

ASGHAR ABBAS\*  
SAMREEN ANSARI\*\*  
DR. ASAD ABBAS RIZVI\*\*\*

## COMPARATIVE STUDY OF MONTESSORI AND KINDERGARTEN SYSTEM OF EDUCATION IN TERMS OF SOCIAL SKILLS OF CHILDREN

### ***Abstract***

*The strength of any education system is based how strong is its early childhood education. Early childhood education has two types i.e. Montessori and Kindergarten system of education. The study entitled "Comparative Study of Montessori and Kindergarten System of Education in Term of Social Skills of Children" is an effort to investigate difference between two systems. The aim of this study was to compare the social skills of the students of both systems. A cross sectional survey was conducted for the study. Ten schools (five from both systems) were selected using random sampling technique. Moreover, hundred students, ten students from each selected school were randomly selected as sample of the study. An observational checklist, to check the social skills of children, was developed after reviewing the related literature. On the response of students, class teacher completed the observational checklist. Independent sample t-test and two-way ANOVA were used for the analysis of six null hypotheses. It was found and concluded that social skills of children living in urban areas were better than the students living in rural areas; moreover, social skills of students studying under kindergarten system of education were better than the children studying under Montessori system of education. It was recommended that Kindergarten system of education may be used to recognize the way in selection of field in which the child is*

---

\* Ph D (Education) Scholar, Department of Education International Islamic University Islamabad.

\*\* Chief Executive Officer, Solutions and Alternatives, Pakistan

\*\*\* Assistant Professor, Department of Education International Islamic University Islamabad

*attracted. Furthermore, group activities and team work in Montessori system may improve social skills of the students.*

**Keywords:** *Preprimary Education, Montessori System of Education, Kindergarten System of Education, Social skills of children.*

## ***Introduction***

Education being an essential tool in nations building is a process of systematic training and instruction designed to convey knowledge and achievement of skill, potentials and abilities which will enable a personality to add professionally to the growth and development of his society and nation. It involves all round development of an individual mentally, socially, morally, academically, and physically (Osakwe, 2006).

For the teachers of the eighteenth century the child was a little man or woman, different from the adult only in size, strength, and knowledge. For it there was no growth, only expansion. Education consisted in training and instruction not in development. It was artificial rather than natural. Childhood was not manhood or womanhood in miniature, but something different, with interest, ideals, virtues, and activities of its own, a stage in the development of the individuals, on the proper unfolding, strengthen and functioning of which depend the welfare of the future man or woman. It remained for Froebel, with his sensitive woman soul, his philosophical mind, his poetic feeling for the fundamental principles of evolution, to comprehend infancy the first six or seven years of life as the most important period in the life of individual, and its proper treatment as the most important problem in education. After long years of study of infancy in the light of philosophy, he embodied but he conceived to be the fundamental principles of the education of little children in his doctrine of the kindergarten, and his ideas of the best means for

the application of these principles in his kindergarten program, materials, and devices. This discovery of the kindergarten for such he called it (not the kindergarten, but infancy was the real discovery) made a new tendency in education, and is one of the significant events marking a new era in the history of the world. From the day of this discovery until now interest in child study has constantly increased, and the care and education of little children has become constantly more intelligent, both in the home and in the school (Harrison, 1992).

Kindergarten is a system of pre-school education. Froebel designed in 1837 the kindergarten to provide an educational situation less formal than that of the elementary school but one in which children's creative play instincts would be organized constructively. Through the use of songs, stories, games, simple manual materials, and group activities for which the furnishings of a kindergarten adapted, children develop habits of cooperation and application, and the transition from home to school is thought to be made less formidable (Goode, 1970).

The theory implicit in the kindergarten system, that education develops through expression and social cooperation has greatly influenced elementary education and parent education especially in the United States, where kindergartens are generally a part of public school systems (Barbe, 1980).

Montessori was first woman doctor of Italy. Since 1907 her educational philosophy has been adopted all over the world with great success. After becoming interested in the education of children, her observation led to many new discoveries about how children learn. She was a spokeswoman for children's rights knowing that children absorb their whole world and from much are their character and intelligence from birth to age six. She developed a multitude of educational equipment where children

could learn by doing. She believed inner values, high morals and good work habits made strong responsible adults.

