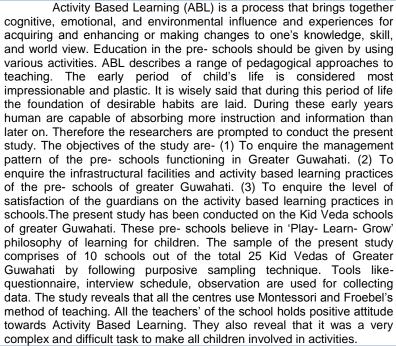
Periodic Research

An Investigation into the Activity Based Learning Practices of the Pre–schools of Greater Guwahati

Abstract



Keywords: Pre-School, Activity Based Learning, Student, Kid Veda Schools.

Introduction

Pre- schooling or pre-school education has become an integral part of our education system. Pre-school education has a great impact on a person's life and his personality. Educationist and Psychologist are of the opinion that greater emphasis and attention is to be laid on the children of age group 2 to 6 years. This is the early period of child's life and considered most impressionable and plastic. It is wisely said that during this period of life the foundation of desirable habits are laid. Most of the problems of adolescents originate from the wrong moulding during the preschool period. A pre-school, also known as nursery school, pre-school or kindergarten, is an educational establishment or learning space offering before they began compulsory education at primary school.

Activity-based learning or ABL describes a range of pedagogical approaches to teaching. Its core premises include the requirement that learning should be based on doing some hands-on experiments and activities. The idea of activity-based learning is rooted in the common notion that children are active learners rather than passive recipients of information. If children are provided the opportunity to explore by their own and exposed to optimum learning environment then the learning becomes joyful and long-lasting. Activity Based Learning is a process that brings together cognitive, emotional and environmental influences and experiences for acquiring, enhancing or making changes to one's knowledge, skill and world view. For learning to take place, it is necessary that the student possess information to be learnt. It is also important that the student understands and engaged with the high level of thinking such as comprehension, analysis, synthesis, application and negotiation. When



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Periodic Research

this happens the student is able to relate the information to any life situation, connect it with past learning, build his or her own knowledge and become a knowledgeable and contributing citizen as an adult.²

Activity based learning is gaining knowledge by doing activities. In this methodology students rather than attending the classes given by teachers, use their creative dynamism to guide themselves through the activity based material. Bertrand Russell remarked in the right way as, "Nursery or early childhood education is the education which can only make the child's life happy, and even forms his future".

Review of Literature

Review of literature enable the investigator to know the means of getting to the frontier in the field of his research and such the investigator here have to draw one cost of his glance towards some of the related literature. In the words of Chapter V. Good "The key to the best store house of published literature may open the doors to sources of significant problems, background for selection of procedure and comparative data for interpretation of results. In order to be truly creative and original one must read extensively and critically as a stimulus to thinking". The following are some of the literature reviewed in the field of Activity Based Learning-

Andres, Gertler, Berkeley (2006) conducted a study on "The effect of Pre-Primary education on primary school performance". The objective of the study is to investigate the effect of a large expansion of universal pre-primary education on subsequent primary school performance in Argentina. Findings of this study were- Attending pre-primary school had a effect on subsequent third standardized Spanish and Mathematics test scores, One year of Pre-Primary school increase average third grade test scores by 8% of a mean or by 23% of the standard Deviation of the distribution of test scores, It was also found that school attendance positively affected student's behavioural skills such as attention, effort, class participation and discipline.

Changkakati, (2008) conducted a study on the new Activity Based Pre-Schools of Greater Guwahati". The study finds that adequate emphasis was given to play in all these pre-schools. Most of these schools did not have fixed time for play. Play was given adequate emphasis throughout the day. Alphabets and numbers were taught not by rote learning but through various activities. Basic concepts were taught through various activities like role play, rhyme, and by using simple materials and equipment. Activities were plenty in all the pre-schools like Puppet shows, field trips, water play, sand play, music are, yoga etc. Majority of parents expressed satisfaction regarding the facilities provided and the faculty members.

