CHAPTER II

REVIEW OF RELATED STUDIES

2.00 INTRODUCTION

The search for related literature is one of the first steps in the research process. It is a valuable guide to defining the problem, recognizing its significance and suggesting data gathering devices, appropriate study design and source of data.

“A brief summary of previous references and the writings of recognized experts provide evidence that the researcher is familiar with what is already known and with what is still unknown and untested. This helps to eliminate the duplication of what has been done and provides useful hypotheses and helpful suggestions for significant investigation”. (John.W.Best and James.V.Kahn,(1992)

Also, in the words of Koul Lokesh (1984) “The review of related literature gives the research methodology, which refers to the way the study, is to be conducted. It helps the researcher to know about the tools and instruments which proved to be useful and promising in the previous study, i.e., the advantage of the related literature is also to provide insight in to the statistical methods through which validity of results is to be established”

Hence, the investigator has tried to collect relevant information related to her topic from literature. The investigator visited a number of libraries, made use of internet and collected materials from Indian and International research abstracts.
The collected information have been given under the following headings

Section I : Studies related to Professional Portfolio.
Section II : Studies related to Personality Profile.
Section III : Studies related to Professional Portfolio and Personality Profile of Teaching

SECTION I

2.01 STUDIES RELATED TO PROFESSIONAL PORTFOLIO

INDIAN STUDIES

Study No -1

**Sahaya mary R, and Manorama Samuel (2011)** conducted a study on ‘Attitude of the B.Ed Student Teachers towards teaching and Academic Achievement’

This investigation aimed at studying the students’ attitude towards teaching and academic achievement falls under the average category with the significance difference between the male and female student-teachers. The objectives of the study were to measure the overall level of attitude of student teachers towards teaching and its dimensions drawn from different groups and different institutions, to find out the overall level of academic achievement of B.Ed student-teachers drawn from the different groups and different institutions and to study the relationships of attitude of student teachers towards teaching and academic achievement. 336 B.Ed student teachers were selected from five Colleges of Education in Chennai. Descriptive analysis and inferential analysis were the statistical techniques used for the study and interpret the quantified data.

The findings of the study reveal that the attitude towards teaching is concerned the student teachers are found to be at average level. Regarding academic achievement the student teachers again fall under average level .regarding the attitude towards teaching of the student teachers and gender the findings of the
study show that there is a significant difference between the female student teachers and their male counterparts. It may be due to the fact that the female student teachers are more duty conscious and committed, sympathetic or compassionate towards the students.

**Study No -2**

*Anita Rastogi and Chanchal Goel (2010)* conducted a study on ‘Effectiveness of school experience programmes in building attitude of prospective teachers’.

This study examined the impact of school experience programme on the attitude of prospective teachers towards teaching. Teacher attitude inventory (TAI) developed and standardized by S.P Ahluwalia was used to collect data regarding attitude of 120 prospective teachers, pursuing bachelor of Education B.Ed programme under Guru Gobind Singh Indraprastha University, Delhi. The study revealed that the school experience programmes play a vital role in building the attitude of prospective teachers towards teaching. A significant difference in the attitude of prospective teachers before and after school experience programme was observed.

The study revealed that none of the prospective teachers had shown below average attitude and more than fifty percent prospective teachers had above average attitude towards teaching before commencement of school experience programme. After school experience programme percentage of teachers with above average attitude increased to 80 percent t-values reflected a significant difference between the attitude scores of prospective teachers before and after the school experience programme. This shows that the prospective teachers had developed more favorable attitude towards teaching profession, classroom teaching, child centered practices, educational process, pupils and teachers after the school experience programme. All these results proved a positive impact of school experience programme in building attitude of prospective teachers towards teaching and thus support the conduct of school experience programme as and integral part of professional preparation of teachers.
Study No-3


This study intended to analyse the current teacher education programme to assess its relevance and capability to prepare teachers for the emerging diverse educational context in the present age of globalization, privatization and liberalization.

The objectives of the study were to assess the existing teacher education curriculum in terms of its relevance to the emerging diverse educational contexts, to study whether the existing practice of teacher education curriculum transaction equips the trainees to meet their professional requirements to analyse the perception of teacher educators and teacher trainees with regard to relevance and adequacy of the existing professional preparation programme of teachers, to evolve profile of teacher educators with a view to assess their competence in changing contexts and to identify the gaps between the ongoing process of teacher preparation and the intended objectives.

The study employed a descriptive survey design to study the problem. the data have been largely qualitative in nature and were gathered from both primary and secondary sources. Data was collected from a stratified sample of six B.Ed colleges representing different management types and regional locations, 71 teacher educators across the state who responded macro survey questionnaire and 19 teacher educators who were available for interviews, 177 student teachers from the sample colleges and 26 beginning teachers.

Results reveal that in terms of the intentions and objectives of teacher education for secondary stage of education, the B.Ed programme appears to reflect the broader national goals of education as well as some of the emerging concerns in the diverse
education context. The finding revealed that the orientation to B.Ed which is an initial induction into the teaching profession is generally conducted by all colleges of education. In terms of equipping student teachers with necessary skills and competence, over 60 percent of the teacher educators are of the view that the present B.Ed programme partially fulfils this.

**Study No -4**

**Gulhane, G.L., (2007)** conducted a study on,’ School practices and teacher education’

This study aimed in achieving the current trends and practices of teacher training institutes and to know the perception of student-teachers towards cooperating schools in respect of different aspects of practice teaching during internship programme. A stratified random sampling method was used for selection of sample. A sample comprised of 250 student-teachers, 31 teacher-educators and 10 administrators from five teacher training institutions. The survey method was used. An interview schedule was prepared for this purpose. Data were obtained through personal contact and correspondence with the heads of institutions. Some of the information were obtained from different official records. The opinion of student-teachers, teacher educators and administrators were analyzed by using descriptive statistics.

The findings were almost all the student and teacher educators felt that teacher training can never become more effective unless the cooperative schools become active partners in internship programme. It was interesting to note that only 40% of the teacher educators interact on different academic issues with the student teachers. It was evident that climate of practicing schools is not healthy for the student teachers to achieve the goals of internship and teacher education programme.
Study No-5

Sukhwat Bajwa, (2005), conducted a study on ‘Competency-Based Teacher Training for developing Teaching Competency’.

The objectives of this study were to study the effectiveness of competency-based teacher training (CBT) strategy for developing basic teaching competencies among pre-service teachers, Cognitive - based teaching competence, Performance - based teaching competence, Affective – based teaching competence, Consequence – based teaching competence, and Managerial teaching competence. Self-prepared, competency-based teacher training strategy was used to give training to student-teachers. The findings of the study revealed that basic-teaching competency training strategy was found to be better in developing cognitive - based teaching competency, Performance - based teaching competency, Affective – based teaching competence, Consequence – based teaching competence and managerial teaching competence.

Study No -6

Jeba A (2005) conducted a study on ‘Teaching competency and Mental Health of Student-teachers in a District Institute of Education and Training (DIET)’. The objectives of this study were, to find out the gender and group differences in teaching competency and mental health status of student-teachers in DIET; and ii) to find out the relationship between teaching competency and mental health status of student teachers in DIET.

The sample consisted of 150 men student-teachers and 150 women student-teachers of DIET, Vanaramutti, Toothukudi district. Tools used included Mental Health Status Scale developed by M. Abraham and K.C.B Prasana and a Teaching Competency Assessment scale developed by the investigator. Statistical techniques like t-test and correlation were used to analyze the data. The study revealed that the mental health and teaching competency are correlated.
Study No-7

Mahesar Panda, (2004), conducted a study on ‘Prediction of teaching competency from creativity, Intelligence and teacher attitude’.

The objectives of the study were, to establish multiple regression equation for predicting teaching competency of teacher – trainees from creativity, intelligence and teacher attitude as predictors and to find out the multiple correlation of teaching competency scores with creativity, intelligence and teacher attitude of teacher-trainees. In this study sample consisted of 128 pupil-teachers of B.Ed course in the college of Teacher Education, Bolangir of Orissa state. The following standardized tools were selected for the collection of data.- the General Teaching Competency Scale (GTCS) by Passi and Lalitha (1990), the tests of creative Thinking (both verbal and Non-verbal) by Mehdi (1973), the culture Fair Test of Intelligence, Scale-3, Forms-B by cattell and cattell (1973) and the Teacher Attitude Inventory (TAI) by Ahluwalia (1978)

To analyze the data the statistical technique used was multiple regression and correlation. The findings of this study were, the predictors’ i.e. creativity, intelligence and teacher attitude do not influence teaching competency with similar effect as their regression coefficients are not equal in value rather having different magnitudes and Creativity is found to affect teaching competency adversely whereas intelligence and teacher attitude are ground to increase teaching competency although the amount of contribution of teacher attitude is low. Above all, R between teaching competency and a combination of the variables of creativity, intelligence and teacher attitude of teacher trainees is significant.

Study No-8

The objectives of this study were

To ascertain the main and interaction effects of teaching aptitude and self-esteem on cognitive and meta-cognitive strategies of learning of prospective secondary teachers.

