Chapter-6

Summary and Discussion
CHAPTER 6
SUMMARY AND DISCUSSION

6.1 INTRODUCTION

Elementary stage of formal educational set-up is called “Primary Education” (Batia, 1980) Primary education is often considered to be the first stage of entire super structure of the educational set-up in India. It is the stage when foundation of child’s physical, mental, emotional, intellectual and social development is laid. It is the primary education which helps in the formation of national ideology and character. This was rightly mentioned in the book ‘Problems of Educational Reconstruction.

Primary education touches life at every point and it has to do more work for the formation of national ideology and character than any other single activity like social, political or educational. Under the directive principles of the constitution of India, the country has started providing free and compulsory education to all children’s up to the age of fourteen.

In some of the educationally advanced countries the age of compulsory education has been raised to 15 or 16 years and provision exists for supply of books and stationary as well as mid-day meal or a glass of milk for the younger pupils in addition to free tuition. Henceforth, all the developing countries are giving importance to primary education. If the education is weak, the whole building of education system will collapse.

6.1.1 Objectives of the elementary education

- To provide all children with access to primary education either in the formal system or through the non-formal education National Elementary Education {NEE} programme.
• To reduce differences in enrolment dropout and leaving achievements among gender and social groups to less than 5%
• To reduce overall primary dropout rates for all student to less than 10%
• To raise average achievement level by at least 25% over measured baseline levels and ensuring achievements on basic literacy and numeracy competencies and a minimum of 40% achievement levels in other competencies by all Primary School children.

Teachers play a pivot role in the education of primary school children. A competent teacher is one with good communication skills, abundant knowledge, develop good rapport with students, and inculcate good values and positive attitude among children.

**District Institute of Education and Training (DIET) in Karnataka**

District Institute of Education and Training was established according to 1986 new education policy. In Karnataka, there are about 28 DIET’s functioning at district level (Bangalore has two i.e. Bangalore Urban and Rural) to face the problems of education universalisation and provide leadership in order to direct the primary education system. Government of Karnataka has four divisions for smooth functioning of administration are Bangalore, Mysore, Belagum and Gulbarga.

In each district the DIET will admit 150 students for teachers training. There are number of private institutions run the D.Ed colleges under the DIET and give the teachers training based on the infrastructure and status of the institution. Students after completion of second pre university course or any equivalent exams are eligible to take admissions. The eligibility criterions for the admissions are as follows. The students belong to OBC’s and general merit must have secured 50% of the total marks and for the Scheduled castes, Scheduled tribes and Category-I must have secured 45% of the total marks.
this includes for physical handicaps also. Seats will be allotted by centralized admission cell (CAC) at state level as per their merit and reservation system.

The DIET plays an important role in training and orientation of elementary school teachers. In addition it provides some of the major support in academic and resource support including action research to deal with specific problems. Secondly, it organizes training and workshops to enhance the abilities of the trainees, and the evaluation process.

6.1.2 Teaching Competency

Teaching involves a conceptual understanding of how people learn and the ability to translate this understanding into constructing and delivering learning opportunities to diverse audiences. The word competency is referred to knowledge, attitude, Skills (American Heritage Publishing Company, 2000) and behaviors that facilitate intellectual, social, emotional and physical growth in children (Weber, 1972). Teachers should use the competencies as a tool for personal professional assessment, rating themselves on each sample practice as good, better, or exemplary (Miller, 2006) and abilities in a given context that adjust and develop with time and needs in order to effectively and efficiently accomplish a task that are measured against a minimum standard (Merriam-Webster, 1997).

Medley (1977) recognized teaching competency as “effective performance of all observable teacher behavior that brings about desirable pupil outcomes” based on the micro-criteria approach (Gage, 1963). In other words, teaching competency involves effective use of these various teaching skills.
6.1.3 Language Proficiency

Language proficiency comprises both an oral and a written component. These components are inter-related. Language proficiency is the single most important moderator of test performance and it reflects familiarity with concepts and access to the language medium through which knowledge had been gained. Student with poor language skills invariably have a weak understanding of the concept to the subject. It is important for a student teacher to possess a good language proficiency to understand the content and express themselves clearly and effectively in the classrooms.

Language proficiency develops across three major language use domains namely;
- Conversational domain which includes interactive uses
- Literacy uses that includes reading and writing
- Meta linguistic tasks that include activities which call forth analyzed knowledge and cognitive control. Proficiency in each domain requires certain skills and the skills of all the domains put together are called language skills. Each language skill has two dimensions, namely analyzed knowledge and cognitive control which are considered to develop along a continuum from low to high.

Language skills are broadly categorized into productive skills and receptive skills. Productive skills require language production either in the form of speech or writing. Receptive skills refer to reading and listening. These four skills have a number of sub skills.

6.1.4 Emotional Intelligence

Goleman (1995) described the Emotional intelligence as an ability that includes self awareness, impulse control, persistence, zeal, self motivation, empathy and social adaptness. Based on the extensive research he had
proposed five dimensions of emotional intelligences consisting of twenty five competencies which are as follows

1. **Self Awareness** comprises three competencies viz. emotional self awareness, accurate self assessment and self confidence.

2. **Self-Regulation** comprises five competencies viz. self control, trustworthiness, conscientiousness, adaptability and innovation.

3. **Self-Motivation** comprises four competencies viz. achievement drive, commitment, initiative and optimism.

4. **Social Awareness** comprises four competencies viz. understanding of others, developing others, service orientation, leveraging diversity and political awareness.