Dr. Hariharan, (2011) conducted a study on "Effectiveness of Activity Based learning Methodology for elementary school education". Her study finds that, the Sarva Shiksha Abhiyan has brought about numerous innovative methods to bring about changes in the education practices. In the state of Tamil Nadu, the elementary Schools have started using the

Methodology called activity based learning through SSA, contain social, emotional and psychological aspect of classroom behaviour have been seen to be positive in ABL classes altogether contain problems were also seen consistently students with disabilities who are included in regular classes have shown improvements in communication and contain life skills but no in cognitive skills.

Eimear, Prendergast, Terry and Stephen, (2012) has conducted a study on "An activity based Approach to the learning and teaching of Research Methods; Measuring student engagement and learning". The study focused on development of a module in Research Methods which embraces an activity based approach to learning in a group environment, to improve participation by all students. The study found that 78% students contributed in class discussions. 70% of student said that they made meaningful contribution to the task and they were challenged by the material and were interested in the materials. 63% of student said that it was very fun to have this module etc.

Awasthi, (2014) conducted a study on, "Activity based learning Methodology can bring improvement in quality of education in India". The main objective of the study is to find out the quality of education being provided to students in India, especially in government Schools and Schools situated in remote and rural areas, to find out the policies and strategies of government in this regard. The findings of the study shows that, Activity based learning Methodologies can be useful in uplifting the level of outcome of students especially at primary and secondary level, because it provides space and liberty and individuality.

Tenesgen (2016) conducted a study during Master Degree on 'The Primary Challenges of Preprimary education organised in Primary school of selected Districts of Jinna Zone". The main objectives are-to find out the extent to which the curriculum of pre-primary education was implemented in the primary school classrooms, to identify suitability of classrooms and outdoor spaces organisation in the primary schools for children attending pre-primary education.etc. Major findings of the study are- the objectives of the curriculum lack focus to address the physical (22.8%), social (14.3%) and emotional (8.6%) development of children in the schools. Play (14.2%) discussion (11.5%) learning by role playing and field trip were the least used instruction methods. Above all class (17.1%) writing & drawing work of children (14.2%) were least used assessment techniques that would fit the nature of young children. The finding also revealed that classroom space provided per child was found to be inadequate (65.7%), the organisation of activity centre (19.4%) and supply of materials and equipment were nonexistent, extent of parent school relationship to assist children's learning in the studied primary schools was found to be low.

Significance of the Study

The review shows that several research work had been done on pre-primary schools and its problems, but only a few studies has been done on

the quality or practice of activity based learning in the pre-schools of Greater Guwahati. Therefore, the researcher has chosen this area for study to reduce the gap of the implementation of Activity Based Learning in the pre-schools of Greater Guwahati. The findings of the study will help in the proper planning and execution of pre-school learning.

Objectives of the Study

The objectives of the present study are as follows:

- 1. To enquire the management pattern of the preschools functioning in greater Guwahati.
- To enquire the infrastructural facilities and activity based learning practices of the pre- schools of greater Guwahati.
- To enquire the level of satisfaction of the guardians on the activity based learning practices in schools.

Research Questions

- Whether the management pattern of the pre schools functioning in greater guwahati is satisfactory?
- 2. If the infrastructural facilities in the pre- schools are adequate?
- 3. Whether the Activity Based Learning practices of the pre- school are advantageous for students learning?

Delimitation of the Study

- The study is delimited to the pre-schools functioning in the Guwahati city.
- Only the pre-schools operating under the franchise of KID VEDA are considered for the present study.

Methodology of the Study Research Method

The present study falls under Descriptive Survey method.

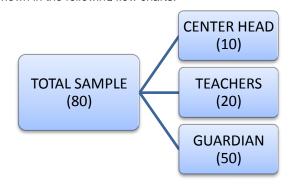
Population and Sample

The population of the present study has been defined as all the schools under the franchisee of Kid Veda of Greater Guwahati. Kid Veda has all total 46 centres in Assam of which 25 centres are

Periodic Research

operating in Guwahati. Thus all the teachers, heads of the centres, and guardians of 25 centres of Greater Guwahati are the total population of the present study.

