CHAPTER – 2

OBJECTIVES AND HYPOTHESES
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Emotional intelligence and academic achievement

Emotional intelligence has been a positive and exciting topic with enormous implication for education. Emerging interdisciplinary researches and studies from education, business psychology and behaviour medicine are showing clear and significant contribution of emotional intelligence in human performance, and resilience.

The learned ability of emotional intelligence integrate well with the students education and personal point of view. A number of studies have supported the contention that positive self concept and academic achievement are closely related (Purkey, 1970; Back, 1984; Stanic & Kilpatric, 1988). Fitts (1972) found that persons with optimal self concept use their intellectual resources more efficiently. Wentzel and wigfield (1998) and Na Kaya (1998) also suggested that social responsibility goal was positively correlated with learning behaviour, academic competence and academic performance. D’surilla and Sheedy (1992); Wilson, Gottfredson and Najaka (2001); Shaun, Day and Catano (2000); Chun Yen, (2007) also observed positive association between problem solving dimension of emotional intelligence and academic achievement of the students.

Gottman (1997) has noted that emotional and social measures of intelligence are better predictors of school success. Social and emotional competence influence academic growth. Children who felt competent, autonomous and happy generally became good students. Harniss, Epstein, Ruser and Pearson (1999) observed that problem-solving played a genuine role on academic achievement. Orme and Bar-on (2000) found that total emotional intelligence, ability and personality (extraversion) were significantly associated with academic achievement.

Heckmen (2000) found that social emotional skills affects performance in school and in the work place. Darja and Janek (2001) observed significant correlations between academic achievement and various indices of self concept. Parker (2002); Palmer, Donaldson and Stough (2002) observe that academic success was strongly associated with emotional intelligence. Emotional intelligence scores were able to correctly indentify the majority of the students who would return for their second year.

Parker, Creque, Harris, Majeski, Wood, Hogan, (2001) and Parker, Creque, Branhert (2004) found that various emotional and social competence were strong predictors of academic success. They compared a group consisted of academically successful (80% or better) first year student with another group consisted of academically unsuccessful (59 % or lower). The successful group scored higher than unsuccessful group on several dimensions of emotional intelligence (Intrapersonal abilities, Adaptability and Stress tolrance). Boyatzis (1995); Ciarrochi (2001); Brackett & Salovey (2003) and Parker, Creque, Branhert (2004) examined the relation between emotional intelligence and academic achievements found that academic success associated with over all emotional intelligence level. EQ was found to predict 16 % of variability in grade
point average (GPA). Yates (2002); Norris and Wright (2003); Cynthia, Susan and Jamieson (2006); Malik & Rehman (2008) observed significant positive correlation between academic achievement and optimism. Creed, Patton, Bartrum (2002) observed that optimism is related with high achievement while high pessimism was found to be associated with low achievement.

Brakett, Mayer and Warner (2003); Mayer and Salovey (1997) observed the association between emotional intelligence, ability and social academic success. Van and Viswesveran (2004) found that emotional intelligence correlated positively with general mental ability, agreeableness, openness to experience and extra version. Student academic engagement and success has been tried to be associated with emotional intelligence in a variety of ways. Emotional intelligence leads academic performance is demonstrated by Jaegar (2004) and Zins, Weissberg, Wang and Walberg (2004). There are also considerable literature on improved emotional intelligence which is turn, improves student’s academic success from the grade school level (Elias & Arnold, 1990; Zins, Weissberg, Wang & Walberg, 2004) to college level (Boyatziz, Stubbs &Taylor, 2002; Goldworthy, 2002; Meade, 1981; Hall, 1987). Merell Tymmes (2001) and Miyakawa (2001) supported the fact that impulsivity leads to poor performance. Vigit-colet and Morales-Vives (2005) found that impulsivity is not directly related to the intelligence, and may act as a moderator variable between individual resources and their achievements.

Mayer, Salovey and Caruso (2000) emphasized that emotional intelligence involves the ability to recognize emotions to know how they unfold, and to reason about them accordingly. Emotional intelligence has a definite relation with human brain, it is related to verbal performance (Jausovec & Jousovec, 2005). In various
researches emotional intelligence was found to be significantly correlated with vocational performance (Amelang & Steinmayr, 2006); behaviour (Brackett, Mayer & Warner, 2004); performance (Brackett, River, Shiffman, & lemer, 2006), and multiple intelligence (Bay & Lim, 2006).

Emotional intelligence and academic achievement have been found to be correlate to each other (Amelang & Steinmayr, 2006; Goleman, 1995; Parker, Saklofske, Shouhnessy & Huang, 2004; Siana, Misra & Srivastava, 2005). Researches showed that high academic performance was related with high emotional intelligence whereas emotional quotient and intelligence quotient were found to be correlate in a weak manner. Amelang and Steinmayr, (2006) revealed that high academic performance is related with high emotional intelligence. Zeidner and Matthews (2005) also found that high emotional intelligence caused high academic performance. Newsome, Day and Catano (2000) used the EQ as a measure of emotional intelligence and found no correlation between academic performance and emotional intelligence.

