

CHAPTER-III
REVIEW OF LITERATURE

In this chapter, an endeavor has been made to provide an overview of various aspects of this study through the review of existing literature. The sources referred include various data base, journals, books, doctoral theses, working papers, reports, magazines and newspapers etc. There are studies available about different aspects of Montessori method of education. In the following pages the researcher has tried to arrange the available literature related to the phenomena upon which the whole structure of the present investigation is based.

3.1 Efficiency of Montessori Method of Education

Fleege, Black and Rackauskas (1967) compared children in public and private school from Montessori preschool, non Montessori preschool, and no preschool background. Teachers rated the children in several areas on an experimental questionnaire. Montessori children rated significantly superior on interest in learning, independence, interpersonal relations, leadership and learning abilities.

Longitudinal study was conducted by Di Lorenzo (1969) and compared the effect of eight year long prekindergarten programs. Post test at the end of one year and follow up testing at the end of kindergarten indicated that pupils in the four cognitively oriented programs, one of which was a Montessori program, surpassed those in the four traditional nursery school programs of Stanford- Binet and Peabody Picture Vocabulary Test scores. The Montessori program was found to make modest but significant gains in Stanford- Binet IQ. The findings of Dreyer and Rigler (1969) contradicted the above findings and reported in their research that traditional nursery school students obtained higher scores on the Peabody Vocabulary Test than those of Montessori nursery students.

In the research conducted by Pendergast (1969) the researcher administered the frosting developmental test of Visual perception twice, seven months apart, to

upper-middle income children in a Montessori, conventional nursery schools and with no preschool experience children. Evaluated eye hand coordination and visual perception skills and found that in eye hand coordination the Montessori children showed significantly greater gains than those who attended the conventional nursery school and no preschool experience children. In figure ground perception and position in space skills, there were no significant gains in favor of Montessori students.

Reuter and Yunik (1973) examined the social interactions of preschool children at three Montessori preschools, two university laboratory preschools, and a parent cooperative preschool. The results of the study showed that the children in the Montessori schools had the highest rates of peer interactions. The Montessori children's interactions with their peers and with their teachers were longer. This result showed that the Montessori children had more advanced social skills because longer interactions require more verbal abilities and cooperation from the children. Overall, the children in the Montessori classrooms had more quality social interactions.

A study was done for analyzing Montessori upper elementary environment. The guiding hypothesis was that class meetings grounded in the principle of justice and equality would promote the development of democratic attitudes, respect for individualism, and values among the students. The study showed that 9–12-year-olds' natural inclination to work together did provide a window of opportunity for developing these skills. Despite occasional disruptions, the group ethic in the classroom appeared to promote moral reasoning, equality, and justice (Angell, 1998).

Humphryes (1998) advocates for the acceptance of quality Montessori programs as developmentally appropriate for young children. She describes Montessori education as providing a balance between freedom and discipline, ensuring security and fostering independence, providing sufficient challenge as well

as opportunities for success. The teacher's role, the curriculum, the classroom areas, and developmental assessment of children are discussed as well.

Krafft and Berk (1998) did a study to examine how preschoolers' private speech development in a Montessori and in traditional program. According to the author this was the first study to examine preschoolers' private speech development in a natural setting. A total of 59, 3-5 year old middle socioeconomic status children participated in the study. Observations were made in six classrooms, three in each preschool, over a 2-month period. Outcomes indicated that children in the traditional program engaged in more private speech than those in the Montessori classrooms. The authors concluded that fewer opportunities for make-believe play, more direct involvement of the teacher in the children's activities, and more frequent classroom transitions in the Montessori classroom contributed to the lower rate of private speech.

Loughran (2001) demonstrated how the Montessori approach could be used in teaching art to young children. The teacher at this private northeastern Montessori school used an innovative approach by encouraging students to create through their eyes rather than starting with tools. Using objects from their immediate environment and nature, the children were able to experiment, inquire, and construct, which resulted in visible enthusiasm and energy in their cooperative efforts.

