CHAPTER 3

METHODOLOGY

The idea of this research came from the experiences of the researcher while working in the special schools. The role played by the special schools in the life of children with hearing impairment is phenomenal. While language becomes a barrier to form new friendships in the community, special schools offer them the environment conducive to form social relationships. Within the school environment, co-curricular activities are participated offered for reasons more than the grades or fulfillment of the curriculum requirements. This research was an effort to understand these reasons, the perceived benefits as well as risks of school recreation or co-curricular activities and to study it within the broad framework of school curriculum and child development.

The perceptions of benefits and risks or negative effects related to school recreation of all the children – those who are very active in terms of participating and winning competitions as well as those who are not – were explored as the study was based on the rights approach. Recreation is a right of all children, irrespective on their winning capacities or excellence in a particular activity. This was also essential to locate school recreation in the curriculum and operational framework of the school which is uniform for all children.

The chapter has been arranged in 12 subsections:

- Statement of the problem
- Rationale for the study
- Aims of the study
- Objectives of the study
- Research questions
- Sampling
- Research design
- Operational definitions
- Tools of data collection
- Data collection
- Data analysis and
Ethical issues

The study gathered information from two main stakeholder groups in a school – students and school personnel (Principal, teachers and students). Though the study did not aim at the comparative analysis of the perceptions of these two groups, certain differences emerged from the data.

Statement of the problem:

An exploration into the:

- perceived benefits of school recreation for the physical, social, emotional and cognitive development of children in the middle childhood studying in the special schools for the children with hearing impairment in Mumbai and
- the process of development of a school co-curricular programme; as well as

Assessing the relationship between:

- participation in the school recreation or co-curricular activities and school engagement of the children.

Rationale for study:

There is good evidence that access to recreation is important for children’s development. The social model suggests that more than the individual impairment, what needs to be focused is the social and environmental barriers that children with disability have to face. Children with disability have a right to development which means they need to have access to all those facilities, in a socially facilitative environment, that enhance their learning, give them stimulation and expand their horizons.

Research has shown that participation in recreation accords children an opportunity to exercise their right to be a part of community life, learn new and improve existing skills, develop friendships, and express self-determined behavior. Some of the studies have also indicated that co-curricular activities to be one of the reasons many students stay in school or find personal meaning for their middle level and high school years. It was thought worthwhile to see whether the same benefits hold true for children with hearing impairment in special schools in Indian urban context. Along with benefits, it was also important to
collect information on the perceived risks and negative effects of school recreation on the students with hearing impairment, also seen from the viewpoint of the developmental tasks and challenges faced by the children in the middle childhood stage.

Co-curricular pursuits are integral to the educational program and - whether or not they carry academic credit - have legitimate links to regular courses and to the purposes of middle level and high schools. They underpin the goal of teaching students to be responsible and fulfilled human beings with opportunities that develop character, critical thinking, social skills, and talents. This study was proposed to understand whether the students perceive their school recreation and co-curricular activities to fulfill this goal.

There have been previous studies in mainstream schools on the school engagement of students and a few of them had looked at the association between co-curricular activities and a sense of engagement, belongingness with the school. However, there are not as many studies conducted with the same objective with special schools and even less in Indian context. This study purported to look into whether co-curricular activities and school recreation contribute to the school engagement of these students, as per their perception.

Does the sole presence of co-curricular and recreation activities suffice to ensure benefits for the development of the students? Or there need to be a certain framework and principles underlying the development and planning of such a programme? Are there any barriers faced by the special schools in developing such a programme? The present study sought answers to such questions to get a holistic picture of not only the what but how of curriculum development of a school recreation programme.

There has not been as much discussion on special education reforms as there has been on education per se (Lytle & Rovins, 1997). There is also a need to listen to students’ perspectives and what they have to say on what happens or what needs to happen at school (Anzul et. al. 2001). Thus, it was seen worthwhile to collate information on the way school recreation is understood and planned in the special schools and what do the students feel about it.

From the school’s point of view, how it is located within the broad philosophical and curricular framework and from the students’ point of view, how it benefits or does not is a question answering which would help make the special education more focused and student centered. This study was relevant in Indian context, especially in Mumbai where recreational facilities are very limited for children due to
space constraints. It was anticipated that such a study would help to re-look at the existing scenario and identify intervention needs in this field.