The sample consisted of 387 subjects selected randomly from the four teacher education institutions of Himachal Pradesh. The tools used were Inventory of Learning Styles, Teaching Aptitude Test in Hindi and Self-esteem scale. Statistical technique ANOVA was used to analyze the data.

The findings of this study were, the teaching aptitude and self-esteem do influence some cognitive and meta-cognitive strategies of learning of prospective secondary teachers in an independent manner, no interaction effect of the two variables was found on any cognitive and meta-cognitive strategy of learning. The study cites 37 references.

Study No-9

Ganapathy .S, (2002), conducted a study on ‘Self-concept of student teachers and their attitude towards teaching profession’.

It is an attempt to study the self-concept of student-teachers and their attitude towards the teaching profession. The objectives of this study were, to measure the attitude of student-teachers towards the teaching profession and assess their self-concept, to find out the relationship between the self-concept of student-teachers and their attitude towards teaching and to find out the relationship between self-concept of student-teachers and their attitude towards teaching.

The sample of the study constituted 723 student-teachers from nine selected colleges of education in Tamil Nadu. The Tamil version of the teacher Attitude Inventory (TAI) by Ahluwalia and the self-concept Scale by Mukta Rani Rastogi were used. The statistical techniques used include ‘t’ test and Pearson’s product-moment correlation. The findings were, both male and female student-
teachers had a favourable attitude towards the teaching profession and both male and female student-teachers had a positive self-concept, and it was related to their attitude towards the teaching profession.

**Study No -10**

**Jain and Smeeta, (1999),** conducted ‘a study of the creativity in relation to the teaching aptitude, skills and personality variables of pupil teachers’.

This study attempts to make a detailed inquiry of the factors such as pupil teacher’s creativity and its relation to their teaching aptitude, teaching skills and personality variables that may reveal useful and new facts which may have a direct influence on the teach ability of creativity.

The objectives of this study were i) To determine the personality profiles of creative teachers ii) to investigate the relationship of creativity with the teaching aptitude, skills and personality variables of pupil-teachers and its impact on their classroom creativity iii) to find out the difference between high and low creativity pupil-teachers in the context of their teaching aptitude, skills and personality variables and iv) to indicate the desirable changes in the teacher education programme to promote creativity.

Two hundred and eighty pupil-teachers from two colleges, i.e., University college of Education, Nagpur, and P.P. College of Education, Gondia, formed the sample of the study. The tools used were Torrance tests of creative Thinking (Verbal from A) by E.P. Torrance, Classroom creativity observation schedule by Denny, Cattell’s Sixteen Personality Factors Questionnaire, Teaching Aptitude Test by Prakash and Srivastava, Microteaching Techniques and Observation Schedule Prepared by the researcher. Mean, SD, coefficient of correlation and ‘t’ test were used for the purpose of analysis of data.

The findings of this study were, Positive and highly significant correlation was found between creativity and classroom creativity, teaching aptitude and teaching skills ii) Out of the sixteen personality factors, positive and highly significant relationship was found with factors C, G and Q₁ and low but positive
correlation was found with factor E. iii) Positive and highly significant relationship was found between factor Q1 and classroom activity. Low but positive and significant relationship was found between teachers’ classroom activity and teaching aptitude. There existed mean differences in the case of all the teaching skills of high and low groups of pupil-teachers (formed on the basis of classroom creativity), but these were not statically significant.

FOREIGN STUDIES

Study No -1

Tigelaar D.E.H. and Van Tartwijk J (2010) conducted a study on, ‘The Evaluation of Prospective Teachers in Teacher Education ‘.

In the last few decades, teacher evaluation, and also the evaluation of prospective teachers, has developed from paper-and-pencil tests or standardized observations into assessment that is aimed at gaining a comprehensive picture of that the development of teachers' knowledge and performance. Examples of this new type of assessment are peer assessment, self-assessment, simulations, and portfolios. The assessment of prospective teachers is often learning-oriented in the sense that much emphasis is put on learning elements such as efficient feedback. The quality of assessment in teacher education, in general, has been a major point of discussion for many years.

Study No -2

Nick Mitchell; Brian Marsh; Andrew J. Hobson; Peter Sorensen (2009) made a study on 'Bringing theory to life: findings from an evaluation of the use of interactive video within an initial teacher preparation programme'

The development of interactive video technology offers teacher educators new possibilities for working with student teachers. This article draws on an evaluation of a project in England that used the internet to link a university
teacher education faculty with local partner schools in which remotely operated Internet Protocol cameras and microphones were mounted in classrooms. During sessions at the university, tutors were able to make use of contemporaneous examples of classroom activity to illustrate their teaching, providing demonstrations that contextualised the theoretical and decontextualised the practical, assisting student teachers in developing an understanding of the relationship between theory and practice at an early stage of their initial teacher preparation course. Such systems have the potential to link university-based teacher educators and school-based practitioners in a number of ways and could play a part in the development of closer and perhaps more decentralized partnerships between schools and higher education institutions.

Study No - 3

**Mona Nabhani Rima Bahous (2008)** conducted a research on,’ Lebanese teachers' views on continuing professional’

This study elicits Lebanese teachers' views on Continuing Professional Development (CPD). Seven hundred and thirty-nine teachers from across Lebanon responded to semi-structured questions about personal and school efforts to help stay up to date. They expressed their views on what constitutes effective CPD, why this is needed and how this influences their practice. Quantitative and qualitative analysis resulted in categories and themes that were further compared with the literature findings to check relevance. Findings showed that CPD in Lebanon focuses on workshops as coordinators conjecture, but there is no follow-up for application of what is learned. Findings also indicate a need to have more structured and systematic CPD for all teachers with a focus on action research and mentoring. The latter is needed more than the current practice of fragmented workshops, and diverse standards of presenters and content of training. The researchers recommend that policy makers stipulate mandatory CPD for all teachers.
Study No – 4

Sıtkıye Kuter and Sabri Koç—(2008) conducted a study on, ‘A multi-level analysis of the teacher education internship in terms of its collaborative dimensions in Northern Cyprus’

Partnership is a two-way enterprise which becomes meaningful when the partners at different levels are fully engaged in mutual cooperation, aiming at promoting both trainees’ and educators’ professional growth. This case study, qualitative in nature, was conducted with administrators, educators, and trainees to examine the collaboration dimension of the multi-layer processes of the EDUC420-Internship regarding its organizational and communication aspects. The data, analyzed through categorization of codes, revealed striking limitations inhibiting the collaboration dimension of the internship and suggested its reconceptualization around a formalized give-and-take mechanism to cultivate reciprocal communication among the ministry, the university and the schools.

Study No -5

Annemie Schepens; Antonia Aelterman; Peter Vlerick (2007) made a study on, ‘Student teachers' professional identity formation: between being born as a teacher and becoming one ‘.

This article focuses on student teachers’ professional identity formation inspired by the tension between two layman points of view namely: being born as a teacher (i.e. based on demographics and personality traits) and becoming a teacher (i.e. based on experience). Besides demographics, personality traits and experience, the teacher preparation context is considered as a crucial aspect in professional identity formation as well. The authors adopted a multiple theoretical approach to guide the empirical study. Using hierarchical regression analyses the relative influences of demographics and personality traits, context variables and teacher education variables on professional identity variables are explored.
Study No -6

Mansvelder-Longayroux, Douwe Beijaard, Nico Verloop (2007) conducted a study on ‘The portfolio as a tool for stimulating reflection by student teachers’

This article reports on a research project that studied the nature of reflection in the portfolios of student teachers: 39 learning portfolios were analysed. Current theories on reflection offered little on which to base a system of categories for analysing the content of the portfolios. Theory on learning activities was used. We found that the student teachers tended to focus in their portfolios on their own practice and how to improve it. They examined what they had done and learned, in what aspects they had made progress, and they formulated plans for the future. When looking back on their development as teachers, the students discussed individual experiences which had been important to them, as well as making connections between different experiences over a period of time. The student teachers made less use of the portfolios to gain a better understanding of situations and developments that had occurred. Supervision and guidance on the production of portfolios seemed to be essential to encourage this activity.

Study No -7


Portfolios are widely used in a range of education programmes at different levels in a number of countries. They are also well established at all stages in social work education. However, in the literature there is surprisingly little critical analysis of the application of the portfolio in social work. In this paper the authors' objective is to contribute to professional knowledge about the use of portfolios in social work. The authors are all members of the Higher Education Funding Council Self-Assessment in Professional and Higher Education Project and are concerned to develop self-assessment in social work and enhance the development.
of life-long learning. They begin by examining the literature about portfolios from the field of education. Findings are then analysed from a small exploratory study of the use of portfolios in practice learning on a Diploma in Social Work course. Five different but related conceptual themes which emerge from the analysis are discussed: compiling the portfolio; issues of evidence; reflection in a context of assessment; the practice teacher and the learning dialogue; and the challenge of assessment. Suggestions are offered for effective portfolio practice.

