

CHAPTER-I

INTRODUCTION

1.1 Background of the Study

Facilities management is an integral part of the overall management of the school. The actualization of the goals and objectives of education require the provision, maximum utilization and appropriate management of the facilities. Furthermore, advances in science and technology, necessitate that the school manager should adopt modern methods of facilities management. This will improve the quality of teaching and learning.

A direct relationship exists between the quality of school facilities provided and the quality of the products of the school. The physical environment of a school is a major determining factor in the attainment of its objectives. It is recommended that school managers should carry out comprehensive assessment of the facilities to determine areas of need.

The primary purpose of the teaching and learning process is to bring about in the learner desirable change in behaviour through critical thinking. This process does not take place in a vacuum but rather in an environment structured to facilitate learning. Stoner, Freeman and Gilbert (1996) described the environment of an organization as all elements relevant to its operation and they include direct and indirect action elements. School facilities, constitute the major components of both direct and indirect action elements in the environment of learning. Several studies have shown that a close relationship exists between the physical environment and the academic performance of students.

The school facilities consist of all types of buildings for academic and non-academic activities, equipment for academic and non-academic activities, areas for sports and games, landscape, farms and gardens including trees, roads and paths. Others include furniture and toilet facilities, lighting, acoustics, storage

facilities and parking lot, security, transportation, ICT, cleaning materials, food services, and special facilities for the physically challenged persons.

These facilities play pivotal role in the actualization of the educational goals and objectives by satisfying the physical and emotional needs of the staff and students. The educational system has undergone tremendous changes in the form of its philosophy, broadened goals and objectives, new approaches to service delivery and architectural design, quantum leap in school enrolment, multiplicity of curricula programmes and extra-curricular activities, introduction of Information and Communication Technology (ICT) and expanded academic support services such as guidance services to students, teachers and the community, integration of the school and community. The resultant effect of all these changes is the need for creative and innovative steps in the management of school facilities. For example, research findings have shown that students learn better when a combination of methods and materials are employed during teaching. Furthermore, emphasis has shifted towards giving individual attention to students as against teaching large classes which presupposes that all students in a class have the ability to learn at the same pace. The implication of the foregoing is that in designing school plant, provision should be made for individual and small group interaction and for large groups for academic and social activities.

Need for Facilities in Schools:

Facilities are materials designed to serve specific purposes. In the school system, there are multiplicity of facilities, which facilitate teaching and learning. They are used;

- (1) To illustrate concepts
- (2) Provide opportunity for firsthand experience
- (3) For experimentation and demonstration
- (4) For scientific investigation and discovery

- (5) To provide diversity of thoughts
- (6) For observation and inquiry
- (7) For development of scientific attitudes and skills
- (8) To protect the individual and also provide comfort

The indirect or teaching support facilities such as offices, cafeteria, acoustics, toilets, laundry, mowers, residential halls, common rooms, cleaning materials ground and similar items satisfy the individual's physical and emotional needs.

1.2 Statement of the Problem

Learning is a complex activity that supremely tests students' motivation and physical condition. Teaching resources, teachers' skill, and curriculum -- these all play a vital role in a child's education. But what about the physical condition and design of the actual school facility itself? How do they shape a child's learning experience?

Today's busy parents may never know. With most of them working, parents generally find little time to experience, much less evaluate, the physical condition of their child's school. When they do visit discussions will mostly focus on their child's learning, achievement, and progress, not on school maintenance or design issues. There are few opportunities for parents to observe a classroom or school during the school day. But it is just during this time that a significant number of students and teachers struggle with such things as noise, glare, mildew, lack of fresh air, and hot or cold temperatures.

News about these environmental nuisances is beginning to appear more and more in the media. And research is uncovering growing evidence showing that conditions like these and many other aspects of school facilities have a huge and often negative impact on children's educations.

Several individuals occupying managerial positions in schools lack knowledge of management processes and some who possess the knowledge fail to put them into practical use in the management of the schools.

Schools facilities management requires intermixture of experts in different areas as stated earlier. This demands that the school manager should possess the necessary human relations skills to assemble and utilize the relevant individuals within and outside the school for efficient facilities management.

School Facilities Can Breed Trouble There are adverse yet solvable environmental conditions in many school facilities today that are particularly troublesome because of their very real and negative impact on learning. That's why the researcher has intended to find out the management of physical infrastructures in child care centers of Chitwan district as a partial fulfillment of the requirements for master's degree in education planning and management.

1.3 Significance of the Study

This study will be focused on the physical facilities and their management in Montessori schools of Chitwan district. The findings of this research will be quite interesting and will cover some importance in teaching learning scenario of Nepal in case of Montessori schools. The major significances of this study can be pointed out as below:-

1. It will be much more beneficial for the Montessori schools to know clearly about the infrastructures they are providing is compatible to education provided by them or not.
2. It will be important for the education planners, researchers as well as guardians to know the scenario of Montessori schools in Nepal.

3. It will be helpful in providing eyesight for the government and national planners to know about the base infrastructures in education the country is having.
4. It will provide an actual data on the management of infrastructure in those selected schools and provide a framework for the researchers and international donors who are interested in education sectors of Nepal.

1.4 Objectives of the Study

Basically, this study has an objective to explore the management of physical facilities in Montessori schools of Chitwan where the specific objectives are as below:

1. To find out the existing physical facilities and equipments in schools.
2. To explore the awareness of parents on physical infrastructures in their children's school.
3. To examine the use of proper tools in teaching learning activity.

1.5 Research Questions

The research will be focused on the following research questions:

1. Why are physical facilities necessary in schools?
2. What is the role of management in improving physical facilities?
3. What is the role of physical facilities in children's learning?
4. What can school management do in proper management of the infrastructures?
5. What is the role of parents to examine the physical facilities of the child care center?
6. What types of physical tools are fitted for the children?

1.6 Limitations of the Study

As the main reason of this study is to fulfill the partial requirement for completion of master's degree in Education Planning and Management under Tribhuwan University, it has certain limitations and drawbacks. The researcher must need to limit the area of the study it would cover. The research will be based on the 10 Montessori schools around Chitwan. Due to the constraints of budget as well as time frame for the study, the study will be limited on the following major headlines:

1. The study will be conducted on the Montessori schools of Chitwan district.
2. Only 10 schools will be selected for the study located within the district.
3. The tools for the study will be developed self by the researcher so it won't be validated internationally.
4. The study will represent the schools of Chitwan district; it may not be feasible in comparing to the whole schools of the nation.
5. The necessary data for the study will be collected directly from the 10 administrators, 10 teachers and 30 guardians.

CHAPTER-II

REVIEW OF THE RELATED LITERATURES AND THEORETICAL FRAMEWORK

Review of the literature plays a crucial role in organizing any study. It is much more beneficial to ensure a thorough understanding of the topic that the researcher is trying to access on. It is a text of scholarly papers which includes the current knowledge including substantive findings as well as theoretical and methodological contributions to a particular topic. To identify similar tasks done within the area and identifying knowledge gaps that demand further investigation, critique on the existing findings as well as to suggest further studies, the review of the literatures in this study are included in this section.

2.1 Review of Theoretical Literature

The renowned Swiss architect, Le Corbusier (1923), said a house is a machine for living in. Baths, sun, hot-water, cold-water, warmth at will, conservation of food, hygiene, beauty in the sense of good proportion. Dwelling units should be a 'machine for living'. Educational buildings as well as the sites that surround them and the furniture inside, are 'machines for learning' specially designed to accommodate their specific functions including receiving lectures, discussions, discovery and individual learning.

The school plant is a major component of the school facility. Knezevich (1975, p.563) emphasized that the physical needs are met through provision of safe structure, adequate sanitary facilities, a balanced visual environment, appropriate thermal environment, and sufficient shelter space for his work and play. His emotional needs are met by creating pleasant surrounding, a friendly atmosphere, and an inspiring environment. The educational system has undergone tremendous changes in the form of its philosophy, broadened goals and objectives, new approaches to service delivery and architectural design, quantum leap in school enrolment, multiplicity of curricula programmes and

extra-curricula activities, introduction of Information and Communication Technology (ICT) and expanded academic support services such as guidance services to students, teachers and the community, integration of the school and community.

Govinda and Varghese (1993) said that, just as we need shelter to protect domestic activities from the elements and to provide security, so must we provide shelter to education. Ghandi had the good fortune to lead to independence a country with vast regions of warm climates where much of domestic life takes place out-of-doors and where, for part of the year, learning could be attempted out-of-doors also. However, while outdoor learning may have been a viable emergency expedient in India when it was a newly emerging country, recent research in that country and elsewhere indicates that the 'no building' solution is unsatisfactory for an emerging industrial and political power, particularly where more and more schools are located in noisy urban neighborhoods. It is now known that many Indian schools without their own building (and which hold classes under the trees or in space borrowed from other schools or from other users) tend to have poor attendance and those who do attend are inclined to have a poor academic performance.

According to John Baynon (1997) the location of schools is a reflection of population, location and is an expression of the political will of government to provide basic services to a community. Physical planners need to foresee land requirements. School ground, buildings and furniture provide the physical environment for learning. Do they improve the motivation for pupils and students to learn and facilitate the work of teacher? These questions need to be addressed by educators when they participate in planning new education facilities. Is a school getting the highest possible effectiveness out of its physical facilities? This is an issue addressed daily by school administrators in planning school activities.

