



A study of correlation between participation in co-curricular activities and academic achievement of deaf and hard of hearing students in Rawalpindi District

Muhammad Akhtar

PhD scholar, Department of Education, Alhamd Islamic University, Islamabad
(*chakhtarssc@gmail.com*)

Dr. Qurat Ul Ain

HOD Department of Education, Alhamd Islamic University, Islamabad (*quratul.ain@aiu.edu.pk*)

Abstract

The value of special education is being recognized by nations worldwide. Additionally, they view them as an integral member of society, just like everyone else. The national stream is being replenished by special education schools. The world treats exceptional persons with the same expectations and activities that it does regular people. For special learners, co-curricular activities and other leisure programs are also essential to the development of a healthy body and mind. For better development, our society's deaf special learners do require consistent and specialized attention. This study determines the athletic demands of the disabled community as well as the current sporting options available to them in District Rawalpindi, Punjab. This research used a survey-type methodology that was descriptive in character. Data was gathered using a self-created questionnaire. Deaf and hard-of-hearing pupils in the Rawalpindi area were given a questionnaire to complete in order to gauge their degree of participation in extracurricular activities and learn how they feel about the current facilities. The main findings of the research highlight that Different activities such as cricket, football, badminton, track events, drawing competitions and drama/acting were major co-curricular activities being organized at special education schools. Furthermore most of the facilities such as play grounds, sports gears and trained staff were available to organize co-curricular activities. The students who participated in two to five extracurricular activities were high achievers, while those who participated in six or more activities were low achievers. Deaf and hard of hearing pupils who showed little interest in extracurricular activities were low achievers. Overall, the

Rawalpindi region and Pakistan as a whole need a lot of work because there is a dearth of current provision in many areas.

Key Words: correlation, participation, co-curricular activities, academic achievement, deaf and hard of hearing

INTRODUCTION

One of the main concerns of the education of deaf and hard of hearing children, special educators and parents of special children is the decline in student's academic achievement. Deaf and hard of hearing are the major sub group of children with special needs. They cannot concentrate in their traditional study over a long period of time. So the educationists seriously felt that there should be such recreational activities which may be helpful to promote their concentration level in their studies for better academic achievement (Marsh & Kleitman, S. 2012).

Research is continuously providing new established methods and activities for educators to use for improved teaching learning process. Co-curricular activities are one form of such activities. Co-curricular activities are the activities, which apparently do not form the part of curriculum but without these activities educational curriculum is incomplete and ineffective (Chaube, 2009). These activities are not the part of regular classroom teaching like reading, writing etc but their significance cannot be ignored. These activities have great impact on overall and balanced development of the students. Co-curricular activities have been the part of teaching learning process since the establishment of education system but the same were considered as extra-curricular activities. (Marsh & Kleitman, S. 2012)

Co-curricular and recreational activities are the essential component of teaching learning process. Special periods of such activities for school and college students are recommended by the educationists in education policies (Education Policy 1998 – 2010) These activities have much importance for disabled students due to lack of their physical stamina and low concentration level. When teachers arrange co-curricular activities keeping in view the interest of students and incorporate them in their time table, students become highly motivated which results in improved class attendance and more completed assignments. In addition, students also become actively involved in learning, encouraging comprehension rather than mere memorization of facts (Guest & Schneider 2010)

STATEMENT OF PROBLEM:

This research work was based on "A study of correlation between participation in co-curricular activities and academic achievement deaf and hard of hearing students in Rawalpindi District

OBJECTIVES OF THE STUDY:

The objectives of this study were as under:

- a) Identification of co-curricular activities being arranged in schools for Deaf and hard of hearing children.
- b) To find out the relationship between the participation of co-curricular activities and academic achievement of Deaf and hard of hearing students.

RESEARCH QUESTIONS:

1. What types of co-curricular activities are being arranged in schools for Deaf and hard of hearing students?
2. What is the relationship between co-curricular activities and academic achievement of deaf and hard of hearing students?

