



Impact of Students' Involvement in Co-Curricular Activities on Academic Performance in Gem Sub County, Siaya County, Kenya

Hezekiah Adwar Othoo¹ & Kevin Omondi²

¹Department of Education Psychology, Management and Policy Studies
Alupe University College, Kenya

² School of Education and Social Sciences, Alupe University College, Kenya

Abstract: After COVID 19 pandemic, the government of Kenya, under the ministry of education, enforced regulations which changed the school calendar and restricted co-curricular activities. The purpose of this study was to investigate the impact of students' involvement in Co-curricular activities on Academic Performance in public secondary schools in Gem Sub County, Siaya County, Kenya. The objectives of the study were: (1) To identify different types of co-curricular activities that learners engage in public Secondary Schools in Gem sub-county, Siaya county, Kenya (2) To assess academic performance of students who participate in co-curricular activities in public Secondary Schools in Gem sub-county, Siaya county, Kenya. This study employed Astin's theory of involvement, which holds that students learn more when they are involved in both the academic and social aspects of the collegiate experience. The study adopted the concurrent mixed methods design that sought to process the use of both quantitative and qualitative data. The target population of the study comprised of students, co-curricular activities teachers and principals of public secondary schools in Gem Sub County, Siaya County, Kenya. Students were selected through cluster and stratified sampling, while teachers and principals were selected through purposive sampling because it targeted only co-curricular teachers and principals of the selected schools. Simple random sampling was used to select individual respondent. Data was collected through questionnaires for students and co-curricular activities teachers, and interview schedules for the principal. Data was analyzed using descriptive statistics. The study found out that participation in co-curricular activities positively influences students' academic performance.

Keywords: Access, Adequacy, Co-curricular activity, Curriculum, Influence, Opinion

How to cite this work (APA):

Othoo, H. O. & Omondi, K. (2022). Impact of Students' Involvement in Co-Curricular Activities on Academic Performance in Gem Sub County, Siaya County, Kenya. *Journal of Research Innovation and Implications in Education*, 6(2), 131 – 139.

1. Introduction

Co-curricular activities sponsored or recognized by a school or college which are not part of the academic curriculum but are acknowledged to be an essential part of the life of an educational institution. Co-curricular activities include sports, school bands, student newspapers etc. They may also be classed as 'Extracurricular' i.e. activities carried on outside the regular course of study; activities outside the usual duties of a job, as extra class activities"- according to The International Dictionary of Education (1977).

History of co-curricular activities in schools show that educators were doubtful of participation in co-curricular activities, believing that school should focus solely on narrowly defined academic outcomes. Nonacademic activities were viewed as being primarily recreational and therefore were detrimental to academic achievement and consequently were discouraged (Marsh & Kleitman 2016). Deam and Bear, the early experts on co-curricular activities, observed that co-curricular activities supplement and extend those contacts and experiences found in the more formal part of the program of the school day (Millard, 1930). It was

not until recently that Educational practitioners and researchers have taken a more positive perspective arguing that co-curricular activities may have positive effects in life skills and may also benefit academic accomplishment, Guest and Schneider (2003). Studies have been conducted concerning the relationship between co-curricular activities and academic performance. Total extracurricular activity participation (TEAP), or participation in extracurricular activities in general, is associated with an improved grade point average, higher educational aspirations, increased college attendance, and reduced absenteeism (Broh, 2002). Study conducted by the National Educational Longitudinal Study of 1988 (NELS:88), found that participation in some activities improves achievement, while participation in others diminishes achievement (Cilesiz & Drotos, 2014). Co-curricular activities have been divided into informal and formal activities. The formal activities include activities which are relatively structured such as participation in athletics or learning to play music instruments. Informal activities, on other hand, also known as leisure activities includes less structured activities, such as watching television. Some literature on leisure studies has suggested that formal and informal activities setting have different influences on motivation and feelings of competence, two factors which influence academic performance (Kariyana, Maphosa & Mapuranga (2017). One study found “that more time in leisure activities was related to poorer academic grades, poorer work habits, and poorer emotional adjustments,” while more time in “structured groups and less time watching TV were associated with higher test scores and school grades” (Marsh & Kleitman, 2002, para. 15).