After defining a population and listing all the units, the researcher selects a sample unit from the sampling frame with the help of purposive sampling technique. The sample for the present study can be shown in the following flow charts:



Tools Used In The Study

The data gathering tool for the present study

are-

Self-Structured Questionnaire

- a. Centre head
- b. Teachers

Interview Schedule

a. Guardians

Personal Observation

a. Students

Data Treatment and Statistical Technique Used

For Interpreting and analyzing the data, following statistical techniques has been used:

- Simple Percentage
- 2. Graphical Representation

Analysis and Discussion

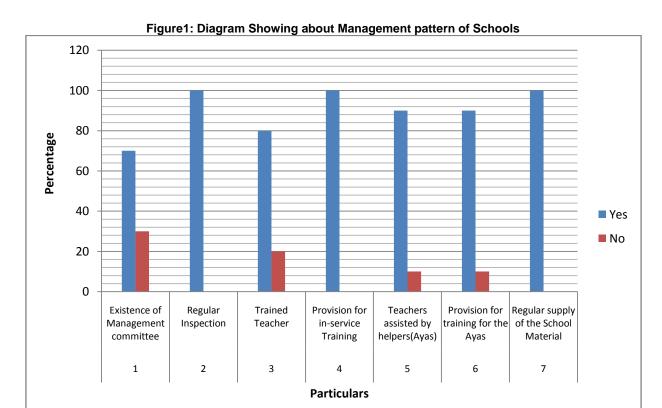
Analysis and Interpretation of the data is done in accordance with the objectives:

Management pattern of the pre- school of Greater Guwahati-

Table1: Management Pattern of the schools

SI. No.	Particulars	Responses In Percentage	
		Yes	No
1.	Existence of Management Committee	70%	30%
2.	Regular Inspection	100%	-
3.	Trained Teachers	80%	20%
4.	Provision For In Service Training	100%	-
5.	Teachers Assisted By Helpers(Ayahs)	90%	10%
6.	Provision Of Training For The Ayahs	90%	10%
7.	Regular Supply Of The Study Material	100%	-

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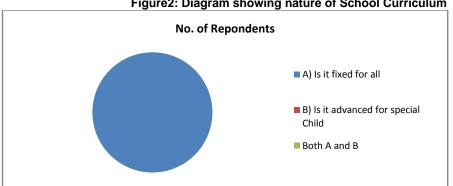
From the Table: 1 and Figure: 1, it is revealed a few schools have their own management committee; all the centers' were regularly inspected twice in a year by the head office of Kid Veda school; almost all the teachers were Montessori trained while all the centers have the provision of in-service training

which is provided by the head of those institutions. It was found that the teachers were assisted by helpers and they have provision of training for the helpers; again table reveals that all the centers' get regular and timely supply of study material and necessary resources.

Table 2: The Nature of The School Curriculum

Parameters	No. of respondent in (%)
It is fixed for all	100%
It is advanced for special child	-
Both a and b	-

Figure2: Diagram showing nature of School Curriculum



From the above and figure it is observed that the Kid Veda school curriculum is fixed for all the students. There is no provision of specially designed curriculum for the special children.

3: Interpretation on Qualities of a pre-school teacher:

Regarding the qualities the entire center head consider good personality and child friendly as prime quality for a pre-school teacher, Almost all the center head holds that educational qualification and

minimum two year experience in pre- school as a necessary quality of a pre-school teacher.

4: Interpretation of parent teacher meeting

Almost all of pre- schools organize parent teacher meeting half yearly and annually. While some centres organize individual parent teacher meet to give perfect view of their child's growth.

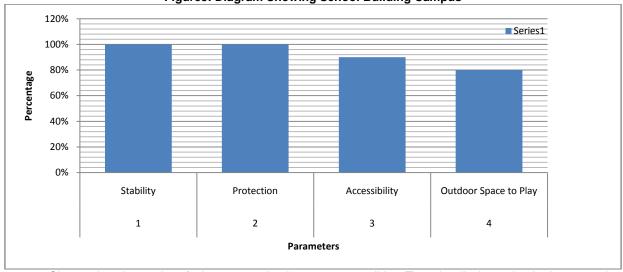
The Infrastructural facilities and Activity Based Learning Practices of the pre-schools