**Study No - 8**

**Bob Koster; Jurriën Dengerink; Fred Korthagen; Mieke Lunenberg (2006)**

“Teacher educators working on their own professional development: goals, activities and outcomes of a project for the professional development of teacher educators”

This article reports on the professional development of teacher educators within the context of a national project, ‘Professional Quality of Teacher Educators,’ where a professional standard and a standards-based procedure of (self-)assessment and professional development have been created and effectively implemented. This project offered a unique opportunity to analyze the goals, activities and outcomes of the process of professional development of teacher educators in a situation in which this development is promoted by the professional group as a whole. In our research, we used 25 completed portfolio's made by teacher educators participating in the standards-based procedure of self assessment and professional development. We found that teacher educators, participating in this procedure, prefer the development of their knowledge and skills over the development of their attitudes and beliefs. For their professional development, the teacher educators experiment with new activities within the work-situation and interact with colleagues within their professional community, more than that they study theory or reflect on their work. The participating teacher educators experience a positive impact at the personal level (change in cognition and behavior). More than one-third of them share outcomes with others. Above,
they report a more positive self-esteem and more enthusiasm for teacher education. This article may motivate other countries or institutions to invest in the professional development of teacher educators. Further research is necessary on the essence of the professional qualities of teacher educators and the relation of their professional development with student learning.

Study No - 9

Cathy Burnett (2006) made a study on, ‘Constructions of professional knowledge among student and practicing primary teachers: paradigmatic and narrative orientations’

The way in which professional knowledge is presented in initial teacher education (ITE) in England and Wales is significant. Not only is it emblematic of the way teaching itself is conceived, but it is likely to influence the way that students engage with their development. The following analysis therefore describes and critiques the kinds of knowledge presented within the predominant model of primary ITE in England and Wales. Bruner's concepts of paradigmatic and narrative modes of thought are used to frame this analysis. Firstly, the presentation of professional knowledge within different dimensions of primary ITE is examined: in the curriculum; in higher education institutions; and in school. Next, life history research from the last 20 years is used to explore what practising teachers have seen as significant in the formation of their professional knowledge in order to create a critical perspective on the kind of knowledge evident in ITE. Various tensions between paradigmatic and narrative orientations towards knowledge located within both ITE and within teachers' lives are explored and ultimately seen as contributing in complex and ambiguous ways to what Clandinin and Connelly refer to as a 'professional knowledge landscape' (1998). Ultimately, it is argued that recognizing this notion of a 'professional knowledge landscape' is useful in framing the kind of teacher professional knowledge required in ITE. The implications of this for primary ITE programmes are also discussed.
Study No - 10

Doug Hamman; Arturo Olivárez Jr; Mellinee Lesley; Kathryn Button; Yoke-Meng Chan; Robin Griffith; Susan Elliot (2006) conducted a study on, ‘Pedagogical influence of interaction with cooperating teachers on the efficacy beliefs of student teachers’.

Cooperating teachers are often identified as some of the most important figures in the preparation of new teachers, and the reasons are not difficult to understand. Surprisingly, however, very little research has been conducted to quantify the effects of cooperating teachers on student teachers. This study examines the impact of student teachers' perceived interactions with their cooperating teachers and the influence that interaction has on student teachers' self-efficacy for teaching. Results indicate a moderate correlation between perceptions of teaching efficacy and cooperating teacher-student teacher interactions. Differences were found in the frequency of interaction based on the certification level of the student teacher, with elementary level student teachers perceiving a greater amount of interaction with their cooperating teachers. However, no differences based on certification level were detected in perceived efficacy. Student teachers' perceptions of the level of guidance offered by their cooperating teachers provided the most reliable predictor for their efficacy belief.

Study No – 11

Lars-Erik Malmberg (2005) conducted a study on, ’Goal-orientation and teacher motivation among teacher applicants and student teachers ‘

The relationship between goal-orientation, intrinsic/extrinsic motivation for the teaching profession, previous achievement and entrance scores was investigated among teacher applicants (Study 1; N=230), and student teachers (Study 2; N=114). Utilizing path-analyses the following relationships were found in both studies, between: (a) mastery goals and intrinsic motivation, (b) avoidance goals and extrinsic motivation, (c) previous achievement and performance goals,
and (d) intrinsic motivation and entrance scores. In sum the findings suggested
that goal-orientation was instrumental for long-term teacher motivation and that
teacher motivation, in turn, formed a basis for goal-orientation during teacher
studies.

Study No - 12

Westbury, Ian and Hansén, (2005) made a study on ‘Teacher Education for
Research-based Practice in Expanded Roles: Finland's experience ‘

Preparing teachers for a research-based professionalism has been the central
mission of teacher education in Finland since the mid-1970s. More recently, as a
result of such national policy developments as school-based curriculum
development and local decision-making, the conception of teachers' work and
professionalism has expanded. Drawing on experience within the teacher
education programmes at the University of Helsinki and Åbo Akademi
University, this paper discusses some of the programmatic issues that these
developments have raised in class-teacher, i.e. “elementary”, teacher education
programmes. We focus in particular firstly on the research thesis that is a part of
every teacher education programme in Finland, and the hallmark of the research-
based professional ideal; and, secondly on the emerging issues that derive from
the need to incorporate the expanded understanding of the teacher's role within the
curriculum of teacher education.

The overall aim of this study was to examine Bruneian preschool teachers'
conceptions about creativity (including factors related to creativity), their beliefs
on how to promote children's creativity in the classroom, how their beliefs may
influence their actual practice and whether their practices are consistent with the
requirements of the Brunei National Curriculum. It will also try to identify any
factors that constrain or influence teachers' practice. The research employed a
grounded theory approach involving semi-structured interviews and classroom
observations of preschool teachers.
The findings of this study indicate that the teachers primarily conceptualize creativity as something mainly but not exclusively to do with art work. The teachers believe that providing children enough time to engage with art works, giving children freedom, provide enough materials for children, flexibility in teaching, interactions and open-ended questions, group work and discussion and learning through play are the best ways to promote children's creativity, but the research reveals inconsistencies between teachers' beliefs about best way to promote creativity. Teachers' actual practice mainly consists of teacher control, enforcement of obedience, rote learning, teacher directed and teacher chosen activities and heavy emphasis on whole-class teaching. Other mediating constraints on their promotion of creativity included: pressure from Primary 1 teachers, parents and the officials in Ministry of Educations to complete and adhere to the National Curriculum; teachers' own pedagogical limitations; large class size; lack of adult help and the presence of special children in the classroom; lack of resources and pressure from other non-teaching commitments.

The implication of the findings are that further research needs to be conducted into Brunei's preschool teacher training programmes, to identify contradictory messages about the value of creativity and to find a more culturally appropriate way of promoting children's creativity through the curriculum.

Study No – 13

Margaret Turnbull, (2005) made a study on,’ Student teacher professional agency in the practicum’

Teachers are encouraged to be active professionals in their work. Consequently, the development of professional agency in student teachers is an important dimension in teacher education. This paper reports on a study where the practice of six early childhood student teachers enrolled in a Bachelor of Education (Teaching) course was analysed, using Giddens’ concept of agency, and each was found to have operated with agency. However, when additional criteria
pertaining to early childhood professional practice were applied by means of a triadic viewpoint only three of the student teachers were deemed to have operated with 'professional' agency. Factors that were perceived to have contributed to or detracted from the student teachers' capacity to operate with professional agency were identified. Arising from these factors, this paper argues for in-depth student teacher preparation for the practicum in order to develop professional agency

Study No -14

Hay, Mober, (2005), conducted a study on ‘Teacher effectiveness’.

The objective of the study was to provide a framework describing effective teaching. This was to be done by creating a vivid description of teacher effectiveness, based on evidence of what effective teacher do in practice at different stages in the profession. The research was empirical in nature. Data was collected from approximately 80 schools and 170 teachers on such factors as school age phase end and social background of pupils. Then also usable data was acquired on most teachers combining this with data from Hay gave a total of 126 teachers, their teaching skills, their professional characteristics and the climate in their classrooms was done. The programme included classroom observation, in-depth interviews, questionnaires, focus groups, as well as the collection of personal and school data. Analysis ten focused on the extent to which the teachers who exhibited higher levels of pupil achievement gain over time also exhibited higher performance on the Hay “teacher effectiveness” measures. A moderate correlation was established in considering the academic achievement data. A final sample was then agreed for further analysis by Hay, comprising those teachers who had pupil gains and Hay “effectiveness” competences.

The findings of the research proved that it is possible and practicable to reach broad judgments about teacher’s effectiveness based upon their pupil achievement gains as measured in a variety of ways. The three main factors with in teacher’s control that significantly influence pupil progress are teaching skills, professional characteristics and classroom climate; Biometric data (information
about teacher’s age, and teaching experience, additional responsibilities, qualification, career history and so on) did not predict their effectiveness as a teacher; Within their classrooms effective teachers create learning environments, which foster pupil progress by developing their teaching skills as well as a wide range of professional characteristics; 4) in classes run by effective teachers, pupils are clear about what they are doing and why they are doing it. The effective teachers very actively involved with their pupils at all times. Effective teachers set high expectations for the pupils and communicate them directly to the pupils. Many of the activities were led by the teacher. There was a great deal of interaction between teacher and pupils; Highly effective teachers managed to get well over 90% of the pupils focused on task over the course of a lesson; It was found that 16 characteristics contribute to effective teaching clustered in to professionalism, thinking, planning and setting expectations, leading and relating to others; Effective teachers use their knowledge, skills and behaviour to create effective learning environments in their classrooms; There were significant correlations of climate with high expectations; time and resource management, planning and homework. Significant correlations were found between pupil progress and professional characteristics; and it was also found that pupil progress is most significantly influenced by a teacher who displays both high levels of professional characteristics and good teaching skills, which led to the creation of a good classroom climate.