Data from Gem sub-county director of education (2021) shows that schools in Gem sub-county have not fully embraced co-curricular activities on their daily routine. This study investigated the influence of learners’ participation in co-curricular activities on their academic performance in in Gem Sub County, Siaya County, Kenya.

1.2 Statement of the Problem

According to Ajayi, lawani and salome (2012), the issue of poor performance in education is so crucial because its a must that the students has to attain certain grades to be admitted to a higher level of educational institutions and their schools to be recognised as the best among the region where students can achieve better results. As a result of this, public secondary schools in Kenya, more specifically in Gem sub-county, focus much on quality grades and average score of the school in KCSE, at the expense of co-curricular activities. Students are drilled to pass exams and concern with class work without allowing them time to explore outside classroom activities. These explorations are what spices up education in school as often than ignored is the fact these students tend to tire on books without an additional value outside pen and paper.

1.3 Purpose of the Study

The purpose of this study was to investigate the impact of students’ involvement in Co-Curricular activities on Academic Performance in public secondary school in Gem Sub County, Siaya County, Kenya.

1.4 Objectives of the Study

This paper focuses on the impact of students’ involvement in Co-Curricular activities on Academic Performance with the following objectives:

1. To identify different types of co-curricular activities that learners engage in public Secondary Schools in Gem sub-county, Siaya County, Kenya.
2. To assess academic performance of students who participate in co-curricular activities in public Secondary Schools in Gem sub-county, Siaya County, Kenya.

1.5 Theoretical Framework

The theoretical framework for this study is found in the student development theory of Alexander W. Astin. Originally published in 1984, this theory, known as Involvement Theory, includes the following basic postulates; 1) the investment of physical and psychological energy in student experiences with different degrees of involvement has both qualitative and quantitative features, 2) the amount of learning and development gained from co-curricular activity is proportional to the quality and quantity of student involvement in the activity, 3) the effectiveness of an educational policy or practice is directly related to its capacity to increase student involvement (Astin, 1999). This theory was important in my study because; It emphasizes student effort and investment of energy in the achievement of the desired learning and development.

- a. It provides avenue to understand/explore what kind of involvement matters to achieve specific outcomes
- b. It enables one understand the degree of student involvement (quality and quantity) which may lead to certain development aspects (outcomes-leadership, interpersonal skills, learning)
- c. It explores how the program, curriculum, policy or practices be designed to encourage student involvement (and achieve the desired outcomes)

This theoretical framework provides strong evidence for the value of involvement in co-curricular activities.

2. Literature Review

2.1 Different Types of Co-curricular Activities

Definitions of Co-curricular Activity

“Activities sponsored or recognized by a school or college which are not part of the academic curriculum but are acknowledged to be an essential part of the life of an educational institution. Co-curricular activities include sports, school bands, student newspapers etc.

They may also be classed as 'Extracurricular' i.e. activities carried on outside the regular course of study; activities outside the usual duties of a job, as extra class activities"- according to The International Dictionary of Education (1977). "Co-curricular activities were mainly organized after school hours and so were the extracurricular activities but they are not an integral part of the activities of the school as its curricular work"- according to Aggarwal (2000). "Co-curricular activities may be defined as the activities undertaken to strengthen the classroom learning as well as other activities both inside and outside the classroom to develop the personality of the child"- according to Bhatia (1996) . According to Poh-Sun Seow and Gary (2014), co-curricular refers to activities, and learning experiences that complement, in some way, what students are learning in school, that is, experiences that are connected to or mirror the academic curriculum.

Co-curricular activities are vital because even though they are not a part of the core curriculum, they play a very crucial role in giving young boys and girls the ability to shape up their lives. The school activities have to be designed purposefully to give an apt mix of student's participation in academics and also to create a chance for all-around development. The importance of co-curricular activities cannot be ignored.

Co-curricular activities have been classified into two categories, that is, indoor and outdoor activities. Indoor co-curricular activities are as follows: dramatics; music and dance; drawing and painting; decoration; weaving; clay modeling; first aid; tailoring; book binding; card board work; leather work; organizing school panchayat; student self-government and art and craft, while outdoor co-curricular activities are as follows: mass parade; mass drill; yoga; athletics; bicycling; gardening; cricket; football; basketball; volleyball; hand ball; trips to place of geographical, historical, economic or cultural interest; mass prayer; morning assembly; excursions; social service in neighbourhood and valley survey (Singh & Mishra, 2014).