REVIEW OF RELATED LITERATURE

Education is concerned with the balanced development of a person. It involves different aspects of student's life i.e acquiring knowledge, skills, attitudes and values. It also involves the development of individual intellectual, emotional, social and physical growth of the children. Co-curricular activities and sports play an important role in the lives of special people. This impact is two way. First it keeps them healthy as researches like Moores and Elis has considered that most deaf children receive their education in public schools (Moores, 2001), so it is reasonable to assume that these children too are at risk of becoming overweight and less physically fit. This assumption has been borne out in a study of deaf students in public school programs, which found that the percentage of deaf boys and deaf girls aged 6–11 years who were classified as overweight or obese was higher than the percentages among the general population in the same age and gender groups (Ellis, 2001a). The second role that is played by the sports is that it keeps learners mentally fit. Another benefit is psychological, as Deaf people have an opportunity not only to be athletes but to be sports directors, event staff, and spectators. This type of participation strengthens their self-identity, enhances their self-esteem, and increases the confidence in maintaining a lifestyle that allows them to be contributing members of their community (Stewart & Kluwin, 2001).

Studies have been made about the impact of Co-curricular activities on academic performance. James Beal (2005) described that the athletes and non-athletes have no difference in their GPA but athletes have shown better overall academic performance. On the other hand Bonni (1981) found no significant difference between the score of students who took part in sports and those

who never participated. US education department conducted a study in this regard and found three times better grade point average (GPA) of participant students as compare to non-participants (Schaben, 2010). Recreational activities are the source of sharing knowledge, cooperation building, and to develop creative thinking in students with special needs (Ashraf, 2009)

Co-curricular activities are the integral part of educational process and considered important due to many reasons. Broh (2002) stated that researchers have found positive associations between co-curricular participation and academic achievement. Darling et al. (2005), compared the students who participated in co-curricular and who did not participate in these activities and commented as, “students who participated in school-based co-curricular activities had higher grades, higher academic aspirations, and better academic attitudes than those who were not involved in extracurricular activities at all. Thompson and Austin (2003) found no significant relationship between co-curricular activities and the academic grades

Mahoney (2003) found a positive relationship between co-curricular activities and inter-personal competencies, high aspiration and better attention level. Hollway (2002) studied effect on motivation and found it positive too. Similarly Bauer and Liang, (2003) showed positive effect on critical thinking, social and personal maturity.

A study by the U. S. Department of Education revealed that students who participate in co-curricular activities are three times more likely to have a grade point average of 3.0 or better” than students who do not participate in co-curricular activities (Stephens & Schaben, 2002). In addition to co-curricular or co-curricular activities, “analyses revealed that regardless of students’ background and prior achievement, various parenting, volunteering, and home learning activities positively influenced student grades” (Simon, 2001). Numerous studies have examined the factors influencing students’ academic achievement, and many activities were found to have a significant influence. 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” (Broh, 2002). Guest and Schneider (2003), in looking at the previous research on this subject said, “Researchers have found positive associations between co-curricular participation and academic achievement”. Although researchers agree that co-curricular activities do, in fact, influence academic performance, the specific effect that various activities produce is debated.

Many co-curricular activities have proven to be beneficial in building and strengthening

academic achievement, even if the activities are not obviously related to academic subjects (Marsh & Kleitman, 2002). Researchers have particularly studied the relationship between co-curricular activities and academic performance in adolescents. One study found that “adolescents who participated in co-curricular activities reported higher grades, more positive attitudes toward school, and higher academic aspirations” (Darling, Caldwell, & Smith, 2005). It is revealed 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 and Schaben, 2002).

RESEARCH METHODOLOGY:

This study was delimited to students of 10th class studding in Public Sector Secondary schools for the hearing impaired students in District Rawalpindi (Punjab) Pakistan session 2024-25. The study was a survey type and descriptive in nature. Population of the study was all 90 Deaf and hard of hearing students studying at secondary level (10th class) in District Rawalpindi during the session 2024-2025. Self-developed Questionnaire was distributed to the targeted group in order to assess their perception about the current available provision of co-curricular activities in special education schools for the deaf. Opinions of students were also taken on a numerical scale about each student’s participation in co-curricular activities. Academic results of the students were obtained from board’s gazette. Data was collected personally by the researcher.

ANALYSIS OF DATA

The data collected through questionnaire and academic results were organized and presented in tabulated form. Percentage of responses was drawn to find out the findings, conclusions and formulation of recommendations. Pearson Correlation was also calculated to find out the relationship of participation in co-curricular activities and academic achievement of deaf and hard of hearing students.

FINDINGS AND DISCUSSION:

Table 1: Gender of students

Total No of Students	Male students	Female Students
90	50 (55.5%)	40 (44.5)

Table 1 show that 56% students with hearing impairment studying at secondary level in special education schools were male students whereas 45% of the students were female.