Aim

The broad aim of this study was to obtain information from the students with hearing impairment in middle childhood years and school personnel on the perceived benefits of the school recreation for their development and their level of engagement with the school and to identify the curriculum components related to the organised recreation in the special schools for children with hearing impairment.

Objectives

The following were the specific objectives of the study:

1. To describe and classify the benefits and negative effects of the school recreation programme perceived by students as well as school personnel for the development of students with hearing impairment.
2. To examine the association between the school recreation and student engagement with the school.
3. To identify the curriculum components related to the organised recreation programme in special schools for the children with hearing impairment in Mumbai.

Research questions

Q1. What are the different school recreational activities organised by the special schools for children with hearing impairment?

Q2. What are perceived benefits of the school recreation programme on the following domains of development of children –

- Physical fitness and health,
- Emotional wellbeing and mental health,
- Social including communication and leadership, and
- Cognitive abilities
Q. 3. What are the risks or negative effects of the school recreation programme perceived by the school personnel and students?

Q. 4. Is the curriculum for the school recreation programme developed and reviewed? If yes, then, how?

Q. 5. According to the student perceptions, does school recreation facilitate school engagement in terms of attendance, extra efforts in studies and a feeling of belongingness?

Q. 6. What are the challenges and barriers faced while planning and implementing the school recreation or co-curricular programme?

The figure 3.1 shows the conceptual framework of the present study:

Figure 3.1: School Recreation and Child Development: Conceptual Framework.
Research Design

Descriptive quantitative research design was used in the present study. Descriptive research design is used to obtain information concerning the current status of the phenomenon to describe ‘what exists’ with respect to variables or conditions in a situation. Descriptive research is useful to gain a holistic understanding of a phenomenon as it exists in a particular context. As there have not been many studies in India that looked at school recreation within the frameworks of child development, school curriculum, school engagement, this methodology was deemed fit for the present study. Descriptive data regarding the school recreation programme as it exists in special schools and the benefits and negative effects of the same as perceived by the students with hearing impairment was collected and analysed in the present study.

The study was located in the special schools for children with hearing impairment in Mumbai. Initially, middle childhood – age group from years 8 to 12 was taken – was taken as an aspect of sampling frame. However, the upper limit of the age criteria was raised to 14 years with the realization that most of the children with hearing impairment start schooling later than their hearing peers. Some of the students interviewed had started schooling at the age of 8 years or above. This delays their exposure to the learning environment, socialization and recreational opportunities at the school. As the age of school admission was not common for all the students, instead of classes or standards in the school, age of the students was maintained as criteria for sample selection.

Along with students, interviews were also conducted with the school personnel which include the Principal, teachers involved in the school recreation or co-curricular activities and social workers and/or counsellors.

Operational definitions

1. Student: For the present study, student meant child with hearing impairment in the age group 8 years to 14 years, or middle childhood, studying in a special school for children with hearing impairment.

2. A Student with Hearing Impairment: A student who –
   - cannot hear at all, or
   - cannot hear without hearing aid (Hard of hearing).
3. School Recreation: The concept of school recreation encompassed, for the present study, both – co-curricular as well as extra-curricular activities in addition to school events such as Independence Day celebration and Annual Gathering. Co-curricular subjects mainly included drawing, physical education (PT), art and craft, and embroidery or needle work. Extra-curricular activities included variety of literary, civic, sports and cultural activities and competitions organised intro or inter schools. In all the schools that participated in the study, co-curricular subjects were compulsory and graded; whereas participation in extra-curricular activities was voluntary.

4. Organised recreation: Organised recreation is recreation that is organised by an organisation with specific purposes. School recreation is an organised recreation.

5. Development: Development, for the present study, referred to the physical, cognitive, social and emotional development of students aged 8 to 14 years of age.

6. Perceived Benefits: For the present study, perceived benefits referred to the expressed recognition and appreciation of the positive effects of school recreation for the development of the students with hearing impairment.

7. Perceived Risks or Negative Effects: For the present study, perceived risks or negative effects referred to the expressed recognition of the outcomes of school recreation that are perceived potentially or actually harmful to the development of the students with hearing impairment.

