

Social and Moral Development of Students: A Comparative Study on Montessori and Non-Montessori Students

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Abstract

Early Childhood Education and Development has attracted third world countries due to its key contribution in success of future life of an individual. Among others ECED system, Montessori system got much attention in Pakistani schools, particularly in private schools. This cross-sectional survey study aimed to investigate the difference in social and moral development of Montessori and non-Montessori system children. A survey questionnaire was used for data collection. Data were collected through direct administration of questionnaire to 100 participants of elementary grade students from selected private schools in Peshawar. The participants were selected through stratified random sampling in order to generalize study to the targeted population. The independent t-test was used for comparing the mean difference between the two groups and finding statistical difference. It was found that students who got their ECE in Montessori system were more socially and morally developed than others. Further, statistical difference was found in mean score for social development of both groups. However, the difference of moral development in the two groups was not statistically significant. The study concluded that Montessori system might have some contribution in social development of children but there are certain other variables which can influence social development. Therefore, the study recommended for in-depth investigation of the role of Montessori system in child holistic development from different perspectives.

Keywords: Montessori system, non-Montessori education, social development, moral development, early childhood education (ECE), Khyber Pakhtunkhwa, Pakistan

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Introduction

Early Childhood has been considered to be an important stage for a child's holistic development and future success. The fast changing world due to globalization and technologies has influenced all aspects of life, with no exception of education. Therefore, the developed countries do prior planning in order to enable their upcoming generation to compete with technological world. For this purpose, they are planning to build strong foundation of children in early years through education (Gupta, 2014; Miller, Dalli & Urban, 2012). As a result many educationists (For example, Kindergarten, Froebel, and Montessori) presented various methods of educating children in early years. Due to the successful outcomes in the later life of these children, these programs got attention from the rest of the world particularly in the last few decades.

Pakistan being one of the developing countries, realized the importance of Early Childhood Education and Development (ECED) and started planning different policies after 2000. Along with the government, the private schools adopted various ECE methods for providing education to children in early years. Various systems of Early Childhood Education (ECE), (such as; High scope, Kindergarten, Montessori, traditional Katchi) were adopted by these private schools. However, the Montessori system got much popularity and in most of schools offer Montessori system to early grade children. This dramatic increase and adoption compelled the researchers to investigate the role of Montessori system in children's development. Hence, the need was felt to conduct a study and explore the difference in social and moral development between those children who studied through Montessori and those who get early education through non-Montessori system.

This paper presents the difference between Montessori and non-Montessori children in term of their social and moral development. This paper is extracted from the large study conducted in private schools at Peshawar, KP- a province of Pakistan, where the researchers compared these groups of students in four aspects of development, which are social, moral, intellectual and emotional development. This paper first discusses relevant review of literature, then methodologies and findings. Which will be followed by conclusion and recommendations.

Research Questions

In order to shape and specifically focus to the purpose of the study (Cresswell & Creswell, 2018) the researchers developed a research question. Which provided direction and kept the researchers focused throughout the study.

- Is there any difference in social and moral development of the students who got ECE in Montessori system and those in non-Montessori system?

Review of Related Literature

All aspects of a human being are developed at the time of childhood that is from work force skills to cooperative and lawful behavior. For tremendous growth and holistic development early childhood is an excellent time for a human. Gordon and Browne (2017) defined 'early childhood education as pre-school, Kindergarten, Nursery, Montessori and primary education from 3 to 8 years'. The ECE provides a very important base for later social and moral development of a child.

Various studies (Malik, Sarwar, & Khan, 2010; Shakil, 2002) stated that in Pakistan ECE is getting much attention and becoming common. About 15 years ago, ECE was an extra and unimportant term in such a country, where millions of children (primary school aged children) were out of schools. Moreover, ECE was not been formally recognized by the government sector in Pakistan. To some extent the traditional "Katchi" class in some government schools remained a feminization stage towards formal educating for un-admitted students. The curriculum taught to this group was limited part of class one national curriculum. However, with the passage of time, people are getting aware about the importance of ECE and universities and colleges initiated offering different courses of early childhood education. Further, Parents are also becoming progressively awaking about the importance of ECE for holistic development of a child. Other than parents, the government is also utilizing its efforts in promoting ECE in Pakistan. For instance, in the National Education Policy (2009), a great emphasize were given on provision of ECE in all public schools. A national curriculum was formed in 2007 in order to streamline the ECE in all public and private schools across the country (GoP, 2007). Similarly, The Provincial Institute for Teacher education (PITE) and directorate of elementary education are arranging different training workshops for teacher educator and in-service teachers regarding ECE respectively in almost all provinces.