Mutlaq (2002) mentioned that there are other possible factors that influence student achievement and behavior. The building condition might influence the attitudes of parents and faculty and, in turn, might influence the student attitudes. The influence of building condition on students' attitudes might have an impact subsequently on student achievement and behavior. The focus of this study, however, will be limited to an examination of the influence of the condition of the school building upon the academic achievement of students.

Brooks and Atkin (2003) outlined the stages in facilities management as follows:

Analysis stage- assembles all relevant facts about the organizations objectives, needs, and policies, a review of resources processes, systems and the physical assets themselves, together with their attributes in terms of space, functions and utilization

Solution stage- assembles criteria for judging options, evaluating these against the objectives of the organization and develops the facility management strategy

Implementation stage- completes the strategy development process through the establishment of an implementable plan that incorporates the key elements of procurement, training and importantly communication.

The International Facilities Management Association (2009) described facilities management as the practice of co-ordination of the physical workplace with the people and the work of the organization; it integrates the principles of business administration, architecture and the behavioral and engineering sciences. School facilities management is the application of scientific methods in the planning, organizing, decision-making, co-ordination and controlling of the physical environment of learning for the actualization of the educational goals and objectives. This involves among other things,

collective decision making in relation to selection of site for establishment of new schools, design and construction of new school plants including grounds, renovation and modernization of old plants, provision of equipment for academic and non-academic activities, maintenance of all facilities and review of management practices and processes.

The overall conclusion, and which is being reinforced as new research results come in, is that while school buildings and furniture do not teach (parents, teachers, textbooks and supplementary learning materials do) soundly built, well-maintained and adequately furnished and equipped buildings have a profoundly positive effect on both participation and achievement rates.

Country profile prepared for the Education for All global monitoring report of Philippines 2007 says that the Early Childhood Care and Development (ECCD) Law which was enacted in 2000, recognizes the importance of early childhood and its special needs, affirms parents as primary caregivers and the child's first teachers, and establishes parent effectiveness, seminars and nutrition counseling for pregnant and lactating mothers. The Law requires the establishment of a National Coordinating Council for the Welfare of Children which: (a) establishes guidelines, standards, and culturally relevant practices for ECCD programs; (b) develops a national system for the recruitment, training, and accrediting of caregivers; (c) monitors the delivery of ECCD services and the impact on beneficiaries; (d) provides additional resources to poor and disadvantaged communities in order to increase the supply of ECCD programs; and (e) encourages the development of private sector initiatives.

In Facilities Management in Multi campus Setting Edoghogho Ogbeifun (2011) cited that the size of an organization and nature of operation determines the organizational structure of a facility management unit. In practice, executing the functions of development, operation and maintenance by different organs of Facilities Management is a common feature in many higher educational

institutions. However, in order to enable the Facilities Management Unit to align its operation effectively to achieve the objectives of the institution, the unit should be recognized and incorporated into the strategic management umbrella of the institution and all functions of Facilities Management should be executed and coordinated under one organ (Gabriel, 2004; Jensen, 2008).

As a guide to setting up a child care centre(2014) mentions that the considerable factors when selecting the premises are :

(a) the child care centre should be located on the ground floor of the building, unless otherwise approved by the Director of Social Welfare. Written approval from ECDA has to be sought prior to the setting up of the centre should it not be located on the ground floor of the building;

(b) the structure and layout of the building should be such that it does not pose difficulties in the supervision of children or danger to children;

(c) if private residential premises are used, the building must be a detached or a pair of semi-detached houses preferably with access to playground facilities; please refer to URA's website for its detailed guidelines at <http://www.ura.gov.sg/dc/dcu/childcare.html>

(d) if the child care centre is to be sited on rented premises, the lease should be of a sufficiently long period (at least 3 years with an option to renew). To avoid potential problems with landlords, you are advised to obtain the support and approval of the landlord for the use of the premises as a child care centre;

(e) the location should be accessible to the community it serves, have adequate parking facilities and be away from petrol stations, main roads and other traffic hazards; and

(f) you may need to assess the demand for child care and the types of services. Some ways to assess demand are to:

(i) survey the availability of other child care and related facilities near the proposed premises, e.g. the number of facilities, the capacities and enrolment, etc;

(ii) check with parents in the neighborhood on their needs, such as ages of children requiring care, hours and days per week when care will be needed and types of services required; and

(iii) anticipate any problems that may arise within the neighborhood if the landed residential premises are converted to a child care centre (e.g. traffic flow, noise level) and assess whether you would be able to take measures to reduce or avoid these problems.

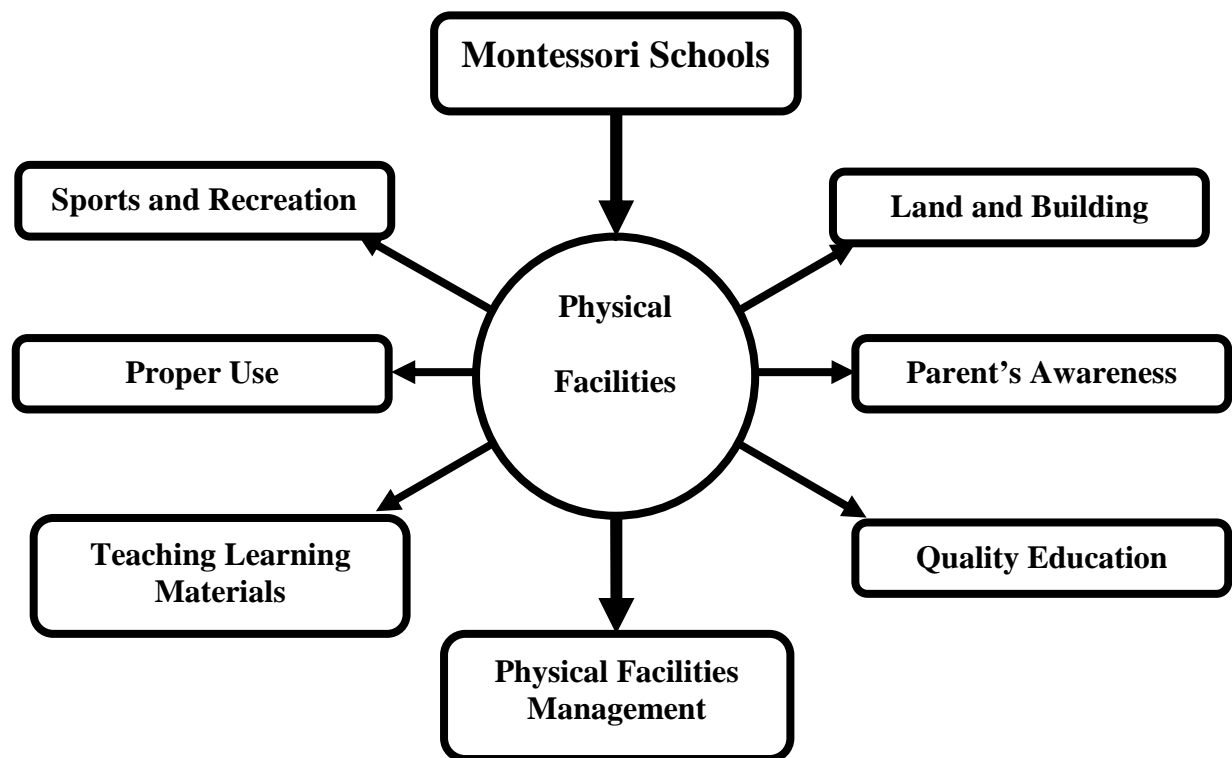
The Guidelines for the planning and development of child care facilities (2014) describes that the City of Sydney has developed a child care center development guideline to assist proponents who are seeking consent for child care center developments. The guideline provides basic information to proponents and outlines:

- a. the overall planning framework for childcare centers
- b. approval processes
- c. information to be included in development applications
- d. important issues that should be considered by proponents prior to lodging an application, and
- e. contact details for the City's Child Care Coordinator.

The United Kingdom took advantage of this planning figure to set a maximum cost for each individual school and then allowed local authorities to develop designs where they could trade off savings in construction costs for increased space or, alternatively, absorb unexpectedly high construction costs by reducing space. This put the central government in the position of fixing cost limits while devolving to local authorities responsibility for design and

execution. Though this experience is a half-century old it is highly relevant for today's centrally financed educational systems which are moving towards decentralization.

2.2 Theoretical Framework



According to Maria Montessori in her theory based on prepared environment “The teacher’s first duty is to watch over the environment, and this takes precedence over all the rest. Its influence is indirect, but unless it is well done there will be no effective and permanent results of any kind, physical, intellectual or spiritual.”

The prepared environment is important part of Montessori. It is the link for a child to learn from adults. Rooms are child sized with activities set up for success and allow freedom of movement and choice. The environment has to be safe for the child to explore freely. The environment has to be ready and beautiful for the children so it invites them to work.

Montessori refers to work as an activity the child does or what many people might call play. She calls this work since it is through this that they create themselves and it is not just a play. Their play is their work and they are still enjoying it. The adult's role then is to construct the environment in which they will learn. The development of the child is therefore dependent on the environment she or he is in, and this environment also includes the parents.

2.3 Educational Implication of Literature Review

Different types of literatures were studied differently but the main thesis is the same on the basis of articles and research reports found written on physical facilities management in child care centers have been quite helpful to make a conceptual framework on the research report.