8. Curriculum: For the present study, curriculum was taken as an authoritative prescription for the teaching-learning content and process of conducting an education programme or an aspect of it (like co-curricular subjects). It included –
   i. specific courses selected for different standards or classes,
   ii. prescription of the content to be covered for different classes or standards,
   iii. prescription of the sequences of courses, and
   iv. recommended or prescribed methods of teaching.

9. Social bonding: Social bonding, for this study, is the process through which relationships are formed within one’s immediate social milieu (taken from Wilkens and Hehir, 2008).

10. Social bridging: Social bridging, for this study, is the process through which relationships are formed outside one’s immediate social milieu (taken from Wilkens and Hehir, 2008).
11. School Engagement: For the present study, the concept of school engagement included the following –

- a feeling of belongingness towards their school expressed by the students;
- the number of days students were absent during a month as well as before and after a school recreational event;
- expressed liking of the school;
- willingness to put in extra efforts in school work after school hours.

**Sampling**

The study was conducted in the special schools in Mumbai. The inclusion criteria for the schools were:

- the special schools which have classes from pre-primary level to standard X.
- the special schools which organise sessions on art, craft, physical education as a part of the daily time-table and at least two other non-academic activities during the year.
- the special schools which catered only to the students with hearing impairment (schools for children with multiple disabilities were not included in the sample.)

The medium of instruction in the school was not included as a inclusion criterion for the special school. In Mumbai, the specials schools offer education either in Marathi, Hindi or English or a combination of two, or all three mediums. Out of the twelve schools which fulfilled the above criteria, seven schools gave permission for participating in the research. Time constraints, other pre-planned programmes of the school and timetable limitations was the reasons given for inability to participate in research by the other schools.

The students in the age-group of 8 – 14 years were selected in the sample, irrespective of the class they were studying in the school.

Middle childhood as an inclusive criterion for the sample was chosen for the following two reasons in the present study:

- Firstly, it is in the middle childhood that the child’s egocentrism diminishes and self-concept develops whereas in the early childhood the child is egocentric and has many ‘illogical’ ideas about the world. Also, during this period, there is an emphasis on social interactions as well as learning from the external stimulation (Papalia and Olds, 1992). Thus, providing opportunities for social interaction and showcase talent assumes significance during this stage. School recreation
programme is assumed to have the potential to provide such opportunities. Thus, this research linked the salient features of this developmental stage to the opportunities present (or absent) in one of the main socialising agencies in the external environment - school.

- Secondly, as per the maturational theory, at this age, the student is capable of mastering body management as well as complex motor skills and can perform challenging tasks. As per the social cognitive theories, children show the beginning of rational activity at the age of 8 years. They are able to do concrete logical operations as well as comprehend abstractions. There is also an increased need for social interactions. Therefore, it is at this age, the activities in the school that enhance or pose a threat to any of these aspects of development assumed significance for the research.

All the students within the age group of 8 years to 14 years in the selected special schools in Mumbai were included in the sample, except the students who were absent for an entire period of data collection in the school or who were unavailable during data collection due to their other prior commitments (such as being out of station to participate in an inter-school event).

Data was collected from all the teachers who taught the non-academic subjects like art, craft, physical education as well as those who were involved in planning and organising school recreation activities. Individual interviews were conducted with the school principals.

*Sample size*

*Geographical Area of the Study:* Mumbai (excluding special schools on the central line of local railway)

*Sample Universe:* Children with hearing impairment in middle childhood in special schools in Mumbai

*Size of sample:*

- Schools – 7
- Students – 244
- School Principals – 7
- Teachers involved in teaching or organising co-curricular activities – 29
- Social Workers and Counsellors – 5 (One social worker looked after the needs of four selected special schools and one special school had both – a social worker and a counsellor)
**Tools for data collection**

Varied data collection tools were used. Semi-structured interview schedules for the school personnel and questionnaires for the students were developed. The interview schedules were pilot tested. To assess the content validity of the data collection tools designed for this study, professionals from the area of special education, child development and curriculum development were approached for review. Their suggestions were incorporated while finalising the data collection tools.