Periodic Research

Table 5: School Building/Campus

SI. No.	Parameters	Responses In Percent
1	Stability	100%
2	Secured Campus	100%
3	Accessibility	90%
4	Outdoor space to play	80%

Figure3: Diagram Showing School Building Campus



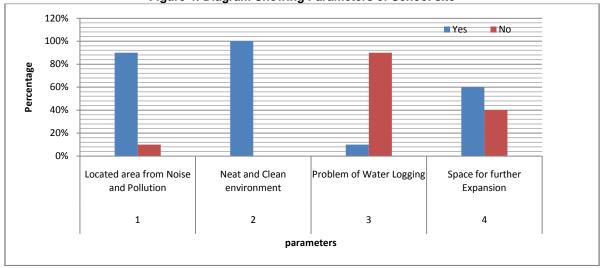
Observation is made of the pre-school building/ campus revealed the following result -All the centers were surveyed safe, stable and well protected. Some pre-school centers were not directly

accessible. Though all the schools have outdoor space to play but play grounds are not spacious and safe

Table 6: Data and diagram showing about the School Site

SI. No.	Parameters	Respon	Responses In Percent	
		Yes	No	
1	Located Away From Noise And Pollution	90%	10%	
2	Neat And Clean Environment	100%	-	
3	Problem Of Water Logging	10%	90%	
4	Space For Further Expansion	60%	40%	

Figure 4: Diagram Showing Parameters of School site



Observation is made of the pre- schools site which revealed the following result (ref. Table No.6)

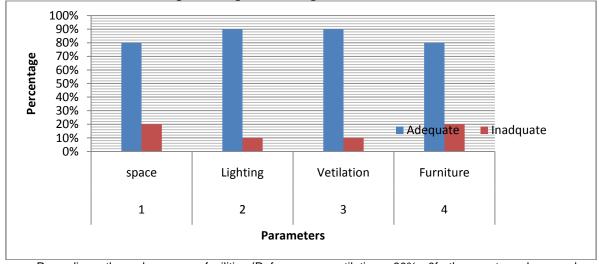
Almost all the pre- schools were located away from noise and pollution, all the centers were observed neat and clean environment by the observer, all centers have adequate access to water, and a few of the centers have space for further expansion while some of the surveyed centers does not have space for further expansion.

Periodic Research

Table 7: Classroom Facilities

SI. No.	Parameters	Responses In Percent	
		Adequate	Inadequate
1	Space	80%	20%
2	Lighting	90%	10%
3	Ventilation	90%	10%
4	Furnisher	80%	20%

Figure5: Diagram Showing Classroom Facilities



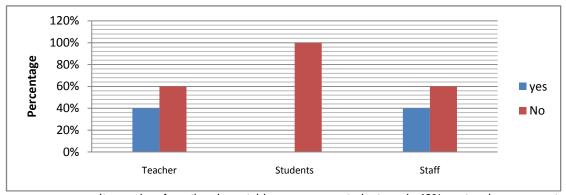
Regarding the classroom facilities,(Ref. Table No. 5) 80% of the centers have adequate space, 90% centers have proper lighting and

ventilation, 80% of the centers have adequate facilities of furnisher in their schools.

Table 8: Data showing about the Availability of Common Room

Separate Common Rooms For	Responses in percentage	
	Yes	No
Teacher	40%	60%
Students	-	100%
Other Staff	40%	60%

Figure 6: Chart showing availability of Common Room



It was clear from the above table no. 6 that no schools have common rooms for the

students, only 40% centers have separate common rooms for teacher and other staff respectively.

Table 9: Decoration of School Classroom

SI. No.	Parameters	Responses In Percent
1	With Cartoon Character	100%
2	With Teacher And Children Original Art Work	20%
3	Both 1 And 2	50%

Table No. 9 shows that, the classrooms of all the pre-school s undertaken for the study were decorated. While all the schools have their own cartoon characters, 20% of the centers were

decorated with the original art work of the teacher and student while half of the sample schools were decorated with both cartoon characters and original art work. P: ISSN No. 2231-0045

