Impact of Innovative Classroom Learning Environment on the developmental domains of Pre-School Students – A Study

Dr. Nasreen Bano*

ABSTRACT

This paper investigates the impact of innovative learning environment on the developmental domains of preschool students. The present study is experimental one and is conducted in Srinagar district of Kashmir. The investigator has taken 60 Preschool students from Govt. Primary schools i.e., 30 from Nanhey Qadam Preschools where students are taught by providing Innovative learning environment and 30 from Govt. schools where the students were taught with conventional teaching. Structured Interview and observation were used for the collection of data and t-test was used to analyze the data. The result reveals that i) Innovative Learning environment have positive impact on Physical development of Preschool students ii) Innovative Learning environment have positive impact on Physical developmental of Preschool students iii) Innovative Learning environment have positive effect on language development of Preschool students. Iv) Innovative Learning environment have positive effect on cognitive development of Preschool students v) Innovative Learning environment have positive effect on socio-emotional development of Preschool students.

Key Words: *Innovative Learning Environment; Physical development; Language development; Cognitive development; Socio-emotional development; Preschool student.*

INTRODUCTION

The early years are critical in a child's life since the pace of development in these years is most rapid than at any other stage of development. During these first five years the connections in the brain or synapses are formed in

* State Resource Person ECCE (DSEK/SIE), Post Doctorate Scholar ICSSR (Central University of Kashmir)

abundance. The connections that are reinforced and used a lot become permanent part of the brain and those which are not used or remain unused are eliminated. These years determine child's survival and thriving in life, and lay the foundations for her/his learning and holistic development. It is during the early years that children start developing the cognitive, physical, social and emotional skills that they need to succeed in life. Children who experience high quality provision in early years are well placed to achieve higher outcomes at school and develop better social, emotional and cognitive abilities necessary for life-long learning. Poor quality provisions do not support children's learning and development in the long term. Positive and encouraging experiences provided to children during this period help develop a positive self concept and enable them to adjust well in later life.

Research from around the world highlights the importance of early childhood education, and suggests that high-quality early childhood education has the highest long-term returns in terms of improved human development. How well children do in school, depends on how well they start. The twelfth five-year plan of the Government of India also places a high priority on universalizing pre-school education and improving school preparedness- especially for socially and economically disadvantaged children.

System of Kindergarten

Kindergarten from **German** language which literally means "garden for the children" is a preschool educational approach traditionally based on playing, singing, practical activities such as drawing, and social interaction as part of

the transition from home to school. The term was coined by the German, **Friedrich Frobel,** whose approach globally influenced early-years education. The first such institutions were created in the late 18th century in **Bavaria** and **Strasbourg** to serve children whose parents both worked out of the home. Today, the term is used in many countries to describe a variety of educational institutions and learning spaces for children ranging from **2 to 7 years of age**, based on a variety of teaching methods.

Maria Montessori is another Italian Educator who revolutionized preschool education all over the world. **Montessori Education** involves free activity within a "prepared environment", meaning an educational environment tailored to suit the individual personalities of each child. The function of the school environment is to help and allow the child to develop independence in all areas according to his or her inner psychological directives. Getting inspiration from Maria Montessori, Giju bhai Bhadeka and Madam Tarabai Modak pioneered pre-school education in India. Both of them jointly started "Nutan Bal Shikshan Sangh (a Pre-school) in 1926 for the spread and development of preprimary school and teacher training center in Dadar in north Bombay.

Aurobindo Gosh is another name in this field from India. According to him, a real education provides a free and creative environment to the child by developing the child's interests, creativity, mental, moral and aesthetic senses and finally leads to the development of the spiritual powers. The main aim of education is to bring out the real man. He created Ashram school in Pondicherry.

Early Childhood Care and Education (ECCE) and Important National Documents

The Government of India has brought out the *National Early Childhood Care and Education (ECCE) Policy (2013), National Curriculum Framework for ECCE and Quality Standards for ECCE.*

Article 45 which retains ECE as directive principle reads:

"The State shall endeavor to provide early childhood care and education for all children until they complete the age of six years."