The writers like Knezevich, Brook and Atkin, Govinda Varghese, John Beynonetc have written about meaning, definition, types, condition of the physical facilities. The views have helped to create a framework for preparing the research report, thesis. In the same way the condition of physical facilities management like features, types and measures to manage them in Mantessori schools are described in this thesis.

CHAPTER-III

RESEARCH METHODOLOGY

This section deals with the modes and methodologies applied for the research. Selection of the study area, population and sample, sources of data, tools and instruments and method of analyzing and interpreting the data.

3.1 Selection of the Study Area

The study area was Chitwan district where several Montessori based child care institutions are being launched in order to provide a childish environment in teaching learning. A trend in increment of these types of private institutions in the district was also a reason for the researcher to know about the proper planning in Education and Management of Physical Infrastructure.

3.2 Research Design

Descriptive, Mixed as well as Exploratory research design was used in this study to find out the management of physical infrastructures in Montessori schools of Chitwan. Descriptive design was suitable in determining the availability as well as use of physical resources while exploratory design was applied mutually to determine the proper utilization of physical facilities in teaching learning activities.

3.3 Population and Sample

The whole Montessori schools within Chitwan district were considered as the population while 10 Montessori schools located within Chitwan district were taken as sample. From the selected sample schools, 10 administrators, 10 teachers and 30 guardians of the children enrolled in those institutions were taken as respondent for the study equally.

3.4 Source of Data

Primary source of data was used mainly in this study. Primary data was collected self by the researcher visualizing the sample institutions and through the help of the questionnaire that was administered to the respondents. Secondary data for the study were the journals and articles published on behalf of the Montessori teaching learning process as well as physical infrastructures.

3.5 Data Collection Tools and Instruments

For the purpose of data collection, Questionnaire Schedule was developed for all the respondents including the interview questions that will fulfill the objective of the research. A checklist was also developed through which the researcher could visit the sample institutions and visualize the physical facilities available.

Mainly these three types of tools were used to collect the data. They were:

- a. Observation: For the purpose of data collection the researcher went to the child care centers and observed the physical facilities management of those centers. The researcher also observed other aspects of those centers.
- b. Questionnaire: The researcher prepared some questionnaires for administrators, teachers and parents who are directly concerned to the child care centers and distributed those questionnaires for their responses related to the physical facilities management and other aspects of those centers.
- c. Check list: The researcher prepared a check list to find out and collect the data about those child care centers. The format of the check list is also presented in the appendix of the thesis. He also collected their responses related to the physical facilities management and other aspects of those centers.

3.6 Data Analysis and Interpretation

The collected raw data were converted into a master chart to rectify the errors first, then the finalized data were represented through the help of different figures and table that helped to make the research more reliable and statistical tools like percentage were used to interpret the data as per the nature and need of the study.

CHAPTER-IV

ANALYSIS AND INTERPRETATION OF RESULT

This section of the research deals with the respondent's view as well as the information gathered by the researcher. The information gathered through primary source of data collection is systematically analyzed in this chapter which results to the situational analysis of physical infrastructures in Montessori schools of Chitwan district.

4.1 Background Information of Administrators

Because schools must operate in a changing environment, educators must manage change whether they wish to or not. Administrators must plan accordingly, and the best plans spring from a solid theoretical base. So, the researcher has collected background information of the Administrators of the sampled Montessori schools to find out their experience, qualification as well as trainings which has corresponding relation on teaching learning of a child.

4.1.1 Experience

Experience is the knowledge or mastery of an event or subject gained through involvement in or exposure to it. Terms in philosophy, such as "empirical knowledge" or "a posteriori knowledge," are used to refer to knowledge based on experience. A person with considerable experience in a specific field can gain a reputation as an expert. The concept of experience generally refers to know-how or procedural knowledge, rather than propositional knowledge : on-the-job training rather than book-learning. So the researcher has accessed to know the experience of the respondents the result is published as below:

Table No. 1
Experience of the Administrators

Experience in Years	Number	Percentage
1-3	4	40
3-5	3	30
Above 5	3	30
Total	10	100

Source : Field Survey 2071

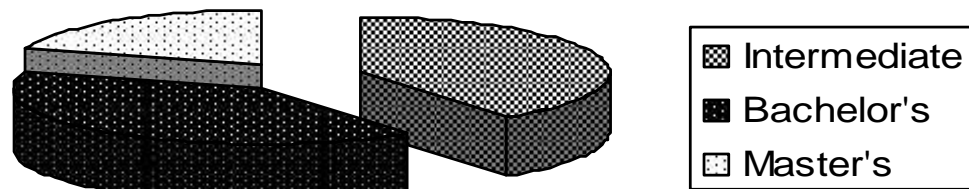
As presented in table above, 40 percent of the administrators have got below 3 years of experience in their field. Similarly, 30 percent administrators have got 3 to 5 years of experience while remaining 30 percent of the respondents has more than 5 years of experience in the field of Montessori teaching learning.

So while the researcher contemplates on the above findings the experience of the administrators regarding Montessori teaching learning is not still sufficient because more than half of the administrators sampled were experienced for least number of years.

4.1.2 Academic Qualification

Anyone performing a certain tasks needs particular qualification degree. The administrators were also asked about their academic qualification they have pursued. The result is presented as below:

Figure No. 1 Academic Qualification



Source : Field Survey 2071

The pie chart presented shows the academic qualification of the respondent administrators. Only 20 percent have pursued Master's degree and 40 percent of the respondent have pursued Bachelor's Degree while remaining 40 percent respondents pursued only Intermediate level of academic degree.

The academic qualification of respondents does not seem satisfactory because most of the respondents did not pursue higher level of academic degree. Through the perspective of education planning, the academic qualification of the respondents is not too good in the sampled institutions.

4.1.3 Trainings Pursued

Training and career development are very vital in any company or organization that aims at progressing. Training simply refers to the process of acquiring the essential skills required for a certain job.. Career development, on the other side, puts emphasis on broader skills, which are applicable in a wide range of situations. This includes decision making, thinking creatively and managing

people which are very essential aspects for any administrators to run an organization in a smoother way.

So, as per the information provided by the respondents, all the administrators have pursued Diploma Course in Montessori Training.

4.1.4 Reason behind Choosing the Field

The administrators were asked about the reason they chose to be in the field of Montessori teaching to analyze their view on their profession. Most of the respondents concluded that, hobby to work with kids and their passion towards Montessori teaching due to practicability of the Montessori learning were the main reason behind their profession. None of the respondents cited economic source or else behind the reason of their profession.

The profession insists them to be happy to be with children according to them. So, productivity of the administrators might be high due to their attachment to the Montessori learning.

4.2 Teaching Learning Activities in Montessori Education

In this section we will discuss on the respondent's views and attitude towards their institution as they are Montessori based educators.

4.2.1 Teachers

Montessori teachers are frequently referred to as directresses because it is a better summing up of what they do. They direct the child towards learning opportunities rather than teach. The staff in a Montessori school should be calm and unhurried and should move around the room discreetly and quietly. The teachers should never shout, never lose their tempers, never smack, shake or push a child or even speak crossly. They should be pleasant and polite, firm

without anger and be able to deal with a misdemeanor with sympathy and assistance rather than with punishment.

Most of the teachers in the sampled Montessori schools of Chitwan were found to be trained on Montessori learning. All children enrolled on those sampled institutions were shown respect, never humiliated or laughed at, and their remarks were listened to seriously and answered thoughtfully and courteously by the teachers. The remaining staff teachers were not theoretically trained on Montessori learning but were practically trained and were adjusted to the environment.

4.2.2 Differentiating to Other Schools

All the selected respondents were asked how they can differentiate Montessori schools from other public schools or boarding schools. Most of the administrators focused that they provide more care, a creative environment, respectful as well as disciplined manners to the child and more friendly environment to the children enrolled than in other schools.

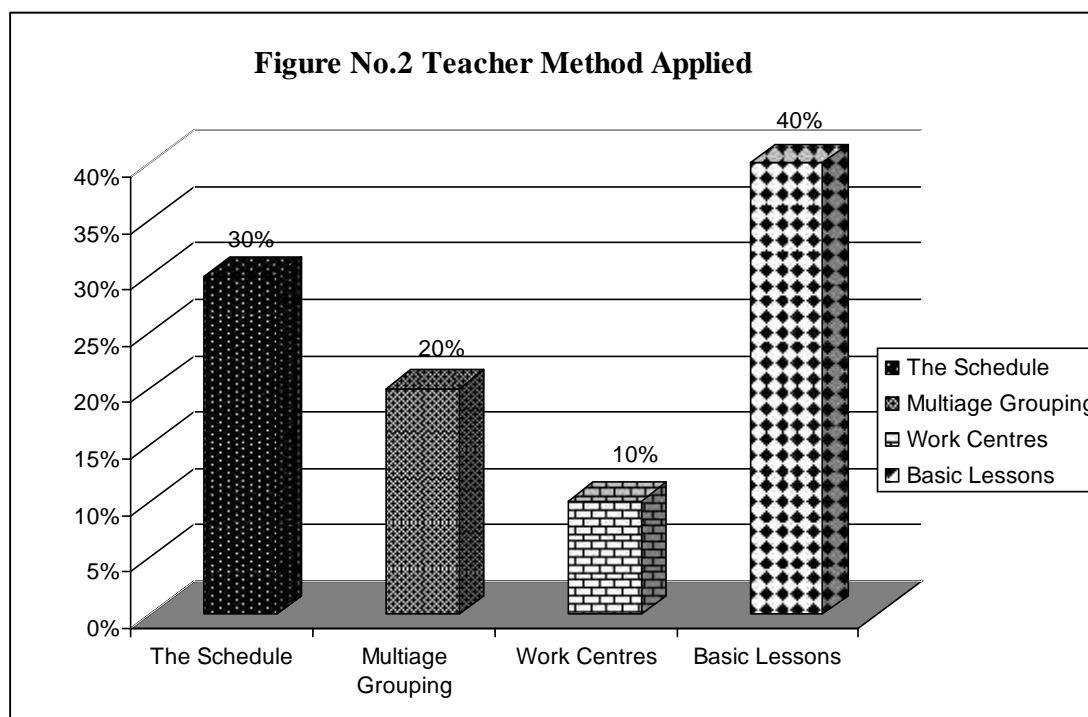
While the respondent teachers believe that the Montessori schools can provide scientific learning environment, the children are psychologically treated and provided much more physical facilities they need. Furthermore, the children were taught on Art and Creativity, Language, Cultural Studies and skills for life and they also think child-sized. They also differentiated on the basis of teaching learning materials used on Montessori teaching than in other schools.