The study was done on the assumption that Montessori's theory will improve children's fine motor skills in a public school kindergarten when compared to more traditional fine motor activities (Rule & Stewart, 2002). Using a pre-test-post-test design over a 6-month period, the experimental group of kindergarteners significantly outperformed the control group. With support for their hypothesis, the authors

concluded that the Montessori activities produced the desired fine motor development.

In a study by Castellanos (2003) different methods of teaching and different educational philosophies were examined to see if they affected children's self-esteem, self-efficacy, aggressive behaviour and prosocial behaviour. Elementary school children from a Montessori program were compared with children from a traditional program. The grades ranged from 2nd to 6th and all the children had attended the same program since at least the age of five. The children in the Montessori classroom were found to continually improve to make and keep friends of the same gender. They were also found to have lower levels of both verbal and physical aggression when compared to children in a traditional classroom. As the Montessori children developed greater skills at working in a group, their levels of verbal and physical aggression continued to decrease. Their ability to work in a group was also related to higher levels of both self-efficacy for academic achievement and self-efficacy for learning.

Farné (2005) explores the origins and value of play. Farné credits Montessori with creating one of the most important pedagogical innovations with her manipulative learning activities. He also discusses the influence of Montessori's method, as well as Piaget's and Dewey's philosophies of learning by doing, on the development of children's museums. "Pedagogy of Play" stresses the responsibility of education to provide enriching environments to cultivate the natural discovery of play in children.

In a quantitative study done by Rathunde and Csikszentmihalyi (2005a) they compared the motivation and quality of experience of Montessori and traditional school students. 290 students were considered in this study. The multivariate analyses showed that the Montessori students reported greater affect, feeling of energetic,

intrinsic motivation, flow experience and undivided interest compared to traditional school students. The non-Montessori students reported higher salience (that is perception of importance for their futures) and higher feeling of drudgery (that is perceiving school work as important but not motivating).

Rathunde and Csikszentmihalyi (2005b), in this study, have focused on how middle school students view their learning environments, peers, and teachers, was conducted with the same participants as in the preceding review description (Rathunde & Csikszentmihalyi, 2005a). Used experience sampling method and questionnaires and multivariate analyses showing that the Montessori students had more positive perceptions of their teachers and learning environments. In addition, Montessori students were more likely to call their classmates their friends while at school. Experience sampling method time estimates suggested that the two school environments were also organized in different ways. Montessori students spent more time engaged with school related task, chores, collaborative work, and individual projects, traditional students spent more time in social and leisure activities and more time in didactic educational setting like listening to a lecture, note taking, watching instructional videos.

The cognitive/academic and social/behavioral skill in the students attending Montessori and non-Montessori schools was examined by Lillard and Else-Quest (2006). Participants were 59 Montessori students and 53 non-Montessori students, in 5 and 12year-old age groups. The data indicated significant advantages among Montessori students in both the age groups. Montessori students rated significantly more creative and as using significantly more sophisticated sentence structure. Particularly remarkable significance difference was found in Montessori student's positive social and behavior skills demonstrating a greater sense of justice and

fairness and engaged in emotionally positive play with peers compared to non-Montessori students. Montessori students proved to have better on executive function, the ability to adapt to changing and complex situations. Montessori students expressed greater sense of community at their school and helped and cared about each other.

Centofanti (2010) argues that Montessori's construct of "work" dramatically influences the dominant views of learning, teaching, and schooling. The theory of work with children vastly changes the way teachers interact with their students and how students view themselves in terms of school and their personal work. Work in a Montessori classroom enables the children to gain deep concentration in an activity they will encounter in the real world. Work also teaches the child how to work toward the betterment of society as well as themselves. This author concludes that Montessori's enduring emphasis on work has created an alternative educational worldview.

Besancon and Lubart (2007) in their two-year study examined creativity development in first through fifth graders in four Parisian schools. Two sites used traditional pedagogy and two used alternative pedagogies, specifically Freinet and Montessori. A semi-longitudinal study was conducted during two consecutive years with 210 children in elementary schools. Overall, students who attended a Montessori or Freinet setting performed higher on creativity tests, and Montessori school students achieved higher levels of creativity over the two year study period than students in the other three schools. The children's creative performance was influenced not only by the type of task but also by the type of school.

