tight budget. They believe that students should focus solely on a narrowly defined traditional in class instruction that influence academic achievement. The situation in the whole country remains unknown. There is need therefore, to analyze the association that exists between students' participation in music and their academic performance in secondary schools.

LITERATURE REVIEW

Fitzpatrick [11] conducted research on participation in music and academic achievement in which he included socioeconomic status (SES) in his study. He found that music did indeed have an impact on academic achievement. He compared the Ohio Proficiency Test (OPT) of instrumental and non-instrumental students. "Results were compared with others of like SES on the subjects of citizenship, math, science, and reading. Results show that instrumental students outperformed non-instrumental students in every subject at every grade level" [12]. Earhart in Ongonga and colleagues [13] while addressing the relationship between music and academic achievement argued that music enhances knowledge in the areas of mathematics, science, geography, history, foreign language, physical education and vocational training.

Consequently, the recent emphasis on interdisciplinary studies, along with the uncertain future of many school subjects, has provoked renewed interest in cross-cultural research. Participation in music in this study was found to positively influence students' academic performance. Music instruction impacts learning in the following ways: Motor function is the ability to use small, acute muscle movements to write, use a computer, and perform other physical activities essential for classroom learning. The parts of the brain associated with sensory and motor function are developed through music instruction, and musically trained children have better motor function than non-musically trained children [14].

Working memory is the ability to mentally hold, control and manipulate information in order to complete higher order tasks, such as reasoning and problem solving. Musicians are found to have superior working memory compared to non-musicians. Musicians are better able to sustain mental control during memory and recall tasks, most likely because of their long-term musical training [15].

Chaterall, Chapleau and Iwanaga [16] in a panel study which has followed more than 25,000 students in American secondary schools for 10 years, observed that students who report consistent high levels of involvement in instrumental music over the middle and high school years show significantly higher levels of mathematics proficiency by grade 12. This observation holds both generally and for low SES students as a subgroup. (SES refers to socioeconomic status -- a measure of family education level, income, and type of job(s) held by parents). Acquah [17] found the various types of activities, which can be taught in a dance classroom. The bhavas, raagaas and the thalaas improve the concentration of the participant. It gives exercise to the body and improves the creativity of the child. Students who report consistent high levels of involvement in instrumental music over the middle and high school years show significantly higher levels of mathematics proficiency by grade. This observation holds both generally and for low SES students as a subgroup. In addition, absolute differences in measured mathematics proficiency between students consistently involved versus not involved in instrumental music grow significantly over time.

Cowley, [18] concluded that the practice of non-cognitive skills such as communication and academic behavior is essential for student development. Participation in extracurricular activities provides additional support in the development of non-cognitive skills. Learning to play a musical instrument provides an avenue for self-discipline development. This same self-discipline will translate into improved study habits and an increased ownership in learning. Fujita [19] in their joint research work, suggested the use of informal experiences students have, through extra-curricular activities such as music lessons to design a curriculum related to sound that encourages active student participation and learning.

METHODOLOGY

The study employed descriptive survey design. Mugenda and Mugenda [20] defines descriptive survey design as a process of collecting data in order to answer questions concerning the current status of the subjects (behaviour, attitudes, values and characteristics) in a study. This study combined elements of qualitative and quantitative research approaches; that is, use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques for the purposes of breadth and depth of understanding and corroboration. The study targeted different schools spread in different environments within the Country as shown in table 1 below:

Table 1: Sample Distribution

Sub Counties	Number of schools	Principals	Teachers	Students
Nakuru	8	8	8	32
Njoro	10	10	10	40
Gilgil	10	10	10	40
Naivasha	10	10	10	40
Bahati	9	9	9	36
Molo	8	8	8	32
Rongai	10	10	10	40
Subukia	7	7	7	28
Kuresoi	14	14	14	56
	86	**86**	**86**	**344**

Source: Researcher, (2016)

The study therefore got 86 head teachers, 86 teachers and 344 students' representatives. Purposive sampling technique was used in the selection of the study sample. The study used questionnaires and interview schedules for collection of data from teachers and students respectively. The study collected both primary and secondary data. Primary data was collected by use of questionnaires and Interview schedules.