RTE 2009 suggests for providing preschool education in chapter III, 11 as follows:

"*With a view to prepare children above the age of three years for elementary education and to provide early childhood care and education for all children until they complete the age of six years, the appropriate Governments may make necessary arrangements for providing free preschool education for such children."* The necessary steps were taken for 3 roomed KG

1. **Identification of school building for the establishment of K.G section**
2. **Household survey of feeding area of identified school for database of children in the age group of 3-6**

i. Framing of Questionnaire
ii. Data collection from field
iii. Tabulation of data
iv. Interpretation and Analysis of data

3. Refurbishment of Existing School Building

i. Refurbishment of existing school building

ii. Painting of walls, roof, floor

iii. 3 rooms for nursery (3+age) one for K.G (4+age) & one room for Activity cum Arts & Crafts room.

4. Classroom Infrastructure

i. Furniture- tables/Chairs for KG students, matting for Nursery/KG kids

   a. Pigeon hole wooden racks for keeping belongings of Kids (bags, TLM, etc.)

   b. Book racks

ii. Technology inputs – projector/Smart board

iii. PSE Kits (Pre-school education kits framed by NIPCCD, NCERT)

iv. Other required TLM

5. Advocacy / Complaining / Sensitization through media, Community mobilization

6. Admission brochure/flex

Room1

Objective: Development of domains among the child.

Infrastructure: Mats soft chair and tables (stock table) Child friendly Racks Child level boards, notice boards

- Language corner
- Dominoes
- Flash Cards
- Story cards,
- Conversation chart as per theme

- Art &craft corner
- Math corner
- Science corner

Room 2

- Kurlon bed
- Bedsheet
- Pillow
- Doll corner
- Reading corner
- Music corner with instruments
- Curtain
- Racks Child friendly
- Welcrow noticeboard
- Toycorner
- Therapy balls

Room No.3

- Mats
- Smartboard
- Laptop
- Projector
- Printer
- Pages/Paper
- Photostat
- Curtain
- Jungle gym
- See saw
- Slide
- Skipping rope

Ground area

- ***Sand Area***
- Water Area
- Wash basin
- Towel
- Soap

Note from Core Group

The core group started by deliberating on the overall structure of the Kindergarten Curriculum and formulating the key areas of early childhood development to be covered in this document. The discussion on the overall structure was guided by the consideration that as it is meant for the frontline users (Preschool teachers, teacher trainers, etc.), it should be user friendly making it easily understood and usable. It was thus organized thematically with weekly plans on specified themes. Sample plans on some themes and sub themes were also annexed for the reference of teachers. More over assessment cards based on CCE pattern for quarterly assessment of KG children were also framed and appended therewith.

This curriculum should be launched in the school after proper orientation of the teachers on the implementation part. For that matter, phase wise orientation program of the kindergarten teachers be organized through continuous capacity building programs. Overall observation of the group is that the document in hand needs to be substantiated with more research-based inputs, incorporating therein the feedback observations received from the practicing teachers who would be field testing this document in schools. So, there is still scope for improvement. Moreover, this document should be

supported by activity/ story/ rhyme banks which require to be compiled.

REVIEW OF LITERATURE

In terms of early developmental aspects of child play their social emotional, cognitive, physical, language and creative skills are all being developed through their play and exploration (Steglin,2005) Social Interaction between children increases during constructive play. This type of play has several benefits for the children including; problem solving, using their imagination and creativity to learn, as well as cooperate with others (Stegelin, 2005)

The idea of children's social play is an important aspect of learning in early childhood education. Though both solitary play is an important aspect of learning in early childhood education. Through both solitary play and social play children develop self-conventional, problem-solving strategies, language fluency in communication and cooperation, as well as an understanding of symbolic representation and social behaviour (Stegelin, 2005). It is through play that children about their environment and themselves. They enhance their creativity and imagination and can take on their environment roles. As children play, they learn how to get along with others, communicate with peers and how to solve problems. As a child interacts with other children their language skill develops and become stronger. Together they learn to explore, cooperate, take turns and share through (Stegelin, 2005).

Ways Children Learn through Play

When children play, they are learning, imagining, creating either on their own or with other children. The Social play

continuum is put in place to support an assessment based on the observation and interaction among children (Broadhead, 2006). It also encourages educators to assess the Childs learning progression from social interaction to cooperation and at the same time linking developmental skills and cooperation.