The comparison of the achievement of two groups of Milwaukee high school students was studied- one group having attended a Montessori school from pre-K through fifth grade, and a matched peer group that attended non-Montessori schools.

Results indicated that attending a Montessori school had significant positive effects on math and science performance (Dohrmann et al., 2007).

Lillard (2011) presented the benefits of mindfulness training and compared this training to Montessori practices. She concluded that these similar practices may be responsible for executive function and socio-emotional benefits. Ozerem and Kavaz (2013) aimed to evaluate the efficacy of Montessori method on pre-school children. The results showed that the creativity and social skills ability were found to be higher in more percent of the students, further implying that the Montessori students have higher creativity and social skills.

The sedentary behavior in children attending Montessori preschools with those attending traditional preschools was compared by Byun, Blair and Pate (2013). The participants in this study were preschool children aged four years old who were enrolled in Montessori and traditional preschools. The preschool children wore Acti Graph accelerometers. Accelerometers were initialized using 15-second intervals and sedentary behavior was defined as <200 counts/15-second. The accelerometers data were summarized into the average minutes per hour spent in sedentary behavior during the in-school, the afterschool, and the total-day period. Mixed linear regression models were used to determine differences in the average time spent in sedentary behavior between children attending traditional and Montessori preschools, after adjusting for selected potential correlates of preschoolers' sedentary behavior. Children attending Montessori preschools spent less time in sedentary behavior than those attending traditional preschools during the in-school (44.4. min/hr vs. 47.1 min/hr, $P = 0.03$), after-school (42.8. min/hr vs. 44.7 min/hr, $P = 0.04$), and total-day (43.7 min/hr vs. 45.5 min/hr, $P = 0.009$) periods. School type (Montessori or traditional) was found to be significant predictors of preschoolers' sedentary behavior.

The Torrance tests of creative thinking was used by Besancon, Lubart and Barbot (2013) to compare Montessori school students and traditional school students on creativity. Montessori students scored significantly higher on the creative measurements, suggesting that the environmental context influences the students' creative potential.

The findings of the study conducted by Badiei and Sulaiman (2014) revealed that children in Montessori curriculum have a higher score in cognitive, social and language development than children in public kindergarten with National Preschool Curriculum. Other studies have yielded similar results that there is a difference between Montessori and traditional kindergartens in cognitive, language and social skill development (Brown et al., 2003; Singh, 2005; Lillard & Else-Quest, 2006; Bell & Wolfe, 2004; Centofanti, 2010; Crain, 2003; Ibeji, 2002) results favoring the Montessori kindergarten students.

The above research studies proved that, compared to traditional method of education the Montessori method of education is better for children's over all development. The above reviewed articles are comparison studies on Montessori and traditional method of education on psychological variables. In the process of literature review it's found that, there are no studies on self concept and emotional intelligence on students of Montessori method of education and found two studies on frustration level of Montessori students. Hence due to lack of literature review on self concept, emotional intelligence and frustration of Montessori school children, the studies related to demographic variables on self concept, emotional intelligence and frustration are reviewed in this chapter.

3.2 Self -concept

3.2.1 Self-concept and gender. Marsh, Byrne, and Shavelson (1988) reported that, boys had higher math and general self-concepts, but girls had high verbal and academic self-concepts. Harter (1990) found that preadolescent boys had higher physical self-concepts than girls but found no gender differences in social, cognitive, or general scales. Dusek (1991) in their longitudinal study of adolescent self-concept, reported gender differences in specific self-concepts that were consistent with gender stereotypes; boys had higher self-concepts in masculinity and achievement/leadership than girls, but lower self-concepts in congeniality/sociability. O'Brien (1991) examined gender difference in self-concept and reported that boys scored significantly higher in global self concept than girls.

