5.0 INTRODUCTION

All educational thinkers, policymakers, administrators and all educational committees and commissions—Indian as well as foreign hold that the effectiveness of instruction depends vitally upon the quality of the teacher, who is the pivot of an educational system. Teaching is one profession that brings many benefits to everyone. It is rightly said that the quality of nation depends on the quality of its citizens and quality of citizens depends upon the quality of its teachers. The best curriculum, syllabus and text materials become unless if the teachers do not know how to handle them. So a self organized system of in-service and pre-service teacher can equip themselves with new knowledge, technology and methodology.

Recently the concepts of self-efficacy, self-esteem, styles of thinking and decision making have received considerable attention of the educationists of the Western World in connection with intellectual and academic performances of the students. However the area of pre-service secondary teacher education has remained unexplored. This situation warrants that the association between academic achievement and self-efficacy, self-esteem and styles of thinking and decision making may be explored systematically.

5.2 STATEMENT OF THE PROBLEM

The area of self-efficacy, self-esteem, thinking and decision-making styles is not new one in educational research. In foreign countries, a number of researchers have tried to explore the relationship of self-efficacy, self-esteem, thinking and decision-making styles of school, college and university level students with their background and cognitive and non-cognitive characteristics separately. But combination of these constructs have not been sufficiently studied in the realm of both type of teacher education i.e. pre-service and in-service. Pre-service teacher education has a unique and significant place in teacher education. Like students of other classes, prospective teachers need to be taught based on their self-
efficacy, self-esteem and preferred ways of thinking and decision-making in order to facilitate full actualization of their potentials. Related research has indicated that self-efficacy, self-esteem, decision-making and thinking styles of prospective teachers are related to background and cognitive and non-cognitive characteristics separately. But there is no study available which has thrown light on the combination of self-efficacy, self-esteem, decision-making and thinking styles of prospective teachers of secondary level in particular. Therefore, the present meaningful research questions:

1. Are self-efficacy, self-esteem, thinking and decision-making styles of prospective secondary teachers related to gender difference?
2. Are self-efficacy, self-esteem, thinking and decision-making styles of prospective secondary teachers related to their academic achievement?
3. Are there significant interactions between academic gender and achievement of prospective secondary teachers with regard to their self-efficacy, self-esteem, thinking and decision-making styles?

Putting these three broad research questions in unified form, the problem of the study was stated as under.

“**A STUDY OF SELF-EFFICACY SELF-ESTEEM THINKING AND DECISION MAKING STYLES OF PROSPECTIVE TEACHERS IN RELATION TO THEIR GENDER AND ACADEMIC ACHIEVEMENT**”

**5.3 SIGNIFICANCE OF THE STUDY**

In the last three decades there has been extensive research on various methods of college teaching but no style methods of teaching has been found consistently supervise for mythical average student. In view of this the research started exploring the issue: which students learn best under what condition. As a result of this endeavour they found the answer in the area of thinking and decision making styles. In their opinion all types of learners can be reached well though people diagnosis and perception of their decision making and thinking styles. The knowledge of how students think and decide to essential for tailoring the instruction of the learning needs of the student so as to produce best learning.
In foreign countries considerable efforts has been made to study separately the self-efficacy, self-esteem decision making and thinking styles of college students in context to culture, socio-economic background, age, grade, personal and psychological characteristic of the learners. However no systematic study has been undertaken by any Indian researcher on the effect of gender and academic achievement on self-efficacy, thinking achievement on self-efficacy, thinking and decision making styles of prospective secondary teachers as a whole. Therefore the present study will be a humble attempt in fulfilling the gap in existing researcher on self-efficacy, self-esteem, thinking and decision making styles.

Further, the result of this study may be helpful in providing the empirical base for organizing classroom teaching in most effective and satisfactory manner in college of teacher education for enhancing the level of academic performance of prospective teachers moreover through knowledge of self-efficacy, self-esteem, styles of thinking and decision making of teacher educators perhaps will prepare themselves to become diagnostician prescribers educational designers and to adjust teaching methods to different ways in which prospective teachers prefer to learn.