Broadhead (2006) advocates educators to use observation, reflection, interaction among children to promote developmentally appropriate practice. The social play continuum has four domains that show development from Associative play meaning children playing by themselves but alongside other children, to Cooperative Play meaning children interacting and playing together (Broadhead, 2006). As these types of play amongst children increases, their language and actions become more complex as a result.

Socio-dramatic play also known as dramatic play, is a type of play that has been shown to develop necessary school readiness skills (Bredekmap, 2005). Some aspects of socio-dramatic play include using creativity and imagination to invent games and involves using language and social interaction between children.

Benefits of play for young children

Through the process of using “real” life experiences in their play, the children are coming to terms with their reality and making sense of life as they know it (Bhroin, 2007). Expressing this through art or play is important for the

child's emotional, social development (Bhroin, 2007). This type of play also creates meaningful connection to the Childs life and gives them way to express it. On an educational level the children are able to express experiences, thoughts, fears, dreams and ideas in a safe and fulfilling way, which in turn develops skill of self-expression and communication that will benefit throughout their entire lives.

Studies have shown that dramatic play during the early years develops school readiness skills as language and communication, cooperation and literacy skills (Bredekamp, 2005).

Bredekamp (2005) discusses research that shows when children enter kindergarten with some prior knowledge about early literacy skills, like letter and sound recognition, they have an advantage over the other children who have not had any prior experiences learning literacy skills at learning to read.

How to incorporate play in the Classroom

Warner (2008) said "Play changed from being activity based to being more object based". Now instead of playing with toys they have multiple uses, such as building blocks, children now have computers, video games, and other toys that make noise. Those types of toys are intended for a single purpose that includes no imagination or creativity for the child (warner 2008).

The educational toys are manipulative that children play with should be chosen carefully depending on the age group. The toys should be able to challenge the children's interests and abilities and should match the skill and ability

level of the child without making them feel frustrated (Stegelin, 2005) since both solitary and social play is important and necessary in a child's development, toys should be able to foster both aspects of play. For example; a child can play alone with building blocks and in the process develop self-sufficiency and independence. At the same time, playing with the same building blocks with a group of children build social skills such as cooperation, sharing, and empathy for others (Stegelin 2005).

By identifying how young children view play as a whole, it is important for us as educators to set up learning environment that encourage more meaningful play (Howard, Jenvy & Hill, 2006).Constructive play is a type of play that involves children using hands-on inquiry based learning, and discover new ways of learning.(Drew et al. 2008). Young children need a developmentally appropriate amount of time, and open ended materials available to them to make this type of learning valuable to them (Drew et al., 2009). Constructive play should also be linked with other types of play in classroom, such as dramatic play, and it should be connected to activities in the school's curriculum for it to be more educational (Drew et al., 2009)

Objective

1. To study the impact of innovative learning environment on the physical development of Preschool students.
2. To study the impact of innovative learning environment on the Language development of Preschool students.

3. To study the impact of innovative learning environment on the cognitive development of Preschool students.
4. To study the impact of innovative learning environment on the socio-emotional development of Preschool students.

Hypothesis

1. Innovative learning environment will have positive effect on the physical development of Preschool students.
2. Innovative learning environment will have positive effect on the Language development of Preschool students.
3. Innovative learning environment will have positive effect on the cognitive development of Preschool students.
4. Innovative learning environment will have positive effect on the socio-emotional development of Preschool students.

Operational Definition of Variables

1) **Innovative learning environment**: Innovative learning environment for the present study shall refer to the learning gained through stimulating environment and experimentation. Experimentation further refers using various innovative techniques, which must have a variety of materials to arouse and sustain Preschool students' curiosity and interest and promote his

learning.

2) **Physical development**: Physical development for the present study shall refer to the motor development i.e. development of 'gross' and fine motor skills in Preschool Children. Gross motor skills like walking, running and jumping and fine motor skills like cutting, drawing etc.

3) **Language development**: Language development for the present study shall refer to the development of Listening, speaking, reading readiness, writing readiness skills in Preschool students.

4) **Cognitive development**: Cognitive development for the present study shall refer to the development of mental skills that enable preschool student to get to know his environment. Mental skills like observation, memory, classification, sequential thinking, Reasoning and Problem solving.