The study yielded both qualitative and quantitative results. Qualitative and quantitative data collected was organized and cleaned of any errors that may have occurred during data collection. Data was then checked for errors, coded and keyed into SPSS version 20.0-computer software data base. Quantitative data collected for all the three objectives was analysed using descriptive statistics (frequencies, percentages and mean); the influence of students' participation in drama, students' participation in music, students' participation in games and sports, and students' participation in clubs and societies on their academic achievement in KCSE in public secondary schools in Nakuru County. Inferential statistics such as Pearson Moment Correlation (r) was computed in establishing the relationship between the variables.

Qualitative data was categorised into related themes or patterns. The process involved identifying themes or patterns; that is, ideas, concepts, behaviors, interactions, incidents, terminology or phrases used; as well as, organizing them into coherent categories that summarize and bring meaning to the text. The frequencies of the responses were then summarised and presented in the form of tables and charts

RESULTS AND DISCUSSIONS

Students Participation in Music and Attainment of High Grades in Examination

Teachers were asked to indicate to what extent they agreed that students who participate in music scored high grades in examination and the response was as provided in Figure below.

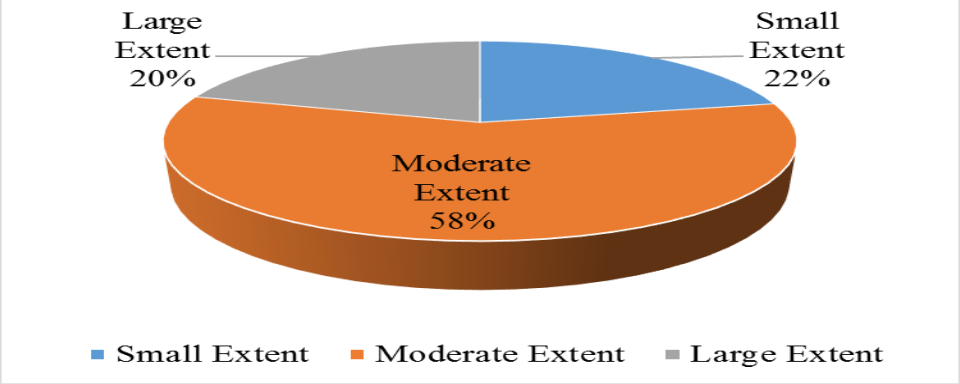

Fig-1: Students Participation in Music and Attainment of High Grades in Examination

The findings in Figure above shows that 57.7% of the teachers indicated that to an extent, students who participated in music scored high grades in examination. Precisely, 20.5% to a large extent, and 21.8% to a small extent. This implied that according to most teachers, students' participation in music influenced their attainment of quality grades to a moderate extent.

Teachers' View on the Relationship between Students' Participation in Music and Academic Achievement in KCSE

Select statements were used to solicit information on the teachers' view on the relationship between students' participation in and academic achievement in KCSE. Means were computed based on a Likert scale of 1-5 and the results (Descriptive Statistics) are presented in Table below.

Table 2: Teachers' View on the Relationship between Students' Participation in Music and Academic Achievement in KCSE

	N	Minimum	Maximum	Mean	Std. Deviation
Students who participate in Music record high academic achievement in KCSE	78	3	4	3.35	.479
Students who participate in Music have enhanced cognitive skills	78	2	5	3.09	1.071
Students participation in Music leads to improved academic competence	78	3	5	3.74	.918
Student who participate in Music often experience improved reading comprehension	78	1	3	2.28	.881
Student who participate in Music stay generally more engaged in school than their non-CCA counterparts	78	3	5	3.62	.743
Valid N (listwise)	78				

From the mean score reported in the table, it emerges that all the scored were above the mid mark of (3.0). However, we note that to some extent there was an influence on their academic achievement. Participation in music was found to positively influence academic performance. This is clearly seen in enhanced cognitive skills, improved reading comprehension. It was also found that students who participated music stayed generally engaged in school compared to their non-Co-curricular activities counterparts. Generally looking at how teachers responded, we can say that students' participation in music triggered academic performance moderately. This is in agreement with a study by Earhart in Ongonga and colleagues [21] while addressing the relationship between music and academic achievement argued that music enhances knowledge in the areas of mathematics, science, geography, history, foreign language, physical education and vocational training.