5. **Social Skills** comprises nine competencies viz influence, communication, conflict, management, leadership, change catalyst, building bond, collaboration, co-operation and team capabilities.

### 6.1.5 *Reasoning Ability*

Reasoning ability is very essential for the teachers in this advanced world. It is the ability that the teachers should have to clarify the doubts, making students to understand the concept thoroughly. Reasoning is the mental process which involves our imagination. Perceptions thoughts and feelings with whatever intelligibility these appear to contain and thus link our experience with universal meaning.

Reasoning is the ability to explain an act, idea etc, to find cause for some action. Reasoning ability is to think in a sensible way to come to conclusion by considering a fact. According to the Webster dictionary it is the act of coming to a conclusion based on facts. There are several types of reasoning; of this verbal, scientific and numerical are important for elementary school teachers.
Verbal Reasoning is the ability to understand concepts framed in words and is aimed at the evaluation of the student’s ability to abstract or generalize and to think constructively. It may be expected to predict with reasonable accuracy success in field where complex verbal relationships and concepts are important.

Scientific Reasoning is used to denote consistent, logical thought patterns which are employed during the process of scientific inquiry that enable individuals to propose relationships between observed phenomena.

Numerical Reasoning is the students’ ability to reason with numbers, to manipulate numerical relationships and to deal intelligently with quantitative material.

6.2 NEED AND IMPORTANCE OF THE STUDY

In India, District Secondary Education Research and Training (DSERT) has initiated special programmes for universalisation of elementary education. ‘Chaitanya’ is one such programme which emphasizes language learning, listening, speaking, reading, writing, mathematics and science. Since a single teacher handles all the subjects in primary school it is essential that the pre-service teacher trainees posses proficiency in these subjects to develop teaching competency. Radha Mohan (1997) outlined following qualities an effective teacher trainee should have.

- Good cognitive strategies, good questioning skills with clear presentation.
- Good effective strategies, good interpersonal relationship with students.
- A sound knowledge based on subject and content.
Considering all the factors the researcher thought it's essential for a primary school teacher trainee to possess good language skills, good reasoning ability and emotional intelligence.

There is a dearth of research related to teaching competency, language proficiency, and reasoning ability of elementary school teachers. The survey of literature has revealed that no serious attempt has been made to carry out factors effecting teaching competency of elementary school teachers. The teachers found the need to conduct research on some of the variables effecting teaching competency of D.Ed students.

6.3 STATEMENT OF THE PROBLEM

The present study aims at investigating the interaction effect of a few selected variables viz. language proficiency, emotional intelligence and reasoning ability on teaching competency of Diploma in Education (D.Ed) students.

6.4 OBJECTIVES OF THE STUDY

1. To construct and validate language proficiency test for D.Ed students.
2. To construct and validate reasoning ability test for D.Ed students.
3. To investigate the effect of Language Proficiency on teaching competency of D.Ed students.
4. To investigate the effect of Emotional Intelligence on teaching competency of D.Ed students.
5. To investigate the effect of Reasoning Ability on teaching competency of D.Ed students.
6. To investigate the interaction effect of language proficiency and Emotional Intelligence on teaching competency of D.Ed students.
7. To investigate the interaction effect of language proficiency and Reasoning Ability on teaching competency of D.Ed students.
8. To investigate the interaction effect of Emotional Intelligence and Reasoning Ability on teaching competency of D.Ed students.

9. To investigate the interaction effect of language proficiency, Emotional Intelligence and reasoning ability on teaching competency of D.Ed students.

10. To investigate the relationship of Language Proficiency with teaching competency of D.Ed students.

11. To investigate the relationship of Emotional Intelligence with teaching competency of D.Ed students.

12. To investigate the relationship of Reasoning Ability with teaching competency of D.Ed students.

13. To investigate the relationship between reading proficiency and Teaching Competency of D.Ed students.

14. To investigate the relationship between writing proficiency and Teaching Competency of D.Ed students.

15. To investigate relationship between speaking proficiency and teaching competency of D.Ed students.


17. To investigate relationship between self regulation and teaching competency of D.Ed students.

18. To investigate relationship between motivation and teaching competency of D.Ed students.

19. To investigate relationship between social awareness and teaching competency of D.Ed students.

20. To investigate relationship between social skill and teaching competency of D.Ed students.

21. To investigate relationship between verbal reasoning and teaching competency of D.Ed students.

22. To investigate relationship between arithmetic Reasoning and teaching competency of D.Ed students.
23. To investigate relationship between scientific reasoning and teaching competency of D.Ed students
24. To investigate the relationship between language proficiency and emotional intelligence of D.Ed students.
25. To investigate the relationship between language proficiency and reasoning ability of D.Ed students.
26. To investigate the relationship between reasoning ability and emotional intelligence of D.Ed students.
27. To determine the relative efficiency of the independent variables in predicting teaching competency of D.Ed students.
28. To compare the Language Proficiency of D.Ed students when they are classified into gender.
29. To compare the Emotional Intelligence of D.Ed Students when they are classified into gender.
30. To compare the Reasoning Ability of D.Ed students when they are classified into gender.
31. To compare the teaching competency of D.Ed students when they are classified according to gender.
32. To compare the Language Proficiency of D.Ed students when they are classified into type of management.
33. To compare the Emotional Intelligence of D.Ed Students when they are classified into type of management.
34. To compare the Reasoning Ability of D.Ed students when they are classified into type of management.
35. To compare the teaching competency of D.Ed students when they are classified according to type of management.
36. To compare the Language Proficiency of D.Ed students when they are classified into location.
37. To compare the Emotional Intelligence of D.Ed Students when they are classified into location.
38. To compare the Reasoning Ability of D.Ed students when they are classified into location.