5) **Socio-emotional development**: Socio-emotional development for the present study refers to development of good habits, basic human values, attitudes and emotions.

6) **Preschool student**: Preschool students refers to the students who are reading in KG1 and kG 2 classes and whose age is 3 to 5.

METHODOLOGY

Conventional group and Innovative learning group were assessed through interaction and by giving various activities on physical, language, cognitive and socio-emotional development and was used to determine the effect of innovative learning environment on developmental domains of preschool kids.

SAMPLE

The sample for the present study consists of 60 Preschool students taken from Govt. Preschools of District Srinagar i.e., 30 from Nanhey Qadam schools (Innovative Learning group) and 30 from other Govt. school (Conventional Group)

Sample	Nanhey Qadam (Innovative Learning Group)	Govt. Schools (Conventional Group)
	30	30
Total Sample	60	

TOOLS USED

For collecting data, the investigator involved sample in certain activities related to developmental domains of Physical, language, cognitive, socio-emotional development.

STATISTICAL TECHNIQUE USED

The collected data were analyzed by applying mean, S.D, Correlation and t-test in order to find the difference between mean of Conventional group and Innovative learning Group.

ANALYSIS AND INTERPRETATION OF DATA

Table 4.1

The following table show the Mean difference of Conventional group and Innovative learning group test scores of Preschool students on physical development.

Groups	Mean	S. D	Correlation	t ratio	Level of significance
Conventional Group	3.17	1.40	0.63	14.91	Significant at0.01 Level
Innovative learning group	10.00	3.16			

The above table depicts the mean on the Conventional Group is 3.17, S.D has been found 1.40 while as mean on Innovative learning Group conducted after providing Innovative learning environment to preschool students, Physical development has been found 10.00, S.D has been found 3.16 and the t-ratio has been found 14.91 which is found significant at 0.01 level.

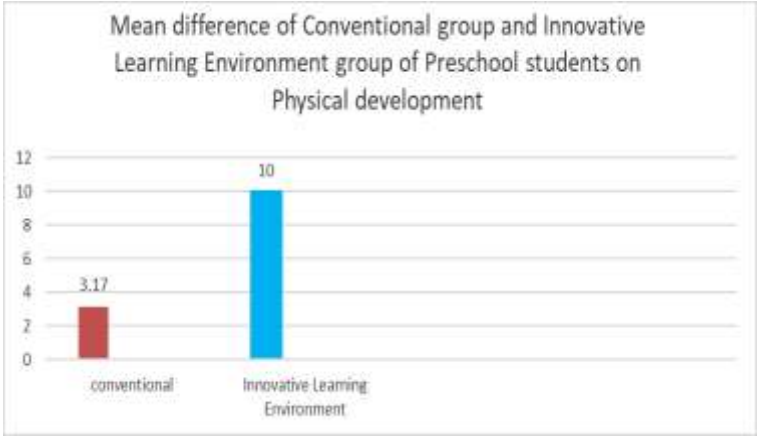


Table 4.2: Mean difference of Conventional group and Innovative learning group test scores of Preschool students on language development

Groups	Mean	S. D	Correlation	t-ratio	Level of significance
Conventional Group	3.9	0.99	0.71	13.5	Significant at0.01 Level
Innovative learning group	9.6	2.19			

The above table depicts the mean on the Conventional Group is 3.9, S.D has been found 0.99 while as mean on Innovative learning Group conducted after providing Innovative learning environment to preschool students. Language development has been found 9.6, S.D has been found 2.19 and the t-ratio has been found 13.5 which is found significant at 0.01 level.