Relationship between Students Participation in Music and their Academic Performance

In order to determine the relationship between students' participation in music and their academic performance, means were computed and those students who participated in music and the results were as provided in Table below.

Table 3: Performance of Students who participated in Music Activity

	N	Minimum	Maximum	Mean	Std. Deviation
Academic Performance	77	3.00	9.00	5.2078	1.70400
Number of hours spent on Music Activity	77	1	5	4.06	.951

a. Main Co-curricular activity = Music

It was established as shown in Table 12 that the average grade (score) attained by students participating in music was 5.2078 out a maximum score of 12, an equivalent of C- Grade, while the mean score for the number of hours spent on Music activity was 4.06 on a scale of 5.0. The interpretation was that academic performance was below average, while it is also noted that the 4.33 score for time spent corroborates with a time spent of close to 2 hours every day. This was low considering the fact that a student requires at least a C+ to be able to join University College. The value 5.2078 gives us a score much lower. This is to say that most students participating music performed below average. To understand the relationship between students' participation in Music activity and their academic performance, Pearson correlation was computed and the results were as provided in Table below.

Table 4: Relationship between Students Participation in Music and their Academic Performance

		Academic Performance	Number of hours spent on Music Activity
Academic Performance	Pearson Correlation	1	.341**
	Sig. (2-tailed)		.002
	N	77	77
Number of hours spent on Music Activity	Pearson Correlation	.341**	1
	Sig. (2-tailed)	.002	
	N	77	77

**. Correlation is significant at the 0.01 level (2-tailed).
a. Main Co-curricular activity = Music
r =0.344, N = 77, p > 0.05.

The findings in Table above are reported as follows. The Pearson Correlation test statistic = 0.341. SPSS indicates it is significant at the 0.05 level for a two-tailed prediction. The actual p value is shown to be 0.002. These figures are duplicated in the matrix. These results indicate that as students' participation in music increases, their academic performance increases, which is a positive correlation. However, since, $p < 0.05$, it is argued that the variable was a significant predictor with a variability of 34.1%, and therefore, to a small extent participation in music had some influence on their academic performance. Eccles and Barber [22] holds a similar view, believing that "music can influence learning in core subjects as well as contribute to the attainment of core goals in learning" This gives the impression that music plays an important role in academic performance. However, this was not the case with secondary schools in Nakuru County.

CONCLUSION

Participation in music was found to positively influence academic performance. This was clearly seen in enhanced cognitive skills, improved reading comprehension. It was also found that students who participated in music stayed generally engaged in school compared to their non-co-curricular activities counterparts. The study concludes that students' participation in music influenced their academic achievement in KCSE in Public Secondary Schools in Kenya. Their performance was slightly above average participation in music correlated with their academic competence. It is interesting to note also these students were found to stay generally more engaged in school than their non-CCA counterparts did. Past studies like that of Ongonga and colleagues [23] revealed that participation in music resulted into higher achievement in subject areas of mathematics, science, geography, history, foreign language, physical education and vocational training. The results of this study supported this scholarly claim. However, it emerged from the study that in many schools music was not conducted professionally. The school management should consider ensuring teachers have the relevant and requisite training to help generate expected CCA benefits associated with students' academic performance.