2.2 The Concept of Co-curricular Activities and students' achievements

Children's engagement in co-curricular activities competition is known to contribute to the developmental outcomes for health lifestyle, where children learn about physical, social and cognitive skills (Choi, 2014). Engagement in physical activity is also recognized to contribute a range of positive outcomes, specifically physical and mental health, social well-being, cognitive and academic performance (Bailey *et al*, 2013).

Similarly, a study of school resources and student achievement in rural India found that schools with more co-curricular activities produced children that performed better in mathematics than schools with fewer activities (Chudgar, Chandra, Iyengar, & Shanker, 2015). This involvement includes participation in sports and other school sponsored activities. Students who are consistently exposed to music perform better than students that are not exposed (Cash, 2009).

Numerous studies have been conducted concerning the relationship between co-curricular activities and academic performance (Broh, Poh-Sun Seow and Gary 2014). Total co-curricular activity participation (TEAP), or participation in co-curricular activities in general, is associated with an improved grade point average, higher educational aspirations, increased college attendance, and reduced absenteeism. Early analysis of the effect of participation in sports on academic achievement produced inconsistent evidence (Broh, 2002, para. 3). Even today, there is inconsistent evidence, but most research tends to lean toward the idea that participation in athletics does, in fact, improve academic performance. The result of one particular study indicated that "with the exception of a few subgroups and outcomes, participation in sports is generally unrelated to educational achievement." Additional information from this study has "found that playing sports in high school has no significant effect on grades or standardized test scores in the general student population" (Broh, 2002, para. 5). Although this particular study produced a negative relationship between sports and academic performance, many demonstrate a positive relationship. Broh (2002) believes that "participation in interscholastic sports promotes students' development and social ties among students, parents, and schools, and these benefits explain the positive effect of participation on achievement" (Para. 1). "Longitudinal studies on school sports have suggested that such participation raises students' grades and test scores" (Broh, 2002, para. 2).

Stephens and Schaben performed a study looking at the number of sports each student played and its effect on academic performance. They noticed that students who participate in at least one sport each year outperformed those who participated in one or less, in class rank, overall GPA, and math GPA (Stephens & Schaben, 2002, para. 6). They also noticed that the students who participated in more sports for many seasons had a "higher level of scholarship than the [students] who had competed in only a few seasons or for only one year" (Stephens & Schaben, 2002, para. 7).

Most of the modern games were introduced into Kenya by the British colonialists, settlers, and missionaries in the first half of the 20th century. Some of the African (native) activities were termed as evil and salvage, as a result, they were discouraged.

Consequently, during pre-independence and post-independence Kenya, the value attached to co-curricular activities in schools kept on wobbling depending on the government of the day. However, the seriousness of the government as far as sporting activities were concerned was reflected in the different development plans which have continued to underscore the importance of sports in Kenya's development. Korir (2013).

Co-curricular has several importance and benefits to the learner;

- a. Activities like participation in games, debates, music and drama, help in achieving overall functioning of education
- b. Co-curricular activities enables the students to express themselves freely through debates

- c. Games and sports helps the learner to be fit and energetic
- d. Co-curricular activities provides the avenues of socialization, self-identification and self-assessment when the learner come in contact with organizers, fellow participants, teachers and people outside the school during cultural activity

3. Methodology

3.1 Research Design

This study focused not only on analytic participation in co-curricular activities as it affects academic performance but also on a holistic understanding of key roles co-curricular activity teachers play in mentoring students participation in physical activities. For this reason, both quantitative and qualitative data were used. The study therefore adapted the concurrent mixed methods design that sought to process quantitative and qualitative data separately, but conduct interpretation of their results concurrently. The mixed methods design was preferred since according to Newman and Benz (1998, cited in Creswell, 2006), “the situation today is less quantitative versus qualitative but more of how research practices lie somewhere on a continuum between the two” pg. 146

3.2 Study Location

The study location selected was public Secondary Schools in Siaya County, Kenya, because it is where the researcher was attached for his teaching practice. The schools are located in Gem constituency, Siaya county, Kenya.