Moving towards the respondent parents of the child enrolled on the sampled Montessori schools, they mentioned that much care, scientific teaching environment, a better discipline, responsive towards the children were the major reasons they chose Montessori schools for their child. More well as the parented raised their voice on quality of education their child is pursuing and the familiar environment in Montessori Schools than in government or

boarding schools were found as the major points of differentiation to other government schools or boarding schools.

4.2.3 Teaching Method Applied

Teaching method refers to the general principles, pedagogy and management strategies used for classroom instruction. The choice of teaching method depends on what fits the educational philosophy, classroom demographic, subject areas and school mission statement. The Montessori method of teaching aims for the fullest possible development of the whole child, ultimately preparing him for life's many rich experiences. The different teaching methods based on Montessori teaching applied by the teachers in the sampled schools of Chitwan is presented below:



Source : Field Survey 2071

As shown by the figure mentioned, 40 percent of the teachers are applying Basic Lessons method of Montessori teaching; similarly 30 percent of them were applying The Schedule method, 20 percent of the respondent teachers

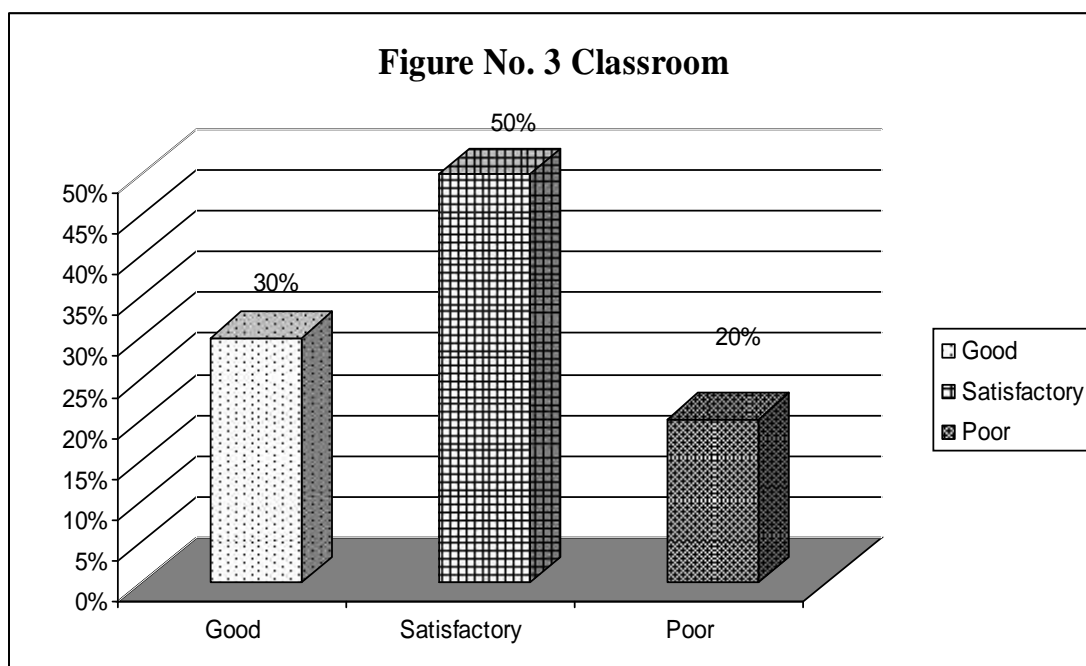
were based on multiage grouping method and remaining 10 percent respondents were applying work centers method of Montessori teaching.

4.3 Existing Physical Facilities and Equipment in Schools

The Montessori learning environment is much different than the traditional model. Instead of information passing from the teacher to the student, the teacher should be skilled in putting the child in touch with the environment, and helping children learn to make intelligent choices and to carry out research in a prepared environment. A sparse environment of carefully chosen materials calls the child to work, concentration, and joy. A crowded or chaotic environment can cause stress and can dissipate a child's energy. As Montessori education becomes more popular more materials are produced which are labeled "Montessori" and one must be more and more careful in selection. The environment shaped within the chosen Montessori Schools of Chitwan is mentioned herewith.

4.3.1 Classroom

According to the Montessori Philosophy, a classroom is a home away from home a happy place full of friends where children can be themselves. It is a place full of interesting things to do, but also a place where child can take time out and just be quiet if they want to. It is somewhere where you child grow up knowing that they belong and that they are special. So as the researcher evaluated the Classroom of the selected schools applying the checklist and the result could be illustrated as below.



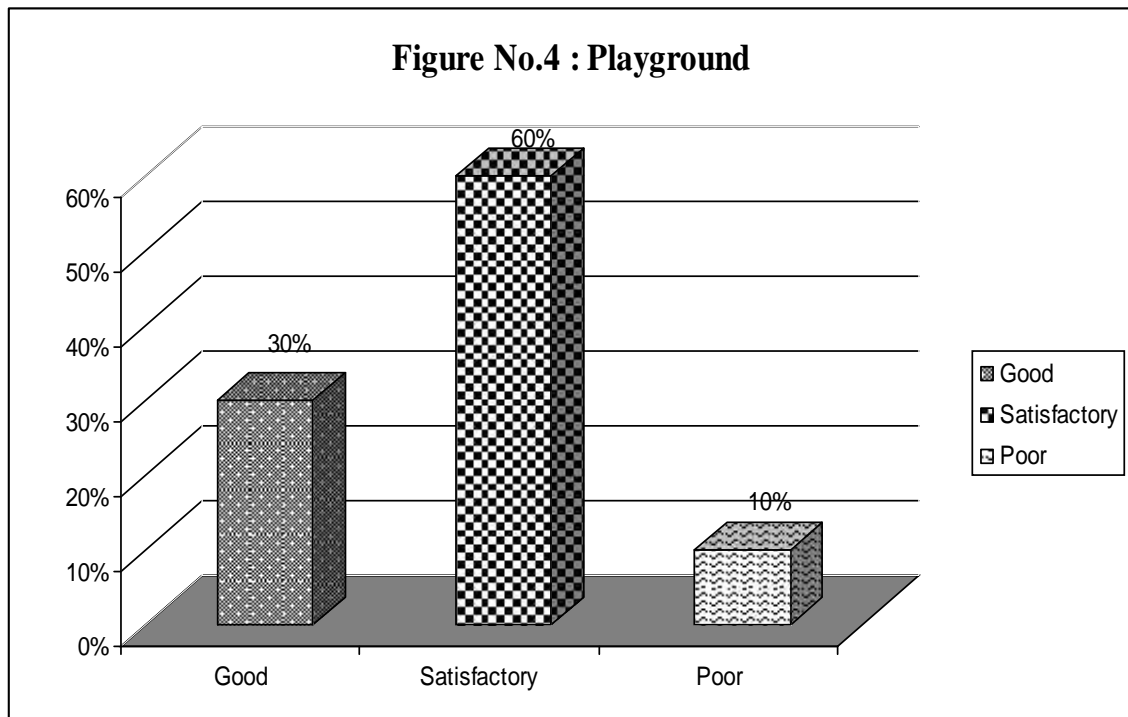
Source : Field Survey 2071

As presented by the figure, only 30 percent of the classroom evaluated was found to be good having all items in the environment scaled to the child's size, including furniture, shelves, utensils, dishware, cleaning implements and the Montessori materials themselves. While 50 percent of the classroom evaluated was satisfactory. All the components needed for a classroom were not included but it suits the feasibility according to the number of children. Finally remaining 20 percent classroom were found poor where children could not move freely and the components were found messy.

Only 30% of the classroom was good through which the researcher felt that the management of classrooms in Montessori schools of Chitwan was not good.

4.3.2 Playground

Montessori playgrounds should offer settings that encourage children to explore their imagination. These playgrounds should allow both gross and fine motor skills to be engaged. While the researcher evaluated the playground of the selected schools, the result can be presented as below.



Source : Field Survey 2071

Only 30% playground in the sampled schools were found good, they increase cognitive skills, attention span, collaborative play, and allow creativity to flourish having space for walking, running, climbing and moving around interesting pathway. Where 60 percent of the school's playground was satisfactory, it comprises of the most of the requirement that children need to play around where remaining 10 percent of the playground did not have sufficient space for children to be within.