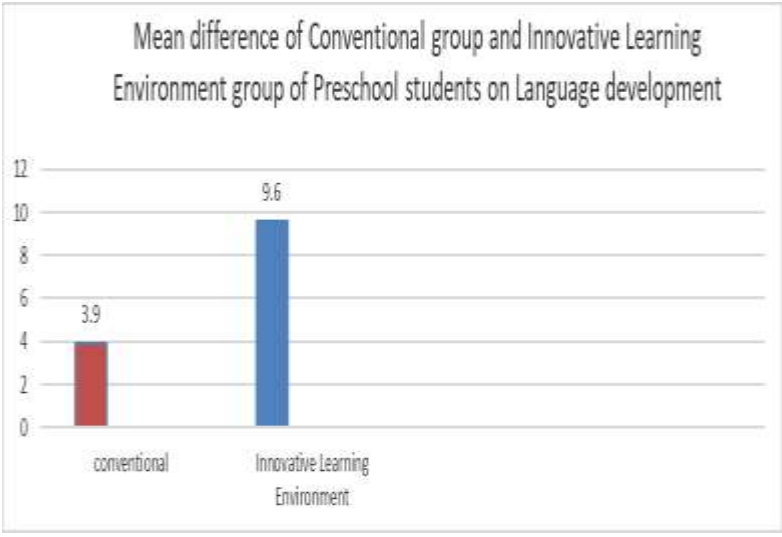


Table 4.3 Mean difference of Conventional group and Innovative learning group test scores of Preschool students on cognitive development

Groups	Mean	S.D	Correlation	t-ratio	Level of significance
Conventional Group	3.17	1.40	0.63	14.91	Significant at 0.01 Level
Innovative learning group	10.00	3.16			

The above table shows the mean on the Conventional Group is 3.17, S.D has been found 1.40 while as mean on

Innovative learning Group conducted after providing Innovative learning environment to preschool students. Cognitive development has been found 10.00, S.D has been found 3.16 and the t-ratio has been found 14.91 which is found significant at 0.01level.

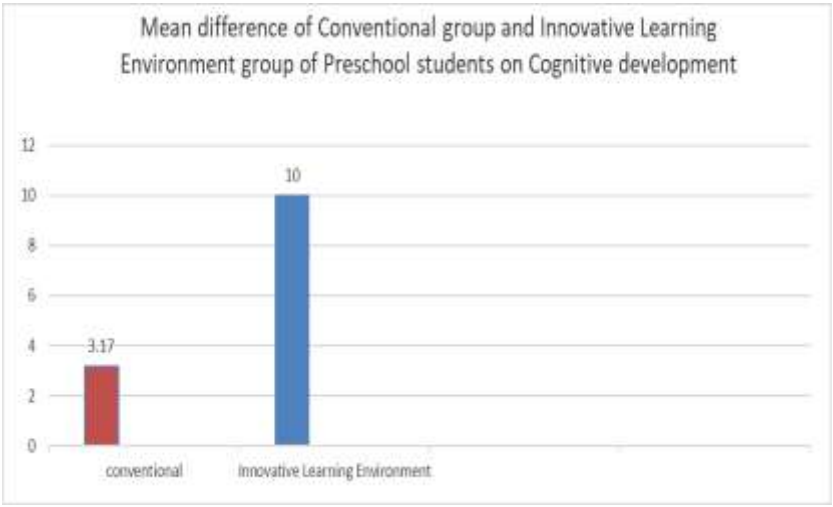
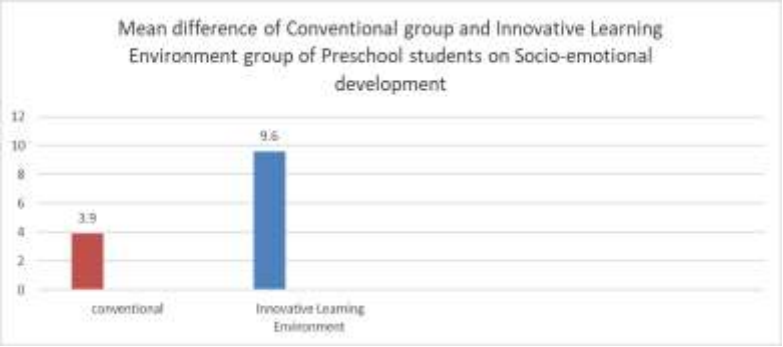


Table 4.4 Mean difference of Conventional group and Innovative learning group scores of Preschool students on socio-emotional development

Groups	Mean	S. D	Correlation	t ratio	Level of significance
Conventional	6.6	2.58	0.43	7.0	Significant at0.01 Level
Innovative learning	10.8	3.40			

The above table depicts the mean on the Conventional Group is 6.6, S.D has been found 2.58 while as mean on Innovative learning Group conducted after providing Innovative learning environment to preschool students, Socio-emotional development has been found 10.8, S.D has

been found 3.40 and the t-ratio has been found 7.0 which is found significant at 0.01 level.