3.3 Target Population

The target population is the group from which information can be obtained and to which the results of the study are intended to apply, (Mugenda&Mugenda, 2008). Population comprised of teachers and students of public secondary schools in Gem sub-county Siaya County, Kenya. The students’ population was 600, 41 teachers of whom 16 were TSC members and only 25 were on Board of Management and 2 principals

3.4 Sampling

Two sampling techniques informed the selection of the required sample. First, respondents were stratified proportionately according to whether they were students, teachers or principal. After which simple random sampling technique was then used to select the required 20 students from the 600 and 6 teachers from the 41 teachers.

3.5 Research Instruments

Questionnaires were the main instrument for data collection in the study. According to Kothari (2004),

some of the merits of the questionnaire are; low cost, freedom from the Interviewer’s bias as answers is in respondents’ own words and that it gives respondents adequate time to give well thought answers.

These questionnaires had three sections as Nkpa (1997) advises;

- i. Demographic information,
- ii. Closed ended questions weighted on a Likert scale of 1-5 with questions on Strongly Agree, Agree, Undecided, Disagree and Strongly Disagree,
- iii. Open ended type of questions. The questionnaires were developed to address specific objectives just as Orodho (2008) notes.

According to Kothari (2004), Questionnaires make respondents feel free to write down their responses because they are not under direct observation by the researcher.

Kane (1995) states that, interviews can be modified to fit needs of the situations, they can convey empathy, build trust, collect rich data, and provide a clear understanding of the respondent’s view. However, the researcher chose interview technique because it gave an opportunity for collection of in depth-data, ensuring high response rates and it encouraged naturalness (Nkpa 1997), thus, ensuring that more information was obtained just as Stone et al. (1984).

3.6 Validity of Research Instruments

According to Mugenda and Mugenda (1999), content validity is a measure of the degree to which data collected using a particular instrument presents a specific content of a particular concept; whereas construct validity is a measure of the degree to which data obtained from an instrument accurately and meaningfully reflects a theoretical framework (concept).

Three forms of validity were conducted on the instruments of the proposed study. Face validity used to examine the appearance of both the student and co-curricular teacher questionnaire and the Principals’ interview schedule. The researchers with assistance of the supervisor ensured that items were legible and systematically arranged. Content validity was necessitated by the desire to establish the extent to which the measures adequately represented all facets of participation in co-curricular activities and academic performance. Expert reviews of instruments using objectives and specifications were sought from supervisor in order to achieve high levels of content coverage.

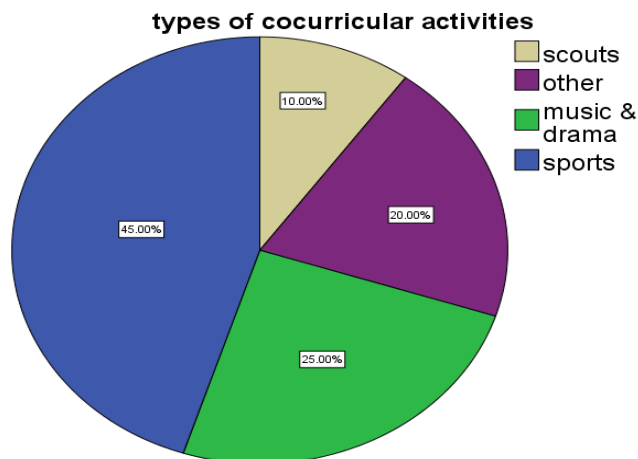
3.7 Reliability

To determine the extent to which the content instruments were consistent in eliciting the same responses, the researcher employed Spearman rank order correlation coefficient. A correlation coefficient of more than 0.5 and above meant that the instrument was reliable and was considered high enough to judge the reliability of instruments used. Any inaccurate

responses, inconsistencies, blank spaces, and other weaknesses noticed in the pretest were rectified. Piloting enabled the researchers come up with suitable research instrument which were well polished

4. Results and Discussion

4.1 The different types of co-curricular activities



From the pie chart, 45% of the schools participate in sports, 25% music and drama, 20% participate in other outdoor activities and 10% participate in scouts. despite participation in other indoor and outdoor co-curricular activities, the main activities available in the county are sports, that is, athletics and soccer, music and drama each with its unique factor structure and highly loading items.