Montessori is a method of education developed by Maria Montessori. A prepared environment full of age appropriate manipulative learning equipment is available which allows the child to progress of his own pace. Positive reinforcement, learning by doing, order and movement are principles that are advocated. Children learn self-confidence and responsibility through purposeful activity, observation and discovery.

Early childhood education, in the context of formal education can be said to be "a formalized educational process to which children between the ages of two and half through five plus are subjected to in designated pre-school institutions" (Mezieobi, 2006).

Learning and development in education is an ordinary process of pursuing significant goals, discovering and constructing meaning from in sequence and knowledge filtered through the learners' exclusive perceptions, feelings and thoughts. Therefore, when a child is born into the world knowledge commences instantaneously to allow him/her get personalized to the new system. The child learns to nourish, listen, observe and act in response to stimuli, before learning to sit, walk, talk and perform similar to people around him. Everyday fluctuations in a child's performance may be anticipated as he strives between dependence of immaturity and the dependence of childhood. He goes supplementary to representation the world around him inquisitively looking for to acquire information. The drive for inquisitiveness is innate in each child and can be developed to yield superior consequences by given him early education (Osakwe, 2006).

Early childhood education experiences positively affect later home and school involvement in education. A child who fails to acquire early education may suffer emotionally, socially, intellectually and even physically if he is trusted into the primary school without a sustainable early childhood education experience that will give him a solid foundation in the primary school. Therefore for the effective and efficient unlocking and development of a child's latent abilities, attitudes and other forms of behavior of positive values in the society in which he lives, early childhood education becomes very imminent. This is of utmost importance because researches on early childhood education have shown that early childhood education experiences have great impact on all areas of a child's development and had suggested that the first teacher is an extremely important person in the child's life (Barnard, 2001).

According to Feeney, Christensen and Moravick (1987), early childhood education is an asset of immense value in the later academic pursuit of a child and much more lately in life. This early experience exposes the child to all fields which make him more apt to learn in the primary level as the confidence in his learning capabilities which he acquired from the nursery school is lifted to the primary school. This eventually aids and facilitates his learning. The early childhood institution aims at developing the cognitive and affective potential at an early age.

Miedel and Reynolds (1999), are of the opinion that when families are involved in their children's early education, children experience greater success once they enter primary school and even in later life. The formal school setting in early childhood education is a supplement to the home and a substitute. It promotes the complete development of the child that the house can easily provide. Most parents are limited in what they can give such as space, variety of equipment, educational materials and experiences of their children. Many parents are burdened with

their own concerns that they are unable to provide the guidance that a child needs as he faces problems and frustrations especially where mothers are the sole support or breadwinner of the family. Children may be left in the care of untrained and unhealthy people in crowded apartment devoid of play materials and playmates that children need leading to neglect and deprivation which may result to lasting severe and negative effects in the life of the child. If however the formative years are characterized by exposure to a wide variety of learning activities and social contacts, skilled teaching, and intelligent guidance, then healthy growth and adjustment occurs. Early childhood education give children a group experience which extends values of family given them a total experience in democratic living in which cooperation is strengthened and competition minimized.

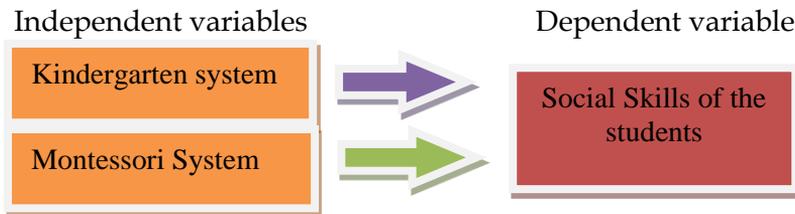
The dissimilar belongings of the atmosphere on the growth of intellectual structures of the child which are smooth the progress of learning. He said that the environment motivate learning, growth and the development of the cognitive field that the early years hold the key to learning. There is consequently the need for particular attention to be given to the responsive natural world of early learning by affording the child the right environment where he will expand the potentials and skills for afterward life experience and education (Piaget, 1956).

The usefulness and reward of pre-primary education has long been the area under discussion and research. There are many studies that point out negative and positive outcomes, but research must be conducted over a era of years and track the development of students from a variety of ethnic and learning backgrounds as well as the types of pre-primary program attended for the consequences to be reliable and certifiable (Government of Pakistan, 2009).