**Study No -15**

**Michele Wilson Kamens; Diane Casale-Giannola** (2004) made a study on the topic, ‘The role of the student teacher in the co-taught classroom’.

With an increase in the number of inclusive classrooms, preservice teachers may find themselves student teaching in classrooms with cooperating teachers who are co-teaching. A review of the recent research on inclusion yields minimal information relevant to the experiences of pre service teachers in co-taught
classrooms. What is the role of student teachers placed in inclusive classrooms for their student teaching experiences? How do they fit into the dyad? This qualitative study explored the experiences of special education and general education preservice student teachers as they encountered the changing roles of teachers in inclusive classrooms, with a focus on the impact on the role of the student teacher and the implications of this experience for teacher education programs. Data sources included observation notes, interviews with cooperating teachers, focus groups with student teachers, and open-ended surveys. Themes that emerged from the data were related to support, planning, modeling, and awareness of the elements necessary for successful co-teaching.

**Study No-16**

Elizabeth A. Wilkins-Canter (2003) made a study on, ‘The nature and effectiveness of feedback given by cooperating teachers to student teachers’

Effective feedback from cooperating teachers is a critical component of a successful student teaching experience. Unfortunately, few cooperating teachers are trained to provide specific feedback to their student teachers, and the lack of such communication is one of the most commonly reported problems among field experience students. Using weekly time logs, biweekly questionnaires, and midpoint and final conference interviews, the researcher identified current feedback practices of a group of cooperating teachers selected specifically for that purpose, and examined the congruence between the feedback reported by these teachers and their respective student teachers. This article synthesizes related research literature, reports and interprets the findings of the current study, and suggests recommendations to enhance cooperating teacher feedback practice.
Study No-17


Using sociocultural understandings of learning, the authors probe a rationale for training programmes which are extensively school based and involved school-based teacher mentors as supporters of student teachers’ learning. They ask what it is that student teachers are learning while in schools and how that learning is supported. Drawing on evidence from a study of 125 student teachers on two training programmes, the authors suggest that student teachers’ learning is heavily situated and that students are not acquiring ways of interpreting learners that are easily transferable, but they are learning about curriculum delivery. It also seems that there is a participatory version of training which is not underpinned by an understanding of the implications of learning through participation and which, as a consequence, does not make the most of the strengths of mentors.

Study No -18

Mary C. Clement (2002) conducted a research on, ‘What cooperating teachers are teaching student teachers about classroom management’

As background for the creation of a college course in classroom management for student teachers, this study surveyed what cooperating teachers were already teaching student teachers about classroom management. Fifty-five student teachers and 48 cooperating teachers participated in the research. Findings indicate that the cooperating teachers were generally not aware of specific authors or books about classroom management and were not going to teach a specific knowledge base about management to their student teachers. Rather, the cooperating teachers are sharing experiences and “what works for me” scenarios.
A call for outreach and collaboration from the college to the cooperating teachers and their administrators is made.

**Study No -19**

**Miriam Ben-Peretz and Sarah Rumney (2002)** made a study on, ‘Professional thinking in guided practice’. The paper describes and analyzes the interactions between university tutors, cooperating teachers, and the student teachers in guided practice situations. The main aim of the study was to gain insights into the mode of interaction and the nature of massages transmitted in a variety of settings of practice teaching. The study reveals the dominance of evaluative comments made by cooperating teachers and their focus on issues of content. Alternative approaches and teaching modes were mentioned only rarely, cooperating teachers seem to rely mostly on their own wisdom of practice and tend to transmit traditions of “successful” teaching modes. Student teachers were mostly passive and the mode of interaction authoritative. The paper suggests a distinction between an “incremental” versus a “comprehensive” practicum. It is suggested to focus on issue-specific post-lesson conferences which are planned jointly by student teachers, cooperating teachers, and university tutors.

**Study No -20**


A common aim of teacher education is to encourage prospective teachers to analyze carefully their instructional performance. Yet, research on teacher cognition heretofore has concentrated primarily on experienced teachers' planning and instructional thinking. We need more information on how student teachers think about and engage in the evaluation of their teaching performance. This study used data from initial structured interviews to elicit student teachers' self-
evaluation concerns and examined the student teachers' journals, a final written self-evaluation, and tapes from post-teaching interviews to create a profile of each student teacher's responses about self-evaluation. In this paper I analyze the student teachers' pre-conceptions about success, examine their processes of self-evaluation, and explore a conception of “interactive self-evaluation.” I offer suggestions about the conditions that may enable student teachers to enhance.

**Study No - 21**

_Ulla Talvitie; Liisa Peltokallio; Paivi Mannisto (2000)_ made a study on.'Student Teachers' Views about their Relationships with University Supervisors, Cooperating Teachers and Peer Student Teachers’.

The purpose of this study was to examine student teachers' views about the influence of contributions from university supervisors, cooperating teachers and student teachers on their professional development. Journals kept by 16 vocational student teachers during their teaching practice showed that cooperating teachers and university supervisors played a meaningful role in their professional development. The most important factor seemed to be the quality of the dialogue that was maintained during the practicum. The more open the dialogue and the more divergent the views allowed, the more satisfied the student teachers were with their practicum. The study also indicated that peer students were felt to have a particularly important supportive.
2.02 STUDIES RELATED TO PERSONALITY PROFILE

INDIAN STUDIES

Study No -1

Usha Parvathi S and Rasul Mohaideen S (2011) conducted a study on ‘the Metacognition of Prospective Teachers in Thoothukudi District’.

This study comprised five dimensions of metacognitive strategies – Planning, Monitoring, Evaluation, Memory and Achievement. This study revealed the importance of developing the metacognitive skills among teachers. The objectives of the study were to find out the metacognition of prospective teachers in total and in dimensions and to find out the differences in the metacognition of the prospective teachers in total and in the dimensions with respect to gender, Educational Qualification and Age. The researchers adopted the descriptive method to study and to compare the metacognition of Mathematics and Physical Science prospective teachers. The population for the study was identified as the prospective teachers in Thoothukudi District. And the simple random sampling technique was adopted.

It was found that only 20% of the students are having high metacognition in total. Nobody from the sample is found to have better metacognition in the dimensions of planning and achievement. Postgraduate student teachers are having better metacognition than undergraduate prospective teachers in the dimension of monitoring. The student teachers whose ages are within 30 were found to have more metacognition than the student teachers of whose ages are 30 years and above. ‘t’ test reveals that physical science students are having more metacognition than the mathematics students in evaluation.
Study No -2

Vempati Roja Ramani and Digumarti Bhaskara Rao (2009) made a study on ‘Frustration of Prospective Teachers’.

This study aimed to find out the frustration of prospective teachers, to compare the frustration of the prospective students with reference to the gender, subject, locality and educational qualification.

The sample selected for the study was prospective teachers, who were studying in Colleges of Education and the sample size chosen for the present was 300.

The findings of the study revealed that the prospective teachers were holding an average level of frustration. The male and female prospective teachers had an average level of frustration without any significant difference between them. The rural and urban prospective teachers hold an average level of frustration without any significant difference between them. The arts teaching methodology prospective teachers were more frustration than their counterparts. The graduate and post-graduate prospective teachers hold an average level of frustration without any significant difference between them.

Study No -3

Santhi. S, (2009) conducted ‘A Study on Locus of control of Teacher Trainees’

According to the investigator, the locus of control is therefore an important concept that gives us an insight into why we achieved success or failed in our efforts to reach our goal. A person’s Locus of control is their belief about themselves also known as attribution. Attribution refers to how people explain that happen to themselves and others.

Various dimensions of locus of control as exhibited by 263 teacher trainees pursuing the bachelor degree programme in education in five colleges in Chennai, TamilNadu, India have been studied with respect to gender, location level of difference in their locus of control between urban and rural post-graduate and
graduate. English and Tamil medium and Arts and science group teacher trainees but there is a difference between male and female teacher trainees.

Study No –4

Simon Philip (2009) conducted a study on ‘Teacher trainees’ meta-cognitive awareness in relation to their attitude towards teaching’

The objectives of the study is to find out if there exists any difference in teachers trainees’ meta-cognitive awareness and attitude towards teaching in respect of their gender, age, and medium of study. A sample of 200 B.Ed trainees was selected by using purposive sampling technique for the investigation. It is found that teacher trainees have low meta-cognitive awareness and have a favorable attitude towards teaching. Further it is found that there is significant difference in respect of gender, age and medium of study in respect of meta-cognitive awareness and attitude towards teaching. The study also indicates that there exists low and negligible relationship between meta-cognitive awareness and attitude towards teaching

Study No-5

Selvaraj Gnanguru, A and Suresh Kumar. M, (2008), conducted ‘a study of under, normal and over-achieving B.Ed students’ home environment and their personality type’.