Table 2: Availability of Co-curricular Activities in Schools

Activity	Responses				Total
	Yes	Percentage	No	Percentage	
Cricket	20	(22%)	70	(78%)	90
Football	30	(33%)	60	(67%)	90
Volley Ball	11	(12%)	79	(88%)	90
Table tennis	10	(11%)	80	(89%)	90
Badminton	63	(70%)	27	(30%)	90
Races	24	(27%)	66	(73%)	90
Drama/Acting	59	(66%)	31	(34%)	90
Drawing	78	(87%)	12	(13%)	90
Grounds	23	(26%)	67	(74%)	90
Trained Staff	77	(86%)	13	(14%)	90

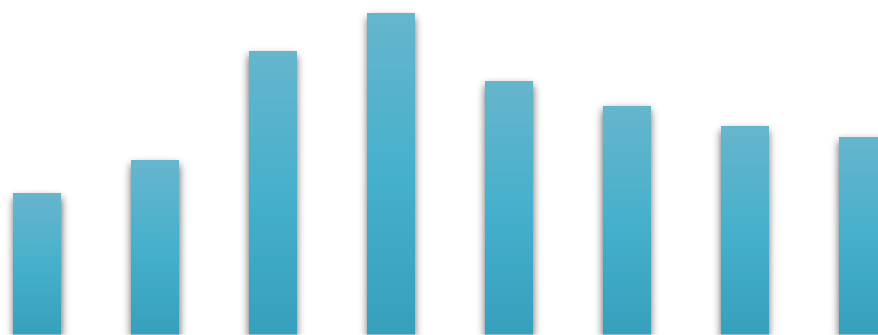
Table 2 highlights the analysis about the availability of co-curricular activity facilities in schools for deaf and hard-of-hearing students in District Rawalpindi:

- **Cricket:** 78% of students reported that cricket facilities were unavailable, while 22% stated they were available.
- **Football:** 67% of respondents confirmed that they were not provided availability of football facilities, whereas 33% indicated these were provided.
- **Volleyball:** A significant 88% of students reported that volleyball facilities were unavailable, with only 12% confirming their availability.
- **Table Tennis:** Similarly, 89% noted the unavailability of table tennis facilities, and only 11% reported their presence.
- **Badminton:** 70% of students agreed that badminton facilities were available, while 30% disagreed.
- **Track Events (Races):** Only 27% of respondents reported that track events were arranged in special education schools whereas 73% opposed this statement.
- **Drama/Acting:** 66% of students indicated that drama or acting opportunities were provided in their schools, whereas 34% disagreed.
- **Drawing Competitions:** A majority (87%) of students stated that drawing competitions were organized, with 13% disagreeing.

- **Grounds Availability:** Only 26% of students reported that school grounds were available, while 74% noted their absence.
- **Physical Education Teachers:** 86% of students described having physical education teachers to organize activities, but 14% reported their non-availability.

Table 3: Average %age of students' academic achievement (Boys) participating in CCA

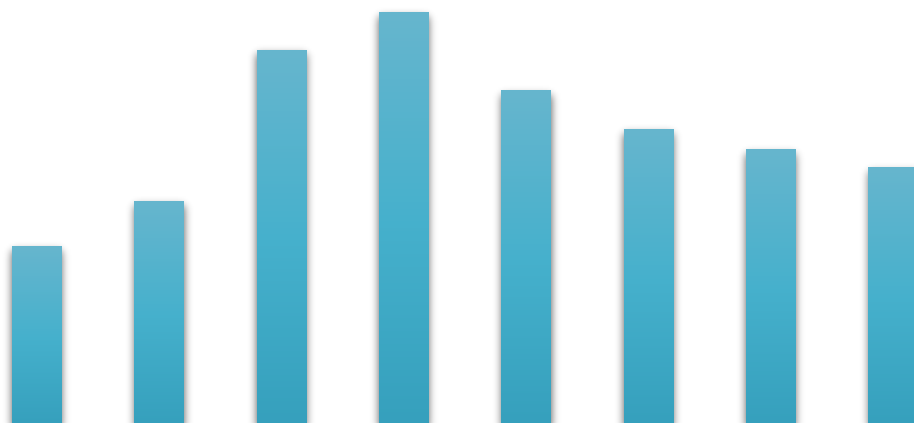
S. No	No of activities Participated	No of students	Average Achievements
1	Non Participants	02	38.06
2	One activity	04	46.92
3	Two activities	07	76.28
4	Three activities	10	86.60
5	Four activities	11	68.43
6	Five activities	06	61.64
7	Six activities	07	56.16
8	Seven activities	03	53.27