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Periodic Research

Table 10: Other Infrastructural Facilities

SI. No.	Parameters	Responses In Percent	
		Adequate	Inadequate
1	Drinking Water	100%	-
2	Toilet Facility	90%	10%
3	Storage Facility	80%	20%
4	Library Facility	100%	•
5	Play Material	80%	20%
6.	Out Door Equipment	70%	30%
7.	Transportation Facility	90%	10%

Figure7: Chart Showing Infrastructural Facilities

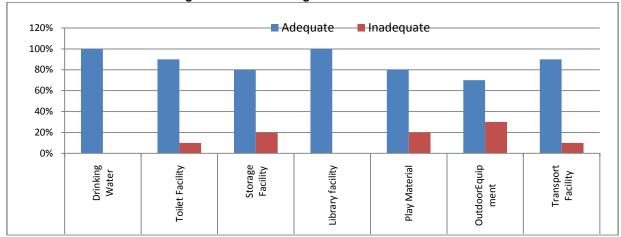


Table No. 10 shows that, all surveyed centers have adequate potable water, library facilities, almost all centers have satisfactory toilet facilities and good transportation facilities, all centers have adequate storage and adequate play materials, again most of the centers have adequate outdoor equipment.

Table 11: Different Amenities' In Schools

SI. No	Amenities	Responses In Percent		
		Available	Un- available	
1	Auditorium	10%	90%	
2	Music And Dance Hall	100%	-	
3	Globe	10%	90%	
4	Play Ground	90%	10%	
5	Map And Charts	100%	-	
6.	Scientific Apparatus	-	100%	
7.	Laboratory	-	100%	
8.	T.V / Computer	100%	-	

Regarding the amenities in the centers, it was clear that all centers have available Music and Dance Hall, Map and charts, T.V/ computer; no centers have auditorium, the head of the institution organize common annual function with all the centers,

Only a few centers have globe; and almost all the surveyed centers have play ground; scientific apparatus and laboratories are not available in any of the surveyed school.

Table 12: Data showing different activities for Children (Including Celebration)

SI.No.	Activities	Responses In Percentage
1	Field Trip	40%
2	Puppet Show	30%
3	Water Play	50%
4	Sand Play	-
5	Music And Dance	100%
6	Dramatic Play	-
7	Gardening	50%
8	Yoga	90%
9	Cultural/Sports Day	100%
10	Annual Day	100%

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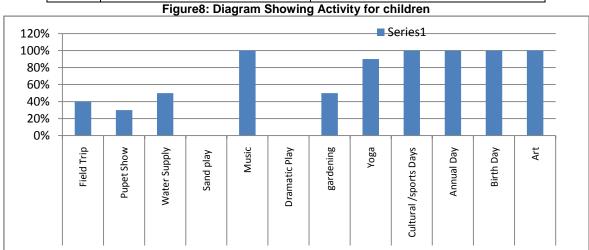


Table No. 12 reveals the fact that, all the sample school plays different activities in each session such as- cultural and sports day, annual day, birthday, art and craft, music etc. in their schools. While, a few centers organize water play and gardening, field trip for their student to give original

view of nature and puppet show. For activity almost all the schools do yoga every day during the assembly time. It is also clear from the above table that sand play and dramatic play are not organized by any one of the surveyed school.

Table 13: Data Related How Children Learn Different Concepts

SI. No.	Basic Concepts	Alphabets	Numbers
1	Through Rhymes	Through Rhymes	Through Rhymes
2	By Role Play	Knob Board	By Counting Beads/Blocks
3	Using Simple Materials	Flash Card/Sand Tracing	Using Abacus
4	Day To Day Activity	Showing Charts And Pictures	Sand Tracing

The above table (No.13) shows that-

- i) The basic concepts like colors, plants, animals flower, traffic rules and the like are taught through
 - a) Rhymes
 - b) By Role Play
 - c) Using Simple Materials and
 - d) Day to Day Activity.
- ii) Alphabets and Numbers are not lean through rote learning instead they use various activities where

students can see, touch, and feel. They learn together through the following activities-

- a) Through Rhymes
- b) Knob Board
- c) Flash Card/Sand Tracing
- d) Showing Charts and Pictures
- e) By Counting Beads/Blocks
- f) Using Abacus