High emotional intelligence is more important for academic success in individuals with low IQ, whereas individuals with high IQ do not benefit academically as a result of high emotional intelligence (petrides, Sangareau, Furnham & Frederickson, 2006). Woitaszewski and Aalsma (2004) observed similar findings when assessing emotional intelligence and academic success in gifted adolescents. Song (2010) studied the impact of general mental ability (GMA) and emotional intelligence (EI) on college students’ social and academic performance and found GMA and EI both had an influence on academic performance.
Thinking style and academic achievement

Researches on the relationship of thinking styles and academic achievement have revealed inconsistent results. For example, Grigorenko & Sternberg (1995) found the association between academic achievement and thinking style varies according to type of institution. They found that in a public school, legislative, executive and hierarchical styles of thinking predicted academic achievement. In private schools, significant predictors were legislative, global, liberal, hierarchical and conservative styles. In the private catholic schools, significant predictors were executive, local and conservative styles but hierarchic and liberal styles were negative predictors of academic achievement.

Sternberg (1997) and Grigorenko and Sternberg (1997) reported that legislative and judicial styles were positively related to student success in variety of academic tasks while executive style was more likely to be negatively related to academic achievement. Zhang and Sternberg (1998) found that higher academic achievement was related positively with conservative, hierarchical and internal styles and negatively with the use of legislative, liberal and external styles.

Tso (1998) obtained correlation varied across school subjects. Creativity relevant thinking styles (legislative and liberal) as well as judicial style had significant negative relationship with academic achievement while thinking style like executive was positively and significantly correlated to academic achievement. Bernardo, Zhang and callueng (2002) observed that six thinking styles viz., executive, judicial, conservative, hierarchic, anarchic and internal were related to academic achievement. Sharma (2003) reported that high achievers were inclined to use local thinking style than everage and low achievers. Grigorenko and Sternberg (1995 & 1997) conducted researches involving
American students that demonstrated the usefulness of the theory for understanding achievement and other aspects of schools performance.

In the study by Jain (1988), tribal students were found to be comparatively less intelligent, emotionally unstable, expedient and tensed than upper cast adolescents. Bharsakle (1995) and Shah (1989) reported that non-tribal high school students were found to have higher achievement motivation as compared to tribal students. It is general observation in our country that tribal students are said to be inferior to their non-tribal counter parts in academic field (e.g., Annaraja & Thiagarajan, 1993; Mohanty, 2000; Sharma, 1991; Tripathy, 1990). Bernardo, Zhang and Callueng (2002) explained their results with respect to the concept and practices of the specific culture and school and discussed them in relation to the development of assumptions of the theory of mental self government. In a study of baster tribes, Jha (1987) has concluded that parents of tribal children find school as an obstacle to their life routine.

Achievement of tribal students is lower than that of non tribal (e.g. Bhargava & Marwah, 1982; Deshpande, 1984; Gupta, 1983; Mehta, Bhatnagar and Jain, (1989); John, 2005; Mohanty, 2000; Rath, Dash and Dash, 1979; Sharma 1991; Tripathy 1990). With regard to the investigation of Naglieri (2000) on Pass Theory found that children with a cognitive weakness earned lower scores on achievement and the more pronounced the cognitive weakness, the lower achievement scores. Mohanty (2008) emphasizes that educational failure, at least partly, due to the systematic exclusion of mother tongues, is clearly reflected in the economic underdevelopment, and general poverty of the tribals in India, which is a complex multidimensional phenomenon.
Sternberg, (1997) and Sternberg and Grigorenko (1993 & 1995, 1997) found that judicial and legislative thinking styles contributed positively to a student’s success in a variety of academic tasks, whereas the executive thinking style tended to contribute negatively to success on those tasks. Sternberg and Grigorenko (1993 & 1995); Grigorenko and Sternberg (1997); Tso, (1998) and Zhang (2002) showed that conservative style positively predicted students’ grade point averages, whereas the global and liberal styles negatively did so. Albaili (2006), Sternberg (1997), Sternberg and Wagner (1991) showed that certain thinking styles could be used as predictors of students' academic achievement and performance.

Zhang (2001a, 2001b), Zhang & Sternberg, (1998) suggested that respect for authority and sense of order (i.e. executive and hierachical) were positively related to academic achievement. Thinking styles that are creativity generating (legislative and liberal styles) affected to contribute negatively to academic achievement. Furthermore, a preference for working individually (internal style) was positively correlated with academic achievement, while a preference for working in groups (external style) was negatively associated with academic achievement. One of the recent study by John, Singh and Verma (2011) showed significant effect of society on academic performance of non-tribal and tribal subjects. It was found that non-tribal subjects were significantly higher than the tribal ones.

