

## Relationship between Self- esteem and Academic anxiety Among High School Students with Montessori and Traditional method of Education

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**Abstract:** Montessori Method of education focuses on students overall personality development. Montessori Method of education is designed not only to focus on academic skills of the students but also it gives importance for the development of the student's social and behavioral skills for living. Hence the present study aimed to find the relationship between the self-esteem and academic anxiety of students with Montessori and traditional method of education. It was hypothesized that the students with higher self esteem has lower academic anxiety. In order to verify the above hypothesis a sample of 124 students were selected from the schools which offer education with Montessori (n=60) and traditional method (n=64). Tools used for the study were the Rosenberg Self-Esteem Scale and Academic Anxiety Scale for Children developed by Singh and Sen Gupta. The collected data were subjected to Person's coefficient correlation analysis and the major findings of the study revealed that there is a significant negative correlation between self esteem and academic anxiety. The students of Montessori Method of education have significantly higher self-esteem and significantly lower academic anxiety and traditional school students showed lower self esteem and higher academic anxiety.

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**Keywords:** *Self-esteem, Academic anxiety, Montessori Education and Traditional Education*

### I. INTRODUCTION

The Montessori approach is based on the tenet that children learn most effectively when the information is developmentally appropriate (Ryniker and Shoho, 2001). Central to this approach is the notion that children's natural tendencies "unfold" in specially designed environment that contain manipulative self-correcting material (North American Montessori Teacher's Association, 2003). Montessori reportedly indentified genetically programmed "sensitive periods" in which children have exaggerated capacity and eagerness to acquire skills and information (Crain, 1992). Because each child's development is different, the individual child is allowed to choose activities, "trusting the child's sensitive periods will guide him to choose the work for which he is ready" (Pickering, 1992).

The Montessori education is characterized by a social set of educational materials, student-chosen work in long time blocks, collaboration, the absence of grades and test, and individual and small group instruction both academic and social skills (Montessori,1964).

In Montessori approach, children learn at their own pace through manipulation of objects. As such as personal independence, self-discipline, and initiative are essential for learning and motivation purportedly fostered through interactions in the environment (Kendall, 1993). Haris and Callender (1995) contend that the emphasis on these aspects leads to "inner discipline". In the Montessori approach, teachers do not "direct learning", but in respect the children's efforts towards independent mastery (Crain, 1992). Instruction is based largely on sensory materials developed by Montessori (Ryniker & Shoho, 2001).

In a Montessori environment, children learn by exploring and manipulating specially designed materials. Each material teaches one concept of skill at a time, and lays a foundation from which students can comprehend increasingly abstract ideas. Children work with materials at their own pace, repeating an exercise until it is mastered.

The teacher may gently guide the process, but her goal is to inspire rather than instruct. Montessori teaching engages all the senses, importantly for students with distinct learning style. Students learn by doing and are free to move about. Each student has the latitude to learn at his own pace, without pressure to meet formal standards of predetermination time.

According to Chatten- McNichols (1992) Montessori classroom are based on cooperative, while traditional classrooms are based on competition. In Montessori classrooms, “Teachers promote inner discipline in children by letting students direct their own learning instead of uploading an outer discipline where teachers act as authoritarians, dictating to students how to behave and what to do” (Harris & Calender, 1995).

**Need for the Study:** The Montessori model focuses on educating the whole child through hands-on, client-centered learning experiences (Lillard, 2005). The Montessori education method increases principle of justice and equality would promote the development of democratic attitudes, respect for individualism, and values among the students (Angell, 1998). Montessori education as providing a balance between freedom and discipline, ensuring security and fostering independence, providing sufficient challenge as well as opportunities for success (Humphryes, 1998). Montessori students are more creative and have significant higher cognitive/academic and social/behavioral skills than traditional school children (Besancon, & Lubart, 2007; Lillard, & Else-Quest, 2006). But no studies have been carried out to find the effect of Montessori Method on personality factors like self-esteem and academic anxiety.

The previous research in the area of education shows that, Montessori Method is a strong educational alternative to the traditional method of education. It is required to study the effect of Montessori Method of education on personality factors like self-esteem and academic anxiety and also to find relationship between these variable in two different sets of education method.