4.3.3 Furniture

Furniture is one of the most important entities in a Montessori school. A Montessori school should have child favored furniture. The furniture usually includes sleeping beds, tables, chairs, and so on. Furniture are of course one of the major component in shaping physical infrastructure. The furniture available in those sampled schools was found as below:

Table No. 2
Furniture

Condition of Furniture	Number	Percentage
Good	6	60
Satisfactory	2	20
Poor	2	20
Total	10	100

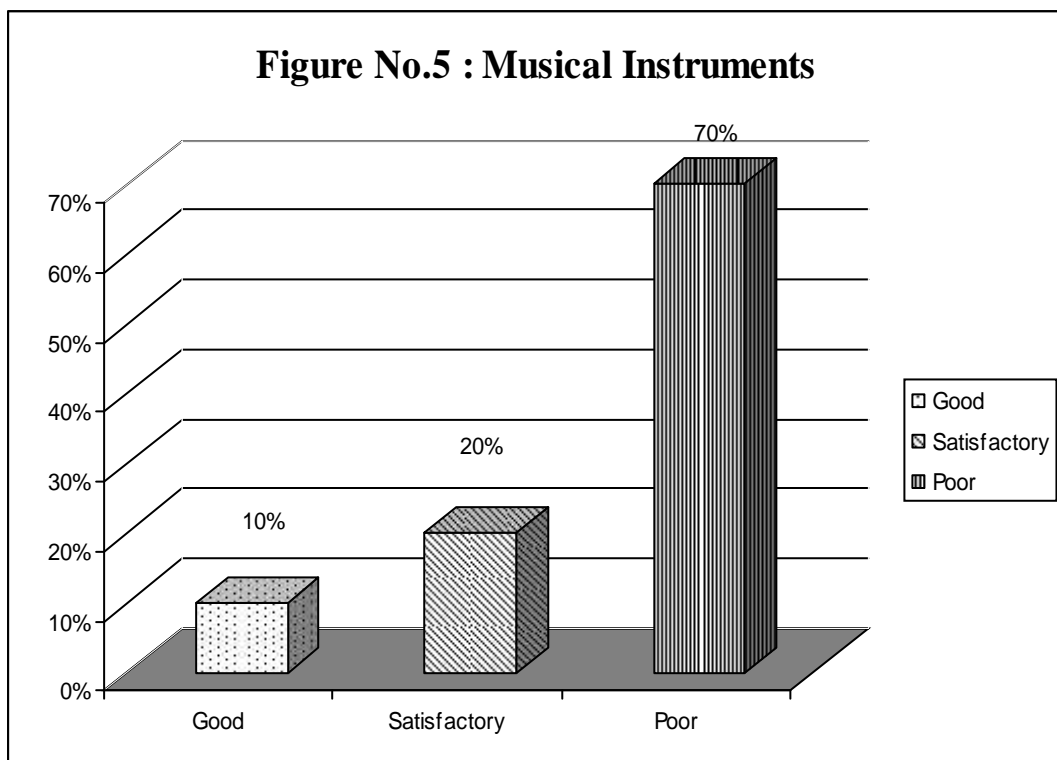
Source : Field Survey 2071

As presented by the table mentioned above, 60 percent schools had all the furniture suitable for the children to manipulate or to be within. Similarly, 20 percent of the schools had a satisfactory level of furniture for the children while remaining 20 percent schools did not manage their furniture properly as they needed to be.

So, in managing the furniture for the children and making child-sized tables and chairs, most of the schools were conscious. The management of furniture in Montessori schools of Chitwan can be termed as good as remaining schools are also preparing for the same while the researcher evaluated the infrastructure.

4.3.4 Music and Education

In order to teach the little children to distinguish between silence and sound, the children should be taught to recognize silence based on Montessori method of teaching. Music in children learning plays a vital role and is must in Montessori learning. So, the researcher visualized the musical environment of the selected Montessori schools of Chitwan and gathered the following result.



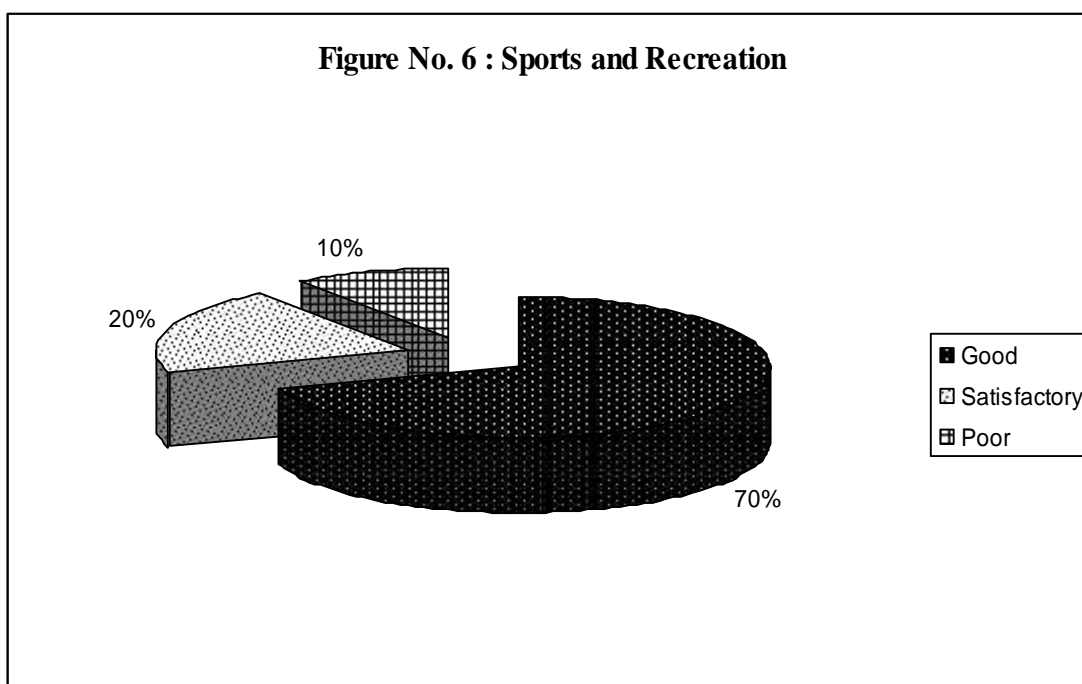
Source : Field Survey 2071

The figure shows the use of musical instruments in teaching learning process in those sampled schools which shows a really poor result having number of poor schools higher in number. Only 10 percent schools had good use of musical instrument.

The management in case of musical instrument seems really poor. The children were not prioritized through music.

4.3.5 Sports and Recreation

Sport and physical activity participation are generally promoted for positive impact on children's physical and mental health. However, increased participation in sport and other forms of physical activity are also thought to lead to enhancement of cognitive functioning in children. The figure below summarizes the sport and recreation for children in sampled schools:



Source : Field Survey 2071

Being outdoors is very important. Children develop gross motor skills as they climb, jump and swing and also social skills as they take turns on equipment and play hide and seek. The sports and recreation in the sampled schools were found good. 70% of the schools had good level of management in case of sports while 20% schools had satisfactory and remaining 10% were poor in sports and recreation.

While analyzing the overall figure, the Montessori schools of Chitwan were prioritized a lot in case of sports and recreation for the children.

4.3.6 Toilet and Bathroom

The management of Toilet and Bathrooms for kids is a major issue. They should be child friendly as well as easy to access for the children. The situation of management of the toilets and bathrooms in sampled Montessori schools of Chitwan district is mentioned below:

Table No. 3
Toilet and Bathroom

Condition of Toilet and Bathroom	Number	Percentage
Good	3	30
Satisfactory	6	60
Poor	1	10
Total	10	100

Source : Field Survey 2071

The table shows the management of toilet and bathrooms in sampled schools. Only 30 percent of the schools had good management of toilet and bathroom, while 60 percent of the school's toilet bathroom seems satisfactory or okay but still 10 percent of the schools management of toilet and bathroom was found poor.

4.3.7 Water and Sanitation

Factors related to water, sanitation and hygiene affect children's right to education in many ways. In an atmosphere of poor health, children are unable to fulfill their education potential. Although water and sanitation facilities in schools are increasingly recognized as fundamental for promoting good hygiene behaviour and children's well-being, many schools have very poor facilities. Conditions vary from inappropriate and inadequate sanitary facilities to the outright lack of latrines and safe water for drinking and hygiene. The following table shows the management of water and sanitation in sampled schools of Chitwan.