Besides the government efforts, most of the private schools have already initiated ECE from last few decades. These schools follows different types of ECE models such as High scope model, Montessori system, Kindergarten system and so on. Due to mushroom growth of private schools and blind adoption of these ECE systems, the researchers felt the need to conduct a research to come with empirical evidences. Whether Montessori system really play a role in a child's holistic development?

Montessori System

Maria Tecla Artemisia Montessori (1870–1952) was an Italian educator and physician, who was famous for her own philosophy of education and writing on scientific methods of teaching that bears her name. Currently, her educational method for children- called Montessori system, is widely followed by various public and private schools across the world. In 1907, Montessori developed the first Montessori school to provide education to those children who were economically poor as well as children with mental retardation (Mooney, 2013).

Montessori developed specific educational materials and methods which were based on her own belief about how children learn. The main emphasizes of Montessori education is on learning through all five senses, not just through reading, listening or watching. In Montessori system children learn through their own choice of activities from a lot of possibilities at their own individual pace. Multi-age groups children in Montessori classes making localized communities in which knowledge is shared with younger students by the older students (Gutek, 2004). Although, historically at age 6 years Montessori programs ended, but in 1990s elementary Montessori programs became more common, while middle and secondary Montessori programs are slowly rising (Lopata, Wallace, & Finn, 2005). Currently, Montessori programs can be found in a variety of settings, including inner-city and urban areas, early childhood and child care centers, large urban magnet programs, and preschools for children at risk.

It is observed that child is ready for getting knowledge naturally and is capable to initiate learning in prepared and supportive environment. Montessori education is an approach that values holistic development-physical, social, emotional, cognitive, moral, and the human courage. Montessori considered multi age groupings that enhance peer learning, continuous blocks of learning and guided selection of work activities, as necessary components for this approach. Furthermore, a full set of specially designed Montessori learning materials is particularly arranged and available for making aesthetically enjoyable and lovely environment. In Montessori system child, teacher and environment makes a learning triangle. The teacher only guides the children for the correct use of the material (Diamond, & Lee 2011). The child interacts with teacher when guidance or support is needed and to develop him/herself, makes use of what environment offers according to his own choice. In all aspect of life, a successful social, moral, emotional and intellectual development is very important for every young child and it gives them best opportunities for their success (Martin, 2005). The Montessori Method has been tested by time and again with more than 100 years of achievement throughout the world in diverse culture. Montessori education is basically a model of human development and an educational approach. The model is based on two principles, first children and developing individuals engage in mental self-construction due to interaction with their environments. Second, under the age of six children have natural tendencies of psychological development (Lillard, 2006).

Social development is the development of an individual in such a way that he/she becomes a valuable part of the belonging group or society. It involves learning of the skills, knowledge and values that enable the children to communicate with others effectively and contribute to school, community and family in a positive way (Agraval, 2015). The individual obeys the norms and values of the belonging society or the group. By nature, an individual cannot live alone in isolation and as a member of a society he/she becomes a human being. He/she is obligated by social, psychological and ideological needs to live in a society or group.

Through interaction with class fellows and adults, the child learn many social skills (Jordan, Carlile & Stack, 2008), which enhance their social development. Due to speedily changing civilization, the function of school has also significantly changed. To meet the present challenges the traditional function of imparting basic skills of the 3 R's is now no longer considered appropriate. Currently, some schools are even performing some of the functions of the families. School must develop in an individual certain desirable good social habits and moral attitude. The task of socialization can be achieved better through co-curricular activities in school. Positive social skills and friendship have deep impact on peer acceptance therefore teachers and parents need to help young children in development of such qualities (Johnson, Ironsmith, Charles, &Poteat, 2000).

Moral development of an individual implies the development of a number of qualities for which curriculum provides sufficient opportunities (Mehdi & Gupta 1983, as cited in Gupta, 2014). According to their study, some of the important moral qualities which need to be concentrated in schools are: self-respect and wish to respect others, self-control, honesty in deeds and words, duty consciousness and compassion, truthfulness and righteousness. Moral development is the process of proper development in behavior and attitude towards other members of society which is based on cultural, social norms, laws and rules.

The role of school in moral development of child is very important. Various moral qualities can be foster in students by organizing various curricular and co-curricular activities by the teacher. Teacher may stress on many moral qualities like love, self-control, truthfulness and sacrifice etc., while teaching different subjects like social studies, ethics, languages and others. Moral development is not a natural gift of man, but it depends on the nature of the training and experiences to which he/she is bared at home, in the school, in the neighborhood and in the society at large. The child good moral character may be developed by the continuous efforts of both the home and school. It would be trouble's day when the moral building of many totally disintegrates (Crain, 2016).