Beside the fact that the result of this study would be great help to educators, Principals of colleges of education, educational planners, guidance workers and curriculum designers would also be benefited.

**5.4 OBJECTIVES OF THE STUDY**

The following objectives were framed for the present study.

1. To study the self-efficacy among prospective teachers in relation to their gender.
2. To study self-efficacy among prospective teachers in relation to their academic achievement.
3. To study self-efficacy among prospective teachers in relation to their gender and academic achievement.
4. To study the self-esteem among prospective teachers in relation to their gender.
5. To study self-esteem among prospective teachers in relation to their academic achievement.
6. To study self-esteem among prospective teachers in relation to their gender and academic achievement.

7. To study thinking styles among prospective teachers in relation to their gender.

8. To study thinking styles among prospective teachers in relation to their academic achievement.

9. To study thinking styles among prospective teachers in relation to their gender and academic achievement.

10. To study decision making styles among prospective teachers in relation to their gender.

11. To study decision making styles among prospective teachers relation to their academic achievement.

12. To study decision making styles among prospective teachers in relation to their gender and academic achievement.

5.5 HYPOTHESES

The following hypotheses were tested in the present study.

1. There will be no significant difference in self-efficacy of male and female prospective teachers.

2. There will be no significant differences in self-efficacy of prospective teachers with high, average and low academic achievement.

3. There will be no significant interaction between gender and academic achievement with regard to self-efficacy of prospective teachers.

4. There will be no significant difference in self-esteem of male and female prospective teachers.

5. There will be no significant difference in self-esteem of prospective teachers with high, average and low academic achievement.

6. There will be no significant interaction between gender and academic achievement with regard to self-esteem of prospective teachers.

7. There will be no significant difference in thinking styles of male and female prospective teachers.

8. There will be no significant difference in thinking styles of prospective teachers with high, average and low academic achievement.
9. There will be no significant interaction between gender and academic achievement with regard to thinking styles of prospective teachers.

10. There will be no significant difference in decision making styles of male and female prospective teachers.

11. There will be no significant difference in decision making styles of prospective teacher with high average and low academic achievement.

12. There will be no significant interaction between gender and academic achievement with regard to decision making styles of Prospective Teachers.

5.6 DELIMITATIONS OF THE STUDY

The present study was delimited in terms of the following

1. The investigation was carried out on a sample of 480 male and female prospective teachers.

2. The subjects/students were drawn from science, arts and commerce streams.

3. The study was confined to colleges of education falling in the jurisdiction of H.P. University, Shimla.

5.7 OPERATIONAL DEFINITION OF KEY TERMS

The term used in the present study having defined as under:

1. Self-efficacy: Refers to the concepts as measured by general self-efficacy scale developed by Schwarzer and Jerusalem.

2. Self-esteem: Refers to the concepts as measured by self-esteem is developed by Morris Rosenberg.

3. Thinking styles: Refers to 13 thinking styles as measured by thinking style inventory as developed by Sternberg and Wagner.

4. Decision making styles: Refers to 5 decision making styles as measured by General decision making scale developed by Scott and Bruce.

5. Academic achievement: Achievement test was prepared by the investigator.
5.8 REFLECTION OF RELATED RESEARCHES

Self-Efficacy

Self-efficacy has been investigated in relation to teaching efficacy reported in (Whittington, McConnel and Knobloch, 2006; Settlage, Sotherland, Smith and Ceglie, 2009; Bruinsma and Jansen, 2010) study investigated pre service teachers’ intrinsic and extrinsic motivation. (Mohammad Taghi, Monshi and Afsaneh, 2012) to investigated the relationship between EFL teachers’ locus of control and self-regulation and the moderating role of self-efficacy. (Lamote and Engels, 2010; Sunjin Oh, 2011) study focuses on student teachers perceptions of their professional identity. (Hemmingsen and Rae, 2001) found that career self-efficacy is highly related to academic achievement and educational development in eleventh-grade students. (Odaci, 2013) to investigate the extent to which postgraduate students' belief in their computer self-efficacy, self-esteem and subjective well-being predicts research self-efficacy. (Femandez-Ballesteres, Diez-Nicole, Caprara, Barbaranell, and Bandura, 2002) found that man had a higher sense of efficacy than women to contribute to the solution of social problems. (Anderson, Dragsted, Evans, and Sorensen, 2004) studied science teaching self-efficacy belief among new teacher of elementary science. (Mottet, Beebe, Raffeld and Medleck, 2004) studied that effects of student verbal and non verbal responsiveness on teachers self-efficacy.