The objectives of the study were to study the home environment of overachievers, normal achievers and underachievers, to study the personality type of overachievers, Normal achievers and underachievers. To study the significance of the difference among the under, normal and overachieving B.Ed. students with respect to their home environment and their personality type, The sample for the present study consisted of 892 randomly selected B.Ed students from the B.Ed colleges in Cuddalore and Nagappattinam Districts of Tamil Nadu state. The sample included 252 underachievers (28.3%), 460 normal achievers (51.6%) and
180 overachievers (20.2%). The under, normal and over achievers were identified with the help of regression equation (intelligent score and achievement score).

The investigator used the following tools for the present study. Group Test of Intelligence by Nair and Anandavalliamma (1976), Achievement Test for B.Ed students constructed by the investigators (2006), Home Environment Questionnaire by Murugeswari (1993) and Extraversion-Introversion Inventory by V.S. Shanthamani and A. Hafeez (1992)

The findings of the study were the normal and overachievers are having satisfactory home environment but the underachievers are having below average level of home environment, the normal and overachievers are having extrovert type of personality but the underachievers are having introvert type of personality. There is significant difference among under, normal and overachieving B.Ed students in their home environment and their personality type

Study No-6

Lakshamani K, and Nachimuthu K,(2008), conducted a study on ‘Perceived value Pattern of Teacher Trainees’. 

This study has been under taken to study significant difference if any in the perceived value pattern of the teacher trainees. The investigation was carried out on a sample of 200 teacher trainees,. The objectives of the study were to find out the difference in the perceived value pattern of male and female teacher trainees of Namakkal district of Tanil Nadu and to find of the difference in the perceived value pattern of rural and urban teacher trainees of Namakkal district of Tamil Nadu,. G.P Sherry and R. P Verma (1981) Personal Values Questionnaire was used for the collection of data.

The findings of the study reveal that significant difference exists between male and female teacher trainees in their perception of values such as aesthetic believes and power values, there is significant difference between rural and urban teacher trainees in their perception of values such as economic a and family presti
Study No -7

Gittabonia Srinivas and Digumarti Byhaskara Rao (2007) conducted a study on ‘Anxiety of Prospective Teachers’.

This study helped the people and personnel involved in teacher education in reducing the anxiety of prospective teachers if found in them. The objectives of the study were to find out the anxiety of prospective teachers, and to find out the anxiety of prospective teachers with reference to gender, locality, Optional subject and qualification. Stratified random sampling technique was applied and 311 student teachers were chosen for this study.

The findings of the study were the prospective teachers are holding an average level of anxiety. the male and female prospective teachers have an average level of anxiety with a significant difference between them. The rural and urban prospective teachers are holding an average level of anxiety without any significant difference between them. The prospective teachers studying in Colleges of Education are with an average level of anxiety. except gender, the locality, the methodology and the qualification of prospective teachers do not show any influence on the level of anxiety of prospective teachers.

Study No -8

Thiagarajan P.A, and Ramesh R, (2005), conducted a study on’ Personality and self-concept of B.Ed Trainees’.

Objectives of this study were To find out the level of self-concept of B.Ed trainees, ii) to find out, if any, the significant difference in the self-concept of the B.Ed trainees in terms of their sex, community, locality and optional subject they studied viz., Bio-science (BS), Physical Science (PS), Mathematics (Maths), Economics (Eco.) and English (Eng.).

The sample consisted 96 student-teachers of Dr. Sivanthi Aditanar College of Education, Tiruchendur, The Multidimensional Personality Inventory designed by Manju Rani Agarwal was used to collect data. From the six personality
dimensions, the dimension of self-concept was selected for the study. The data collected from the B.Ed trainees were analyzed using ‘t’ test.

The Findings were

The self-concept of B.Ed Trainees was above the average i.e. high self-concept. There was no significant difference in self-concept of the respondents in terms of their sex, community, locality and optional studies.

**Study No -9**

**Kharlukhi, (2005),** conducted a study on ‘Self-concept in relation to some Selected Personality Variables among Teacher Trainees in Meghalaya’.

Objectives of this study were to find out the self-concept and personality of teacher trainees in relation to sex, community and locale; and iii) to study the relationship of self-concept with personality.

For the study all the elementary and secondary level TT admitted in the different training institutions in Meghalaya were taken into account. A respective sample of the population is drawn by adopting stratified random sampling technique, the strata being the different level of TT. For the analysis of the data Mean, Standard Deviation and t-values were used.

The Findings were, the level of self-concept of teacher trainees for each dimension was noted: the highest percentage (77.50%) of the high level category is found to be in SCD-E (moral), the highest percentage (89.69%) of the average level category is found in SCD-F (intellectual). There was a significant difference between the means of male and female teacher trainees in SCD of physical, social and moral and the level of the scores in each primary personality factors (PPF) were found: the highest percentage (49.53%) of the teacher trainees was assertive, aggressive, stubborn.
Study No-10

Krishnegowda, B. (1991), conducted a study on impact of hemispherical dominance, personality types and risk-taking behaviour of B.Ed. students on their creativity.

The study aims at finding the impact of hemispherical dominance, personality types and risk-taking behaviour of B.Ed students on their creativity. The objectives of this study were, to study whether the differences in hemispherical dominance of B.Ed students of Bangalore city would account for the significant difference in their level of verbal, non-verbal and total creativity, to study whether the difference in personality types of B.Ed. students of Bangalore city would result in the differences in their level of verbal, nonverbal and total creativity, to study whether the differences in risk-taking behaviour of B.Ed. students of Bangalore city would result in the differences in their level of Verbal, non-verbal and total creativity, to find out an interaction effect, if any, between all the pairs of independent variables on the one hand and all the independent variables on the creativity of B.Ed. students on the other hand, and to provide suitable suggestions to the promotion of creativity of B.Ed. students of Bangalore city and to give appropriate recommendations for further research in this area.

Two hundred and fifteen B.Ed students from 11 B.Ed colleges formed the sample of the study. The tools used were verbal and Non-verbal Tests of creative Thinking by Baqer Mehdi, a style of Learning and Thinking (SOLAT) Youth Formed by E.P Torrance, Introversion-Extraversion Inventory by Kundu, Verbal Measure of Risk-taking by Chaubey, and description of Tests of Creativity Thinking by Baqer Mehdi.

The findings of this study were, there was no significant difference in the levels of total creativity of B.Ed students belonging to high, moderate and low risk-taking groups, there was a significant difference in the levels of total creativity of B.Ed students belonging to the left, right and integrated hemispherical dominance...
groups, there was a significant difference in the levels of total creativity B.Ed students belonging to the introversion, extraversion and ambiversion groups, there was a significant interaction effect of the levels of risk-taking and hemispherical dominance of B.Ed students on their total creativity, there was a significant interaction effect of the levels of risk-taking and personality types of B.Ed students on their total creativity, here was no significant interaction effect off the levels of hemispherical dominance and personality types of B.Ed students on their total creativity, there was no significant interaction effect of the levels of risk-taking, hemispherical dominance and personality types of B.Ed students on their total creativity.

**Study No-11**

Raina.V.K, (1990), conducted a study on Personality characteristics of graduate student-teachers: does specialization makes a difference.

This study attempts to assess the personality factors of graduates students, and to see if there are any differences in the personality factors of student-teachers belonging to different teaching fields. The objectives of this study were, to study the pertinent personality factors of graduate student-teachers and to ascertain whether there is any significant personality factor of student-teachers belonging to different teaching fields, viz, science, arts and commerce.

The sample consisted of 180 graduate student-teachers - 60 each specializing in the teaching of science, arts commerce-and the four teacher training colleges of Ajmer District in Rajasthan. The researcher used Cattell’s Sixteen Personality Factors Questionnaire (16PF) to collect data. Analysis of variance was used while treating the data. The findings of this study were, Student-teachers, by and large, differed considerably on the 16 PF test, the factor pattern for the science student-teachers suggested a picture of marked creativity, the arts student-teachers were found to be warm-hearted, ready to cooperate, and prepared to go long with the current, they enjoyed social recognition. And the commerce
student-teachers were affected by feelings, were humble. Suspicious, adventurous, responsive, genial and carefree.

FOREIGN STUDIES

Study No – 1

Clark, M.H., and Scorth, Christopher, A., (2010), conducted a study on ‘Examining Relationships Between Academic Motivation and Personality among College Students’.

Relationships between personality and academic motivation were examined using 451 first year college students, multiple regressions compared three types of intrinsic motivation, three types of extrinsic motivation and amotivation to five personality factors. Results indicated that those who were intrinsically motivated to attend college tended to be extroverted, agreeable, and conscientious and open to new experiences although these trends varied depending on the specific type of intrinsic motivation. Those who were extrinsically motivated tended to be extroverted, agreeable, conscientious and neurotic, depending on the type of extrinsic motivation. Those who lacked motivation tended to be disagreeable and careless. The results suggest that students with different personality characteristics have different reasons for pursuing college degrees and having different academic priorities.

Study No – 2

Belanger, Charles, h., and Longden, Bernard (2009), conducted a study on ‘The effective teachers’ characteristics as perceived by Students’.

Students numbering 1,883 from 10 European countries answered a web questionnaire pertaining to three dimensions of what they expect and what they experience from their teachers. The dimensions were personality, classroom environment, and teaching style characteristics. Parametric statistics identified high communalities among variables, while gender, program type and program
level were found to have and influence on factor groupings. Overall, the gap between the expected and the experienced proved to be overwhelmingly significant.