## II. OVERVIEW OF LITERATURE

The Montessori model focuses on educating the whole child through hands-on, client-centered learning experiences. The effectiveness of some of the elements of Montessori education has been supported by research on human learning (Lillard, 2005). There are obvious theoretical differences among these approaches to preschool children, and many researchers have devoted their efforts to examining which method is most effective for children. One study focused on preschool attendance and the development of literacy skills and phonological awareness.

The findings suggest that the Montessori approach to language instruction is superior to other forms at the preschool level. A study shows the Montessori Method to be superior in mathematics instruction. Academic performance is one area in which Montessori has been shown to outshine traditional forms of teaching. Another area of study that yields similar findings is the examination of children’s social development and self-esteem. For Montessori children, perceived ability to work together in groups was found to be positively associated with heightened levels of self-efficacy for academic achievement. Although traditional children were also found to gain self-efficacy for regulated learning through working together, as they enter higher grade levels, that self-efficacy decreases (Castellanos, 2002). Studies also suggest that a Montessori education instills a more positive sense of self-image, high levels of efficacy (Castellanos, 2002; Rathunde & Csikszentmihalyi, 2005), and high levels of intrinsic motivation. The findings reviewed here show that Montessori is a strong educational alternative to the traditional model.

## III. CONCEPTUAL FRAMEWORK

**Self-esteem:** High self-esteem is also a heterogeneous category, encompassing people who frankly accept their good qualities along with narcissistic, defensive, and conceited individuals. The modest correlations between self-esteem and school performance do not indicate that high self-esteem leads to good performance. Instead, high self-esteem is partly the result of good school performance. Efforts to boost the self-esteem of pupils have not been shown to improve academic performance and may sometimes be counterproductive.

People high in self-esteem claim to be more likable and attractive, to have better relationships, and to make better impressions on others than people with low self-esteem, but objective measures disconfirm most of these beliefs. Narcissists are charming at first but tend to alienate others eventually. Self-esteem has not been shown to predict the quality or duration of relationships.

High self-esteem makes people more willing to speak up in groups and to criticize the group's approach. Leadership does not stem directly from self-esteem, but self-esteem may have indirect effects. Relative to people with low self-esteem, those with high self-esteem show stronger in-group favoritism, which may increase prejudice and discrimination (Baumeister, 2003).

**Academic Anxiety:** Academic anxiety can become more detrimental over time. As a student's academic performance suffers, the anxiety level related to certain academic tasks increases (Huberty, 2012). Most teachers will have students with academic anxiety. Academic anxiety can also affect a student's academic performance. If a student has academic anxiety, the student might not be able to complete group tasks or might not feel comfortable asking for help in class. Academic anxiety can go along with or even lead to academic anxiety. Teaching student's self-regulation can reduce anxiety and increase academic performance (Ader & Erktin, 2010 and Zelazo & Lyons, 2012).

Anxiety can have a negative effect on the information processing system. People with anxiety have difficulty storing and retrieving information (Nelson & Harwood, 2011). Some students are very difficult to formally or informally assess because of anxiety. Not all teachers understand the signs of anxiety and the effects on their students. If teachers can recognize the signs, they can help the students cope with academic anxiety. Because all students are different, understanding multiple methods for coping with anxiety can be beneficial for more students.

## IV. RESEARCH METHODOLOGY

### Hypotheses:

1. There is significant negative correlation between self-esteem and academic anxiety among children of Montessori Method of education.
2. There is significant negative correlation between self-esteem and academic anxiety among children of traditional method of education.

### Study Area:

The study area of present research includes co-education Montessori and traditional schools located in Bangalore city of Karnataka State.

### Sample:

The total sample size of the study is 124 school children studying in Montessori (n=60) and traditional (n=64) method of education.

1. Children of Montessori Education: In this study the Montessori children comprise of the children studying in Montessori schools at least from their primary education to secondary education. The select Montessori schools would cater to the educational needs of the students at least from 1st standard or previous years of education to 7th standard with Montessori program. The children took admission at later stage or change in education method was excluded from the study. Irrespective of the geographical area of select districts the Montessori schools which fulfill the study criteria were included in the present research.

2. Children of Traditional Education: The samples of the above group were selected only from the schools which offer education purely through traditional method. Within the same school any children had sought admission from Montessori schools at earlier or later stage were excluded from the study. The criteria was followed here to select the children that the children those have studied at least form 1st standard or previous years of education to 7th standard were selected for the study.