39. To compare the teaching competency of D.Ed students when they are classified according to location.

6.5 VARIABLES OF THE STUDY

A. The independent variables of the present study include

a) Language Proficiency. The three dimensions of language proficiencies are
   • Reading Skill (vocabulary and reading comprehension)
   • Writing skill
   • Speaking skill

b) Emotional Intelligence. The five dimensions of emotional intelligences are
   • Self Awareness
   • Self Regulation
   • Motivation
   • Social Awareness
   • Social Skills.

c) Reasoning Ability. The three dimensions of reasoning ability are
   • Verbal reasoning
   • Mathematical reasoning
   • Scientific reasoning

B. The dependent variables of the present study include

a) Teaching Competency. The five dimensions of teaching competency are
   • Planning
   • Presentation
   • Closing
   • Evaluation
   • Managerial
6.6 RESEARCH HYPOTHESES

1. Effect of high, Moderate and Low language proficiency differ significantly in teaching competency of D.Ed students.
2. Effect of high, Moderate and low Emotional Intelligence differs significantly in teaching competency of D.Ed students.
3. Effect of high, Moderate and low reasoning ability differ significantly in teaching competency of D.Ed students.
4. Interaction effect of language proficiency and Emotional Intelligence differ significantly in teaching competency of D.Ed students.
5. Interaction effect of language proficiency and reasoning ability, differ significantly in teaching competency of D.Ed students.
6. Interaction effect of emotional intelligence and reasoning ability, differ significantly in teaching competency of D.Ed students.
7. Interaction effect of language proficiency and emotional intelligence and reasoning ability, differ significantly in teaching competency of D.Ed students.
8. There is a positive relationship between language proficiency and teaching competency of D.Ed students.
9. There is a positive relationship between emotional intelligence and teaching competency of D.Ed students.
10. There is a positive relationship between reasoning ability and teaching competency of D.Ed students.
11. There is a positive and significant relationship between reading proficiency and teaching competency of D.Ed students.
12. There is a positive and significant relationship between writing proficiency and teaching competency of D.Ed students.
13. There is a positive and significant relationship between speaking proficiency and teaching competency of D.Ed students.
14. There is a positive relationship between self awareness and teaching competency of D.Ed students.
15. There is a positive relationship between self regulation and teaching competency of D.Ed students.
16. There is a positive relationship between motivation and teaching competency of D.Ed students.
17. There is a positive relationship between social awareness and teaching competency of D.Ed students.
18. There is a positive relationship between social skills and teaching competency of D.Ed students.
19. There is a positive relationship between verbal reasoning ability and teaching competency of D.Ed students.
20. There is a positive relationship between arithmetic reasoning ability and teaching competency of D.Ed students.
21. There is a positive relationship between scientific reasoning ability and teaching competency of D.Ed students.
22. There is a positive relationship between language proficiency and emotional intelligence of D.Ed students.
23. There is a positive relationship between language proficiency and reasoning ability of D.Ed students.
24. There is a positive relationship between reasoning ability and emotional intelligence of D.Ed students.
25. There is a relative efficiency of Language proficiency, reasoning ability and emotional intelligence in predicting teaching competency of D.Ed students.
26. Male and Female D.Ed students differ in their language proficiency.
27. Male and Female D.Ed students differ in their emotional intelligence.
28. Male and Female D.Ed students differ in their reasoning ability.
29. Male and Female D.Ed students differ in their teaching competency.
30. D.Ed students of government and private institutions differ significantly in their language proficiency.
31. D.Ed students of government and private institutions differ significantly in their emotional intelligence.
32. D.Ed students of government and private institutions differ significantly in their reasoning ability
33. D.Ed students of government and private institutions differ significantly in their teaching competency
34. D.Ed students of different districts differ in their language proficiency.
35. D.Ed students of different districts differ in their emotional intelligence.
36. D.Ed students of different districts differ in their reasoning ability.
37. D.Ed students of different districts differ in their teaching competency.

6.7 DEFINITIONS OF TECHNICAL TERMS

1. Language Proficiency

Language proficiency is a measure of the expressive and receptive language skills in the areas of phonology, syntax, vocabulary and semantics and including the areas of pragmatics language usage within various domains or social circumstances of D.Ed students. Language proficiency is the ability to communicate effectively with the students in the classroom. It includes the use of language skills such as reading, writing and speaking in the teaching learning process. In the present study language proficiency is the score obtained on language proficiency test.

2. Emotional Intelligence

Emotional intelligence refers to the ability to monitor one’s own and others feelings and emotions to discriminate among them and to use this information to guide one’s thinking and actions. In the present study emotional intelligence of a student was considered as the scores obtained by the students on emotional intelligence scale. Emotional intelligence is the self awareness of one’s emotions and regulates emotions to interact effectively and establish good rapport with primary school children in the classrooms.
3. **Reasoning Ability**

Reasoning ability is a measure of mental process which informs our imagination perceptions thoughts and feelings with whatever intelligibility these appear to contain and thus links our experience with universal meaning. Reasoning ability is the ability to reason effectively in the subjects prescribed in the primary school syllabus and deliver it to the students i.e. reasoning verbally, arithmetically and scientifically and impart knowledge. In the present study reasoning ability is a score on reasoning ability test.