**Motivation and Academic achievement**

Motivation is one of the most potent factors that influence student learning. Many research findings have pointed out the importance of intrinsic motivation in academic setting as it is associated with increased attention, persistence and study skills (Hidi & Harackiewicz, 2000). Regarding
developmental differences, it was reported that elementary student scored higher on motivation and performance in English and Maths as compared to middle school children (Anderman & Midgely, 1996). Studies under achievement goal theory by Ames & Archer (1998), Archer (1994), Duda and Nicholls (1992), Harackiwicz, Barron, Carter, Lehto & Elliott (1997) have reported that performance goals were related to intrinsic motivation even though the correlation was lower than with mastery goals. High motivation and engagement in learning have consistently been linked to reduce dropout rates and increased levels of student success (Kushman, Sieber, & Harold, 2000). Development of academic intrinsic motivation in students’ is an important goal for educators because of its inherent important for future motivation as well as for student’s effective school functioning (Gottfried, 1990). Few studies have examined motivation in young children and found that it was a weak predictor of achievement (Stipek & Ryan, 1997). Harter (1983) proposed a model of mastery or effectance motivation, describing the effects of both, success and failure experiences on mastery motivation. The goals of effectance motivation are acquiring competence and influencing one’s environment (Eccles, Wigfield & Schiefele, 1998).

According to Goldberg (1994), children with intrinsic motivation in academics would have higher self-perception of competence in academics and that children who are extrinsically motivated would have lower perceived academic competence. Students who are more intrinsically than extrinsically motivated are better and students who are not motivated to engage in learning are unlikely to succeed (Gottfried, 1990). Gottfried (1990) also found that early intrinsic motivation correlates with later motivation and academic achievement and that later motivation is predictable from early achievement.
Boggiano, Main, Katz (1991), found that females were significantly more extrinsic than males. Male students performance accords their interest level more than the case for female students. Specifically girls’ academic performance is less associated with their interests than boys’ academic performance (Schiefele, Krapp & Winteler, 1992).

The literature review showed that most elementary students begin their academic career with a desire to learn and with an intrinsic approach to achievement (Entwisle & Others, 1986). It has been revealed that an intrinsic orientation toward education switches to a more extrinsic orientation as students increase in age (Goldberg, 1994).

Intrinsic motivation has emerged as an important phenomenon for educators, a natural wellspring of learning and achievement that can be systematically catalyzed or undermined by parent and teacher practices (Ryan & Stiller, 1991). Tripathy (1990) considered the relationship between academic performance with self-concept, level of aspiration and academic motivation of tribal and non tribal students.

undertaken for the enjoyment it provides, for the feelings of accomplishment it evokes or for the learning it permits (Kim, Kim & Kim, 2006). Deci and Ryan (2000) like researchers suggested that, under certain circumstances, intrinsic and extrinsic motivation need not work in opposition. Those students who are high on intrinsic motivation prefer more exciting and challenging tasks from the class (Kim, Kim & Kim, 2006; Moneta & Siu 2002), while those students who are high on extrinsic motivation consider the study as a “tool” for achieving other external goals such as job etc. In the context of school culture may then include many other aspects including rituals, expectations, relationships, curricular focus, extra curricular activities, decision making process, etc. Because these aspects of culture are primarily formed through teacher-student interactions, classroom culture becomes an intrinsic part of school culture. Putul kumari (2011) found that govt. School students were lower on intrinsic motivation (to know and to accomplish things) and one of extrinsic motivation (Introjected regulation) then the private school students, and also find difference in gender that girls showed greater motivation level than the boys on intrinsic motivation to know, extrinsic motivation to identified regulation.

**Rationale of the study**

Academic achievement has been studied at the light of the various factors but no one study could explain the fact and predict hundred percent of the academic achievement theories always argue that his particular theory can explain. The dependent variable in most appropriate way but empirical evidences do not support the theories. Sternberg proposed his theory against the role of intelligence and claimed that success in any area can be very well predicted on the basis of thinking style, but review of literature clearly demonstrate that their is
a big gap between the claim and the fact. Similarly proposal of intrinsic motivation theory assumed that any behaviour can be predicted on the basis of intrinsic, extrinsic nature of motivation. Similar case is with emotional intelligence review of literature shows the mix experience, some times the variables predict the academic achievement while in many cases they proved to be unfit for the prediction.

One thing which clear from the review that emotional intelligence, thinking style, academic motivation seems to be important factor for academic achievement of students, but no one study has been observed to undertaken these factors under one umbrella and to examine their roles in determining the academic achievement. However Bhuiyan (2012) has made and attempt to examine the role of thinking style academic motivation and intelligence in determining the academic achievement of urban boys and girls. The study has failed to establish the linkage between intelligence and academic achievement. Thinking style and academic motivation were found to be important factors in this regard.