Methodology

This study aimed to explore difference in students' social and moral development of Montessori students and non-Montessori students, from a large number of participants, therefore researchers choose the quantitative paradigm with cross sectional survey design for this study. Further, cross-sectional survey was employed, because researchers had to collect data at one point in time from pre-determined population (Elementary grade students of private school), (Fraenkel, Wallen, & Hyun, 2015).

The targeted population of the study was all elementary (private schools) students of Peshawar. This study aimed to compare social and moral development of two groups (discussed earlier) students, therefore stratified sampling (Bryman, 2016) was an appropriate technique for selecting participants. Thus, the researchers divided all schools from the available list into two strata, such as Montessori schools and Non-Montessori schools. In order to enrich the generalizability of this study findings, the researchers selected equal number of participants from each stratum. The total number of selected schools were 10, where 5 schools have Montessori system and 5 were from non-Montessori schools. From each school same number of students (n=10) were selected randomly. Thus, total number of participants (n=100); where 50 students who had studied in Montessori system while 50 students who had gotten ECE in traditional Katchi Pakhi system or other systems. A self-developed (based on relevant literature and personal classroom observation) questionnaire were used for data collection. In order to make it understandable to the participants, Urdu translation of each item was also given. The questionnaire consist of two constructs (social development and moral development), where each construct has 8 closed ended items. The five point likert scale (such as, Strongly Agree, Agree, Uncertain, Disagree and Strongly Disagree) was used to measuring participants response to each item. In order to get high response rate and keeping the understanding level of students the researchers collected data through direct administration of the questionnaire to participants.

Analytical Strategies

The collected questionnaires were arranged in specific order and numbers were assigned to each questionnaire to avoid possible errors in data entry and to rectify the pointing errors in the cleaning process. Further, the data was analyzed through an available version of Statistical Package for Social Sciences (SPSS version 19) software. A template was developed in SPSS for data entrance and for data analysis. The demographic variables were coded (Montessori system=1, Non-Montessori system=2). Similarly, students responses were also coded (Strongly disagree=1, Disagree=2, Uncertain=3, Agree=4 and strongly agree = 5) while the missing response was coded with a value of 9. All the data were entered into SPSS for further processes.

Data Cleaning

The data were cleaned by running frequency through SPSS in order to identify error in data. Moreover, the range of values were also checked. Some typing error were identified through data cleaning and correction were made by looking into specific number of questionnaire.

Computing New Variables

In order to compare and identify mean scores difference between two groups with respect to each construct, two new variables (social development and moral development) were constructed through SPSS. These variables were computed according to mean score.

Assumption of the t-test

This study aimed to find difference in social and moral development between two groups (Montessori and Non-Montessori system) and also find whether this difference was significant or not. Before applying independent t-test, the three assumptions of t-test were checked (Field, 2009). These assumptions are: Data Continuity, Normality of Data and data homogeneity. The normality of data were checked through eye-balling method and as well as comparison of skewness value. After satisfying all the assumptions on data, an independent t-test was applied. The independent t-test was an appropriate, because this study compares the means difference between two different independent groups. The effect size (r) and coefficient of determination (r^2) were also calculated of those where the difference between means were found significant.

Results

Social Development of Montessori and Non-Montessori Students. The aim of this study was to explore the difference in social development between the students who got ECE in Montessori system and those who got ECE in Non-Montessori system. Therefore, the independent t-test were applied through SPSS. The results presented in table 1 reveals that those students, who received ECE in Montessori system were more socially developed ($M = 2.25$; $SD = 0.32$) than students who got ECE in Non-Montessori system ($M = 1.97$; $SD = 0.36$). Overall, both groups' responses were found consistent. However, Montessori students are seemed to be slightly more consistent in response to items as compared to non-Montessori system's students. This difference in mean scores were found statistically significant [$t(98) = -3.2$; $p < 0.05$] as presented in table 2. The magnitude of this difference fell in the range of medium effect size ($r = 0.3$). In other words, both groups students has accounted for 9% of variation in social development.

Interestingly, item wise analysis illustrates that the mean scores of only two items were significantly different between these two groups. Montessori system students were found more active in group discussion ($M= 2.72$; $SD = 1.38$) and family life ($M= 2.56$; $SD = 0.97$) as compared to non-Montessori students ($M= 1.94$; $SD = 0.97$) and ($M= 1.96$; $SD = 0.96$) respectively. Further, this difference were found statistically significant [$t(98) = -3.25$; $p < 0.05$] and [$t(98) = -3.09$; $p < 0.05$] respectively.