Some researchers reported self-efficacy in relation to gender. (Brusal, 2010; Hemmingsen and Rae, 2001; Yazachew, 2013) Attempt have also been made to examine the self-efficacy in relation to academic achievement. Some researchers (Woolfolk, 2007; Wolf, 2008; Ates, Ates and Alev, 2011; Lisa, Ellen and John, 2011) found strong and direct effect of academic achievement. (Ozgen Korkmaz, 2013) Gender and class level do not differentiate prospective teachers’ self-efficacy perceptions on programming.

Self-Esteem

Some research has been reported on the relationship between self-esteem and academic achievement among the students. (Mefteh, 2002; PourSina, 2003; Emamzadeh, 2004) did a research in order to compare the social skills and self-
esteem and academic achievement. (Amini, 2004) conducted a research in order to study the role of self efficiency, self regular and self-esteem in high school students’ academic achievement. (Zeinvand, 2006) studied the relation between self-esteem, social support and student’s educational progression. (Chopra and Sahoo, 2006) students are having positive and balanced self-esteem in comparison to those students whose parents are less involved. (Furst, 2006) reported that higher self-esteem has not only positive effects in the present, but could also have positive effects for the child’s perception for the future. (Lentini and Knox, 2008) several meta analyses have found that personal benefits include items such as: higher self-esteem, self awareness, self-efficacy, self control. (Pullmann and Allik, 2008) there are some probable lines of description why low general self-esteem does not essentially signal a poor academic achievement. (Shobhna Joshi and Rekha Srivastava, 2009) to examine the gender differences in self-esteem and academic achievement. Boys would score significant higher on self-esteem as compared to girls. Significant gender differences were found in academic achievement. Girls were significantly higher on academic achievement as compared to boys. (Habibollah, Rohani, Tengku, Jamaluddin, and Kumar, 2009; Nicole and Kristen, 2011) study examined self-esteem, gender and academic achievement and a significant difference between gender and self-esteem was observed. (Elan, Chavous, Jagers and Sellers, 2013) results also suggested strong, positive racial group identification supports psychologically adaptive connections between self-esteem and achievement.

**Thinking Styles**

Thinking styles have been investigated in relation to personality traits, gender and academic achievement. (Zhang, 2000) inquired in to the relationship between thinking style and personality types. (Zhang, 2001) studied the thinking style of secondary school students and found that thinking styles statistically predicted academic achievement beyond self related abilities. (Bernardo, Zhang and Calluing, 2002; Aaron and Lynn, 2012) studied the thinking style and academic achievement. (Maree and Boer, 2003) studied the relationship off thinking style preference and language proficiency. (Zhang, 2004) undertook a study on university student preferred teaching style and their conception of effecting teachers. (Park, Park, and
Choes, 2005) investigated the thinking styles of gifted students. (Richmond and Liu, 2006) evaluated the thinking styles education courses. (Albaili, 2007) examined the differences in thinking styles among low, average, and high achieving college students. (Sladek, Philips and Bond, 2008) conducted a study on thinking styles and doctors’ knowledge and behaviours relating to the acute coronary syndromes guidelines. (Castro and Bauml, 2009) sought to investigate the circumstances which enables career switches to move from merely thinking about teaching to actually becoming a teacher. (Zhang, 2010) research examines the roles of thinking styles in learning and achievement. (Saxena and Aggarwal, 2011) find out the prevalent thinking styles among prospective teachers and thinking styles significantly affected their teaching. (Sharma and Neetu, 2011) concluded that male and female secondary school students are not different in respect to their academic achievement whereas they are different in respect to their learning-thinking style. (Farrokhlagha and Zahra, 2012) the study pursued whether thinking styles could act as the predictors of meta-cognition. (Turki, 2012) the variable of gender in all the styles except the legislative and judicial style, the differences came to the favor of males. The differences of the executive style came to the favor of females. (Jieqiong and Zhang, 2013) environment played an important role in students’ thinking styles.