The above table and its graph reflect the average achievement of boys' students who participated and those who did not participate in co-curricular activities. The non participants and those who participated in one activity (less participation) showed 38.06% and 46.92% achievement respectively. The students who participated in two and three activities, they achieved 76.28% & 86.60% score. However, as the participation in 4, 5, 6 & 7 activities, the achievements of students decreased gradually to 68.43%, 61.64%, 56.16% and 53.27% respectively

Table 4: Average %age of academic achievements (Girls) participating in CCA

S. No	No of activities Participated	No of students	Average Achievements
1	Non Participants	01	36.82
2	One activity	03	46.14
3	Two activities	04	76.46
4	Three activities	08	85.24
5	Four activities	09	69.09
6	Five activities	06	61.05
7	Six activities	05	56.85
8	Seven activities	04	53.12

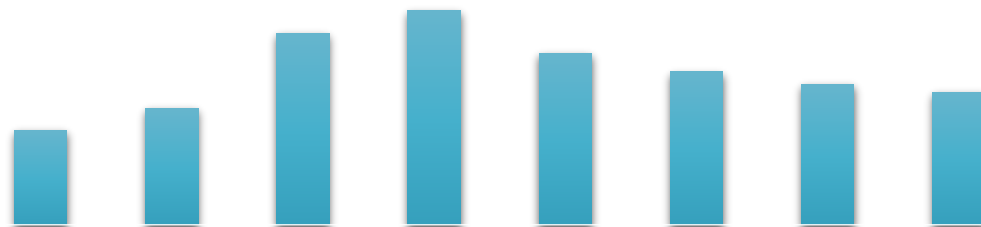


The above table and its graph reflect the average achievement of girls' students who participated and those who did not participate in co-curricular activities. The non participants and those who participated in one activity (less participation) showed 38.82% and 46.14% achievement respectively. The students who participated in two and three activities, they achieved 77.46% & 85.24% score. However, as the participation in 4, 5, 6 & 7 activities, the achievements of students decreased gradually to 69.09%, 61.05%, 56.85% and 53.12% respectively.

Table 5: Average %age of overall students' academic achievement, (Boys & Girls) participating in CCA

S. No	No of activities Participated	No of students	Average Achievements	Correlation
1	Non Participants	03	38.00	
2	One activity	07	46.63	0.733**
3	Two activities	11	76.78	0.902**
4	Three activities	18	86.02	0.845**
5	Four activities	20	68.71	0.830**
6	Five activities	12	61.39	0.694**
7	Six activities	12	56.31	0.243**

8	Seven activities	07	53.18	0.575**
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The table 14 and its graph reflect the average achievement of students who participated and those who did not participate in co-curricular activities. The non participants and those who participated in one activity (less participation) showed 38% and 47.5% achievement respectively. The students who participated in two and three activities, they achieved 76.78% & 86.02 score. However, as the participation in 4, 5, 6 & 7 activities, the achievements of students decreased gradually to 68.71%, 61.39%, 56.31% and 53.18% respectively.

The above table also showed a significant positive correlation between the non participant and those who participated in one, two, three, four, five and six co-curricular activities and academic achievement of the students as 0.733, 0.902, 0.845, 0.830, 0.694, and 0.243 respectively at 0.01 levels. As far participation in seven activities were concerned, positive significant correlation (0.575) was observed at 0.05 level

FINDINGS

- i. Eighty nine percent (78%) students opined that there was Cricket facility available in their schools for children with hearing impairment (Table 2)
- ii. Sixty seven percent (67%) respondents indicated that football facility was not available in special education schools for children with hearing impairment (Table 2)
- iii. Eighty eight percent (88%) participants reported that Volley Ball facility was not available in special schools for hearing impaired students (Table 2)