Table 14: Data showing about Different Play Material Used While Teaching

SI. No.	Play Materials	Responses In Percentage	
		Yes	No
1	Object Board	100%	-
2	Sand Game	100%	-
3	Blocks	100%	-
4	Toys	90%	10%
5	Colour Bids	80%	10%
6	Knob Board	90%	10%
7	Cylinder Blocks	70%	30%
8	Shapes	50%	50%
9	Chart	100%	-
10	Clay	100%	-

It was revealed the fact that the surveyed schools uses various play materials during teaching such as - Toys , color bids , knob board, cylinder blocks, shapes, charts, clay etc. Some of the teachers

also use original objects to make teaching more interesting. The school also takes their students in different local places like zoo, museum, play ground, parks etc.

Periodic Research

SI. No.	Developmental Area	Activities
1	Physical And Motor Development	Skipping, jumping, dancing, gardening etc
2	Sensorial Development	Noise box, Musical Bell, Pink Cube etc.
3	Language Development	Storytelling, rhymes, phonetics, etc.
4	Social and personal Development	Sharing things with friends, role play etc.

Table 15: Data showing about Learning Activity Focused On

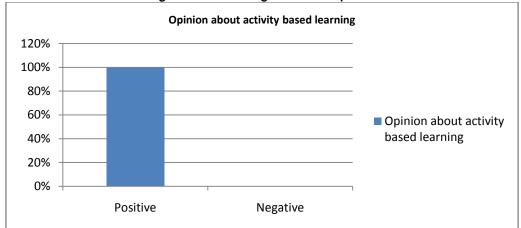
The above table shows that, the sample schools use various activities for all round development of the students. Such as-

- 1. For physical and motor development they use skipping, jumping, dancing, gardening etc.
- 2. For sensorial development they use noise box, musical box, pink cube etc.
- 3. For language development they use story -telling, rhymes, phonetics etc.
- For social and personal development teachers taught to share things with others, playing role etc.

Table 16: Data showing about teacher's Opinion about Activity Based Learning

	Responses In Percentage	
Opinion about activity based learning	Positive	100%
	Negative	-

Fig: 9 Chart Showing Teacher's Opinion



A very interesting fact is revealed from the above cited table that the entire teacher hold positive attitude regarding activity based learning. According to the sample teachers, activity is very important and necessary for the pre-school student and they found that their child have much clear concept what they have learnt in their school.

The guardian's satisfaction on the activity based learning practices of the schools:

Table 17: Involvement of Parents in School

SI. No.	Categories	Yes	No
1	Orientation Program	80%	20%
2	Parents Participation In School Function	100%	-
3	Opportunity To Take Part In Classroom Activity	10%	90%
4	Suggestion from parents	90%	10%

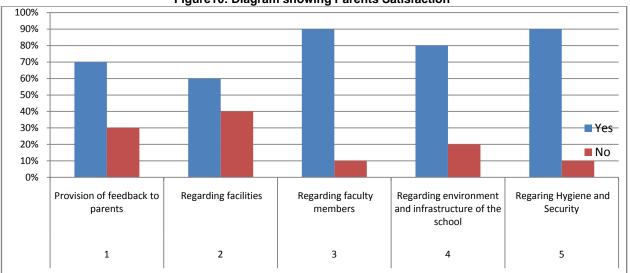
The above cited table reveals that, the involvement of parents by inviting them to functions of the pre-school will be an opportunity to be availed of for bringing the school and home closer. In this regard, all the pre-school surveyed centers involve the parents of the students in orientation program. While, only guardians of a few centers holds that their school provide opportunity to take part in classroom activity. Majority of the guardian tells that the school listens to their suggestions regarding the improvement of the quality of the surveyed pre-school while, a few sampled school's guardian reveals that their child's school organize individual meetings.