**Decision Making Styles**

Decision making styles have been investigated in relation to vocational decision making behavior, gender and academic achievement. (Scott and Bruce, 1995) found that internally controlled individual were more likely to employ a rational decision making style and less likely to making style and less likely to employ an avoidance decision making style than the externally controlled individual. (Mitchell and Walsh, 2004) suggested male and female want difference products and they are likely to have different ways of thinking about obtaining these, This study further an understanding of how gender affects consumers approaches to decision making. (Cherubini, 2008) studied that professional values and ethics are central agencies innately connected to the teaching. (Pop and Turner, 2009) explored the relationships of pre-service teachers’ levels of commitment to teaching as a career. (Rots, Aelterman, Vlerick and Vermeulen, 2010) conducted
two wave survey study aimed at testing a hypothetical model of teacher education graduates’ decisions about whether or not to take a teaching position upon graduation. (Duze, 2011) showed that students and teachers, irrespective of sex, indicated alike a low level of participation in administrative creative decisions which influenced their attitude to school work and school internal discipline. (Geoffrey Liu, 2010) attempts to identify and establish spontaneous group decision making in collaborative learning. (Ahmed, Hasnain and Venkatesan, 2012) examine the relation of personality and cognitive styles with the decision-making style. (Rana, Arfan and Majid, 2012) study determines that emotional intelligence moderates the relationship among decision making styles and organizational performance. Yasemin and Thomas (2013) on pre-service teachers’ interaction with decision tasks and whether decision related measures (task difficulty, mental effort, decision making performance) were associated with the differences in student characteristics (decision making styles, self-efficacy, confidence).

**Academic Achievement**

Academic achievement has been investigated in relation to classroom factors, family environment, home adjustment, teaching efficacy by researchers. (Avinashilangam, Vijaya and Upunaya, 2001) found that classroom factors play a major role in affecting the student’s academic performance. (Burchinal, Pelsner, Leing, Robert and Howes, 2002) found that children tended to show better academic scales across time if their parents have more education. (Capara, Barabaranelli, Pastoreli, Bandura, Zimbardo, 2002; Rani, 2003) studied the impact of home environment on academic achievement and educational aspirations of college students. (Chaudhary, 2004) found that academic achievement was associated with intelligence. (Rani and Latha, 2005; Ahuja and Goyal, 2006) in their study aimed to investigate the relationship between family environment, home adjustment and academic achievement in adolescents. (Dhanya, Mary, and Vijay, 2007) found that there is significant relationship between self acceptance and academic achievement. (Carroll, Houghton, Wood, Unsworth, Hattie, Gordon and Bower, 2008) the present research investigated the structural relations among self-efficacy, academic aspirations and delinquency, on the academic achievement. (Litmanen, Hirsto, Lonka, Schmidt, Zdzinski, and Ballard, 2010) results showed
that students who perceived progress were capable and had intrinsic reasons for their goals advanced more rapidly in their studies. (Dahar, 2011) conducted a study to find out the impact of teacher quality on the academic achievement.

Thus it is abundantly clear from the foregoing discussion that self-efficacy, self-esteem, thinking style and decision making style have been studied by some researches in relation to gender and academic achievement. However no researches seems to have made any attempt to investigate the joint effect of gender and academic achievement with references to self-efficacy, self-esteem, thinking style and decision making style of prospective teachers which all among the major objective of the present investigation.

5.9 RESEARCH METHOD

In the present study, descriptive research method was employed as the purpose of the study was simply to explore the relationship of self-efficacy, self-esteem, thinking and decision making styles to gender and academic achievements of prospective teachers.

5.10 POPULATION

The entire group from which the sample is drawn is known as population. In the present case target population is all B.Ed. College of Himachal Pradesh. But accessible population is all private B.Ed. colleges affiliated of Himachal Pradesh University.