### ***Statement of the Problem***

First time in Pakistan history ECE was included as a component in the education sector reforms program. It was also included in the National plan. Pakistan is committed to Dakar frame work of action, the first goal of which is to expand and improved comprehensive ECE for all children (Government of Pakistan, 2009). This study was an effort to compare the working ECE systems in Pakistan especially in Punjab.

**Figure 1 conceptual frame work**



### ***Objectives of the Study***

The objectives of the study were as under:

1. To investigate social skills of the students of pre-primary level.
2. To compare social skills of the students of Montessori and Kindergarten systems.
3. To compare social skills of the students of rural and urban areas.
4. To compare social skills of the male and female students.

### ***Hypotheses of the Study***

The null hypotheses of the study were as under:

- H<sub>0</sub>1: There is no statistical difference in the mean scores of social skills of the students belonged to Montessori and Kindergarten systems.
- H<sub>0</sub>2: There is no statistical difference in the mean scores of social skills of the students living in rural and urban areas.
- H<sub>0</sub>3: There is no statistical difference in the mean scores of social skills of the male and female students.
- H<sub>0</sub>4: There is no interaction effect of gender and systems of education in terms of social skills of the students.
- H<sub>0</sub>5: There is no interaction effect of school location and systems of education in terms of social skills of the students.
- H<sub>0</sub>6: There is no interaction effect of gender and school location in terms of social skills of the students.

### ***Significance of the Study***

The study may provide us adequate information about the Montessori and kindergarten educational systems. The study may be helpful for parents to realize the significance of pre-primary education. The study may be useful for the policy makers to include pre-primary education in educational policy. The study may be fruitful for the curriculum developer to design better pre-primary curriculum.

### ***Research Methodology***

The research design for this study was descriptive and survey in nature. For this a cross sectional survey was conducted.

### ***Population of the Study***

The population for this study comprised all private schools of Rawalpindi District having the pre-primary sections.

### ***Sample of the Study***

Simple random sampling technique was used to select the sample. There were selected ten private schools of Rawalpindi. Following is tabulated form of the said sample.

<b>School distribution</b>		<b>Students distribution</b>			
Kindergarten	Montessori	Rural	Urban	Male	Female
05	05	50	50	50	50
<b>Total schools 10</b>		<b>Total students 100</b>			

### ***Research Instrument***

An observational checklist was framed to collect the data about the social and language skills of the children. It consisted of twenty items of each type and five point Likert scale was used for social skills i.e. always, usually, sometime, rarely and never.

### *Data Collection*

The observational checklist was used to observe social skills from the sampled schools. The researcher personally visited the schools and filled the observational checklists with the help of class teachers.

### *Data Analysis*

There were to find out the similarities and dis-similarities in both the system. In analyzing the collected data, independent sample t-test and two-way ANOVA were used.

### *Review of the related literature*

Early childhood education is a term that refers to educational programs and strategies geared to word children from birth to the age of eight. This time period is widely considered the most vulnerable and crucial stage of a person's life. Early child hood education often focuses on guiding children to learn through play. The term often refers to pre-school or infant/child care program. In Order to realize the significance of early child hood education, first we have to know its proper definition.

Early childhood education refers to the combination of physical, intelligence /cognitive, emotional, and social learning of a child during the first six to eight years of his/her life. While parents and primary care givers play an important role in the child's acquisition of such knowledge, in a more specialized sense a professional early childhood educator offers early childhood education to the child. However, a good educator will always involve the parents in his/her early childhood programs to get the maximum benefits from the program

Early child hood education in Pakistan should correlate with attainable goals. Equal treatment for boys and girls by adults is necessary to remove the biases in society. Parents and teachers partnership is essential to achieve the desired result in early child hood education. Early child hood education delivery system is inadequate. Many children of Pakistan are deprived of early child hood education. Low cast and affordable early child hood programs should be available in urban and rural areas of Pakistan. Thus it has been recommended that early child hood education should be a part of educational development program of Pakistan. For this purpose political awareness and the commitment on the part of government and educationists should also be developed. To break the tradition of teaching children in piecemeal and integrated curriculum should be developed to look after the holistic development of children (Mohiuddin, 2002).