Table 1

Descriptive analysis of social and moral development of each group

Construct	School type attended in ECE	N	Mean	Std. Deviation
Social Development	Montessori	50	2.25	0.32
	Non-Montessori	50	1.97	0.36
Moral Development	Montessori	50	1.66	0.35
	Non-Montessori	50	1.62	0.33

Table 2

Independent t-test results for statistical difference between selected groups

Domain	T test results	Effect size (r)	coefficient of determination (r^2)	Comments
Social Development	$t(98) = -3.2$; $p < 0.05$	0.3	0.09	Significant with medium effect size.
Moral Development	$t(98) = -0.62$; $p > 0.05$	n.a		Not significant

Moral Development of Montessori and Non-Montessori Students

In addition, the results illustrated from table 1. indicates that Montessori students were more morally developed ($M= 1.66$; $SD = 0.35$) as compared to non-Montessori students ($M= 1.62$; $SD = 0.33$). However, there was slight difference in the consistency of both group responses. This difference in the mean scores between these two groups were found not significant [$t(98) = -0.62$; $p > 0.05$] as presented in table 2. Similarly, item wise analysis revealed that there were no significant difference in all items.

Conclusion

This study investigated social and moral development of students across Montessori system and non-Montessori system in private schools. The findings revealed that Montessori system students are more socially developed as compared to other students. Similarly, Lillard (2006) also observed that Montessori students possess more social skills in out-of-classroom interactions. Further, they found that Montessori children were actively involved in playing and positive share peer play. However, there may be certain

other factors, for instance, family socioeconomic background, parents' education (Lamb, 2010), society and culture, school types, teachers attitude and class fellows may influence social development of children. But these factors were beyond the scope of this study, however according to our observation and experiences, the group tasks, learning materials and classroom environment of Montessori system provides much opportunities for children to interact among themselves. This interaction can be one of the effective factor to enhance social development of students, if facilitated by trained Montessori education teachers. Interestingly, the findings revealed that Montessori students are more active in their family activities involvement and classroom interaction tasks. This could be also due to the freedom provided to students in Montessori system. Because if the students are restricted in classroom discussion than it can affect not only the creativity of students but also their personality. As a result, the child may feel fearful while talking to others or taking part in daily life activities.

Moreover, this study provides empirical evidence that Montessori system have role in moral development of children, if it is implemented properly. Difference in moral development between Montessori students and non-Montessori students were found but this difference was not statistically significant. Furthermore, Feeney, Moravick, & Nolte, (2016) discussed that various classroom environment and teachers teaching styles are key to child holistic development, especially moral development. The authors further give strong emphasize on positive relationship and guidance from teachers as well as parents for better moral development of children. In fact, it is common observation that parents' personal lives have great influence on child moral development. Hence, there are certain uncontrollable variables which have impact on child moral development but as far as this study's findings are concerned, it can be stated that the teaching methodologies, classroom and outdoor activities in Montessori system provides wider opportunities to children for moral development. For example, the 'colors indicators environment' in Montessori classroom gives sense of doing right and wrong to the children. Similarly, in Montessori system the teachers' resolves conflicts among children in such a way that they realize their mistake and make them feel sorry for doing wrong. Such moral values can help the children in future life and due to which these children can be found slightly more morally developed as compared to others.

On the other hand, due to strong emphasize on child moral development in National ECE curriculum and contextual demands of society, other education systems also gives much attention to childrens' moral development. But their approach is different and they adopt various methods and activities for moral development. Therefore, this study also found little difference in terms of moral development in both groups of students. To sum up, there is significant difference in social development between Montessori and non-Montessori students. However, the difference in moral development in these two groups is not statistically significant.

Limitations of Study

As like other studies, this study has also some limitation. For instance, this study was limited to private schools because access was only possible to private schools students during the conduction of the study. Therefore, generalization is only limited to targeted population. Further, the data of study were collected through questionnaire, and is limited to students' perceptions of doing various things related to social and moral development. However, the focus of this study was to explore students' social and moral development, for this classroom observation could be one of the important tools. Similarly the methodological limitation of study was one of the effecting factors for in-depth understanding of realities. Including various stakeholders in such studies will be more helpful for clear understanding of this difference.

Recommendations for Future Studies

This study provides many opportunities for future studies. For instance, this study was limited to private schools however, extension of this study to public schools and gender based exploration could enhance its generalizability. Further, only questionnaire were used for data collection in this study. However, for future studies it may be recommended that researchers should use classroom observation tool or interview of students, parents and teachers in order to validate findings from multiple sources. This might also help to explore the ground realities and various other variables associated with students' social and moral development.

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