Two analyses were conducted to examine gender differences in global self-concept in the study of Kling et al., (1999). In analysis I, a computerized literature search yielded 216 effect sizes, representing the testing of 97,121 respondents. The overall effect size was 0.21, a small difference favoring males. A significant quadratic effect of age indicated that the largest effect emerged in late adolescence ($d = 0.33$). In Analysis II, gender differences were examined using 3 large, nationally representative data sets from the National Center for Education Statistics (NCES). All of the NCES effect sizes, which collectively summarize the responses of approximately 48,000 young Americans, indicated higher male self-concept. Taken together, the two analyses provide evidence that males score higher on standard measures of global self concept than females.

Girls experience low self-concept as compared to boys (Carlson, Uppal & Prosser, 2000). Joshi and Srivastava (2009) reported that boys scored significant higher on self-concept as compared to girls. Kushwaha (2009) reported that,

adolescent boys found high in the areas of self-concept such as intellectual and school status, physical appearance and overall self-concept than the adolescent girls. Pauriyal, Sharma and Gulati (2010) in their study found that boys have significantly higher physical and intellectual self-concept than adolescent girls, whereas, in domains like social and moral self-concept the girls have significantly higher self-concept compared to adolescent boys. Rath, Nanda and Sumitra (2012) found that, adolescent boys have better physical self and personal self than the adolescent girls. Adolescent girls have higher family self and social self compared with adolescent boys. Analysis of variance found that, moral self-concept and overall self-concept showed insignificant effect on gender.

Parmar (2012) have found that, adolescent boys have significant better in their physical and educational dimensions of self-concept whereas adolescent girls were found significantly better in moral behavior than the adolescent boys. However no significant difference was found on other dimensions of self-concept like social, psychological, physical and overall self-concept. Bhat, Yashpal and Netragaonkar (2013) in their study had found that, adolescent boys were better in terms ideal self, real self and overall self-concept than the adolescent girls.

Contradicting findings reported that adolescent girls have higher level of self-concept than the adolescent boys, especially in the sub-scales of behaviour, intellectual school status and popularity (Tyagi & Kaur, 2001). Andrew (2002) explored that, the adolescent boys were having lower self-concept than adolescent girls. Cheng (2002) found that girls tended to be higher than boys in moral and family self-concept. Lawrence, Arul and Vimala (2013) revealed that, adolescent girls had better self-concept than the adolescent boys.

Pal and Karim (1984) found no significant gender differences for total self-concept, there were significant gender differences for many items and item clusters that seemed consistent with gender stereotypes. Pauriyal, Sharma and Gulati (2010) revealed that, the overall self-concept of adolescents found insignificant difference between adolescent boys and adolescent girls. Velmurugan and Balakrishnan (2011) in their study have reported that, there was no significant gender difference between adolescent boys and girls in their self-concept. Latha (2012) had explored that self-concept was found no significant difference between adolescent boys and adolescent girls. Saini (2012) in her study found that, there was insignificant difference between adolescent boys and girls on the dimensions of self-concept such as physical, social, temperamental, educational, moral and intellectual and overall self-concept.

Sankar and Reddy (2014) had investigated that, there was insignificant difference between self-concept of adolescent boys and adolescent girls. Arun et al., (2015) in their study explored that, adolescent boys and girls did not differ significantly on their self-concept. Sahariah and Saikia's (2015) found that, there was insignificant difference between adolescent boys and adolescent girls in their self-concept. Agrawal and Teotia (2015) in their study reported that, insignificant difference was observed in the self-concept of adolescents with respect to their gender.

3.2.2 Self concept and domicile. Lawrence, Arul and Vimala (2013) revealed that adolescents who were studying in the urban schools were better than the adolescents from rural and semi-urban adolescents in their self-concept. Researchers found that, the unaided school adolescents were better than the aided school adolescents and government school adolescents in their self-concept. Agrawal and

Teotia (2015) explored that, urban adolescents have better self-concept than the rural adolescents.