5.11 SAMPLING

A sample is part of the population. It is a smaller representation of the whole group according to Pandey (1983) a sample is a portion of a population that is selected for the purpose of study.

A good sample ensures three things; freedom from bias, representative of population characteristics and adequacy in terms of population qualities. The sample for the study comprised 480 secondary prospective teachers (B.Ed. Students) from one college from each district of Himachal Pradesh randomly will be chosen as the sample of the study. These subjects are both the males and females and from the streams - arts, science and commerce. Two sections from each
of the institution are taken randomly. Thus sampling of the subjects is done through random cluster technique.

5.12 VARIABLES

Independent variables

These are called stimulus or input variables. They operate either within a person, or within his environment to influence his behavior. These are those factors, which are measured, manipulated or selected by the investigator to determine their relationship to an observed phenomenon. In the present study the independent variables were – Gender and Academic achievement.

Dependent Variables

These are also known as response or output variables. These are those factors, which are observed and measured to determine the effect of the independent variables. There were four dependent variables. These were self-efficacy, self-esteem, thinking and decision making styles.

5.13 TOOLS EMPLOYED

The following research tools were selected and used for the data collection:

1. Self-efficacy: The General Self-efficacy scale developed by Schwarzer and Jerusalem (1995), (to be adapted by the investigator).
2. Self-esteem: The Rosenberg Self-esteem Scale is developed by Morris Rosenberg (1965), (to be adapted by the investigator).
3. Thinking style: Refers to 13 thinking styles as measured by Thinking Style Inventory as developed by Sternberg and Wagner (1997). (to be adapted by the investigator).
4. Decision Making Style: General Decision Making Style scale developed by Scot and Bruce (1995). (to be adapted by the investigator).
5. Achievement test was prepared by the investigator.

5.14 DATA COLLECTIONS

The Data were collected by the investigator in a group setting. However, before administration of the tests, needed emotional rapport was established with the perspective teachers. Necessary instructions were given pertaining to recording the responses. They were also told regarding the importance of their
willing and sincere cooperation in the data collection to the research study, Every effect was possible. All the five tools were administration in one setting with a break of 10 minutes.

5.15 SCORING AND TABULATION OF DATA

After the collection of the data, tools were scored by the investigator with the help of keys prepared by the authors tests. The scores of self-efficacy, self-esteem, thinking and decision-making styles were organized according to 2 x 3 factorial design.

5.16 RESEARCH DESIGN

In the present study 2X 3 factorial design was used as the focus of the study was on main and interaction effect of the two independent variables namely gender and academic achievement on a dependent variable at a time, Gender had two levels viz male and female and Academic achievement had six cells. In each cell, equal number of subjects was assigned through random method as per recommendations of the experts. The layout of this research design is given below in Table.

<table>
<thead>
<tr>
<th>Factor A (Gender)</th>
<th>Factor B (Academic achievement)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High (B₁)</td>
</tr>
<tr>
<td>Male (A₁)</td>
<td>A₁ B₁</td>
</tr>
<tr>
<td>(N = 60)</td>
<td>(N = 126)</td>
</tr>
<tr>
<td>Female (A₂)</td>
<td>A₂ B₁</td>
</tr>
<tr>
<td>(N = 60)</td>
<td>(N = 120)</td>
</tr>
</tbody>
</table>

Since there were twenty dependent variables i.e. Self-efficacy, Self-esteem, thirteen thinking styles; (Legislative, Executive, Judicial, Global, Local, Liberal, Conservative, Hierarchic, Monarchic, Oligarchic, Anarchic, Internal, External) five
decision making styles; (Rational, Intuitive, Dependent, Avoidant and Spontaneous) 2 X3 factorial design. Thus it was used twenty times.

5.17 STATISTICAL TECHNIQUES USED

The data thus obtained was subjected to statistical analysis. The following statistical tools were used:-
1. Descriptive analysis as mean, median, mode and standard deviations were used.
2. Graphical presentations as bar diagram were used.
3. Independent „t‟ test and two way ANOVA (Analysis of variance) were used for various comparisons.
The raw data was statistically treated and processed on statistical package for Social Sciences (SPSS) 16.