Table No. 4
Water and Sanitation

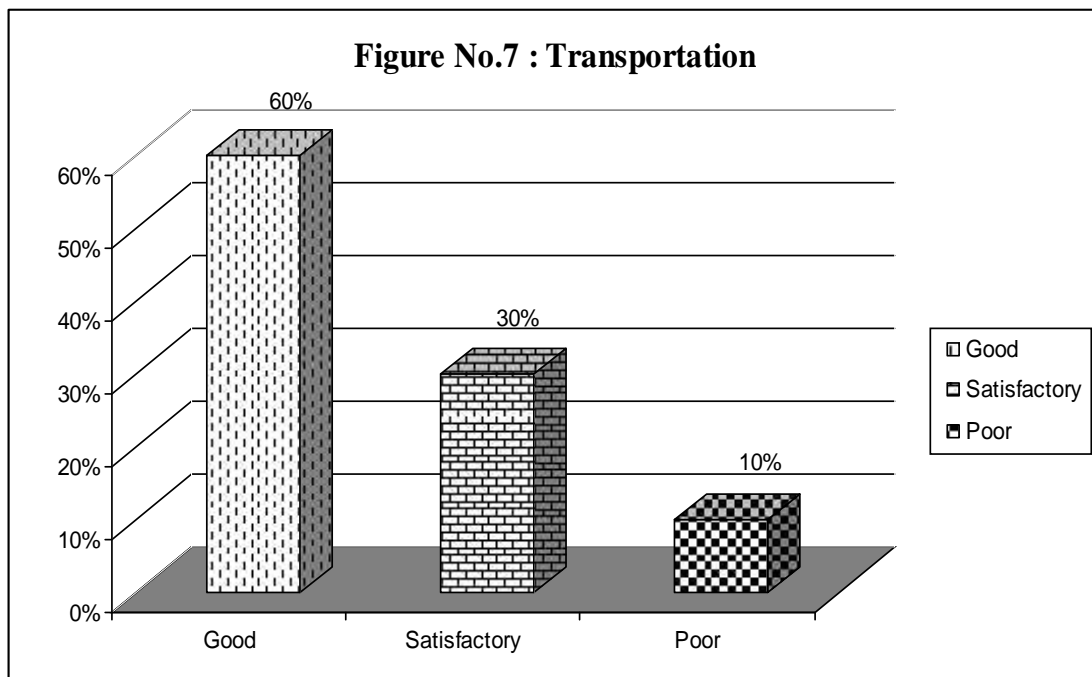
Condition of Water and Sanitation	Number	Percentage
Good	6	60
Satisfactory	4	40
Poor	0	0
Total	10	100

Source : Field Survey 2071

As presented by the table, most of the schools had proper and good management of the water and sanitation. 60 percent of the schools were found good in its management where 40 percent of them were found to be satisfactory.

4.3.8 Transportation

Transporting a child from home to school as well as school to home is an essence in case of Montessori schools. Montessori schools are termed as home out of home, special care and preservation of the children is the duty of management and a facility to the parents. Providing proper and safe transportation of children in Montessori schools of Chitwan can be visualized through the figure below.



Source : Field Survey 2071

As presented by the figure above, most of the schools had good management on transportation of children whereas 10 percent of the schools did not have good management on transportation, they did not have own vehicle and the timing is always late than scheduled. Where 30 percent of the schools were found satisfactory and 60 percent of the schools were found to be managing the transportation well.

4.4 Parent's Attitude and Awareness on Physical Infrastructure

Conscious Parenting is not a set of rules for parents to follow, but a set of beliefs about what children need to develop and thrive. This does not require parents to abandon all of their parenting practices, just to be mindful as they shift their thinking about what kids need and start to decode what's really going on behind the behavior. Conscious parenting deepens on their child's basic trust in the world and secures their influence as something to be regarded as reliable and safe. The researcher has an objective to get the parent's awareness on the

physical infrastructure available on their child's school so, in this section we will be discussing on the same.

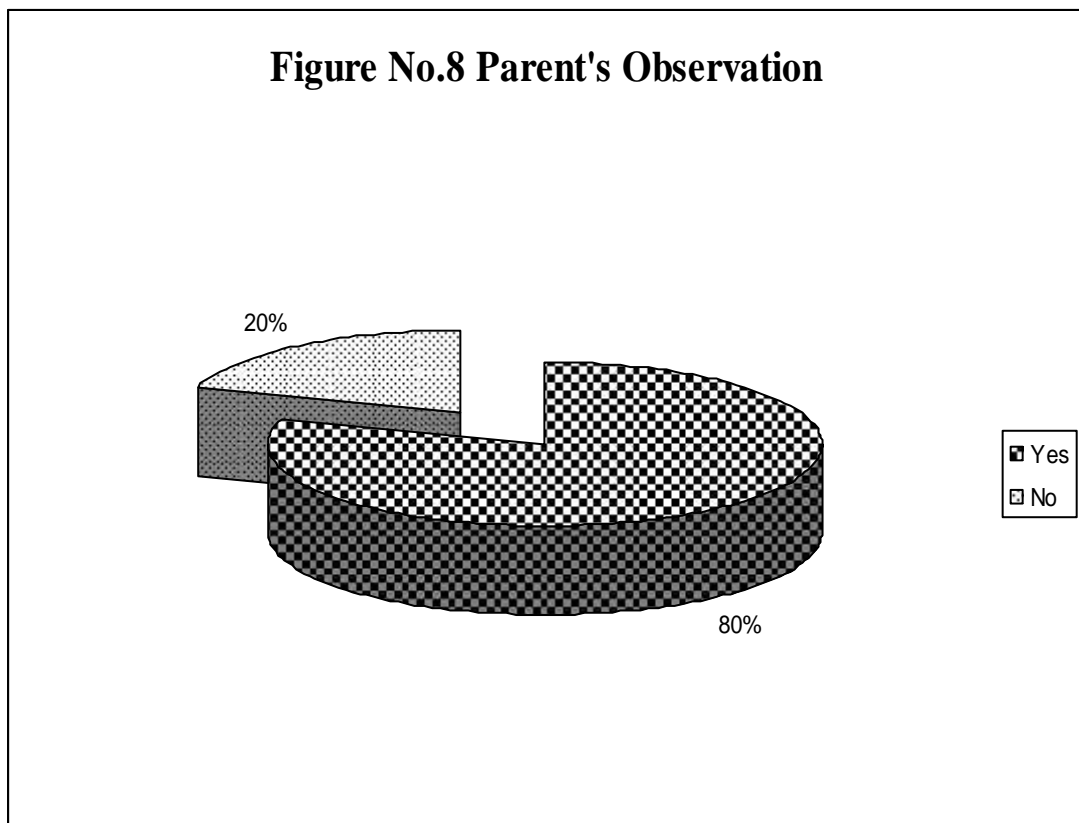
4.4.1 Reason for admitting their Child in Montessori

The researcher has administered a questionnaire on the selected 30 parents of the children enrolled on those selected Montessori schools for the reason they chose instead of any boarding school or any other child centers. Most of the reasons were alike, they focused on care and child friendly environment the Montessori schools provide was the main reason. Beside these reasons some of the respondents also prioritized psychological learning, a familiar environment, better infrastructure, a disciplinary environment. Only few parents have understood the philosophy of Dr. Maria Montessori.

The result outlined that most of the parents enrolled their children in Montessori schools because of proper care and assurance they have been providing. Apart from these, a trend that is whelming on kid's education currently in urbanized areas of Nepal might be the reason the parents were choosing Montessori schools for their kids.

4.4.2 Observation of the Child Care Center

Conscious parents periodically examine as well as communicate to the administrators of their children's school. The parents were asked if they periodically visit the child centre to get informed on their children's performance and drawbacks. The result is presented as below:

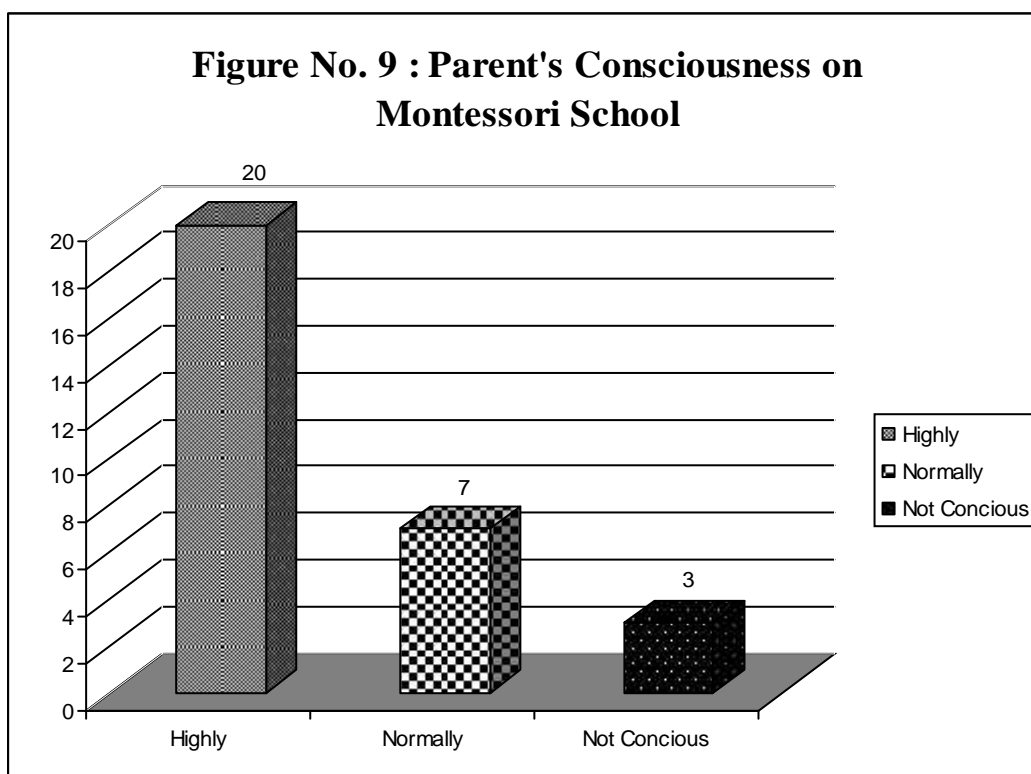


Source : Field Survey 2071

As the picture shows, 80 percent of the parents periodically visit the child centers where their child were enrolled while remaining 20% of the parents did not visit the school where their kids are enrolled periodically.