**Study No- 3**

**Patrick, C.l. Heaven, Peter Leeson and Joseph Ciarrochi, (2009)**, conducted a study on ‘Assessing a reciprocal influence model for teachers’ evaluation and students’ personality’. They examined, over four years, the interrelationships between changes in teachers’ ratings of students’ behaviour and changes in students’ self reports of their personality. Participants were Australian high school students in Grades 8-11. teachers evaluated students’ behavioural problems and overall adjustment, whereas students reported on their levels of Eysenchian psychotic’s, a personality trait relevant in the school setting. They found some evidence of bi directional influences between personality and evaluations of adjustment and behaviour problems.

**Study No- 4**

**Comerchero and Victoria (2008)** analysed ‘Gender, tenure status, teacher efficacy, perfectionism and teacher Burnout’.

The objective of the study was to examine if the combination of teachers’ gender, tenure status, teacher efficacy, adaptive perfectionism and maladaptive perfectionism predicted significant variation in teachers’ emotional exhaustion, depersonalization and personal accomplishment levels. 285 teachers from three local school districts were participated in the study. Maslach Burnout Inventory Educators Survey, teacher sens of efficacy scale and the almost perfect scale revised were used to collect data. Correlation analysis and hierarchical regression analysis were used to analyse the data. Thee study revealed that female was positively associated with higher Emotional Exhaustion scores as well as higher teacher efficacy levels. teacher efficacy, adaptive perfectionism and maladaptive perfectionism produced the most significant changes in variance with gender and tenure showing less influence. Adaptive and maladaptive perfectionism did not
significantly moderate the relationship between teacher efficacy and any of the three teacher burnout dimensions.

**Study No - 5**

Andrew J. Hobson; Angi Malderez; Louise Tracey; Marina Giannakaki; Godfrey Pell; Peter D. Tomlinson, (2007) “Student teachers' experiences of initial teacher preparation in England: core themes and variation”.

Drawing on data generated via large-scale survey and in-depth interview methods, this article reports findings which show that being a student teacher in early-twenty-first-century England is a demanding personal experience which requires considerable engagement and commitment in the face of built-in challenges and risks, and which engenders, for many, highly charged affective responses. Student teachers are centrally concerned during this time with their (changing) identities, their relationships with others and the relevance of course provision. Findings also indicate that, in some respects, student teachers' accounts of their experiences are systematically differentiated according to a number of factors, notably the initial teacher preparation route being followed, their age, and their prior conceptions and expectations of teaching and of learning to teach. These findings are situated in the broader literature on teacher development and some implications for teacher educators are discussed.

**Study No - 6**


Student teachers and teacher educators view the practicum experience as the most significant aspect of learning to teach. Student teachers regard the relationship with their cooperating teachers as the most important part of the
fieldwork experience. However, what student teachers learn about teaching practice from their cooperating teachers remains an unanswered question. We attempted to answer this question by collecting data of learning outcomes from student teachers' pedagogical journals. The theoretical framework of orientations to teaching and teacher education developed by Calderhead and Shorrocks (1997) was used to categorize the reported learning outcomes. This framework consists of academic, technical, practical, personal, and critical orientations. The student teachers reported learning outcomes in the full range of these orientation categories. Based on the results, recommendations are made for mentoring and for the supervision of student teachers.

Study No - 7


New arrangements in Teacher Education have identified Standards which students and probationer teachers must achieve across a range of skills and dispositions before they are deemed to be Fully Registered Teachers. Furthermore, the results of a recent National Inquiry placed the issue of CPD firmly at the heart of the debate on the future of teaching in this country. The argument being that all teachers must have access to quality CPD if the profession is to produce practitioners who have the ability to use techniques of self-evaluation, such as critical reflection, to enhance their professional status.

This study set out to establish the degree to which students and new teachers understand what is meant by critical reflection and self-evaluation in the belief that a high level of awareness is necessary if these players are to have any significant influence in the debate on CPD and to ascertain to what extent the claims made for critical reflection, self-evaluation and CPD in recent official documentation can be considered genuine and/or achievable.
Questionnaires were given to twenty-six students in one Faculty of Education thirteen of whom were PGCE students, the others were on a concurrent course. Thirteen interviews were conducted with major stakeholders in Teacher Education. Evidence suggested that students, new teachers and significantly, other stakeholders, had a very poor understanding of critical reflection and self-evaluation which called into question the authenticity of official documentation and the validity of Teacher Education Programmes. The evidence gave rise to the conclusion that the euphoria which has surrounded the recommendation of the McCone initiative in respect of CPD is at best optimistic and at worst without foundation precisely because people have no real awareness of the meaning of critical reflection and self-evaluation and how these concepts impact on CPD. The research highlighted the need for much greater emphasis on two separate but related strands, Teaching and Reading and Absorption in Practice at the initial and probationary stages if difficulties are to be overcome. Furthermore, the study asserts that teaching and reading should be founded, much more than at present, on the work of three major theorists, Dewey, Habermas and Schön. Moreover, this research recognises the absence of trust in Scottish Education and makes a plea for a return of trust so that all interested parties can work together to the benefit of future generations of teachers.

Study No - 8

Ong and Lee Za, Ph.D, (2005), conducted ‘A study on the ethical orientation and personality types of students in rehabilitation counseling and services’.

The ethical orientations of a sample of doctoral, master’s, and undergraduate students in rehabilitation counseling and services were examined, based on the Van Hoose and Paradise (1979) developmental model of ethical orientation. The purpose was fourfold: a) to identify predominant profiles of ethical orientation among the students; b) to determine whether students at higher levels of training tended to have more highly developed ethical orientations; c) to
investigate relationships between ethical orientations and personality styles; and
d) to obtain suggestions to improve ethics instruction.

Overall, the sample exhibited a modal ethical orientation at the Individual level, the second most advanced orientation, with ethical decisions influenced primarily by the needs of the individual client. Cluster analysis resulted in the identification of four student cultures, which appeared to indicate different developmental levels of ethical orientation. The cluster that appeared most advanced developmentally had a modal orientation at the individual level, followed by the Principle and societal orientations, and this cluster included half of the doctoral students in the sample. The second highest ranked cluster had a modal individual orientation, followed by Societal and then Principle orientations. The third highest ranked had a modal Individual orientation followed by Societal and then Institutional orientations. Finally, the lowest ranked cluster had a modal Institutional orientation, the second least advanced orientation, followed by Individual and then societal orientations, and this cluster had the lowest percentage of doctoral students among the four clusters. A significant association was not found between ethical orientation cluster membership and educational level, as expected on the basis of the developmental model. In addition, no evidence was found to document a relationship between ethical orientation and personality style, as measured by NEO-FFI domain scores.

Responding students made a number of suggestions for improving ethics instruction, indicating that the use of case studies, didactic training in ethics, practicum and internship experiences, and group discussions were among the most helpful of their instructional experiences. Further, they suggested the use of role play, group projections in exploring ethical issues, and self awareness activities to improve ethics instruction
Study No – 9

Julia Johnson Rothenberg; Peter C. McDermott; Kathleen A. Gormley (2003) conducted a study on, ‘A Comparison of Student Teacher and Supervisor Perceptions of Student Teaching’.

This study compares the beliefs of prospective teachers about their capabilities in teaching, with the perceptions of their supervisors. Two groups of prospective teachers, undergraduates and graduate students, and their supervisory teachers are examined by questionnaire. The major difference between the undergraduate and graduate training programs is 400 hours of practical experience for the former. Student-teachers were found to be confident before and after student-teaching, but supervisors had differing perceptions of undergraduates and graduate students. Results are discussed both in terms of integration of theory and practice, and also the possible ambiguity and complexity of the ratings.

Study No - 10

Benware and Jeffrey Michael, Ph.D, (2002), conducted ‘a study on the role of personality traits in a cognitive-developmental model of moral reasoning’.

The purpose of this investigation was to explore the potential connections between personality traits and the development and application of moral reasoning.

A total of 215 students (159 females, 56 males) from the University of Houston participated in the study. All participants were evaluated on each of the five factor domains (Neuroticism, Extroversion, openness to Experience, Conscientiousness, and Agreeableness) as well as on their level of moral development and preferred reasoning strategies. A hierarchical regression analysis was employed to attempt to elucidate the role of personality on moral thought.

The first research question addressed was the degree to which personality traits from the Five-Factor-Model could account for the variance in moral
development. It was found that the five-Factor-Model accounted for a greater amount of variance in the prediction of moral development than the developmental covariates age and level of education. The personality domains Openness to Experience and Conscientiousness both accounted for a significant proportion of the variance in moral development.

The second research question addressed in the current project was the extent to which the Five-Factor Model could explain the variance in the consistency between moral development and the application of elevated levels of justice based moral reasoning. The personality domain Conscientiousness was found to be influential in predicting the uniformity between moral development and preferred reasoning strategy.

**Study No -11**

Andy Curtis; Liying Cheng, (2001) conducted a study on “Teachers' Self-evaluation of Knowledge, Skills and Personality Characteristics Needed to Manage Change”.