5.18 CONCLUSIONS

5.18.1 CONCLUSIONS PERTAINING TO MAIN AND INTERACTION EFFECTS OF GENDER AND ACADEMIC ACHIEVEMENT ON SELF-EFFICACY OF PROSPECTIVE TEACHER.

1. Male and female prospective teachers differed significantly with regard to their self-efficacy. Male prospective teacher were found to have higher level of self-efficacy than their counter-part female prospective teachers.
2. Prospective teachers with high academic achievement and average academic achievement were found to possess higher level of self-efficacy than Prospective teachers with low academic achievement. However, no significant difference was found between prospective teachers when compared at high and low levels of academic achievement with regard to self-efficacy.
3. There was significant interaction between gender and academic achievement of prospective teachers with regard to their self-efficacy.

5.18.2 CONCLUSIONS PERTAINING TO MAIN AND INTERACTION EFFECTS OF GENDER AND ACADEMIC ACHIEVEMENT ON SELF-ESTEEM OF PROSPECTIVE TEACHER.

1. Male and female prospective teachers was differed significantly with regard to their self-esteem. Male prospective teacher were found to have higher level of self-esteem than their counter-part female prospective teachers.
2. Prospective teachers with high academic achievement and average academic achievement were found to possess higher level of self-esteem than Prospective teachers with low academic achievement. However, no significant difference was found between prospective teachers when compared at high and average levels of academic achievement with regard to self-esteem.

3. There was significant interaction between gender and academic achievement of prospective teachers with regard to their self-esteem.

5.18.3 CONCLUSION CONCERNING TO MAIN AND INTERACTION EFFECTS OF GENDER AND ACADEMIC ACHIEVEMENT OF THINKING STYLES OF PROSPECTIVE TEACHERS.

1. Significant difference did exist in legislative, executive, global, local, liberal, conservative, hierarchic, monarchic, oligarchic, anarchic, internal and external thinking styles of prospective teachers. Male prospective teachers had stronger preferences for legislative, executive, oligarchic and internal thinking styles whereas female prospective teachers had stronger preferences for global, local, liberal, conservative, hierarchic, monarchic, anarchic and external thinking styles.

No significant gender differences emerged among prospective teachers with reference to judicial thinking style. Male prospective teacher were found to have higher level of judicial thinking style than their counter-part female prospective teachers.

2. Prospective teachers with high, average and low academic achievement were found to differ significantly with respect to some thinking styles. High achieving prospective teachers had more preferences for executive, judicial, local, conservative, hierarchic, anarchic and internal thinking styles as compared to average and low achieving prospective teachers. Low achieving prospective teachers also had more preferences for legislative, global, liberal, monarchic, oligarchic and external thinking styles as compared to high and average achieving prospective teachers.

3. No significant interaction was found between gender and academic achievement of prospective teachers with regard their legislative, executive, global, local,
liberal, conservative, hierarchic, monarchic, oligarchic, anarchic, internal and external thinking styles.

5.18.4 CONCLUSION RELATED TO MAIN AND INTERACTION EFFECTS OF GENDER AND ACADEMIC ACHIEVEMENT ON DECISION-MAKING STYLES OF PROSPECTIVE TEACHERS.

1. Significant difference did exist in intuitive, dependent and avoidant decision making styles. Female prospective teachers had stronger preferences for intuitive, dependent and avoidant decision making styles than male prospective teachers. However, no significant difference appeared in rational and spontaneous decision-making style of prospective teachers. Male prospective teachers had stronger preferences for spontaneous decision making styles than female prospective teachers. Contrary to this, female prospective teachers had more preference for rational decision-making style as compared to male prospective teachers.

2. Prospective teachers with high, average and low academic achievement were found to differ significantly with respect to dependent and spontaneous decision making styles. Low achieving prospective teachers also had more preferences for dependent and spontaneous decision making styles as compared to high and average achieving prospective teachers. No significant difference was observed in rational and intuitive decision-making style when compared at high and low achieving prospective teachers and avoidant decision-making style when compared at average and low achieving prospective teachers.