DISCUSSION

Results shows that there was a significant difference in the effect of Innovative learning environment on physical development of preschool students. The findings shows that the students taught through innovative learning environment have better physical development than when do not teach through innovative class. Therefore, the result analyzed and interpreted clarifies that the Innovative class room environment positively affects the Physical development of Preschool student. On the basis of the findings mentioned result the objective of the study which reads as, "To study the impact of Innovative classroom learning environment of Preschool student on physical level" has been accomplished. In view of findings empirical evidence, the hypothesis which reads as, "Innovative learning environment will have positive effect on the physical development of Preschool students" stands accepted. A significant difference was found in the effect of Innovative learning environment on language development of preschool students. The results shows that the students

taught through innovative learning environment have better cognitive development than when do not teach through innovative class. Therefore, the findings analyzed and interpreted which clarifies that the Innovative class room environment positively affects the language development of Preschool student. On the basis of the result the objective of the study which reads as, "To study the effect of Innovative classroom learning environment of Preschool student on language development'' has been accomplished. In view of above empirical evidence, the hypothesis which reads as, "innovative learning environment will have positive effect on the language development of Preschool students" stands accepted. The significant difference in the effect of Innovative learning environment on cognitive development of preschool students. The findings shows that the students taught through innovative learning environment have better cognitive development than when do not teach through innovative class. Therefore, the result analyzed and interpreted clarifies that the Innovative class room environment positively affects the Cognitive development of Preschool student. On the basis of the above mentioned result the objective of the study which reads as, "To study the effect of Innovative classroom learning environment of Preschool student on cognitive development" has been accomplished. In view of above empirical evidence, the hypothesis which reads as, "Innovative learning environment will have positive effect on the cognitive development of Preschool students" stands accepted. it has been found that there exists a significant difference in the effect of Innovative learning environment on socio-emotional development of preschool students. The

results show that the students taught through innovative learning environment have better socio-emotional development than when do not teach through innovative class. Therefore, the result analyzed and interpreted clarifies that the Innovative class room environment positively affects the socio-emotional development of Preschool student. On the basis of the above mentioned result the objective of the study which reads as, "To study the effect of Innovative classroom learning environment on the socio-emotional development of Preschool student" has been accomplished. In view of above empirical evidence, the hypothesis which reads as, "Innovative learning environment will have positive effect on the physical development of Preschool students" stands accepted.

CONCLUSION

As educators, it is our duty to provide children with opportunities to play with toys where they need to use their imagination. That type of play is most beneficial than if children were to play with something that has only one purpose or meaning. A child learns best through their own interests and exploration of those interests. They need physical images of objects for them to completely tuned into the activity. Educators need to find out the interests of their students and build a developmentally appropriate curriculum for that year around what the children are interested in. In order for children to be entirely engaged in learning they need some kinaesthetic movement as well. From birth, Children can benefit in many ways from movement. Along with movement, children need to have many opportunities with hands on learning through exploration and discovery. Young children also need to

build communication skills and what better way to build these skills then to talk with other children in a dramatic play area. By doing these children learn one-to-one correspondence with objects and other children, and by communicating through play children gain social emotional concepts that will follow them throughout their life.

1. Innovative classroom learning environment helped to develop physical, language, cognitive socio-emotional dimension.
2. Reinforcement given to all students on every improvement.
3. Organization of the corrective activities
4. Formative tests conducted to find out the progress.
5. Supplementary material provided to students.
6. Motivation and Reinforcement given to all students on every improvement. Because innovative classroom environment created much interest.
7. Stress free tests conducted to find out the progress.
8. Creation of enjoyable environment in classes of schools across the state.

IMPLICATIONS

1. Innovative classroom environment helps to increase the learning abilities.
2. Innovative classroom may be used as an Innovative learning tool to teaching students.
3. This strategy helps the learner to move at his own pace as it helps the learners to provide individual attention.