The findings concurred with Poh-Sun Seow and Gary (2014), who averred that co-curricular activities are learning experiences that complement, in some way, what students are learning in school, that is, experiences that are connected to or mirror the academic curriculum.

Research objective one, sought to identify types of co-curricular activities available to students in Siaya County. Using exploratory factor analysis, results revealed that Participation in athletics is characterized by mandatory cross-country activities and desire to be part of renowned athletes from the region. Participation in singing is basically motivated by music festivals organized up to national levels and the desire to be like Kipchoge and Usain Bolt. The chart below illustrates the findings of the objective.

4.2 Co-curricular Activities and Academic Performance

4.2.1 Performance of Students Participating in Co-curricular

Some of the respondents selected were active participants in the various games and clubs in the school. From the past three exams done, they've all registered an above average in their mean grades.

Table 1, shows the academic performance of students who were actively involved in co-curricular activities

Student's Role	Entry Exams III, 2021	Term Exams Term II, 2020	End Term Exams Term II, 2020	Entry Exams I, 2020
Games Captain	B -	B +	B +	B
Drama Coordinator	C +	C +	C +	B -
Clubs and Societies Prefect	B +	B +	B +	B +
Scouts Prefect	B -	B	B	B +

The Table indicates the value addition gained as a result of participation in co-curricular activities. All the respondents who actively participated in games registered improvements in their academic

performed based on their entry behaviours. For instance, games captain had B from B-, Drama Coordinator had B- from C+, Clubs and Societies Prefect B+ and Scouts Prefect B+ from B-.Theses

above average performance affirmed that active involvement in co-curricular as admitted by most of them, impacted positively on their academic performance.

This is in agreement with numerous studies have shown a positive relationship between co-curricular activities and academic performance (Broh, Poh-Sun Seow and Gary 2014). Total co-curricular activity participation (TEAP), or participation in co-curricular activities in general, is associated with an improved grade point

average, higher educational aspirations, increased college attendance, and reduced absenteeism.

4.3.2 Enthusiasm

Of the teachers interviewed, most of them reported that, students who participated in at least one game are 'high-spirited' in their involvement in class work. This implied that when they participate in games, they get relieved and get back to class refreshed for studies. Their response was summarized below.

Table 2, shows the response on whether students' participation in games refreshes them for class work

Student's participation in games raises his/her spirits, thus refreshed for studies					
Response	Strongly Agree	Agree	Not Really	Disagree	Strongly Disagree
Statistics	3	0	1	0	0

From the table, 75% of the respondents strongly agreed that students' participation in games raises their spirits therefore get refreshed for class work, 25% of the respondents were not sure. This concurs with Korir (2013) who observed that:

Co-curricular has several importance and benefits to the learner;

- e. Activities like participation in games, debates, music and drama, help in achieving overall functioning of education
- f. Co-curricular activities enables the students to express themselves freely through debates
- g. Games and sports helps the learner to be fit and energetic
- h. Co-curricular activities provides the avenues of socialization, self-identification and self-assessment when the learner come in contact with organizers, fellow participants, teachers and people outside the school during cultural activity

4.3.3 Impact of Co-curricular on Student's Social Life

Students who participated in music and drama showed an active social life. This was evident with their number of friends and involvement in wholesome school activities e.g., answering

questions during guidance and counseling sessions among others.

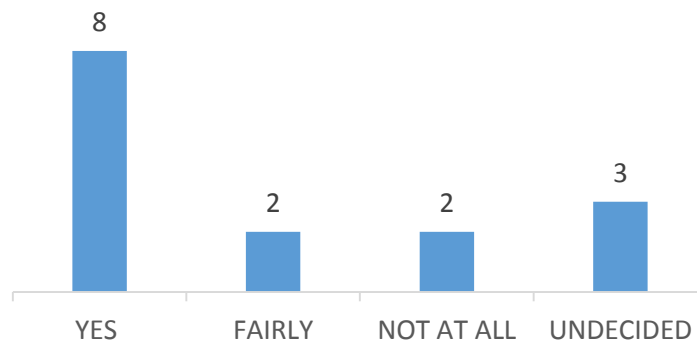
4.3.4 Participation in Class

From the observation schedule, the team of researchers observed a lesson on a normal schedule compared to one just after a PE lesson. Students were alert and actively participated during the lesson in contrast to just any other lesson.