3. No significant interaction occurred between gender and academic achievement of prospective teachers with regard to their decision-making styles.

To sum up it may be said that strong independent linkages appear to exist of gender and academic achievement with self-efficacy, self-esteem, thinking styles and decision-making styles of prospective secondary teachers.
5.19 EDUCATIONAL IMPLICATIONS OF FINDINGS

The findings of the present study have some important implications for educational practices.

1. Male and female prospective teachers differed significantly with regard to their self-efficacy. Male prospective teachers were found to have higher level of self-efficacy than their counter-part female prospective teachers. Although social cognitive theory does not endow gender with motivation properties and theorists contend that environment factors and personal factors other than gender are at work in creating motivational and self-regulatory differences in individuals, researchers have observed that there are areas where gender differences in self-confidence and self-efficacy beliefs can be observed. In the present study also, the present investigator found that male prospective teachers had rated themselves to be significantly higher on self-efficacy measure than female prospective teachers. This has the implication for teachers' educationists to alter female prospective teachers' views regarding their self-efficacy by using appropriate intervention strategies. That is, teachers should continue to expound and model gender self-beliefs that encompass both the feminine expressiveness and masculine instrumentality that are critical to a balanced self-view. In some areas, under estimation of capability, not lack of competence or skill is responsible for avoidance of situations. It seems clear, then, those efforts to identity and alters students' inaccurate judgments. In addition to continued skill improvement, in an educational imperative. There is also evidence to suggest that gender differences in self-efficacy can be minimized or eliminated when students derive clear performance information about their capabilities or progress in learning.

2. Another finding of the study revealed that prospective teachers with high academic achievement and average academic achievement were found to possess higher level of self-efficacy than prospective teachers with low academic achievement. It implies that if level of academic achievement is to be raised, self-efficacy perception is also to be improved. Teacher educators can improve level of self-efficacy of low achieving prospective teachers by providing systematic feedback on different type of learning performance. Feedback
conveyed to students that they were learning and raised female self-efficacy to that of male. Apart from teacher educators, the result related to self-efficacy of prospective teachers may be useful and helpful to educational counselors to understand influences of gender and academic achievement in the development of self-efficacy of students of different classes and giving them appropriate therapy. Prospective teachers can be benefited for adopting the new techniques to teach their subjects. Teachers can use activities like role plays, brainstorming in their regular teaching to make their teaching effective.

3. The findings from this study have important implications for male prospective teacher were found to have higher level of self-esteem than their counter-part female prospective teachers. As a result, it seems appropriate to determine in future follow a line of investigation whether a comparable finding is observed somewhere else concerning gender and self-esteem. Furthermore, self-esteem and academic achievement might as well be confounders to each other. Results of this study demonstrated that male students showed higher mean scores on academic performance and overall scores of self-esteem in comparison to female students. But there was not emerged any significant difference between two groups on social evaluation and appearance. The abilities and potentialities can be identified during the training programme and could be further explored in their future initiatives.

4. Prospective teachers with high academic achievement and average academic achievement were found to possess higher level of self-esteem than Prospective teachers with low academic achievement. According to the study there are some probable lines of description why low general self-esteem does not essentially signal a poor academic achievement. Students with additional limited academic capacities compensate their academic lack by uplifting their general esteem.

5. Findings of study pertaining to thinking styles speak that there some significant gender differences. Male prospective teachers had stronger preferences for legislative, executive, oligarchic and internal thinking styles whereas female prospective teachers had stronger preferences for global, local, liberal, conservative, hierarchic, monarchical, anarchic and external thinking styles. Further, high and low prospective teachers appeared to differ on thinking styles. High achieving prospective teachers had more preferences for executive,
judicial, local, conservative, hierarchic, anarchic and internal thinking styles as compared to average and low achieving prospective teachers. Low achieving prospective teachers also had more preferences for legislative, global, liberal, monarchic, oligarchic and external thinking styles as compared to high and average achieving prospective teachers. A number of option for pedagogy flow from different perspectives, if thinking styles is taken as fixed trait, than these findings call for designing specific interventions to address them both at the level of individuals self-awareness and teacher activity. Further, these findings warrant that assessment questions should also be design in tune with the thinking style preferences. Some theorists believe that in order of counter the problem of limiting the efforts of teachers, teachers should help the learner to develop a repertoire of thinking style. So that an awareness of their own preference and abilities should not bar them from working to acquire those thinking styles which they do not yet possess. In particular, as students move from didactic forms of instructions to settings with a mixture of lectures, seminars and problem-based learning, it may become possible for them to use a range of thinking styles.