Pictures were added in the questionnaires for the students with hearing impairment as during the pilot testing of the tool it was found that some of the words were difficult to comprehend for the students.

Students who are deaf or hard of hearing use many communication approaches, and these have implications for both - classroom instruction as well as their research participation. The teachers in all the seven schools included in the study had used pictures while teaching and pictures as an additional tool to understand words is not a new experience for these children. Gallaudet Research Institute (1996) also proposes accommodations in the testing situations by including sign interpretation, visual cues, seat location and amplification. This, according to them, takes into consideration the student diversity and increases accessibility of tests for the students with hearing impairment.

Inclusion of pictures has a risk of increased acquiescence (tendency to respond affirmatively to questions regardless of their content) of the respondents. To minimise this risk, following measures were undertaken:

1. Literature in child development theories, recreation, recreation for the persons with disability, special education, curriculum development, school engagement and children with hearing impairment was reviewed and taken as a basis while generating responses for each of the question.

2. Feedback was obtained on the questionnaire after inclusion of pictures from three teachers of co-curricular subjects, one of which was with hearing impairment and two students with hearing impairment. Their feedback confirmed the validity and appropriateness of pictures in the tool.

3. For all the questions where it was possible, students were given an option of ‘any other’ and this was pointed out by the researcher during data collection. The students were given both the options – either writing or drawing the answer. Similarly, the researcher also emphasised the choice respondents have of not choosing any of the options given or giving a response not included in the questionnaire.
4. The researcher explained the questionnaire first before giving it to the students to fill. The assistance of teachers was also taken wherever needed, to explain a word or question in the questionnaire. The doubts regarding the questions were clarified and then the students answered the questionnaires. For minimizing the effect of the teacher’s presence during data collection, the researcher herself collected the questionnaires after students filled them. The answered questionnaires were not disclosed to the teachers.

5. Internal consistency was assessed by obtaining co-relations between different items of the same questionnaire which were in the form of a Likert scale. This gave an excellent (a = .94) internal consistency score.

6. Test-Retest reliability (the Pearson Product Moment Correlation) was assessed for the questionnaire with the sample of 20 students with hearing impairment. The total number of ‘yes’ responses were calculated. In addition, the responses that were in favour of school recreation were also calculated as ‘yes’. The total number of ‘no’ responses as well as the total number of negatives were calculated as another score. Re-test was taken after a gap of two weeks and the summation of the scores on both the above categories were examined to assess the reliability of the data collection tool. The Pearson correlation obtained on both the scores was .995; significant at the 0.01 level.

7. The researcher confirmed from the students that she had understood the responses correctly, especially in case of additional descriptive data that the students gave. These responses were also matched with the responses given in the questionnaire to detect inconsistency, if any. In case of inconsistency, the student was approached for explanation (Like when the students said that they did not do the homework regularly but engage in extra studies).

In addition, a group interview guide was developed to take group interviews of the students. These group interviews were conducted to elicit descriptive information regarding experiences related to school recreation and aspects of their school engagement vis-à-vis school recreation.

A semi-structured interview schedule was developed to interview the teachers that taught or contributed to school recreation, including co-curricular subjects. School Principals and social workers were also interviewed with the help of a semi-structure interview schedule.

Some of the questions were common to the school personnel and students to gauge the differences and similarities in areas such perceived benefits and negative effects of these activities and the important considerations while planning and evaluating the school recreation programme.
The interview schedules had both types of questions – open-ended and close-ended. The tools incorporated questions related to three major domains:

- co-curricular or school recreation activities,
- curriculum development and planning of these activities and
- school engagement of the students.

**Data Collection**

The data collection in the study proceeded in three phases:

a. An exploratory phase which involved literature review as well as visiting the special schools in Mumbai to gain an understanding about the major co-curricular subjects and extra-curricular activities held in this school. This was essential to maintain minimum possibility of extraneous variables such as differences in the accessibility to recreational facilities that can provide alternative explanations or influence perceived benefits or negative effects of school recreation. Though this can be a topic of research, it was outside the scope of present research. In the first phase, thus those schools were identified who offered similar amount of school recreation to its students. The first two pages of the interview schedule of the school Principal was filled during this phase.

b. Data collection phase wherein primary data was collected from students and school personnel of the selected schools. This took a lot of time as data collection schedule had to be adjusted or temporarily put on hold during the exam time and during vacations.

c. Confirmatory phase in which the data collected from the students were re-checked with the students in cases of doubt or seemingly contradictory responses.