4. **Teaching competency**

Teaching competency as teacher behavior that produces intended effects. Thus teaching competency would mean effective performance of all observable teacher behavior that brings about pupils outcomes. In the present study teaching competency is referred to as the scores obtained by the D.Ed students on teaching competency scale. Teaching competency means an affective performance of all the observable teacher behavior that brings about desired pupil outcome. Teaching competency is the ability to plan the classroom lesson systematically and present it effectively to the students. It also includes closing the lesson managing the classroom and conducting evaluation procedures.

5. **D.Ed students**

D.Ed students are those who obtained elementary teachers training at District institute of education and training (DIET) or in private institutions. In the present study students from Bangalore and Mysore division constituted the sample of D.Ed students.
6.8 METHOD OF RESEARCH

The descriptive method of research was employed which was intended to describe the relationship which exists between independent and dependent variable, i.e. the relationship exists between language proficiency, emotional intelligence and reasoning ability and teaching competency.

Descriptive research describes recording, analyzing and interpreting conditions that exist. It involves some type of comparison or contrast and attempts to discover relationships between existing non manipulated variables (Best and Kahn 1992).

6.9 SAMPLE

There are mainly two methods of sampling. They are again classified into sub methods as below

```
Method of Sampling

<table>
<thead>
<tr>
<th>Probability Sampling</th>
<th>Non Probability sampling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Random sampling</td>
<td>Accidental sampling</td>
</tr>
<tr>
<td>Systematic sampling</td>
<td>Quotes sampling</td>
</tr>
<tr>
<td>Stratified sampling</td>
<td>Purposive sampling</td>
</tr>
<tr>
<td>Cluster sampling</td>
<td></td>
</tr>
</tbody>
</table>
```

In the present investigation the researcher has adopted random sampling technique. Government of Karnataka has identified four divisions for the smooth administration and management viz. Bangalore, Mysore, Belgaum and Gulbarga. In this study DIET's and D.Ed colleges belong to four districts i.e. Shimoga, Chitradurga and Davangere of Bangalore division and Chikamagalore district of Mysore division were selected for the study.
Out of 19 D.Ed colleges in Shimoga district two are Government, one aided and rest unaided D.Ed colleges. In Chitradurga District out of 21 D.Ed colleges two are Government, two aided and 17 unaided D.Ed colleges. Whereas in Chickmagalur district total of nine colleges two are government and 7 unaided colleges. Davangere district consist of 25 D.Ed colleges of this one Government, 1 aided and rest all are unaided colleges. Out of 74 colleges from these districts total of 12 colleges were selected randomly for the study representing three colleges from each district i.e. one DIET(District Institute of Teachers Training) and 2 private D.Ed colleges. There are about 50 students studying in private colleges and 100 in DIET. A sample of 50 students from private colleges and 50 from DIET’s were selected randomly for the study. A total sample of 600 D.Ed. students were selected which is represented in the table below

Table 6.1 A flow chart of samples selected in the present study

*Sts: Students*
6.10 TOOLS USED FOR COLLECTION OF DATA

In the present study the investigator/researcher used four tools for the collection of data as provided in the table below.

Table 6.2 Tools used for the collection of data

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Variables</th>
<th>Tools used</th>
<th>Devised by</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Language proficiency</td>
<td>Language proficiency test</td>
<td>Investigator</td>
</tr>
<tr>
<td>2.</td>
<td>Reasoning ability</td>
<td>Reasoning ability test</td>
<td>Investigator</td>
</tr>
<tr>
<td>3.</td>
<td>Emotional intelligence</td>
<td>Emotional intelligence inventory scale</td>
<td>Shailendra Singh</td>
</tr>
<tr>
<td>4.</td>
<td>Teaching competency</td>
<td>General teaching competency scale</td>
<td>Passi &amp; Lalitha</td>
</tr>
</tbody>
</table>

6.10.1 Tools constructed by the researcher

a) Language proficiency test

A language proficiency test was constructed to assess the language proficiency of D.Ed. student trainees. This test paper consists of three language skills, i.e. reading, writing and speaking. The paper was divided into three parts. In initial draft part one consisted of reading skill and its sub skills i.e. word meaning and reading competition consists of 117 objective type items. Part two consisted of writing skill and its sub skills like composition, grammar, spelling, punctuation and hand writing consists of 2 items, i.e. letter writing and essay writing. Part three consisted of speaking skill and its sub skills i.e. fluency, pronunciation, voice, presentation and language usage consisted of one item of speaking on a topic. The items were
pooled from various resources like, journals, work books, competitive exam books; web search etc. Care was taken to include all the items of sub skill.

Before validation of the language proficiency test editing of the items was done by distributing to 15 teachers and experts. To validate the initial draft of 50 experts were given and validity was established. For validation of the sample 100 students were administrated the test and the scores were subjected to item analysis. For content validity the opinion of five experts was obtained, concurrent validity and reliability coefficients were computed which were found to be 0.39 and 0.98 respectively. Hence the test was valid. The co efficiency values are provided in the table below.