Deidra (1998) investigated the relationships between student aspirations, student self-concept, and student achievement. These relationships were estimated using structural equation modeling. The hypothesis that rural and urban students may behave differently and have different influences was also investigated using a technique called multi-sample analysis in the LISREL software package. Results demonstrated that, there is no significant difference between rural and urban students in their self concept. Joshi and Srivastava (2009) investigated the influence of domicile on self concept of school children. The findings indicated that there were no significant differences with regard to self concept of rural and urban adolescents.

The study by Velmurugan and Balakrishnan (2011) reported that, adolescents from rural and urban areas did not differ significantly in their self-concept. Sankar and Reddy (2014) had investigated that, rural and urban adolescents, joint and nuclear family adolescents were found insignificant with respect to their self-concept.

Bajpai (1998) have reported that non-tribal adolescents have better in their perceived self and social self compared with the tribal adolescents. The tribal adolescents had better ideal self than the non-tribal adolescents. Tribal urban adolescents were better in ideal self and social self than the tribal rural adolescents but there was insignificant difference between urban and rural tribal adolescents. The tribal younger adolescents were significantly higher than the tribal older adolescents.

3.2.3 Self concept and age. Latha (2012) in her study found that, F-ratio was significant at 0.01 levels with respect to independent variables like 8th, 9th and 10th standard adolescents of secondary school. The 9th standard adolescents indicated high self-concept than the 8th and 10th standard adolescents.

A research by Cheng (2002) focusing on the configuration of self-concept in young people, supported the notion of multiple self-concepts, consisting of six domain-specific self-concepts (social, intellectual, appearance, moral, family and physical) and the general self-concept. It was found that moral and intellectual self-concept increased with age. Pauriyal, Sharma and Gulati (2010) found age related differences in adolescent boys were observed insignificant on overall self-concept but in case of adolescent girls were found better self-concept with increasing age.

3.2.4 Self-concept and emotional intelligence. Gakhar (2003) probes into the relationship between emotional maturity and self-concept on academic achievement of high school students. The study revealed that, there is significant difference in the emotional maturity of students of government and private schools. There is a significant positive relationship between emotional maturity and self concept.

Salvador (2012) studied the influence of emotional intelligence on self-concept of students. The result finds the positive significant relationship between the emotional intelligence and the self-concept. The three components of emotional intelligence (emotional attention, emotional clarity and emotional repair) also significantly and positively influence self-concept. The findings suggested that emotional intelligence is essential in building the self-concept. Kumar (2013) studied the relationship of emotional intelligence and self-concept among XI class student by applying correlation design. The results of the study indicated that emotional intelligence and self-concept are positively correlated with each other. Also, emotional intelligence and various dimensions of self-concept i.e. physical, social, temperamental, educational and intellectual are also found to be correlated.

Pushpa and Yeshodhara (2014) examined the relationship between emotional intelligence and self concept of B. Ed students. The results revealed that there is positive significant relationship between emotional intelligence and self-concept.

3.3 Emotional intelligence

According to Salovey and Mayer (1990), emotional Intelligence is being able to monitor one's own and other's feelings and emotions, to discriminate among them and to use this to guide one's thinking and actions. Again, Salovey and Mayer (1990) wrote that an emotionally intelligent person is skilled in four areas: identifying, using, understanding, and regulating emotions. Similarly, Goleman (1998) also stressed that emotional intelligence consists of five components: knowing one's emotions (self-awareness), managing them, motivating self, recognizing emotions in others (empathy) and handling relationships. Earlier it was proved that emotional intelligence was significant to all constructs (school achievement inclusive). Finnegan (1998) argued that school should help students to learn the basic abilities of emotional intelligence. Moreover he believed that emotional intelligence could lead the students to better achievements.

Research on emotional intelligence with regard to certain demographic factors such as age, gender, domicile and socio economic status has been reported widely. Numerous studies were intended to find out the impact of demographic variables on emotional intelligence of individuals. However, these studies don't reach to similar conclusions but, have reported the significance of demographic variables in studying emotional intelligence. Following are some of the reviews in this context.