**Data analysis**

Descriptive analysis was done of the data collected. SPSS will be used for data tabulation and computation process. Descriptive statistics such as measurement of data frequencies, measures of central tendencies were used to develop certain indices from the raw data.

Measures of relationships and Correlation analysis was used to study the joint variation of variables and determining the association between two variables.
Limitations of the study

The following were listed as limitations of the study:-

The study was limited to the special schools in Mumbai. The schools which have integrated children with hearing impairment were not included in the sample. Place and role of school recreation in such inclusive education is a topic that includes additional components of research and therefore, fell outside the scope of present research.

The study did not include the students who had multiple disabilities like deaf-blind students. The presence of multiple disabilities poses additional challenges to a child with hearing impairment in a society such as ours, to participate in recreation. The special schools that participated in the study also did not cater to children with multiple disabilities. This is not to undermine the importance of recreation and education for children with multiple disabilities, in fact, it is just the opposite. There is a need for research focused on the issues faced by children with multiple disabilities; the scope of such research is such that the present study would not have done justice to it.

Parents of the students with hearing impairment were not included in the sample. Parents are found to play very important role in all spheres of life – education, physical and mental health, social relationships and recreation. The main reason parents were not involved in the present research was that the main focus was on school – as a context of recreation, as a resource for recreation and as a agency which organises it and on children – as the consumers of the services offered by the school, including recreation. Further research with parents as participants is strongly recommended.

Ethical Issues:

The interviews with the respondents were undertaken after introducing and explaining the purpose of the study to them. The researcher took the written informed consent of the school personnel. Students were also informed about the study before starting data collection and their oral consent was also taken.

A request letter was drafted in Hindi to obtain written consent of the parents / guardians of the students. This letter was given to them after explaining the purpose of the same. The researcher reiterated that the student can also communicate their unwillingness to participate in the study at home to their parents (to ensure that they were not giving consent under any pressure in the school) and this refusal to participate can be communicated to the researcher on the request letter given. This request letter was given to the students 3-4 days before the commencement of the data collection to ensure enough time for
communication between the researcher and the parents of the students. The students were also told that they could withdraw from the study at any point of time.

The respondents were assured about the confidentiality of their information. Though data collection was done at the school, measures were taken to ensure that students do not respond under any pressure or their responses were not affected by the presence of the school personnel. Though the assistance of the teachers was taken to explain a word or question not understood by the students before they start writing their responses on the questionnaires; the teachers were not shown any of the responses written by the students on the questionnaire. This was also communicated to them before they started writing the responses. In all the schools, all, except one, teachers left the room after the explanation of the questionnaire. The researcher collected the questionnaires after the students filled them.

Group interviews were conducted by the researcher and during the interviews, the school personnel were not present. Before the group interviews, it was communicated to the students that they were not compelled to answer any question which they did not want to respond to. The researcher also ensured to the respondents that the data will be used only for the academic purpose and confidentiality will be maintained of the identification data.

The researcher experienced the disability of not knowing sign language initially during the data collection. However, the researcher soon learnt to communicate with the students with the help of certain strategies and signs taught by both teachers and the students. The enthusiasm of the students to communicate with the researcher and the able and willing assistance of the teachers in the schools also ensured that this disability of the researcher was not turned into a handicap.

The researcher respected the responses of the research participants and ensured that she has understood the responses by re-checking the same with the students. Conscious measures were undertaken to ensure that the researcher’s personal views and biases do not influence the interpretation or analysis of the responses.

The study collated information related to the benefits as well as negative effects perceived by the students and school personnel regarding the school recreation programme. It also studied the curriculum development aspect of the school recreation (including co-curricular) programme and whether and how it is evaluated in the special schools. It also looked at the relationship between school recreation and school engagement.
A model was developed based on this analysis regarding the student school recreation participation that would enhance the understanding of school recreation within the broad frameworks of disability, child development and curriculum development.