(i) Teachers to use a variety of teaching and assessment method.
(ii) Teachers to be aware of the thinking styles they encourage or punish.
(iii) Teachers to let students know about the range of the styles.
(iv) Teachers to know about gender and cross-cultural differences in styles and
(v) Teachers to use extra-curricular activities to enhance quality of teaching and learning.

6. Regarding decision making styles, finding of the study indicate significant difference did exist in intuitive, dependent and avoidant decision making styles. Female prospective teachers had stronger preferences for intuitive, dependent and avoidant decision making styles than male prospective teachers. However, no significant difference appeared in rational and spontaneous decision-making style of prospective teachers. Male prospective teachers had stronger preferences for spontaneous decision making styles than female prospective teachers. Contrary to this, female prospective teachers had more preference for rational decision-making style as compared to male prospective teachers. Thus accordingly the principal of matching instruction with effective styles teachers should encourage male and female prospective teachers to
recognize strength of their decision making style and to provide more opportunities for using first to styles (Rational and intuitive) in decision making situations. Further, Prospective teachers with high, average and low academic achievement were found to differ significantly with respect to dependent and spontaneous decision making styles. Low achieving prospective teachers also had more preferences for dependent and spontaneous decision making styles as compared to high and average achieving prospective teachers. In view of the above findings it could be said that low achievers be trained for developing rational and intuitive styles of decision making and converting the as their strength so that level of academic achievement could be improved enhancement.

5.20 SUGGESTIONS FOR FURTHER RESEARCH

On the basis of experience of the present investigation, the following suggestions may be offered to conduct further research is the area of teacher education.

1 Influence of personality and intelligence may be studied on the self-efficacy, self-esteem, thinking and decision-making styles of prospective secondary teachers.

2 A comparative study of self-efficacy, self-esteem, thinking and decision-making styles of formal and non-formal prospective teachers may be conducted.

3 A comparative study of self-efficacy, self-esteem, thinking and decision-making styles of socio-economically disadvantaged and advantaged prospective secondary teachers may be designed.

4 Self-efficacy, self-esteem, thinking and decision-making styles of prospective secondary teachers may be explored in relation to motivational, dispositions and gender.

5 Effect of matching and non-matching prospective teachers’ self-efficacy, self-esteem, thinking and decision-making styles and teaching methods may be ascertained on their academic performance and satisfaction.

6 Similar study may be undertaken with prospective teachers of elementary level.

7 Self-efficacy, self-esteem, thinking and decision making styles of distance B.Ed. trainees may be studied in relation to gender and academic achievement.
Self-efficacy, self-esteem, thinking and decision making styles of prospective secondary teacher may be investigated in relation to previous academic achievement and general intelligence.

A correlation study may be taken up to study the relationships between self-efficacy, self-esteem, thinking and decision-making styles and final academic achievement.

Academic performance of prospective teachers may be predicted from their self-efficacy, self-esteem, thinking and decision-making styles.

Self-efficacy, self-esteem, thinking and decision-making styles of prospective secondary teachers may be explored in relation to creativity.

Self-efficacy, self-esteem, thinking and decision-making styles of prospective secondary teachers may be studied in relation to teaching competency.

Teaching-effectiveness of prospective secondary teachers may be inquired into in relation in their self-efficacy, self-esteem, thinking and decision-making styles.

The relationship of self-efficacy, self-esteem, thinking and decision-making styles of prospective teachers may be investigated with leadership.

A comparative analysis of self-efficacy, self-esteem, thinking and decision-making styles of academically gifted and normal prospective teachers may be attempted.

The present study was conducted on prospective teachers; the same study can be conducted on in-service teachers.