3.3.1. Emotional intelligence and gender. The study was conducted on adolescents aged 15 years, studying in class X in three randomly selected Government Model Senior Secondary Schools of Chandigarh. The findings of the

research was that girls having higher emotional intelligence than that of boys (Goleman, 1995). Thingujam and Ram (2000) in their attempt of Indian adaptation of Emotional Intelligence Scale by Schutte had developed Indian norms for male and female students separately and found that females were significantly scoring higher than male students. Kaur (2000) found significant relationship between emotional maturity, school, home and psychological environment. Girls were found to be more emotionally mature than boys.

Brackett, Mayer and Warner (2004) have also been reported in their study on students that females scored significantly higher in emotional intelligence than males. Lower emotional intelligence in males shows principally the inability to perceive emotions and to use emotion to facilitate thought was associated with negative outcomes including illegal drug and alcohol use, deviant behaviour and poor relations with friends.

Pandey and Tripathy (2004) investigated the developmental changes and gender differences in emotional intelligence in the Indian context. The study was based on a sample of children from five age groups (5-6 years; 8-9 years, 11-12 years, 14-15 years and 17-18 years). The results of the study indicated that there was increase in emotional intelligence with age and females were more proficient in managing and handling their own emotions as well as of others and a female has significantly higher emotional intelligence than male children. Kafetsios (2004) had reported gender differences in emotional intelligence and reported females scored higher than males on emotion intelligence.

Study reported by Pandey and Tripathi (2004) on a sample of individuals completing the measure of emotional intelligence, consisting of identification of emotion, perception and recognition of emotion with probing, perception and

recognition of emotion-without probing, understanding emotional meaning and emotion intensity rating. Results revealed that females scored significantly higher than males and were more proficient in managing and handling their own emotions as well as of others.

Mathur, Malhotra and Dube (2005) have evaluated the gender differences in emotional intelligence of high school students with an age group of 13 to 15 years. The study revealed significant gender-differences on the dimensions of emotional intelligence and concluded that females are more emotionally intelligent than males. Szuberla (2006) conducted a research on emotional intelligence and school success of elementary school children. This study revealed significant difference between boys and girls in emotional intelligence and concluded that girls have more emotional intelligence than boys. Jaeger (2007) conducted a research on exploring the value of emotional intelligence and found that female students found to have significantly high emotional intelligence than male students.

To observe emotional intelligence levels of male and female students, Nasar and Nasar (2008) have made an attempt and the results ensures the presence of higher emotional intelligence in the adolescent girl students in comparison to the boys. Tatawadi (2009) have studied the differences in emotional maturity among male and female students. The results revealed that the females are emotionally stronger than the males. The girls score higher with regard to empathy, social responsibilities and interpersonal relationships than boys. They are more sensitive towards their relationships with parents, friends and siblings. All these traits help them to acquire more emotional intelligence compared to boys.

Similarly, Mohanty and Devi (2010) have revealed in their study on gender differences on emotional intelligence that girls are more optimistic and well aware of

their feelings in comparison to boys. Girls are more aware and understand their own feelings (components of emotional intelligence) than boys. And found that female had significantly high emotional intelligence compared to male.

Few contradicting research findings are reported below: Mishra and Ranjan, (2008) have studied whether the gender difference affects emotional intelligence of adolescents. The results showed that adolescent boys and girls differ significantly on emotional intelligence and boys were found to be significantly higher on emotional intelligence than the girls. The higher scores of adolescent boys indicate that they are better on interpersonal, intrapersonal, adaptability and stress management skills and their overall general mood (happiness and optimism), are of higher order than the adolescent girls.

In the study reported by Devi and Rayal (2004) based on gender differences among emotional intelligence it was revealed that seventy six percent of girls have scored emotional intelligence above average. Whereas, eighty one percent of boys have scored their emotional intelligence scores above average level. This concluded that boys have scored slightly higher on their emotional intelligence as compared to their counterparts. Hunt and Evans (2004) have reported in their study on emotional intelligence that the males have significantly higher emotional intelligence than females.