4.4.3 Consciousness on Teaching Learning on Montessori Schools

The level of consciousness Parents had had on their kid's learning or the teaching practices done by Montessori is presented as below:



Source : Field Survey 2071

As presented in the figure above, 20 parents mentioned that they were highly conscious on the teaching learning process of Montessori schools where their kids were enrolled while 7 of them were normally conscious. Remaining 3 parents updated that they were not conscious on teaching learning process of the Montessori schools.

The conscious of parents seems better although some of them were not conscious due to their level of education or they were unknown about Montessori teaching.

4.4.4 Satisfaction towards the Physical Facilities Being Provided

The parents were also asked if they were satisfied with the physical facilities being provided by the Montessori schools. Out of 30 guardians of the children who were selected purposively for this study, the result is as below.

Table No. 5
Satisfaction towards Physical Facilities

Satisfaction towards Physical Facilities	Number	Percentage
Satisfied	14	46.66
Unsatisfied	16	54.34
Total	30	100

Source : Field Survey 2071

It was found that more than half of the parents were not satisfied with the physical infrastructure being provided by the Montessori schools. And the parents were also asked if they had ever complained on their kid's school to reform or make some changes regarding physical infrastructures, which can be tabulated as below:

Table No. 6
Complaints Done

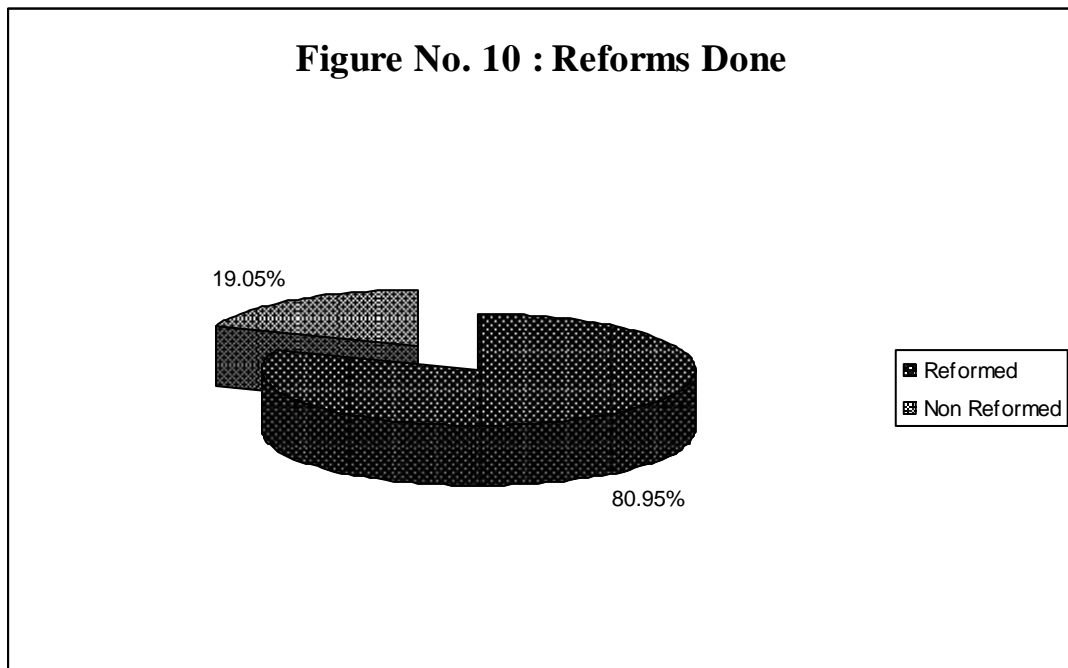
Complaints Done	Number	Percentage
Yes	21	70
No	9	30
Total	30	100

Source : Field Survey 2071

According to this table, 70 percent of the parents did make complaint regarding the physical infrastructure of the school and 30 percent of the parents have not ever complained regarding the physical facilities being provided.

4.4.5 Reform Done

As in previous table, 70 percent of the respondents had ever complained on the physical infrastructure being provided to them by the sampled Montessori schools. And they were asked if they noticed that the school management has reformed it or not, the researcher got the following result.



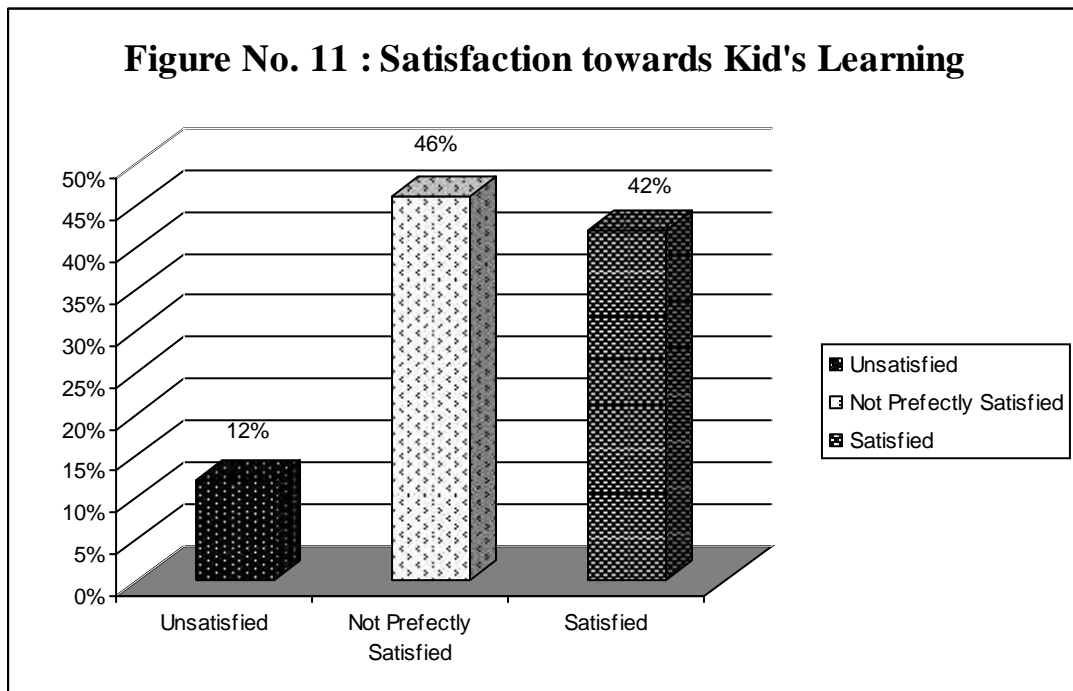
Source : Field Survey 2071

So, as per the data provided by the respondent parents, about 80 percent of the complainers felt that the problems or the complaints made were reformed where about 20 percent of the respondents out of 21 felt that still after making a complaint also, the problems like drinking water, sanitation and latrines were not reformed.

It's the responsibility of Montessori schools to listen carefully to the parents and know if they had better suggestion instead of making them disappointed. So listening to the parent's should be improved by the Montessori school of Chitwan.

4.4.6 Satisfaction towards Kid's learning

Finally the parents were asked whether they were satisfied with the learning progress of their children or not. The researcher got answers varying to each respondent which is illustrated below with the help of a bar diagram.



Source : Field Survey 2071

As we can see that, 12 percent parents were unsatisfied on the learning progress done by their child while 46 percent of the respondents were not perfectly satisfied but satisfied to some extent. And remaining 42 percent of the parents were found to be satisfied what their child learns.

Satisfaction depends upon the expectation made also. So, the reason underlying behind the unsatisfied parents may be the facilities provided by the school or a higher level of expectation made by them also.

4.5 Summary of the Findings

-) The administrators of the sampled Montessori schools were not all highly experienced.
-) Academic degree of the Administrators also was not found too good because most of them had pursued Montessori training only
-) It is a good aspect that all the administrators have pursued diploma course in Montessori Training.

-) All the administrators mentioned hobby and their willingness to be with children as reason besides choosing the Montessori education as their career.
-) Most of the teachers in the sampled Montessori schools of Chitwan were found to be trained on Montessori learning.
-) Most of the teachers used to apply basic lessons and the schedule as their main teaching technique under Montessori learning.
-) Only 30 percent of the classrooms were found to be good while half of them were just satisfactory.
-) The researcher found that 30% of the playground was good whereas 60% of them were satisfactory.
-) Most of the schools had good furniture where still 20% of the schools had poor.
-) Music Instrument and their facilitation was found really poor, 70% of the schools had poor level of music and education.
-) Sports and Recreation was found good in sampled schools, where still only 10% of the school was found to be poor.
-) Most of the toilet and bathroom was found satisfactory, only 30% of the schools had good facilitation of toilet and bathroom
-) Water and Sanitation practice in sampled schools was found good, while no any schools were found to be poor.
-) The researcher found that 60% of the schools had good facility for transporting the children whereas 10% of them still need to improve much more.
-) Most of the reasons to admit their child in Montessori education were alike, they focused on care and child friendly environment the Montessori schools provide.
-) In case of parents, 80% of them used to visit their child's school periodically.

-) More than 65 percent of the parents were found to be highly conscious about teaching learning in Montessori schools.
-) More than half of the sampled parents were found to be unsatisfied towards the physical facilitation of the schools.
-) It is also found that 70 percent of the parents has complained in any of the aspect regarding physical facilities where 80% of the reforms were done by the schools.
-) In case of Kid's Learning most of the respondents were not perfectly satisfied where 42% of the respondents were satisfied towards their kid's progress.