4.4 Perception on Whether Co-curricular Impacts Positively on Academic Performance

4.4.1 Students' Perspectives

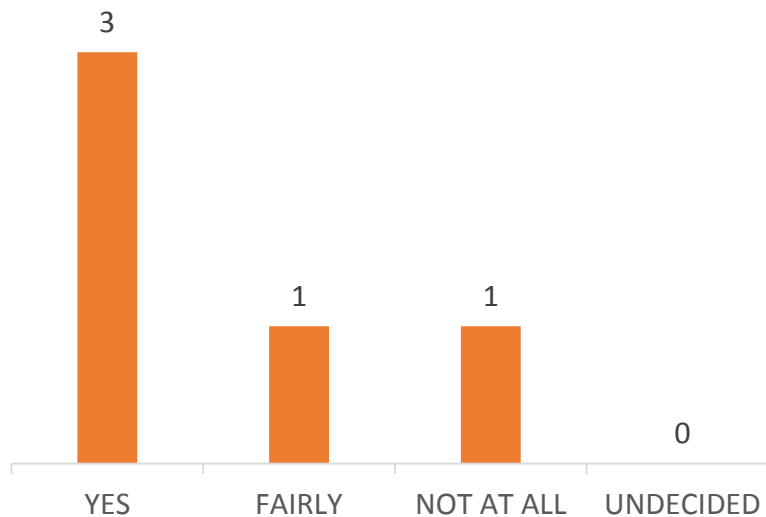
According to the bar graph below, it is perceived that co-curricular activities have a positive impact on academic performance of students. Since most students (8) voted for yes



From the bar graph, 8(53%) of the respondents were in agreement that co-curricular activities has a positive impact on students, academic performance, 2 (13%) indicated fair impact, 2(13%) disagreed with the assertion that co-curricular activities have impact on students' academic performance while 3(20%) were not sure.

4.4.2 Teachers' Perspective

Teachers on the other hand agreed that co-curricular activities impact positively on the academic performance of students



4(80%) of the teachers concurred with the notion that co-curricular activities have positive impact on learners' academic performance whereas 1(20%) were of the contrary opinion.

Engagement in physical activity thus recognized to contribute a range of positive outcomes, specifically physical and mental health, social well-being, cognitive and academic performance (Bailey *et al*, 2013).

5. Conclusion and Recommendations

5.1 Conclusion

In view of the findings summarized above, several conclusions were made regarding learner participation in co-curricular activities and their academic performance in public secondary schools in Gem sub county, Siaya County, Kenya.

- i. Public secondary schools in Gem sub-county, Siaya County, Kenya take co-curricular activities seriously knowing their utility in learners' holistic development. Most of them have in place policy

guidelines that make participation in at least one of the activities mandatory. Main co-curricular activities undertaken are athletics, music and soccer. However, other sporting activities such as rugby and hockey are available albeit to a small scale. Besides indoor activities such as drama and debate are also on offer.

- ii. Participation in athletics is learner driven with most of them hoping to emulate former students in public secondary schools in the County and who have gone on to excel nationally and internationally. Participation in athletics does not in any way interfere with academic performance of students involved and has potential to lead to improved academic performance by stimulating fine and gross motor growth, learner concentration, and cognitive development among others.
- iii. Students proactively participate in soccer activities hoping to emulate former students from public secondary schools who have excelled in the national soccer team. Besides, soccer provides a livelihood for most of the youth and can be very lucrative. Participation in soccer has a positive influence on academic performance and has

potential to stimulate learner concentration in academic disciplines.

- iv. Participation in music is a popular co-curricular activity in public schools in the the sub-county. Schools compete in music festivals right from zonal to national level. Participation in music is voluntary and students engaging in this activity show enthusiasm to excel in several domains of the activity. Once again, participation in music influences academic performance in a positive way and has potential to improve learners' communication skills.
- v. Whereas participation in co-curricular activities influences academic performance in a positive way, it is not the precursor to academic performance. There is no significant difference in mean scores obtained by students who participate in co-curricular activities and those who do not.