- iv. Eighty nine percent (89%) of the respondents were of the opinion that table tennis facility was not available in special education schools (Table 2)
- v. Seventy percent (70%) students responded that badminton facility was available in their respective schools for the deaf as a co-curricular activity (Table 2)
- vi. Seventy three percent (73%) students opined that track events (races) was not organized in their special education schools (Table 2)
- vii. Sixty six percent (66%) respondents reported that students have the provision to participate in drama/acting in their respective schools (Table 2)
- viii. Eighty seven percent (87%) students revealed that drawing competitions were available in schools for deaf and hard of hearing (Table 2)
- ix. Seventy four percent (74%) respondents reported that facility of grounds were unavailable in institutes for the deaf and hard of hearing to organize the co-curricular activities (Table 2)
- x. Eighty six percent (86%) students were of the opinion that physical education teacher / instructors were available to organize co-curricular activities (Table 2)
- xi. The non-participant boy students and those who participated in one activity (less participation) showed 38.06% and 46.92% achievement respectively, the students who participated in two and three activities; they achieved 76.28% & 86.60% score. However, as the participation in 4, 5, 6 & 7 activities, the achievements of students decreased gradually to 68.43%, 61.64%, 56.16% and 53.27% respectively (Table 3)
- xii. The average achievement of non participant girl students and those who participated in one activity (less participation) showed 38.82% and 46.14% achievement respectively. The students who participated in two and three activities, they achieved 77.46% & 85.24% score. However, as the participation in 4, 5, 6 & 7 activities, the achievements of girl students decreased gradually to 69.09%, 61.05%, 56.85% and 53.12% respectively (Table 4)
- xiii. The overall average achievement of students (Boys & Girls) who did not participate in co-curricular activities and those who participated in one activity (less participation) showed 38% and 46.63% achievement respectively. The students who participated in two and three activities, they achieved 76.78% & 86.02 score. However, as the participation in 4, 5, 6 & 7 activities, the achievements of students decreased gradually to 68.71%, 61.39%, 56.31% and 53.18% respectively (Table 5)
- xiv. The significant positive correlation was observed between the non participant and those who participated in one, two, three, four, five and six co-curricular activities and academic

achievement of the students as 0.733, 0.902, 0.845, 0.830, 0.694, and 0.243 respectively at 0.01 levels. As far participation in seven activities was concerned, positive significant correlation (0.575) was observed at 0.05 level (Table 6)

CONCLUSIONS

- i. Limited facilities of Badminton, Drawing, drama/ acting and trained staff were available at special education schools for the deaf. But most of the co-curricular activities like cricket, football, Volley ball, table tennis races, and facility of grounds were lacking.
- ii. The overall average achievement of students (Boys & Girls) who did not participate in co-curricular activities and those who participated in one activity (less participation) showed 38% and 46.63% achievement respectively. The students who participated in two and three activities, they achieved 76.78% & 86.02 score. However, as the participation in 4, 5, 6 & 7 activities, the achievements of students decreased gradually to 68.71%, 61.39%, 56.31% and 53.18% respectively
- iii. The significant positive correlation was observed between the non -participant and those who participated in one, two, three, four, five and six co-curricular activities and academic achievement of the students as 0.733, 0.902, 0.845, 0.830, 0.694, and 0.243 respectively at 0.01 levels. As far participation in seven activities was concerned, positive significant correlation (0.575) was observed at 0.05 level
- iv. Those HIC who showed poor interest in co-curricular activities were low achievers and those who participated in (2 to 5 activities) were high achievers whereas, the students whose level of participation was higher (6 and above act), were low achiever.

DISCUSSION:

This study was conducted to explore the correlation between participation in co-curricular activities and academic achievement of deaf and hard of hearing students in District Rawalpindi". The study was a survey type and descriptive in nature. The major objectives of the study were (i) Identification of co-curricular activities available in schools for deaf and hard of hearing (ii) The relationship between participation in co-curricular activities and academic achievement of HIC. The population of the study was public sector Secondary schools of special education for HIC located in the District Rawalpindi Punjab, The sample was 90 hearing impaired students of 10th class of sample schools. Questionnaire was used as tool to collect information about the activities being arranged at secondary level in their schools. Furthermore, results of 10th class students were obtained from BISE Rawalpindi. The data collected were arranged and analyzed by applying

different statistical techniques. Pearson Correlation was used to find out the relationship between participation in CCA and academic achievements. The major findings of the study showed that cricket, football, badminton, races, drawing and drama were major co-curricular activities being organized in special education schools for the deaf. Hearing Impaired Students who did not participate in co-curricular activities, were low achievers and those who participated in (1 to 3) activities, their academic achievement gradually increased, whereas, the students, who participated in 4 to 7 activities (high level of participation), their academic achievement decreased gradually.

RECOMMENDATIONS:

On the basis of conclusion following recommendations were made:

1. Co-curricular activities may be planned and organized in special education institutes on regular basis
2. Play grounds, sports gears, and necessary funds may be provided to special educational institutes for the organization of co-curricular activities.
3. Students may be encouraged to maintain a balance between their studies and participation co-curricular activities of their own choice.
4. Students, who did not participate in co-curricular activities, may be motivated to participate in such activities.

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