Table 18: The Parents' Satisfaction

S.No.	Particulars	Responses in Percentage	
		Yes	No
1.	Provision of Feedback to Parents	70%	30%
2.	Parents Satisfaction Regarding Facilities	60%	40%
3.	Parents Satisfaction Regarding Faculty Member	90%	10%
4.	Parents satisfaction regarding environment and infrastructure of the school	80%	20%
5.	Parents satisfaction regarding hygiene and security	90%	10%

Periodic Research

Figure 10: Diagram showing Parents Satisfaction



The above table shows data regarding the parent's satisfaction level on different areas-

- Majority of the parents agreed that their school provide regular feedback of their child's progress.
- Almost all the parents are satisfied about the facilities of their child's pre- schools.
- Greater part of the parents is satisfied regarding faculty member of the sample pre- schools.
- Almost all the parents are satisfied with the environment and infrastructure of the preschools.
- Almost all the guardians were satisfied regarding the hygiene and security of the surveyed preschools

Table 19: Developmental Areas of Their Child

SI. No.	Developmental Areas	Responses In %
1	Language (Understanding And Using Oral Speech)	90%
2	Social (Getting Along With Other Child And Adults)	80%
3	Self Care (Taking Care Of His/ Her Own Needs, Such As Feeding, Toileting,	90%
	Dressing, Etc.)	
4	Motor Skill (Eye Hand Coordination Etc.)	90%
5	Pre Academic (Recognizing Colors, Printed Name, Letters Of The Alphabet,	80%
	Numbers, Etc)	
6	Development Of Problem Solving Skill	50%

Table no. 19 clearly shows the fact about the guardians' view regarding development of their child. The different areas are –

- Almost all guardians admit that their child improve language skill
- Almost all guardians admit that their child increase social development.
- Regarding self care of the child majority of guardian agreed on that regard.
- Greater part of the child shows progress regarding Motor skill according to the sample guardian.
- Majority 0f the guardian said their child shows progress in the pre academic skill likerecognizing color, alphabet, numbers, printed name etc.
- 6. Half percent of the guardian said their child shows progress in positive problem solving skill.

Table20: Parents satisfaction regarding activities in the pre-schools

No of satisfied parents in percentage	No of dissatisfied parents in percentage
90%	10%

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Figure 11: Diagram Showing satisfaction and dissatisfaction of parents

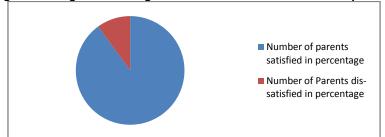


Table No.20 reveals the fact that almost all the guardians were satisfied with the activity bases learning practices of the pre- school. They seem happy to see the growth in their child after sending them to the pre- school.

Major Findings

The major findings of the study are enumerated below:-

- Almost all the Centers of Kid Veda schools have their own Management Committee.
- Almost all of the schools centre head hold that the curriculum satisfies the need of the activity based learning.
- All the Centers are regularly inspected by the Kid Veda Head Office academic staff.
- All the Centers have provision for in service training.
- There is a provision for training for the Ayahs of Kid Veda School. But some of the centers did not appoint ayahs in their school.
- All the centres have fixed curriculum for all the children. The curriculum is not made advanced for the special child.
- A few centres did not have common room for the teacher, students and other staff.
- 8. The appointment of teacher in those schools is only given after taking written and oral exams.
- Parent teacher meeting were regularly held in all of the pre-school centers. While individual meetings were held in only a few of the centers of these Pre –School.
- All the centre schools buildings are of Pucca and have CCTV installed, and have adequate scope for further expansion.
- 11. Almost all centres have provision for outdoor play-space.
- 12. All the centers are located away from noise and pollution but are easily accessible to parents and employees, and also have neat and clean environment.
- 13. The investigator observed that the centres were very beautifully decorated by different cartoon characters and with original drawing/painting from the children, to make the class attractive for the students.
- 14. All surveyed centers have adequate portable water, toilet facilities, and storage of play materials, outdoor equipment etc.
- All the centres use Montessori and Frobel's method of teaching.
- 16. Concepts like alphabet, numbers etc. are taught in the pre-schools by:

- a) Alphabets: Rhymes, Knob board, flash card/sand tracing etc.
- b) Numbers: -Using Abacus, sand tracing, Counting Beads, Blocks etc.
- Other concepts- By telling stories, Rhymes, field trip etc.
- 17. The centers use different teaching materials like toys, color bids, knob board, cylinder blocks, clay, chart, real objects etc, to make teaching learning process more vibrant and effective.
- 18. Those schools always have their focus on different development areas of their children such as- physical sensorial, language, social and personal and for that they use various activities, techniques, and teaching methods.
- 19. All the teachers' of the school holds positive attitude towards Activity Based Learning. They also reveal that it was a very complex and difficult task to make all children involved in activities.
- There is adequate provision for the guardian to know about what their child is learning in the school.
- 21. Provision of feedback from parents is adequate.
- 22. Majority of the parents expressed satisfaction regarding the facilities provided by the schools.
- Majority of the guardians said that their child shows progress in the pre academic skills likerecognizing color, alphabets, numbers, printed names etc.
- Almost all the surveyed guardians were satisfied with the Activity Based Learning practices of the school.

Conclusion

The importance of Activity Based Learning has been advocated by various scholars from time to time. During investigation it was found that almost all the pre-schools (with special reference to Kid Veda schools of Greater Guwahati) try to implement the basic principle of Activity based learning in their schools. With the combination of both modern and traditional methods all round development of the pupils is ensured. Schools use different methods like drawing, field trip, games, dancing, singing, storytelling etc. It is also evident from the present study that the pre-schools have taken various initiatives to implement activity base learning in their centers, for instance - common annual function with all the centers, in-service training facilities for the newly appointed untrained teachers, parent teachers meet, Ayahs training etc. These steps undoubtedly improve the quality of the pre -school and also increase the interest of the teachers, students as well as the quardians.

Periodic Research

No doubt the Kid Veda schools are trying to incorporate Montessori and Frobel's methods of teaching in their regular school activities, but it is not possible to follow these principles in the present technical world. Now a day, parents not only demand for physical activities but also that the school must prepare their child for the primary education. Preschools have a great role in shaping overall life of a child as his first impression of the outside world can be formed here. Greater emphasis should be laid on character building. Doctors, therapist even suggested

whole. Endnotes

1. Kohli, V. K. (1979) – Current Problems Of Indian Education. Published by ShriR.G.Monocha Krishna Brother.Amritsar pp.4

for proper and overall growth of the children. Preschools should understand their responsibility, not only towards individual child but towards society as a

- Lakshmi, A. (2007) 'Activity based learning a report on an Innovative Method in Tamil nadu' [Online], from: http://www.ssa.tn.nic.in/Doc/ABLreport by- Dr.Anandhalakshmi.pdf [2013, May 20]
- Mukherjee, S. N. (1992) Education in India today and tomorrow, published by – VinodPustakMandir,; pp-4
- Christopher Babu, T. (2009) 'Effectiveness of Activity Based Learning as compared to Conventional Method of Teaching in the context of Developing Practical skill in Science' [Online], from: ps://sodhganga.inflibnet.ac.in, URI: http://hdl.handle.net/10603/102124[2016]
- 5. Bhatia, K. & Bhatia, B.D. (1997) "The Principal and Methods of Teaching" Delhi: Doaba house.
- Koul, L. (2005) "Methodology of Educational Research" New Delhi: Vikas Publishing House Pvt. Ltd
- 7. Andres, D. S; GERTLER, P; & Berkeley, U. C, (2006), "The effect of Pre-Primary education on primary school performance"
- Awasthi D, (2014), "Activity based learning Methodology can bring improvement in quality of education in India".
- Changkakati G. (2008) "A study on the new Activity Based Pre-Schools of Greater Guwahati" M.Ed.Dissertation, Gauhati University
- 10. Eimear, F; Terry, P; & Stephen, W. (2012), "An activity based Approach to the learning and teaching of Research Methods; Measuring student engagement and learning"
- 11. Hariharan P, (2011), "Effectiveness of Activity Based learning Methodology for elementary school education".

Internet Sources

- 12. http://www.onlineetymologydictionary/data
- 13. Wikipedia(2016)datawikipedia,thefreeencyclopedia.Retrievedfrom http://en.wikipedia.org/wiki/data
- 14. www.healthofchildren.com
- https://en.m.wikipedia.org Activity Based Learning in India Reverted edits by 39. 35.129.69 (talk) (HG) (3.4.3)
- 16. https://www.merriam-webster.com
- 17. https://kidveda.com