3. Age: The Montessori school children comprised of the third pace of age group between 14 – 16 years based on the assumption that the children who attended Montessori program in the earlier two paces of 4 – 6, and 6 – 12 years of age attain the social and emotional development to the greater extent in the 3rd pace of education. To match the groups same age group children were selected even from the traditional methods.

### Tools for the Study:

#### 1. Personal Data Sheet:

A personal data sheet was administered to the subjects in order to get the personal information of the subjects pertaining to their name, age, gender, class of study, method of education (Montessori or Traditional), domicile etc.

**2. Rosenberg Self-Esteem Scale:** The scale is a 10-item Likert scale with items answered on a four point scale--from strongly agree to strongly disagree. Highest score obtained can be 30 and lowest score 0. Higher the score, higher the self esteem.

**3. Academic Anxiety Scale for Children:** Developed by Singh and Sen Gupta. Scale consist of 20 item with yes or no type.

### Statistical Techniques:

After scoring the data, the raw scores were converted into standard "T" scores using 20.0 versions of SPSS, subsequently the mean and SD was calculated. The data was subjected to Pearson's co-efficient correlation analysis to find the significant relationship between self esteem and academic anxiety among children of Montessori and traditional method of education.

## V. RESULTS AND DISCUSSION

Table 01: Means, standard deviations of Montessori and traditional school on Self-Esteem and Academic Anxiety

Variables	Montessori (60)		Traditional (64)	
	Mean	SD	Mean	SD
Self-esteem	57.95	6.04	42.55	6.67
Academic anxiety	41.13	5.60	58.32	4.52

The study results revealed that, on the self-esteem the Montessori school children have a higher scores (M=57.95) than the traditional school children (M=42.55). The method of education has significant positive effect on self-esteem of children, the results favoring the Montessori Method. The mean score obtained for Montessori group is 41.13, whereas the obtained the mean score for traditional school children is 58.32, which shows that children of traditional education have high academic anxiety than children of Montessori Method of education.

The result is in accordance with the earlier studies. For example, Lillard and Else-Quest (2006) found significantly higher social and behaviour skill among Montessori students compared to non-Montessori students. A study by Rthunde and Csikszentmihalyi (2005) states that Montessori school students are significantly higher in social-emotional scores compared to non-Montessori students. And the study by Dhiksha and Shivakumara (2015) found that the students from Montessori Method of education have significantly higher emotional intelligence compared to students from traditional school of education.

Table 02: Correlation between the dependent variables – self esteem, and academic anxiety among the Montessori Children.

Variables	Academic anxiety
Self-esteem	-.47**

\*\*=Significant at .01 level

Table 2 shows correlation between the dependent variables – self esteem, and academic anxiety among the Montessori children. The variables self esteem and academic anxiety are significantly negatively correlated. The obtained correlation coefficient is -.47, which is highly significant at .01 level. This indicates that there is a significant negative correlation between self esteem and academic anxiety. Further, it is understand that the Montessori children have higher self- esteem and lower academic anxiety.

Table 03: Correlation between the dependent variables – self esteem and academic anxiety among the traditional Children.

Variables	Academic Anxiety
Self-esteem	-.33**

\*\*=Significant at .01 level

Table 03 depicts correlation between the dependent variables – self esteem and academic anxiety among the traditional children. The variables self-esteem and academic anxiety are negatively correlated. The obtained correlation coefficient is -.33, which is highly significant at .01 level. This indicates that there is a significant negative correlation between self-esteem and academic anxiety. Further, we understand that the traditional children have lower self-esteem and higher academic anxiety.

## CONCLUSION

In Montessori Method of learning child learn in their own space and own style of learning. Each child is considered unique in Montessori Method. These concepts support Montessori students to have higher self-esteem compared to traditional school children. The Montessori students are involved to do group activities and learn co-ordination among group. Self-correction and self-assessment are an integral part of the Montessori classroom approach. The student learns to look critically at their work, and become adept at recognizing, correcting and learning from errors. This method of learning in Montessori school reduces student academic anxiety. In Montessori Method, learning is based on experimental method, where the students are thought by using equipment. The practical learning has influenced them to have high self-esteem and low academic anxiety.

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