Gakhar and Manhas (2005) conducted a study on cognitive correlates of emotional intelligences of adolescents. The study was conducted on students studying in various private and government schools in both urban and rural areas of three districts of Jammu and Kashmir and found no significant difference between boys and girls with respect to emotional intelligence.

Farooq (2003) conducted a research on effect of emotional intelligence on academic performance of adolescent students and found that no significant gender and domicile differences between adolescent boys and girls. Depape et al., (2006) has examined the gender as the predictor of emotional intelligence, and reported that gender was not a significant predictor of emotional intelligence.

Dutta, Chetia, and Soni (2015) investigated the emotional maturity of secondary school students in Lakhimpur and Sonitpur districts of Assam. The finding of the study reported that there was no significant difference in emotional maturity of boy and girl school students; and there is no significant difference between in the emotional maturity level of rural and urban secondary school students of both districts of Assam.

3.3.2 Emotional intelligence and age. The older children displayed greater emotional competence than their younger counterparts. It has been found that emotional intelligence increases with age or grade. Salovey and Mayer (1990) have shown that the emotional intelligence developed with increasing age and experience. Goleman (1996) have also stated that emotional intelligence increases with age and it can be learned, cultivated and increased in adulthood.

Mayer (2001) also showed with a series of studies that emotional intelligence increased with age and experience. Wong and Law (2002) working with different samples have found that, age is positively correlated with emotional intelligence across different situations. Similarly, Kafetsios (2004) had reported in his study among 239 adults aged between 19-66 years that older participants scored higher on three out of four branches of emotional intelligence i.e. facilitation, understanding and management. This study supports the view that emotional intelligence develops with age.

In a series of longitudinal studies, it was shown that people can change their emotional intelligence competencies over two to five years (Rooy, Alonso & Viswesvaran, 2005). Another study examining the long term stability (32 months) of emotional intelligence- related abilities over the course of a major life transition (the transition from high school to university) was reported by Parker et al., (2005). During the first week of full time study, a large group of students completed the EQ-i: short version; 32 months later a random subset of these student who had started their postsecondary education within 24 months of graduating from high school completed the measure for a second time. The study found emotional intelligence scores to be relatively stable over the 32 month time period. Emotional intelligence scores were also found to be significantly higher at second time; the overall pattern of change in emotional intelligence levels was more that can be attributed to the increased age of the participants.

Chapman and Hayslip (2006) have made a cross sectional analysis in order to measure emotional intelligence in young and middle adulthood. Differentiation of the construct of emotional intelligence was investigated in young and middle-aged adults. Mid life adults reported significantly greater use of optimism (a component of emotional intelligence) as a mood regulation strategy than was reported by young adults.

Thakkar (2007) conducted a research on construction and standardization of emotional intelligence test for the students of the secondary schools of Gujarat state. The major findings of the research reported that emotional quotient of students of 10th standard was higher than 8th and 9th standard.

3.3.3 Emotional intelligence and socio-economic status. Stottlemeyer (2002) conducted a research on an examination of emotional intelligence on high school

students and found that economically advantaged students scored higher emotional intelligence skills and academic achievement than economically disadvantaged students. Mohanty and Devi (2010) in their study, revealed that good education and occupation of parents in positively and significantly affects the emotional intelligence of the adolescents. It means that parents having good income having the ability in establishing and maintaining mutually satisfying relationship characterized by emotional closeness and intimacy in children.

Singh (1993) conducted a study on emotional maturity of male and female students of upper and lower socio economic status and sample consisted of adolescent students of Aligarh. The findings of the study suggested that female students had significantly higher emotional maturity compared to male students. The students from lower socio-economic status had higher level of emotional maturity compared with students of higher socio-economic status.

Gowdhaman and Murugan (2009) executed an empirical study and results showed that the socio economic status or monthly income do not cause any significant effect on the emotional intelligence. The relationship between emotional intelligence and socio economic status was studied by Goleman (1995) among college students and the study reported that socio economic status did not predict emotional intelligence.

3.3.4 Emotional intelligence and domicile. Thakkar (2007) conducted a research on emotional intelligence of the students of the secondary schools. The major findings of the research reported that students from urban area had higher emotional intelligence score than rural area students.