Against this back drop it was an opinion to examine the role of thinking style, academic motivation and emotional intelligence in determining the academic achievement of students as intelligence was formed to be non significant variable and many has claimed that emotional intelligence is an important factor for academic achievement.

Also it was observed that separate studies on these factors were undertaking urban subjects. It was observed in most of the cases tribal sample was less explored. John (2005) ; John, Singh & Verma (2011) concluded tribal sample and observed the role of thinking style and academic achievement. Their result show that thinking style of tribal students were different and they concluded that
due to that variation in thinking style tribal students showed inferior achievements taking John’s (2005), finding into consideration it was decided to concentrate the research focus on tribal students and to compare them with non tribal population.

The specific objective and formulated hypotheses are presented below:

**Objectives**

**Emotional Intelligence**

1a. To examine whether boys and girls shows significant variation on different dimension of emotional intelligence.

1b. To study whether tribal and non tribal students show significant differences on different dimension of emotional intelligence.

2a. To explore emotional intelligence (self awareness, self regulation, self motivation, social skill, social awareness) profile of tribal boys.

2b. To study emotional intelligence (self awareness, self regulation, self motivation, social skill, social awareness) profile of tribal girls.

2c. To examine emotional intelligence (self awareness, self regulation, self motivation, social skill, social awareness) profile of non tribal boys.

2d. To explore emotional intelligence (self awareness, self regulation, self motivation, social skill, social awareness) profile of non tribal girls.

**B. Thinking style**

1a. To study whether boys and girls shows significant variation on different dimension of thinking style.

1b. To prepare whether tribal and non tribal students shows differences on different dimension of thinking style.
2a. To examine the thinking style (monarchic, hierarchic, oligarchic, anarchic, legislative, executive, judicial, global, local, internal, external, liberal, conservative) profile of tribal boys.

2b. To explore the thinking style (monarchic, hierarchic, oligarchic, anarchic, legislative, executive, judicial, global, local, internal, external, liberal, conservative) profile of tribal girls.

2c. To study the thinking style (monarchic, hierarchic, oligarchic, anarchic, legislative, executive, judicial, global, local, internal, external, liberal, conservative) profile of non tribal boys.

2d. To examine the thinking style (monarchic, hierarchic, oligarchic, anarchic, legislative, executive, judicial, global, local, internal, external, liberal, conservative) profile of non tribal girls.

C. Academic motivation

1a. To examine whether boys and girls shows significant variation on different dimension of academic motivation.

1b. To study whether tribal and non tribal students shows significant difference on different dimension of academic motivation

2a. To prepare the academic motivation (intrinsic motivation, extrinsic motivation, amotivation) profile of tribal boys.

2b. To study the academic motivation (intrinsic motivation, extrinsic motivation, amotivation) profile of tribal girls.

2c. To explore the academic motivation (intrinsic motivation, extrinsic motivation, amotivation) profile of non-tribal boys.

2d. To examine the academic motivation (intrinsic motivation, extrinsic motivation, amotivation) profile of non-tribal girls.
D. Academic achievement

1a. To examine whether tribal and non tribal students shows differences on academic achievement.

1b. To examine whether boys and girls shows significant variation on academic achievement.

HYPOTHESES

A. Emotional intelligence

1. There would be significant difference between boys and girls on different five dimension of emotional intelligence.

2. There would be significant difference between tribal and non tribal students on different five dimension of emotional intelligence.

3. There would be significant interaction effect of gender and culture on different five dimension of emotional intelligence.

B. Thinking style

1. There would be significant difference between boys and girls on different thirteen dimension of thinking style.

2. There would be significant difference between tribal and non tribal students on different thirteen dimension of thinking style.

3. There would be significant interaction effect of gender and culture on different thirteen dimension of thinking style.

C. Academic motivation

1. There would be significant difference between boys and girls on different three dimension of academic motivation.

2. There would be significant difference between tribal and non tribal students on different three dimension of academic motivation.
3. There would be significant interaction effect of gender and culture on different three dimension of academic motivation.

D. Academic achievement

1. There would be significant difference between boys and girls on academic achievement.

2. There would be significant difference between tribal and non tribal groups on academic achievement.

3. There would be significant interaction effect of gender and culture on academic achievement.

E. 1. Role of emotional intelligence, thinking style, academic motivation and gender would show significant role in determining academic achievement of tribal students.

2. Role of emotional intelligence, thinking style, academic motivation and gender would show significant role in determining academic achievement of non tribal students.

3. Role of emotional intelligence, thinking style, academic motivation and gender would show significant role in determining academic achievement.