Table 6.3 Validity and reliability coefficient of language proficiency test

<table>
<thead>
<tr>
<th>Relationship between</th>
<th>Index</th>
<th>Mean &amp; S.D.</th>
<th>Correlation coefficient r value</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scores on English in PUC and language proficiency test</td>
<td>Concurrent validity</td>
<td>64.7 ± 8.4</td>
<td>+ 0.39</td>
<td>&lt; 0.05 sig.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>57.2 ± 15.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scores on language proficiency test and retest</td>
<td>Stability Reliability</td>
<td>57.2 ± 15.2</td>
<td>+ 0.98</td>
<td>&lt; 0.0014 sig.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>58.3 ± 14.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To the final draft of language proficiency test paper consists of three parts. Part 1 consisted of reading skill and its sub skills i.e. word meaning and reading comprehensions. It consists of objective type. Our 117 items 59 items were deleted and 58 items were retained. Part two consisted of writing skill and its sub skills i.e. composition, grammar, spelling, punctuation and hand writing. In this part essay writing is retained and letter writing is
deleted. Part three is retained as it was in the initial draft. The initial and final draft of language proficiency is given in the below in the table

Table 6.4 Number of items in initial and final draft of language proficiency test

<table>
<thead>
<tr>
<th>Serial Number</th>
<th>Components</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reading skill</td>
<td>117</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Items in initial draft</td>
<td></td>
<td>59</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Items deleted</td>
<td></td>
<td>58</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Time allotted</td>
<td></td>
<td>2 Hours</td>
<td>5 Minutes</td>
<td></td>
</tr>
</tbody>
</table>

b) **Reasoning ability test**

A reasoning ability test was constructed to measure the reasoning ability of D.Ed. student trainees. The reasoning ability test constituted of three components i.e. verbal reasoning arithmetic reasoning and scientific reasoning. This test consists of three parts. Part one consist of verbal reasoning of analog type of 26 items, part two consist of arithmetic reasoning of statement form of 27 items, part three consists of scientific reasoning belongs to three areas are Physics, chemistry and biology consists of 41 items.

Before validation of reasoning ability test editing and validation of items were made by distributing form to 15 experts for editing and 25 experts for validation. For the validation of the test 100 D.Ed. students were administered the reasoning ability test and their validity index and difficulty index was calculated. Content validity was made by taking the opinion of 5 experts. Concurrent validity was found by seeing coefficient correlation between II PUC exam and reasoning ability test. Reliability was found by seeing the coefficient correlation between test and retest of reasoning ability.
The validity and reliability was found to be 0.03 which is not significant and the reliability value was found to be 0.93 which is highly reliable. Hence the test was valid and the values are provided in the table no five below.

Table 6.5 Validity and reliability coefficient of reasoning ability test.

<table>
<thead>
<tr>
<th>Relationship between</th>
<th>Index</th>
<th>Corr -Coeff. R- value</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scores on P.U.C. exam and Reasoning ability test</td>
<td>Concurrent Validity</td>
<td>0.03</td>
<td>P&gt;0.05, N. Sig.</td>
</tr>
<tr>
<td>Scores on Reasoning ability test and reasoning ability retest</td>
<td>Stability Reliability</td>
<td>0.93</td>
<td>P&lt;0.05, Sig.</td>
</tr>
</tbody>
</table>

The final draft of the reasoning ability consists of three parts. Part one consists of verbal reasoning analogy where 20 items are retained and 6 were deleted. Part two consists of Arithmetic reasoning of statement form where 15 items were retained and 12 were deleted. Part three consist of scientific reasoning belongs to three areas where 15 items are retained and 26 items were deleted. The initial draft and the final draft are given in the table 6.

Table 6.6 Number of items in initial and final draft of reasoning ability test

<table>
<thead>
<tr>
<th>Serial numbers</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Components</td>
<td>Verbal reasoning</td>
<td>Arithmetic reasoning</td>
<td>Scientific reasoning</td>
</tr>
<tr>
<td>Number of items in initial draft</td>
<td>26</td>
<td>27</td>
<td>41</td>
</tr>
<tr>
<td>Number of items deleted</td>
<td>6</td>
<td>13</td>
<td>26</td>
</tr>
<tr>
<td>Number of items in final draft</td>
<td>20</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>2.5 hours</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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c. Emotional Intelligence inventory

In the present study emotional intelligence inventory developed by Singh (2004) was adopted. This consists of 5 dimensions namely self awareness, self regulation, motivation social awareness and social skill. There are 60 items in total from all the five dimensions. All items are of positive statements. It is a 5 point scale namely, strongly agree, agree, undecided, disagree and strongly disagree and weightage given for each items were 5,4,3,2,1. The validity and reliability of emotional intelligence is given in the Table below.

Table 6.7 Mean, S.D and standardized alpha reliabilities of emotional intelligence dimensions

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Dimensions of emotional intelligence</th>
<th>Range</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Self awareness</td>
<td>12-60</td>
<td>44.80</td>
<td>4.93</td>
<td>(0.71)</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>2.</td>
<td>Self regulation</td>
<td>12-60</td>
<td>44.58</td>
<td>6.03</td>
<td>(0.83)</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>3.</td>
<td>Motivation</td>
<td>12-60</td>
<td>46.53</td>
<td>5.47</td>
<td>0.61</td>
<td>0.64</td>
<td>(0.80)</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>4.</td>
<td>Social awareness</td>
<td>12-60</td>
<td>43.80</td>
<td>6.08</td>
<td>0.51</td>
<td>0.63</td>
<td>0.65</td>
<td>(0.83)</td>
<td>--</td>
</tr>
<tr>
<td>5.</td>
<td>Social skill</td>
<td>12-60</td>
<td>43.48</td>
<td>6.65</td>
<td>0.52</td>
<td>0.59</td>
<td>0.62</td>
<td>0.68</td>
<td>(0.87)</td>
</tr>
</tbody>
</table>

Table 6.8 Relationship between emotional intelligence and certain criteria variables