For some time, change has been the driving force in language teaching and learning. This seems to be even truer today than it was in the past, and seems set to be even more so in the future, which raises the questions of how to identify what is known and what is needed by teachers managing the changes, and how to address any needs. In this study, we asked 35 experienced secondary school teachers of English in Hong Kong to rate their own change-related knowledge, skills and personality characteristics, to find out how they would rate themselves in the various areas, and to consider whether such information can be of use in identifying change-related support needs. The results show that the teachers self-assessed some of their change-related knowledge, skills and personality characteristics as more and some less developed than others. Reasons are put forward to explain these different ratings, and ways in which such information might be used to identify teachers' change-related needs are discussed.
Study No - 12

Mary Ann Davies; Elizabeth Willis (2001) conducted a study on ‘Through the looking glass … pre service professional portfolio’s ‘.

This article shares one institution's experiences using professional portfolios to assist future teachers in becoming effective practitioners and making the transition between school and work. It describes the portfolio development process and the exit presentations. Both give students a peer/faculty forum to showcase their competencies, growth, and promote reflection, self-confidence, job search preparedness, and an increased awareness of professional standards. In order to ascertain students' perceptions regarding the development of a professional portfolio, faculty administered a questionnaire. Student feedback highlighted the benefits of portfolio development and offered suggestions for future improvements. They overwhelmingly viewed the invested time as worthwhile, saw the process as an appropriate program exit assessment, and recommended its continuation with future students. In addition, their suggestions held implications for portfolio use in teacher training programs

Study No - 13

Huang and Suyun Ph.D, (1999), conducted ‘A study on the effect of family environment, personality, and self-efficacy on career indecision of college students’.

The present study was designed to investigate the utility of Lent, Brown, and Hackett’s (1994) social cognitive theory to the understanding of career indecision. The purpose of the study was to test a casual model of environment and person factors that incorporated key elements of social cognitive theory to career indecision of college students. By means of a structural equation model, hypotheses regarding specific direct and indirect influences among family environment constructs (i.e. family relationship, family structure), personality constructs (i.e., neuroticism, extraversion, openness, agreeableness, conscientiousness), self-efficacy constructs (i.e., technical-scientific self-efficacy,
aesthetic self-efficacy), and career indecision (chronicle indecision, developmental indecision, global indecision) were investigated.

The sample included 268 university student participants who declare major undecided. Data were collected from major undecided students residing in the Midwest University. Cause-effect relations were analyzed for the entire sample and the male and female samples, by the method of the structural equation model using LISREL 8 to test direct and indirect effects of model variables.

Gender differences were found related to self-efficacy constructs as mediating the relation of family environment and personality to career indecision. Women reported no significant effect of family environment on career indecision directly and indirectly through self-efficacy. They reported a significant effect of personality on career indecision directly and indirectly through self-efficacy. Men reported a significant effect of family environment and personality on career indecision directly and indirectly through self-efficacy. Aesthetic self-efficacy was considered as an important cognitive factor mediating the women’s educational and occupational choice behaviours. Technical - scientific self-efficacy was an important cognitive factor mediating the educational and occupational choice behaviors of men. Implication and further research for the relations among family environment, personality, self-efficacy and career indecision were discussed.

**Study No -14**

Wills and Cora Deanne, (1996), conducted ‘An investigation of personality variables that discriminate between succeeding and non succeeding disadvantaged college students’.

The purpose of this study was to determine if significant personality variables that effectively discriminate between disadvantaged colleges students who are succeeding and those who are not succeeding could be identified. This study investigated differences between disadvantaged college students who were succeeding and those who were not succeeding with respect to the following
personality variables: self-concept, locus of control, introversion-extraversion, and achievement motivation.

The participants were 26 sophomores, 17 juniors and one senior, from Berea College, who were required to enroll in, and had completed remedial English 015-016, Maths 010-011, or all, thus defining these students as academically disadvantaged. Participants were classified as succeeding (G.P.A of 2.65 and above on a 4.0 scale) or not succeeding (G.P.A of 2.60 and below on a 4.0 scale) based on their cumulative G.P.A at the end of the last academic semester completed. Personality instruments utilized in this study included the Coopersmith Self-Esteem Inventory (Adult Form), Rotter Internal External Locus of Control Scale, The Eysenck personality Inventory (extraversion-introversion scale), and the Edwards Personal Preference schedule (EPPS) (achievement motivation scale).

Results of the multiple discriminant analysis indicated that none of the four personality variables: self – concept, locus of control, introversion-extraversion, or achievement motivation significantly discriminated between those disadvantaged college students who were succeeding and those who were not succeeding. These results are not consistent with previous research findings that have repeatedly found a positive correlation between these personality variables and academic achievement.

Study No - 15

Mary Savelsbergh; Bonnie Staebler, (1995) conducted a study on, “Investigating Leadership Styles, Personality Preferences, and Effective Teacher Consultation”.

We examined the relations among leadership styles (telling, selling, participating, and delegating), personality preferences (extravertintrovert, sensing-intuitive, feeling-thinking, and judging-perceiving), and effectiveness as a consultant teacher. The sample consisted of 31 consultant teachers. Three
instruments were administered: The LEAD-Self (Hersey & Blanchard, 1973), the Myers-Briggs Type Indicator (Briggs Myers, 1976), and the Survey of Effectiveness of Collaborative Consultants (West & Cannon, 1987). The raw scores indicated that selling and participating were the two leadership styles most often used by the consultant teachers. No significant relations were found between the consultant teachers' effectiveness scores and any of the leadership styles. The significant relation found was between personality index preference and effectiveness in consulting. Sensing was a significant variable when effectiveness was considered. Together, the extravert and the sensing scores were good predictors of effectiveness.

2.03 STUDIES RELATED TO TEACHING PROFESSION AND PERSONALITY

INDIAN STUDIES

Study No – 1

Parameswari G (2011) conducted a study on ‘The Effect of Metacognitive Orientation to B.Ed Physical Science Trainees on Teaching competency and Self-Esteem’.

This study finds out the effectiveness of metacognitive orientation on teaching competencies and self esteem level of the trainees. The objectives of the study were to assess the level metacognition and self-esteem among the trainees and to develop a model for metacognition that enhances the competencies in teaching and self-esteem among the teacher trainees. All the Physical Science B.Ed trainees of Lady Willingdon Institute of Advanced Study in Education of one batch were the sample for the study. Totally 44 trainees were the sample.

The findings of the study revealed that there is enhancement of competency in teaching and to the self-esteem level of the trainees. It was proved that appropriate instructional strategy like metacognitive orientation may be given to all the trainees and the findings of the study may be considered for better
framework in developing good teaching competency and high level of self-esteem

Study No – 2

Salma Kuriashy and Jarrar Ahmad (2010) conducted a study on ‘Teaching aptitude of Prospective teachers in relation to their academic background’.

In this study an attempt has been made by the investigator to ascertain the relationship between teaching aptitude and academic background. The objectives of the study were, to examine the differences between high academic background and low academic background prospective teachers in relation to their teaching aptitude, to explore the differences between male and female prospective teachers in regard to their teaching aptitude.

The study was conducted in 10 colleges of Purvanchal University. The sample consisted of 496 prospective teachers of whom 312 are males and 184 females. Teaching aptitude test Battery was the tool.

This study indicated that academic background plays a prominent role in affecting the teaching aptitude. Therefore students with good academic background may be encouraged to take up teaching profession. The existing training programme has partially failed to provide adequate opportunities to student teachers to develop competency to face the varied types of situations in their real teaching life. It seemed that the entire teacher education programme in our country lacks professional attitude, which is extremely essential for a sound programme of teacher education.
Study No - 3

Umadevi .M .R. (2009) conducted a study on ‘Relationship between emotional intelligence Achievement, Motivation and Academic Achievement of Primary school student teachers’

The study aimed at finding the relationship between Emotional Intelligence, Achievement Motivation and Academic Achievement of primary school student teachers. Emotional intelligence scale and achievement motivation test was administered on 200 D.Ed students and the data obtained was subjected to descriptive, correlation and differential analysis. The results revealed that there is a positive relationship between emotional intelligence and academic achievement and achievement motivation and academic achievement. Male and female and arts and science student teachers do not differ in emotional intelligence and achievement motivation

Study No -4

R. Sahaya Mary and Fr. J. Paul, (2005), conducted a study on ‘Professionalism and Self-concept of Integrated Course Students in Pond cherry’.

Objectives of the study were, to find out the self concept of the students studying in integrated course, to find out the difference between the self concept of Boys and girls. Type of family and size of the family, Hostellers and day-scholars, Arts and science students and Parental income (Income ratio is fixed on the basis of ration cards)

The population of the study comprised the integrated students of a teacher training college located in Pondicherry. The sample consists of 170 students of which 50 are boys and 120 are girls. The sample was selected by using random sampling technique. It is a four years course viz. B.Sc. B.Ed. (Mathematics and computer science), B.A, B.Ed (English), B.Com, B.Ed (Commerce) have been taught. Mathematics and computer science students are considered as Science students. English and commerce students are considered as Arts students.
For collection of data the following tools were used. A personal data sheet constructed by the investigation and Self-concept inventory (Dr. Rajkumar Saraswat (1984). It consists of 48 items pertaining to various factors (Physical, Social temperamental, educational, moral and intellectual).