CHAPTER-V

CONCLUSIONS AND RECOMMENDATION

The study entitled “Physical Facilities Management in Child Care Centers” is a study carried out for the fulfillment of the requirements for Master’s degree in Educational Planning and Management. Throughout the study the researcher got a golden opportunity to examine the Montessori schools around Chitwan. The study has been summarized and concluded in this chapter of the study.

5.1 Summary

Montessori education is based on the understanding that each of us grows intellectually in a deeply innate and organic way. This comprehensive approach to education was developed over the first half of the 20th century by Dr. Maria Montessori with the fundamental belief that a child learns best within a social environment that supports and respects each individual’s unique development. The Montessori environment contains specially designed sensorial “materials for development”. Under the guidance of a trained teacher, children in a Montessori classroom learn by making discoveries with the materials, thereby cultivating concentration, motivation, self-discipline, and a love of learning.

The researcher carried out the study based on the Montessori schools and the physical facilities management carried out in those institutions. Choosing 10 samples Montessori schools located around Chitwan district, from the schools, 10 administrators, 10 teachers, and 30 parents were selected as sample respondents purposively. Today's busy parents may never know. With most of them working, parents generally find little time to experience, much less evaluate, the physical condition of their child's school. When they do visit discussions will mostly focus on their child's learning, achievement, and progress, not on school maintenance or design issues.

Descriptive as well as Exploratory research design was applied based on the primary data collected by applying an interview schedule or questionnaire as well as a check list was also developed to find out the physical infrastructures and their situation on those sampled schools.

Only 30 percent of the classrooms were found to be good while half of them were just satisfactory, the entire classroom did not include child-sized tables and chairs which make students odd to get adjust. The overall facilitation of the furniture was found to be good. Although the availability of sport materials was good, the use of musical instruments was found poor in the sampled schools. Teachers were also found trained and different teaching techniques based on Montessori learning

The sanitation practice, playground and transportation facility provided by the schools were found good. As the study area geographically falls under urbanized area too which might be the reason these factors were covered properly by the management. Moving on, the parents outlined the care and physical infrastructure available in Montessori schools was the main reason they enrolled their child in. Some of the parents also prioritized on the psychological learning, disciplined and familiar environment.

Most of the parents used to periodically visit the schools and also complain on the physical infrastructure maintained. Most of the complaints received were reformed by the management which reflects 'listening to the parents' behaviour of the management. Although the complaints were listened still more than half of the respondent parents were not satisfied towards the physical facility which shows little drawbacks of the Montessori schools. Most of the complaints were done on health and sanitation. Considering the satisfaction of parents towards the progress of their child there as still some unsatisfied parents who believe that the school is not providing that optimum level of education.

5.2 Conclusions

The overall study done has brought on some major points to be noticed. Although, the research is done in partial fulfillment of the requirements for an academic degree, attention of wide range of educationists and planners also need to look back to this research. The overall factors were found to be good, but still infrastructures like classrooms, toilet and bathrooms, playgrounds and musical instruments seems to be improved soon. As the history of Montessori learning in Nepal is not much longer to the current data, it has been started a few years back.

The coverage of Montessori education in Chitwan district seems admirable as the concept of child learning has been a major area of concentration for today's parents. Montessori schools of Chitwan have a lot to improve to maintain a level of assurance for the parents because the number of unsatisfied parents seems to be higher in number. Apart from these, the academic qualification of the administrators was also not found to good, government and the education planners also need to know about the same and rather than establishing more institutions, it should be better if the quality of these existing institutions is improved.

Education planning and management perspective can conclude the above study mentioning that the development of the Montessori schools in Chitwan has taken place in a rapid process so the physical infrastructure the schools are providing are pretty good. But still, a long mile has to cover by the institutions to provide a quality and fully Montessori based education and the support by the planners is must in this process. Education has become a form of income generation in today's date, but in case of Montessori schools, hobby and the passion of teachers as well as administrators is can make it possible.

5.3 Recommendations:

On the basis of the study the researcher can make recommendations. In this sub unit some recommendations and pedagogical implications are made. It is found that the physical infrastructure plays vital role in Montessori classes. The quality of education also depends on physical infrastructure. The children also feel easy and comfortable if the classes are equipped with different materials.

5.3.1 Policy Level

Some of the implications and recommendations for school authority, teachers, other researchers and other related personalities are presented in this paragraph. To improve the quality of child care centers, appropriate trainings should be conducted for the administrators. Similarly, administrators should have minimum qualification of bachelor's degree. Qualified persons can handle them in a better way. Montessori training should be given to the teachers also. The government should fix minimum physical requirement for conducting Montessori school. Curriculum for Montessori classes should be designed. At least a small playground should be managed for the Montessori schools. Classes and physical infrastructures should be conducted and managed according to the interest of the parents and children.

5.3.2 Practice Level

Some of the implications and recommendations for school authority, teachers, other researchers and other related personalities are presented in the following lines. The environment for learning should be fun. Awareness campaign for parents should be conducted. Classes and physical infrastructures should be conducted and managed according to the interest of the parents and children. Teachers should stand or teach as a model in the classroom. Teaching and learning must be objective oriented not exam-oriented. Audio Visual materials make the classroom funny and interesting. Other supplementary

materials like songs, rhymes, puzzles etc. should be used for effective teaching. In this way we can improve many aspects of child care centers.

5.3.3 Research Level

The research work done by any researcher will certainly be useful for other researchers and their researches. A study cannot be complete. There are still many things to be questioned or unsolved. So, many researches can be done to get new ideas. Here the researcher tried to find out the physical facilities of Montessori classroom. The researcher suggests others interested to do researches on the topics like: quality education of Montessori, Availability of Montessori in the district, Usefulness of teaching materials in Montessori classes, Access of Montessori classes for normal people etc. The researches will definitely be helpful in the field of teaching small children.

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FACILITIES MANAGEMENT IN CHILD CARE CENTER

APPENDIX-A

QUESTIONNAIRE FOR THE ADMINISTRATORS

Name of Institution:-_____

Name of Respondent:-

Experience:-

Academic Qualification:-

Trainings:-

No. of Staffs/Teachers:-

No. of children admitted:-

1. Why did you choose this field as your main Profession?
2. Has your child center included all the philosophical aspects of Montessori?
3. Which aspect of your institution can enlighten to inspire the parents?
4. How do you differentiate your institution to Government school?
5. How do you care about the desire of the admitted children and their parents?
6. Are all the staffs of your institutions are well trained?

If yes, please specify the trainings

7. Do you get complained by the parents of the admitted children?

If yes, mostly on which aspect. Please specify.

8. What are the methods you have applied to make your institution child friendly?
9. Your consciousness limit towards the physical infrastructure of your institution.

a) Fully b) Partially c) Normal d) No

10. Do you focus on training your staffs periodically?

If yes, please mention the types of trainings. In not, why?

11. What are the mostly applied teaching techniques by your staffs in your institutions?
12. Do you observe your staffs in teaching learning?
13. What are the specialties of your child centre?
14. What are future planning you have done for the amendment of your child center?

PHYSICAL FACILITIES MANAGEMENT IN CHILD CARE CENTER

APPENDIX-B

QUESTIONNAIRE FOR THE TEACHERS

Name of Institution:-_____

Name of Respondent:-

Experience:-

Academic Qualification:-

Trainings:-

No. of Staffs/Teachers:-

No. of children admitted:-

1. Why did you choose this field as your main Profession?
2. Has your child center included all the philosophical aspects of Montessori?
3. Which aspect of your institution can enlighten to inspire the parents?
4. How do you differentiate your institution to Government school?
5. How do you care about the desire of the admitted children and their parents?
6. Are you well trained? If yes, please specify the trainings
7. Do you get complained by the parents of the admitted children?
If yes, mostly on which aspect. Please specify.
8. What are the methods you have applied to make your class child friendly?
9. Your consciousness limit towards the physical infrastructure of the classroom.
a) Fully b) Partially c) Normal d) No
10. Which technique do you the mostly apply in your class?
11. What are the specialties of your Montessori class?
12. What is the future planning you have done for the amendment of your child center?

PHYSICAL FACILITIES MANAGEMENT IN CHILD CARE CENTER

APPENDIX-C

QUESTIONNAIRE FOR THE PARENTS

Name and Address:-

Academic Qualification:-

Profession:-

No. of children:-

1. Why did you choose Montessori schools than government schools for your children's learning? Please specify the reasons.
2. What aspect of the child care centre attracted you?
3. Have you periodically observe the child care center where your child is admitted?

If not, why?

4. Your consciousness towards services and teaching learning on child centers.
a) Highly b) Normally c) Not conscious

If you are conscious, then what are the aspect you like and you dislike:

5. Are you satisfied with the physical infrastructures in your children's school? If you are not satisfied why?
6. Have you ever complained anything about the physical infrastructures in your children's school?

If not, why?

If yes, did you get those things reformed?

7. Are you satisfied with your children's learning?
8. What is the best aspect of your children's school?
9. What do you find the most important aspect to be reformed within physical infrastructure in your children's school?

PHYSICAL FACILITIES MANAGEMENT IN CHILD CARE CENTER

APPENDIX-D

OBSERVATION CHECKLIST

Name and Address of the Institution:-_____

SN	Components	Quantity	Types	Quality			Remarks
				A	B	C	

*Check under three categories (A=Good, B=Satisfactory, C=Poor)