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Dimensions of ET</th>
<th>Emotional expressions r (n=263)</th>
<th>Commitment r (n=263)</th>
<th>QOL r (n=240)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Self awareness</td>
<td>0.55</td>
<td>0.39</td>
<td>0.18</td>
</tr>
<tr>
<td>2.</td>
<td>Self regulation</td>
<td>0.43</td>
<td>0.48</td>
<td>0.36</td>
</tr>
<tr>
<td>3.</td>
<td>Motivation</td>
<td>0.43</td>
<td>0.80</td>
<td>0.20</td>
</tr>
<tr>
<td>4.</td>
<td>Social awareness</td>
<td>0.35</td>
<td>0.51</td>
<td>0.23</td>
</tr>
<tr>
<td>5.</td>
<td>Social skill</td>
<td>0.41</td>
<td>0.42</td>
<td>0.26</td>
</tr>
</tbody>
</table>
d) General Teaching competency scale

In the present study teaching competency scale developed by Passi and Lalitha (1994) was used. There were about 21 items related to 21 teaching skills which encompasses the entire teaching learning process in the classroom teaching namely, planning, presentation, closing, evaluation and managerial. The items are such that they are centered on teacher classroom behaviour in relation to pupil behaviour. It is 7 point rating scale measuring the use of the skill by the teacher in the classroom corresponding to each item ranging from 1 for not at all to 7 for very much. The sum of the rating against all the 21 items constitutes the score on general teaching competency (GTC) scores of the teacher being observed. The maximum score possible is 149 and the minimum is 21.

6.11 COLLECTION OF DATA

The tools used for the collection of data were administered for the sample of 600 D.Ed students selected for the study.

1. Administration of Language Proficiency test

The language proficiency test was administered to the sample of 600 D.Ed students. Prior permission was taken by the head of the institution. Specific day, time was fixed for the administration of the test. The students were intimated about the test and were asked to provide honest response. The language proficiency test was administered for 50 students each day by visiting one college a day. Students were given proper instruction before commencement of the test. A separate question booklet and response sheets were given. After two hours of the test the response sheets were collected and tabulated using scoring key.
2. Administration of Reasoning Ability test

The reasoning ability test was administered to the sample of 600 D.Ed students similar to administration of the language proficiency test.

3. Administration of Emotional Intelligence test

The Emotional Intelligence scale was also administered in the same lines as language proficiency and reasoning ability tests based on the instructions given in the booklet.

4. Administration of Teaching competency scale

The general teaching competency scale was administered to the sample of 600 students. The teaching competency of D.Ed students were measured by observing the lesson given by the D.Ed students during practice teaching. The researcher observed the lesson by sitting at the back of the classroom. The observed response sheets of the D.Ed students on general teaching competency scale was recorded based on the instructions given in the scoring eye. As the student teacher presented the lesson the researcher ratted up each of the teaching competencies on the point scale. The scoring of language proficiency, reasoning ability, emotional intelligence and teaching competencies were recorded by referring scoring key.

6.12 STATISTICAL TECHNIQUES USED FOR ANALYSIS OF DATA

The Statistical techniques used for analysis of data were as follows

a) Pearsons product moment coefficient of correlation was used to find out the relationship between language proficiency, emotional intelligence, Reasoning ability and teaching competency

b) ‘t’ test was used to find out the significant difference in means between the groups with respect to gender, type of college and locality.
c) Multiple regressions was used to measure the relationship between independent variables and dependent variable and to predict the contribution of independent variable on dependent variable i.e. teaching competency for any given independent variable such as Language Proficiency, emotional intelligence and Reasoning ability.

d) ANOVA:
- One way ANOVA was used to compare the significant difference between two groups in the independent variables and dependent variable.
- Two ways ANOVA was used to assess the interaction effect of language proficiency, emotional intelligence, reasoning ability acting simultaneously on teaching competency.
- Three ways ANOVA was used to find out the significant difference in three levels of independent variables of D.Ed students and also to find out the interaction effect of language proficiency, emotional intelligence and reasoning ability on the teaching competency.

e) F test was used for accepting or rejecting null hypothesis.

6.13 RESULTS

1. There is no significant difference in the teaching competency of D.Ed students with high, moderate and low language proficiency.
2. There is a significant difference in the teaching competency of D.Ed students with high moderate and low reasoning ability.
3. There is a significant difference in the teaching competency of D.Ed students with high, moderate and low emotional intelligence.
4. The interaction effect of language proficiency and reasoning ability does not differ significantly in respect to teaching competency of D.Ed students.
5. Variations in the levels of language proficiency and reasoning ability does not influence on teaching competency of D.Ed students but
variations in the level of language proficiency alone influence the teaching competency of D.Ed students.

6. The interaction effect of reasoning ability and emotional Intelligence differ significantly in respect to teaching competency of D.Ed students.

7. Variations in the levels of reasoning ability and variations in the levels of emotional Intelligence influence on teaching competency of D.Ed students but variations in the levels of emotional intelligence alone influence the teaching competency of D.Ed students.

8. The interaction effect of language proficiency and emotional Intelligence differ significantly in respect to teaching competencies of D.Ed students.

9. Variations in the levels of language proficiency and variations in the levels of emotional intelligence influence on teaching competency of D.Ed students.

10. There is a positive and significant relationship between language proficiency and teaching competency of D.Ed students.

11. There is a positive and significant relationship between emotional intelligence and teaching competency of D.Ed students.

12. There is a positive and significant relationship between reasoning ability and teaching competency of D.Ed students.

13. There is a positive and significant relationship between readings proficiency and Teaching competency of D.Ed students.

14. There is a positive and significant relationship between writing proficiency and teaching competency of D.Ed students.

15. There is a positive and significant relationship between speaking proficiency and teaching competency of D.Ed students.

16. There is a negative and non significant relationship between self awareness and teaching competencies of D.Ed students.