Dr. Montessori left her brilliant and promising medical career and devoted all her energies to the study of the child. The result is the famous Montessori method arising from what, as she says, "The children showed me" (Montessori, 1968).

The Montessori Method of education has been successfully assisting in the development of children for more than a century. It is an internationally recognized method that translates into many different cultures. Montessori schools follow a model of education first developed by Maria Montessori in the mid 19th century in Italy. Dr. Montessori "had a clear theory of development, primarily a constructivist theory similar to Piaget's" (Chattin, 1992).

The teacher is the architect and the resource person in the Montessori classroom. Much of a Montessori teacher's time is spent assessing and preparing the classroom environment to

ensure that the educational, developmental, and social needs of each student are met (Montessori, 1962).

The Montessori system of education insists on social development of children and the “children’s Houses” provide ample opportunities for this. There are a good number of health practices, social activities, games and sports which require children to conform to certain standards of social behavior and qualities. Montessori aptly says, “The discipline to which the child-habituates himself here is, in its character, not limited to the social environment but extends to society”. Pupils are trained in certain community activities and health habits which fulfill the social needs and make them quite sociable, (Mohanty 2002).

Froebel is a world famous educator and has the unique distinction of being the developer of the kindergarten system and a set of special instructional materials called “Gifts”. His important works on education are “The education of Man” and “Pedagogies of the kindergarten”. Froebel considers him “An educator of mankind” and believed that education must begin in early childhood. According to him child nature has its fullest expression in play which should be the means of child education. He started kindergarten which meant children’s garden where they may grow as naturally as plants under the care of and expert gardener. He devoted his life to the founding of kindergartens and elaborating his methods and principles and devising instructional aides for kindergartens (Goode, 1970).

The functions of education, according to Froebel, may be summed up as “Education should lead and guide man to clearness, concerning himself and in himself to peace with nature and the unity with God. It should lift him to knowledge of himself, to mankind to knowledge of God and of nature, and the pure and holy life” (Franks, 1897).

According to Rahman (2004), there are the some basic principles of kindergarten system.

- Free Self-Activity
- Education through Doing
- Education through Play
- Study of Nature
- Drawing out' as the Objective of Teaching
- Teaching Learning a Double Side Process
- Religious Education
- Discipline through Love (Rahman, 2004).

Mutual help, cooperation and participation are the basic to the philosophy and functioning of the kindergarten. The kindergarten, thus, seeks to achieve the fullest individual development through self-activity and play and social cooperation (Rahman, 2004).

The National education Policy (1998-2010) called for a reintroduced of katchi /pre-primary class as a formal class in primary schools, extending primary education to a six year programme. However, this policy measure failed to generate any serious commitment from the government or bring about any substantive allocation of financial resources. Early childhood education has, however, greatly benefited from the investments made by the private sector extending good quality pre-primary education services. There is an urgent need for improvement in pre-primary education which can be achieved by transforming the present pre-primary (katchi) offered in the government schools into good quality ECE with separate classroom, trained teacher and required materials (GoP, 2008).

## Data interpretations and Findings

This section represents data analysis and findings of the study.

First hypothesis stated that there is no statistical difference in the mean scores of social skills of the students belonged to Montessori and Kindergarten systems. For checking this, independent sample t-test was used.

**Table 1 Showing independent sample t-test for checking difference in Montessori and Kindergarten systems**

	Levene's Test for Equality of Variances		Levene's Test for Equality of Variances		
	F	Sig.	T	df	P
Equal variances assumed	.695	.406	-2.181	98	.032
Equal variances not assumed			-2.181	91.121	.032

It is clear from table 1 that there was a significant difference in the mean scores of the students of Montessori system (M=65.94, SD=12.27) and Kindergarten system (M=70.68, SD=9.25) in terms of their social skills ( $t(98) = -2.181, p = .032$ ). Moreover, it is clear that Kindergarten system (M=70.68, SD=9.25) showed better results than Montessori system (M=65.94, SD=12.27).