SUGGESTIONS

The researcher by virtue of her experience in conducting this study would like to put forward the following suggestions:

1. Sample size can enlarge to more concrete results.
2. A similar study can be carried on middle level, secondary level, senior secondary level, college level and university level students.
3. Comparison can be made between boys and girls.
4. The same study can be conducted on other subjects also.
5. The effectiveness of the methods can be seen by giving a longer duration of teaching.

RECOMMENDATIONS

Based on the finding and conclusions of the study the following recommendations are put forward.

1. Innovative class room learning help to increase the learning abilities.
2. Innovative class may be used as an Innovative learning tool to teaching students.
3. The curriculum should be framed keeping in view the application of Innovative classes of teaching.
4. This strategy helps the learner to move at his own pace as it helps the learners to provide individual instruction.
5. Although students generally work together in small

groups in hands on science classes, there are times when all class discussions are valuable. Experimentation, Summarizing, Comparing, observation and interpreting often involves the whole class. Teachers can use both small group and whole class approaches to teaching science, and discuss when each may be appropriate.

6. With this approach the effectiveness of innovative pedagogy had rejunivated as it had combated the infrastructure constraint, subject specificity constraint etc. as such the study had up-holded at about 60 Project kg model schools across state.

REFERENCES

Allen B., (2009). *Second Survey of Research in Education*. New Delhi 13 14-22.

Bano, N. (2015). Impact of Smart Classroom Learning Environment on the Performance of First Grade Students: A study.

Bhorin, M (2007). A Slice of Life. The interrelationships among Art, Play and the "Real" Life of the Young Child. *International Journal of Education & the Arts, 8(16),1-25.*

Bredekamp, S. (2005). Play and School Readiness *Educational Perspectives, 38(1) 18-26.*

Broadhead, P. (2006). Developing and Understanding of Young Children's Learning through Play: The Place of observation, interaction and reflection. *British Educational Research Journal, 32(2) 191-207*

Chauhan. S. S., (1985). *Innovation in teaching-Learning Process.* Delhi: Vikas Publishing House.

Das, R. C., (1985). *Science Teaching in school*. Sterling Publishers Pvt. Ltd., New Delhi.

Dhamija, K. A., (2000). *Computer Study of Effectiveness of these Approaches of Instructions- Conventional, Radio Vision and Modular Approach on Achievement of Students in School Studies*. Ph. D Dissertation Delhi University, Delhi.

Drew, W. F., Christie, J., Johnson, J. E., Meckley, A. M., & Nell, M. L (2008). Constructive Play: A valueAdded strategy for meeting Early Learning Standards. *Young Children, 63(4)38-44.*

Ena Howse, Effect of Smart Board Interactive White Board on Concept Learning, Generation of Ideas, group process and user Interactive Satisfaction, 2000.

Garret, H.E. (2008). Statistics in Psychology and Education: Kamla Nagar, Delhi: Surjeet Publication, 338.

Howard, J., Jenvy, V., & Hill, C. (2006). Children's Categorisation of Play and Learning Based on Social Context. *Early Child Development and Care, 176*(3-4), 379-393.

Koul, Lokesh (2009). Methodology of Educational Research: New Delhi: Vikas Publishing House Pvt. Ltd.

National Curriculum Framework 2005. NCERT. New Delhi

P. K. S., Technology of Instructional Design. (Part-1), Dominant Publication, New Delhi 2006.

Passi, B. K & Sansanwal, D. N. (1987). Research in Teaching A Trend Report Three surveys edited by Buch 1974, 1979 &1986.

Pestonjee, D. M. (1997). *Handbook of Psychological and Social Instrument.* New Delhi: Concept Publishing Company Vol. 1

Reddy, R. S. (1998). *Directory and Hand Book of Teacher Education*. APH Publishing Corporation.

Rose and Stella, Journal of Educational Research (2005). *International Letters of Social and Humanistic Sciences*. 3 9 32 (1).

Sharma, R. A. (2001), Technological Foundations of Education, Meerut: R. Loyal Book Depot

Singh, Arvind, P., and Khosla, M. (2005). *Educational Measurement and Evaluation*. New Delhi: Vinod

Stgelin, D. A. (2005). Making the Case for Play Policy: Research-based Reasons to support Play-Based Environments. *Young Children, 60 (2), 76-85*.