17. There is a positive and significant relationship between self regulation and teaching competency of D.Ed students.

18. There is a positive and significant relationship between motivation and teaching competency of D.Ed students.
19. There is a positive and significant relationship between social awareness and teaching competency of D.Ed students.

20. There is a positive and significant relationship between social skill and teaching competency of D.Ed students.

21. There is a positive and significant relationship between verbal reasoning and teaching competency of D.Ed students.

22. There is a positive and significant relationship between arithmetic reasoning and teaching competency of D.Ed students.

23. There is a negative relationship between scientific reasoning and teaching competency of D.Ed students.

24. There is a negative relationship between the language proficiency and emotional intelligence of D.Ed students.

25. There is a positive and significant relationship between the language proficiency and reasoning ability of D.Ed students.

26. There is a positive and significant relationship between the reasoning ability and emotional intelligence of D.Ed students.

27. It is evident from the study that about 5% of the criterion variable is accounted by the three predictor variables. Out of this 2% by reasoning ability and about 1.4% by emotional intelligence. Language proficiency and reasoning ability put together account for 4% of the contributions towards teaching competency, language proficiency and emotional intelligence contribute 3.2% and reasoning ability and emotional intelligence contribute to 2.7% towards teaching competency of D.Ed students. It can therefore be said that language proficiency and reasoning ability contribute more to the teaching competency of D.Ed students than emotional intelligence. An overall 5% contribution of the 3 independent variables indicates that there may be other variables that may be effecting on the teaching competency of D.Ed students.

28. There is no significant difference in the language proficiency of male and female D.Ed students.
29. There is a significant difference in the reasoning ability of male and female D.Ed students. The mean values reveal that female D.Ed students have greater reasoning ability than male D.Ed students.

30. There is no significant difference in the emotional intelligence of male and female D.Ed students.

31. There is no significant difference in the teaching competency of male and female D.Ed students.

32. There is a significant difference in the language proficiency of government and private D.Ed students. The mean values reveal that government D.Ed students have greater language proficiency than private D.Ed students.

33. There is no difference in the reasoning ability of government and private D.Ed students.

34. There is no difference in the emotional intelligence of government and private D.Ed students.

35. There is a significant difference in teaching competency of government and private D.Ed students. The mean values reveal that private D.Ed students have greater teaching competency than Government D.Ed students.

36. There is a significant difference in language proficiency of D.Ed students from different districts. The mean values reveal that Chikamagalore district D.Ed students have greater language proficiency than other districts D.Ed students.

37. There is a significant difference in reasoning ability of D.Ed students from different districts. The mean values reveal that Chikamagalore district D.Ed students have greater reasoning ability than other districts D.Ed students.

38. There is a significant difference in emotional intelligence of D.Ed students from different districts. The mean values reveal that Davangere district D.Ed students have greater emotional intelligence than other districts D.Ed students.
39. There is a significant difference in teaching competency of D.Ed students from different districts. The mean values reveal that Davangere district D.Ed students have greater teacher competency than other districts D.Ed students.

6.14 DISCUSSION OF THE RESULTS

The results of the study conducted by Fiby Raj and Chandrakumar (2006) revealed that verbal reasoning and emotional intelligence is found to be a functional proficiency in English for male and female teachers. The above result is in acceptance of results of the present study which reveals that there is a significant relationship between verbal reasoning and emotional intelligence and teaching competency of D.Ed students.

The results of the study conducted by Srivatsva (2006) revealed that the verbal behavior of pre-service and in-service teachers with reference to age, sex had no significant difference. The results of the present study also reveals that there is no significant difference in reasoning ability i.e. verbal reasoning ability of male and female D.Ed students.

Passi and sharma (1982) conducted a study on teaching competency of secondary school teachers. The results revealed that there is no significant difference in teaching competency of male and female secondary school teachers. These results are in acceptance with the results of the present study that there is no significant difference in the teaching competency of male and female D.Ed students.

The results of the study conducted by Choudhari (1985) revealed that teachers intelligence attitude were found to be associated with source of the competencies. The results were in acceptance with the results of the present
study that there is a positive relationship between emotional intelligence, reasoning ability and teaching competency of D.Ed students.

The results of the study conducted by Sathiyagirirajan (1985) revealed that teaching competency is related to intelligence, emotional stability. These result are in acceptance with the results of the present study that there is a positive relationship between teaching competency and emotional intelligence and reasoning ability.

The results of Pun Thongchumum (2000) revealed that there is a difference in teaching competency of science programme students of the faculty of education in various skills. These results are in the acceptance with the results of the present study that there is a difference in teaching competency of D.Ed students with respect to sex, type of college and locality.

The results of the study by Chowdhari (1985) revealed that there is no difference in the male and female language teachers in their teaching competency. These results are in acceptance with the present study.

The results of the study conducted by Sethi A Patel D (1995) showed that teachers with high scores on intelligence and emotional maturity was more effective teachers than those with low scores. These results are in acceptance with the results of the present study that there is a significant difference in the teaching competency of D.Ed students with high, moderate and low emotional intelligence.

The results of the study conducted by Latha (2005) showed that the emotional inelegance does not influence teacher effectiveness in general. But emotional intelligence does differ in certain aspects of teaching process like, vice versa mastery in the subject. These results are in the acceptance of the present study that there is a significant difference in teaching competency of
D.Ed students with high moderate and low emotional intelligence and variations in the level of emotional intelligence alone influence the teaching competency.