Kaur (2000) found rural students were more emotionally mature than urban students. Gakhar and Manhas (2005) conducted a study on cognitive correlates of

emotional intelligences of adolescents and found no significant difference between the adolescents of rural and urban areas and also scheduled and non- scheduled caste students.

3.3.5 Emotional intelligence and frustration. Sobha (2006) studied the emotional intelligence and frustration tolerance of adolescents. The study revealed that the male and female adolescents do not differ in respect to emotional intelligence. Women are found to have a higher level of emotional intelligence and frustration tolerance than men. Rural students are found to have a higher level of emotional intelligence and frustration tolerance than urban students. The emotional intelligence of adolescents is found to be positively and significantly related to frustration tolerance. The positive correlation reveals that people with a high emotional intelligence can tolerate setbacks to a great extent.

3.4 Frustration

Patil (2016) did study to assess the aggression and frustration of Montessori and traditional school children. Data was collected by using frustration scale developed by Chauhan and Tiwari (1999) and aggression scale developed by Pal and Naqvi (1986) from school students. The findings of the study revealed that the children of traditional school have significantly higher level of aggression and frustration compared to children of Montessori method of education.

Patil and Talawar (2016) assessed the gender difference in aggression of secondary school students in relation to Montessori and Traditional method of education. The results found that the traditional school students both males and females scored significant higher in aggression than the male and female students from Montessori Method of education.

Patil and Shivakumara (2016) assessed the frustration level of male and female students in relation to Montessori and traditional method of education. The research findings revealed that the male students of Montessori and Traditional education method did not differ significantly but the significance difference was found between the female students of Montessori and traditional school students. The tradition school female students were more frustrated than the female students from Montessori school.

3.4.1 Frustration and gender. Malviya (1968) conducted a study of reactions to frustration among adolescents. The findings of the study were that the reactions of the male and female subjects were found to be different. The mean score was higher on reactions of males than of females. Males were more aggressive than females. The score for aggressive responses was higher in the rural group, though the difference was not significant. Aggressive responses of the non-Hindu group were a little higher than those of the Hindu group. The non-Hindu adult males were considerably more aggressive than the Hindu adult males. Jasuja (1983) studied the frustration in relation to gender differences among adolescents. The findings were that the boys were more frustrated compared to girls.

Gupta (1990) conducted a study on frustration of adolescents and findings were both boys and girls had incidence of frustration to a considerable extent. This was not only for the total frustration scores but also for its various dimensions, i.e. regression, fixation, resignation and aggression. The girls were significantly more frustrated than boys. In a study Rai and Gupta (1988) found that females are higher in frustration tolerance than males. Rani (1989) in her study established that no difference exist in reactions to frustration of men and women on the other hand.

Patel (1996) investigated the extent and patterns of frustration of adolescent pupils of secondary schools with reference to gender. The findings of the study were that the pupils of secondary schools were more frustrated than those of higher secondary schools, and there were no gender differences as far as frustration scores were concerned.

3.4.2 Frustration and socio-economic status. Mathur (1970) conducted a study on frustration in adolescents and found that the incidence of frustration was found to be significantly higher in adolescents belonging to low socio-economic status than those from high socioeconomic status.

Singh and Choudhary (2015) carried a research to understand frustration level among adolescents in relation to their socio-economic status. The investigator undertook the study in government as well as private schools located in Delhi. The finding of the study revealed that there is no significant difference on frustration scores of adolescents from different socio economic status.

The literature reviewed above highlights the importance of Montessori education on holistic development of various sample groups. However, there are very limited studies in abroad and India focusing on the variables of the present study. There are some studies focusing on cognitive abilities. The review of literature carried out for more than two and half years by the researchers of the present study experienced paucity of studies focusing on self-concept, emotional intelligence and frustration. In depth literature review was carried out on self-concept, emotional and frustration in relation to demographic variables. The present research is the need of the hour in the education area to focus the applications of psychological principles in the personality development of the children.