Figure 2 description of pie graph

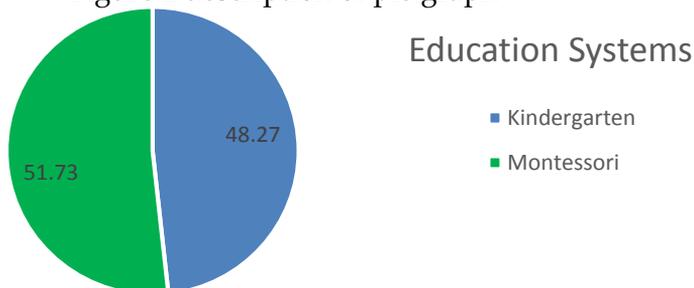


Figure 2 clearly indicate that kindergarten system showed significantly better result than Montessori system of education

Second null hypothesis stated that there is no statistical difference in the mean scores of social skills of the students living in rural and urban areas. For checking this, independent sample t-test was used.

**Table 2 Showing independent sample t-test for checking difference of rural and urban areas**

	Levene's Test for Equality of Variances		Levene's Test for Equality of Variances		
	F	Sig.	T	Df	P
Equal variances assumed	1.277	.261	-2.513	98	.014
Equal variances not assumed			-2.513	87.644	.014

It is clear from table 2 that there was a significant difference in the mean scores of the students of rural (M=65.60, SD=12.50) and urban (M=71.02, SD=8.73) in terms of their social skills ( $t(98) = -2.51, p = .014$ ). Moreover, it is clear that urban students (M=71.02, SD=8.73) showed better results than rural students (M=65.60, SD=12.50).

**Figure 3 description of pie graph**

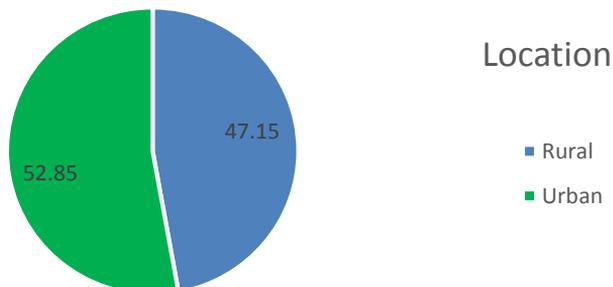


Figure 3 clearly indicate that urban students showed significantly better result than rural students of preschool education

Third null hypothesis stated that there is no statistical difference in the mean scores of social skills of the male and female students. For checking this, independent sample t-test was used.

**Table 3 Showing independent sample t-test for checking difference male and female students**

	Levene's Test for Equality of Variances		Levene's Test for Equality of Variances		
	<i>F</i>	<i>Sig.</i>	<i>T</i>	<i>df</i>	<i>P</i>
Equal variances assumed	.004	.951	-.839	98	.404
Equal variances not assumed			-.839	97.084	.404

It is clear from table 3 that there was no significant difference in the mean scores of the male students ( $M=67.38$ ,  $SD=11.61$ ) and female students ( $M=69.24$ ,  $SD=10.53$ ) in terms of their social skills ( $t(98) = -.839$ ,  $p = .404$ ).

**Figure 4 description of pie graph**

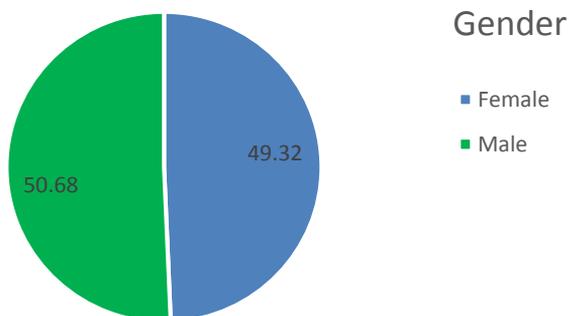


Figure 4 indicate that there is no significant difference between the results of male and female students but Female students showed slightly better results

Fourth null hypothesis stated that there is no interaction effect of gender and systems of education in terms of social skills of the students. For checking this, two-way ANOVA was used.

**Table 4 Showing two-way ANOVA for checking interaction effect of gender and systems of education**

Source	<i>df</i>	SS	MS	<i>F</i>	<i>P</i>
<b>Gender</b>	1	238.370	238.370	2.021	.158
<b>Systems</b>	1	713.570	713.570	6.051	.016
<b>gender * systems</b>	1	14.970	14.970	.127	.722
<b>Error</b>	96	11320.360	117.920		

The results in table 4 indicated that there was no interaction effect of gender and systems of education in terms of social skills of the students ( $F(1, 96) = .127, p=.722$ ).