REFERENCES

1. Danganan, R. (2015). Personal Development and Academic Performance of Students and their Participation in Co and Extra Curricular Activities: Inputs to Students' Enhancement Program. *World Journal of Educational Research (2)*, 2, 1-9.
2. Emmer, R. (2010). Band. New York, NY: Rosen Publishing Group. Print.
3. Chok, S. L. (2007). *Aiming for the Complete Student.* New Straits Time. http://www.nst.com.my/Current_News/NUST/Sunday/SundayInterview/20070701093326/Article/index_html (12 January, 2014).
4. Yeo, G. (1995). Simple actions by Principals Combat Stress in Teachers. *The Straits Times*, 30 September, p. 25. . Print.
5. Sikka, & Agnihotri. (2013). Perceptions of Students and Teachers of Government and Private Secondary Schools on Co-Curricular Activities. *Indian Streams Research Journal ISSN:-2230-7850. 3*, (4), 2013.
6. Wanjohi, A. (2013). *Role of Co-curricular Activities in Students' Social Development: Kenya Projects Organization* [KENPRO], Nairobi. Print.
7. Rashid, A., & Sasidhar, B. (2005). Teachers' Perception on the Effectiveness of Co-curricular Activities: A Case Study of Malaysian Schools. *Unitar e-journal 1(1), January 2005.*
8. Sikka, & Agnihotri. (2013). See note 5.
9. Ongonga, J. O., Okwara, M. O., & Okello, T. M. (2010). Sports and Secondary Education in Kenya. *International Research Journals, 1 (11),* 607-617.
10. Kimengi, N., Kiptala, W., & Okero, R. (2014). Students' Co-Curricular Participation Perception and Academic Performance in Kenyan Secondary Schools. *Journal of Educational Policy and Entrepreneurial Research (JEPER). 1,* (3), 31- 39.
11. Fitzpatrick, K, R. (2006). The effect of instrumental music participation and socioeconomic status on Ohio fourth-, sixth-, and ninth-grade proficiency test performance. *Journal of Research in Music Education, 54(1),* 73-84.
12. Fitzpatrick, K. R. (2006). See note 11.

13. Ongonga, J. O., Okwara, M. O., & Okello, T. M. (2010). See note 9.
14. Forgeard, M., Winner, E., Norton, A., & Schlaug, G. (2008). *Practicing a musical instrument in childhood is associated with enhanced verbal ability and nonverbal reasoning*. Available at http//PLoS ONE 3:e3566 10.1371/journal.pone.0003566
15. Burt, B. A., Carpenter, D. D., Finelli, C. J., Harding, T. S., Sutkus, J., Holsapple, M., Bielby, R. M., & Ra, E. (2011). Outcomes of engaging engineering undergraduates in co-curricular experiences. *American Society for Engineering Education*. Print.
16. Chaterral, J., Chapleau, R., & Iwanaga, J. (1999). *Involvement in the Arts and Human Development: General Involvement and Intensive Involvement in Music and Theatre Arts.* The Imagination Project at UCLA Graduate School of Education & Information Studies University of California at Los Angeles. Print.
17. Acquah, B., & Anti Partey, P. (2014). The influence of co-curricular activities on students' performance in economics. *Journal of Educational Management, 6*, 147 – 160.
18. Cowley, S. (2005). *How to survive your first year in teaching.* New York: Continuum. Print.
19. Fujita, K. (2005). *The Effects of Extracurricular Activities on the Academic Performance of Junior High Students* Available at http://kon.org/urc/v5/fujita.html URC.
20. Mugenda, O. M., & Mugenda, A. G. (2003). *Research Methods:* Quantitative and Qualitative Approaches. Nairobi, ACT Press. Print.
21. Ongonga, J. O., Okwara, M. O., & Okello, T. M. (2010). See note 9.
22. Eccles, J., & Barber, B. (1999). "Student Council, Volunteering, Basketball, or Marching Band: What Kind of Extracurricular Involvement Matters?" *Journal of Adolescent Re-search, 14*,101–43.
23. Ongonga, J. O., Okwara, M. O., & Okello, T. M. (2010). See note 9.