References

- Asaba, S. (2015). Implementation of co-curricular activities in primary schools in Uganda. *Journal of social science Research*, 2(3, June 2015)
- Bashir, Z. (2015) The effectiveness of co-curricular activities on academic achievements in secondary school students in district Abbottabad Pakistan - A case study
- Chege, Elizabeth (2018). Implementation of co-curricular activities in schools: A case of Kikuyu: Unpublished thesis, Nairobi: Kenyatta University.
- Hunt, H. D. (2015). The effect of extracurricular activities in the educational process: Influence on academic outcomes. *Sociological Spectrum*, Canberra, Australia.
- Jha, A. K., Rai, P. B., & Joshi, G. P. (2019). Status of Co-Curricular and Extra- Curricular Activities in Primary Schools of Nepal: Problems and Prospects Formative Research Project, CERID: Research Centre for Educational Innovation and Development Balkhu, Kathmandu, Nepal.
- Kashif Rathore, Abdul Qayyum Chaudhry and Muhammad Azad (2018), Relationship between Cocurricular Activities and Exam Performance: Mediating Role of Attendance, *Bulletin of Education and Research* April 2018, Vol. 40, No. 1 pp. 183-196.
- Keriga, L., & Bujra, A. (2019). An Evaluation and Profile of Education in Kenya Social Policy, Development, and Governance in Kenya. Nairobi, Kenya: Development Policy Management Forum (DPMF).
- Consequently, one should not be compelled to participate in co-curricular activities with the imagination of improving performance but rather gain enough physical fitness to stimulate mental growth.
- ## 5.2 Recommendations
- In view of the conclusion made above, the following recommendations are advanced:
1. Schools should create more fields to allow various co-curricular activities take place concurrently according to learners' preference on co-curricular activities available at school.
 2. Co-curricular activities should be embraced in schools if talents are to be fully exploited in learners.
- Liebeskind, J., & Baker, M. (2016). Bellevue high's football success aided by 'diploma mill'. Retrieved from <http://www.seattletimes.com/sports/high-school/bellevue-high-school-football-success-aided-by-diploma-mill/>
- Mason, H.D. (2017). Sense of meaning and academic performance: A brief.
- Massoni, E. (2017). Positive Effects of Extra Curricular Activities on Students. *ESSAI*, 9(1), 27.
- Ogoch, G., & Thinguri, R. (2016). An Evaluation of the Effectiveness of Co-curricular Policy in Developing Talent among the Youth in Secondary Schools in Trans-Mara Kenya. *Journal of Education and Practice*. Report, *Journal of Psychology in Africa*, 27:3, 282-285, DOI: 10.1080/14330237.2017.1321860.
- Robert Freeman (2017), The Relationship between Extracurricular Activities and Academic Achievement, National Louis University Digital Commons@NLU, Dissertations. 245.
- Robert Freeman (2017), The Relationship between Extracurricular Activities and Academic Achievement, National Louis University Digital Commons@NLU, Dissertations. 245.
- Sami, A., Laraib, & Irfan, A. (2020). Academic Achievement of college students based on Co-curricular Activities. *Journal of Management Info*, 7(1), 16-23. <https://doi.org/10.31580/jmi.v7i1.1344>
- Serrano, J.S., Pizarro, A.P., Luis García-González, Domínguez, A.M. & Fernando del Villar Álvarez (2017). Evolution of tactical behavior of soccer players across their development, *International Journal of Performance Analysis in Sport*, 17:6, 885-901, DOI: 10.1080/24748668.2017.1406781

Singh, A. (2017). Effect of Co-Curricular Activities on Academic Achievement of Students. *IRA International Journal of Education and Multidisciplinary Studies* (ISSN 2455-2526).

Singh, A. (2017). Effect of Co-Curricular Activities on Academic Achievement of Students. *IRA International Journal of Education and Multidisciplinary Studies* (ISSN 2455-2526), 6(3), 241-254. doi:<http://dx.doi.org/10.21013/jems.v6.n3.p4>.

Wang, J., & Shiveley, J. (2019). The impact of extracurricular activity on student academic performance. Retrieved May, 5, 2020.

Wasal Khan and Mohammad Iqbal (2014), Role of Co-Curricular Activities in School Effectiveness, *Middle East Journal of Scientific Research* 21 (11): 2169-2176, 2014 ISSN 1990-9233 © IDOSI Publications, 2014 DOI: 10.5829/idosi.mejsr.2014.21.11.21841.