Fifth null hypothesis stated that there was no interaction effect of school location and systems of education in terms of social skills of the students. For checking this, two-way ANOVA was used.

**Table 5 Showing two-way ANOVA for checking interaction effect of school location and systems of education**

Source	<i>df</i>	SS	MS	<i>F</i>	<i>P</i>
<b>systems</b>	1	846.480	846.480	7.855	.006
<b>location</b>	1	908.075	908.075	8.427	.005
<b>systems * location</b>	1	328.916	328.916	3.052	.084
<b>Error</b>	96	10344.778	107.758		

The results in table 5 indicated that there was no interaction effect of school location and systems of education in terms of social skills of the students ( $F(1, 96) = 3.052, p=.084$ ).

Sixth null hypothesis stated that there is no interaction effect of gender and school location in terms of social skills of the students. For checking this, two-way ANOVA was used.

**Table 6 Showing two-way ANOVA for checking interaction effect of school location and systems of education**

Source	<i>df</i>	SS	MS	<i>F</i>	<i>P</i>
location	1	832.647	832.647	7.351	.008
gender	1	284.157	284.157	2.509	.116
location * gender	1	355.007	355.007	3.134	.080
Error	96	10873.234	113.263		

The results in table 6 indicated that there was no interaction effect of school location and gender in terms of social skills of the students ( $F(1, 96) = 3.134, p=.080$ ).

### ***Conclusions and Recommendations***

After this thorough study of comparison of Montessori and Kindergarten system of education, findings and were drawn and the following conclusions and recommendations are made on the basis of the findings of the study.

1. In the light of findings it was concluded that Activity based teaching is more effective than any other way of teaching therefore it is recommended that activity base teaching may be used in pre schooling years.
2. Kindergarten system of education may be used to recognize the way in selection of field in which the child is attracted.
3. Group activities and team work in Montessori system may improve social skills of the students.
4. Public and private partnership may help in understanding and promotion of both systems.

5. A common system may be based on these two early childhood education systems.
6. Pre-schooling education systems may be modified according to the environment.

### ***Bibliography***

- Abass, A. (2011). *A Comparative Study of Montessori and Kindergarten System of Education in the Development of Social and Language Skills of Children*. Thesis of Master Studies, Department of Education, Islamabad: International Islamic University.
- Barbe, W. (1980). *Basic Skills in Kindergarten*, Columbia: Columbia University Press.
- Chattin, M. N. (1992). *The Montessori Controversy*. Albany. New York: Delmar Publishers, Inc.
- Feeney, S., Christensen D, & Moravcik, E. (1987). *Who Am I in the Lives of Children Columbus Ohio*: Merrill Publishing Company
- Franks, F. (1897). *Kindergarten System (Its Origin and Development)*, Columbia: Columbia University Press.
- Goode, C. (1970). *World of Kindergarten*. Columbia: Columbia University press.
- Government of Pakistan (2008). *Early Childhood Education. Policy Review*. Islamabad: Ministry of Education.
- Government of Pakistan (2009). *Early Childhood Education (ECE)*, Islamabad: Ministry of Education
- Government of Pakistan (2009). *National Educational Policy*. Islamabad: Ministry of Education.

- Miedel, W. T. & Reynolds A. J. (1999). Parent Involvement in Early Intervention for Disadvantaged Children: Does it matter? *Journal of School Psychology*, 37(4), 379-402.
- Mohanty B. (2002). *Early childhood Education*, New Delhi: Deep & Deep Publisher.
- Montessori, M. (1962). *Discovery of the Child*, Madras: Vasanta Press.
- Montessori, M. (1968). *The Absorbent Mind*. Karachi: Feroz Sons, p.205.
- Osakwe. R. N. (2006). *Understanding Teaching Profession*, Benin City: Osasu Printing Press.
- Osakwe. R. N. (2009). The Effects of Childhood Education Experience on the Academic Performances of Primary School Children, *Journal of Study Home Comm Sci*, Vol. 3(2), pp. 143-147.
- Piaget, J. (1995). *The Language and Thought of the Child*, London: Routledge & Kougall Publishers.
- Rahman, Z. (2004). *Modern Teaching Method and Techniques*, New Delhi: Anmol Publication.