6.15 CONCLUSION

There are number of variables effecting the teaching competency of teachers. The present study attempts to study the effect of three variables viz. language proficiency, reasoning ability and emotional intelligence which were considered to be very important predictors of teaching competency of primary school teachers. Since primary education lays basic foundation on elementary school children and it was assumed that a competent teacher posses good communication skills, have efficient reasoning to teach all the elementary school subjects and posses emotional intelligence to develop rapport with children and develop in them good personality. However the results of the present study revealed that there is a positive relationship between language proficiency and its components reading, writing and speaking and teaching competency of primary school student teachers. It was also found that as the level of language proficiency increases there was no corresponding increase in teaching competency of D.Ed students.

The results of the present study revealed that there is a positive relationship between reasoning ability and its components verbal reasoning, arithmetic reasoning and teaching competency. But there was no significant relationship between scientific reasoning and teaching competency of D.Ed students. It was also found that as the level of reasoning ability increases there is a gradual increase in the level of teaching competency of D.Ed students. The findings of the present study revealed that there is a positive significant relationship between emotional intelligence, its dimensions and teaching competency also as the level of emotional intelligence increases
there is a gradual increase in the level of teaching competency of D.Ed students.

Results on interaction effect revealed that teaching competency of D.Ed students has not increased significantly with combining increasing levels of language proficiency and reasoning ability and emotional intelligence. But Teaching competency of D.Ed students has increased significantly with combining increasing levels of language proficiency and emotional intelligence.

Results on the inter relationship between the independent variables reveals that there is a positive significant relationship between language proficiency and reasoning ability, positive significant relationship between reasoning ability and emotional intelligence. But there is no significant relationship between language proficiency and emotional intelligence were drawn.

Multiple regression results revealed that 5% of predictor variables contributed to the teaching competency of D.Ed students out of which 2% was from language proficiency 2% was from reasoning ability and 1.4% from Emotional intelligence. Language proficiency and reasoning ability contributed highest. i.e. 4% teaching competency followed by language proficiency and emotional intelligence i.e., 3.2% and lastly reasoning ability and emotional intelligence i.e., 2.7%. It can be interpreted that there may be other variables like interest attitude, aptitude environment etc., that may be effecting the teaching competency of D.Ed students.

Results on difference in the independent and dependent variable of D.Ed students based on gender reveals that there is no significant difference in language proficiency, emotional intelligence and teaching competence of male and female D.Ed students. But in reasoning ability female student
teachers showed more reasoning ability than male student teachers. Difference in the independent and dependent variable of D.Ed students based on type of college revealed that there is a significant difference in language proficiency of D.Ed students. District Institute of Educational Training (DIET) students language proficiency is better than students of private colleges. There is a significant difference in teaching competency of D.Ed students. Private college student teachers teaching competency is greater than DIET students. There is no significant difference in reasoning ability and emotional intelligence of DIET and private college student teachers.

Comparison of D.Ed students on the predictor and dependent variables from different districts reveal that there is significant difference in language proficiency, reasoning ability, emotional intelligence and teaching competency of D.Ed students from the four districts. Students from Chikamagalore have greater language proficiency than D.Ed students from other districts. Students from Chikamagalore have greater reasoning ability than students from other districts. Students from Davangere district have greater emotional intelligence and teaching competency when compared to students of other districts.

6.16 LIMITATIONS OF THE STUDY

1. This study was limited to D.Ed students only
2. This study was confined only to the 12 D.Ed colleges of Bangalore and Mysore division
3. This study was confined only to four districts of Bangalore and Mysore division
4. This study was confined only to three D.Ed colleges from each Districts of Karnataka
5. The present study was based on the results of 600 D.Ed students only
6. This study was confined only to one DIET and two private colleges in each district.

7. The present study studies only the interaction effect of language proficiency emotional intelligence and reasoning ability on teaching competency.

8. The present study studies only few variables i.e. language proficiency, emotional intelligence and reasoning ability.

9. The present study was confined to only urban locality.

6.17 EDUCATIONAL IMPLICATIONS

- The present study helps the primary classroom teacher to understand the contribution of the independent variables such as language proficiency, Reasoning ability and emotional intelligence to teaching competency of primary school teachers.
- The present study is useful to assess the language proficiency, Reasoning ability and emotional intelligence of primary school teachers.
- The present study helps to understand the relationship between language proficiency and its sub skills, such as reading, writing and speaking with teaching competency of primary school teachers.
- The present study helps to understand the relationship between Reasoning ability and its various sub skills, such as verbal, scientific and Arithematic reasoning with teaching competency of primary school teachers.
- The present study helps to understand the relationship between Emotional Intelligence and its various subcomponents such as self awareness, self regulation, motivation, social awareness, and social skill with teaching competency of primary school teachers.
- The present study helps to know the difference in language proficiency. Reasoning ability, emotional intelligence and Teaching
competency of primary school teachers with respect to Gender, Type of college and different districts.

- The results of the present study may be utilized to take necessary measures to improve the language proficiency and teaching competency of D.Ed students.

### 6.18 SUGGESTIONS FOR FURTHER RESEARCH

1. Similar study can be conducted by including other independent variables such as aptitude, Interest, Attitude which effect teaching competency of primary school teachers.

2. All the D.Ed colleges of Karnataka state can be included as the sample of the study and a comparative study of teaching competency of government, private aided and unaided colleges can also be conducted in a similar way.

3. A similar study can be conducted on secondary school teacher trainees (B.Ed students).

4. The study can be extended to the various dimensions of teaching competency by finding out the relationship between each one of the independent variables and each dimension and each sub skill of teaching competency.

5. A study can be conducted on the relationship between teaching competency and academic achievement of D.Ed students.