The Findings were the students self concept is above average and the students self concept in each dimension is also above average. Boys and girls do not differ significantly in their self concept. Students from day-scholars and hostellers differ significantly in their self concept. Students from joint and nuclear families do not differ significantly in their self concept. Students from large and small families do not differ significantly in their self concept.

Study No - 5


Teacher education research in India is predominantly a post-independence phenomenon, which gained momentum between 1950 and 1960. By the end of the 1960s, 85 doctoral themes had been approved by various Indian universities, out of which 40% of the researches were undertaken by Bombay University, the first university to institute a doctoral programme in education in the country before independence in 1947. A review of researches in teacher education is followed by an analysis that identifies those aspects of the Indian education system that most need attention.
FOREIGN STUDIES

Study No - 1

John Trent (2010) conducted a survey and presented a paper on, “Teacher education as identity construction: insights from action research”

This paper reports on the results of a qualitative study that explored the experiences of one group of pre-service English language teachers in Hong Kong as they undertook an action research project as part of their undergraduate teacher training programme. Grounded in a theory of teacher identity construction as both practice and discourse, the paper examines how participation in an action research project by one group of pre-service English language teachers in Hong Kong shaped their experiences of becoming teachers. The study indicates that as teacher researchers, the trainee teachers contested previously held perceptions about their engagement in teaching, their images of teachers and teaching, as well as their alignment with some aspects of contemporary educational discourse. Implications for teacher education and future research are also discussed.

Study No - 2

Edgar Krull; Kaja Oras; Endrik Pikksaar (2010) conducted a study and presented a paper on, “Promoting student teachers’ lesson analysis and observation skills by using Gagne’s model of an instructional unit”.

This paper introduces a study of an experimental training methodology for promoting lesson analysis skills in student teachers. This methodology is based on the idea that the quality of lesson analysis skills depends mainly on teachers' perception of relevant instructional events and on their understanding of these events. The experimental intervention consists of student teachers' participation in sessions on guided analysis of videotaped lessons and writing lesson analysis reports. The experimental group progressed more than the control group. Gagne's model of an instructional unit is used as a theoretical framework for defining a lesson and identifying its critical events. The effectiveness of the proposed
training approach was assessed on the basis of qualitative content analysis of lesson analysis reports written by student teachers in experimental and control groups at the beginning and end of their 10-week pedagogical school practicum. A comparison of progress made by the two groups was carried out in terms of the number of analytic idea units produced, categories of these units and their distribution across the relevant lesson events.

Study No - 3

**Annemie Schepens; Antonia Aelterman; Peter Vlerick (2009)** made a study on, “Student teachers' professional identity formation: between being born as a teacher and becoming one”.

This article focuses on student teachers' professional identity formation inspired by the tension between two layman points of view namely: being born as a teacher (i.e. based on demographics and personality traits) and becoming a teacher (i.e. based on experience). Besides demographics, personality traits and experience, the teacher preparation context is considered as a crucial aspect in professional identity formation as well. The authors adopted a multiple theoretical approach to guide the empirical study. Using hierarchical regression analyses the relative influences of demographics and personality traits, context variables and teacher education variables on professional identity variables are explored.

Study No - 4

**Carol Lynn Patrick (2009)** made a study on, “Student evaluations of teaching: effects of the Big Five personality traits, grades and the validity hypothesis”.

The purpose of the current study was to examine whether the Big Five personality traits and expected student grades relate to student evaluations of teachers and courses at the college level. Extraversion, openness, agreeableness and conscientiousness were found to be personality traits favoured in instructors, whereas neuroticism was not. A significant correlation was found between the
students' expected grades in the course and student evaluations of the course, but not the evaluations of the instructor. When the effect of students' perceived amount of learning was taken into account, no significant effect of grades was found on teacher ratings. Personality explained variance in teacher and course evaluations over and above grades and perceived learning.

**Study No - 5**

**Linda Haggarty; Keith Postlethwaite, (2009)** conducted a study on, “An exploration of changes in thinking in the transition from student teacher to newly qualified teacher”.

For newly qualified teachers (NQTs), the induction period of support is an important phase which has the potential to deepen learning that has already taken place in initial teacher education (ITE) as well as preparing the NQT for future learning. A particularly crucial time in the induction process is the first term of teaching, when NQTs are likely to be facing a 'reality shock' in relation to their new responsibilities. Data were collected by questionnaire from a volunteer sample of student teachers of science and mathematics close to the end of their ITE course and then by questionnaire from the same sample towards the end of their first term as NQTs. The questionnaires were virtually identical and both consisted mainly of free response questions. The responses were transcribed and then coded in a grounded fashion. For this paper, five cases are examined within a framework of activity theory and drawing on ideas of identity. We identify three issues relating to the changes in thinking that occur as beginning teachers move from the role of students in ITE to NQTs in schools: concern for classroom management; school support for NQTs; and boundary crossing issues. We argue that the way the role of induction tutor is enacted determines the changes in thinking that take place for NQTs.
Study No - 6

Young, K W., D Watkins (2007) made a study on,’ Hong Kong Student Teachers' Personal Construction of Teacher Efficacy’

This study employed the repertory grid technique to investigate how a sample of 27 student teachers in Hong Kong developed a personal sense of teaching efficacy. The analysis indicated that third-year students' perceptions were more homogeneous than were those of first-year students. The results also indicated that teaching efficacy was viewed in terms of the dimensions of concern for instructional participation and learning needs of students, communication and relationships with students, academic knowledge and teaching skills, lesson preparation, management of class discipline, teaching success, teaching commitment, and a sense of self-confidence. Experiences of teaching practice, electives, students, and teaching practice supervisors (electives) were the major sources for the development of a sense of teaching efficacy. Implications of how these aspects of teacher training can be more effective in engendering a sense of efficacy in student teachers are discussed.

Study No - 7

Andrew J. Hobson (2003) conducted a study on,’ Student teachers' conceptions and evaluations of 'theory' in initial teacher training (ITT) ‘.

This article reports findings from a small-scale study of secondary student teachers' evaluations of one-year, postgraduate initial teacher training (ITT) programmes in England [1]. Data were collected via in-depth interviews with 16 student teachers and self-complete questionnaires completed by 224 student teachers from four training courses in central and northern England. The findings suggest that, in line with studies conducted prior to the shift towards school-based training in the early 1990s, some student teachers today remain unconvinced about the utility of 'theoretical' components of their training courses. The author examines what some student teachers mean and understand by 'theory',
suggests a three-fold typology of student teachers, relating to their approaches to learning to teach, and considers some implications for the tutoring process in ITT.

**Study No - 8**

**Anne Edwards; Lynn Protheroe** (2003) conducted a study on, ‘Learning to See in Classrooms: What are student teachers learning about teaching and learning while learning to teach in schools?’

Using sociocultural understandings of learning, the authors probe a rationale for training programmes which are extensively school based and involved school-based teacher mentors as supporters of student teachers' learning. They ask what it is that student teachers are learning while in schools and how that learning is supported. Drawing on evidence from a study of 125 student teachers on two training programmes, the authors suggest that student teachers' learning is heavily situated and that students are not acquiring ways of interpreting learners that are easily transferable, but they are learning about curriculum delivery. It also seems that there is a participatory version of training which is not underpinned by an understanding of the implications of learning through participation and which, as a consequence, does not make the most of the strengths of mentors.

**Study No - 9**

**Ciaran Sugrue,** (1997) conducted a research study on, ‘Student Teachers' Lay Theories and Teaching Identities: their implications for professional development’.

This paper provides a detailed analysis of student teachers' lay theories of teaching, and teaching identities, and assesses their implications for student teachers' and teachers' professional development. Understanding the critically formative influences in student teachers' lives and the extent to which these are reinforced, reproduced and recast in and through student teachers' lay theories has major significance for initial teacher education and ongoing professional
development of teachers. The paper draws together the threads of this analysis around issues of teaching identities, their formation, continuity, tenacity and openness to change and assesses, through a postmodern lens, their implications for professional development of student teachers, beginning teachers and experienced professionals.

**Study No -10**

**Barbara J. Griffin** (1997) made a study on, ‘Helping student teachers become reflective practitioners’.

Although reflection is a much desired practice in teacher education, the student teacher must often develop this practice on his or her own. The goal of this study was to aid student teachers in developing the long-term inclination toward reflection. The affective objective of this study was for nine student teachers—during the student teaching phase of their education—to become practicing reflective teachers who were aware of their own thinking and valued reflection as something they did for their own self-understanding and improvement.

**Study No -11**

**Michele Wilson Kamens**, (1997) conducted a study on, ‘A model for introducing student teachers to collaboration’

There has been a great deal of recent discussion in schools about the need for teachers to implement programs through collaboration. In order for teachers to work together effectively, they need to become comfortable with the collaborative process. Student teachers need to be exposed to experiences where they have the opportunity to collaborate with colleagues. This paper describes and analyzes a model in which student teachers are placed in a collaborative situation at a participating elementary school. Data sources include student teacher journals, student teacher questionnaires, interviews with cooperating teachers, and
supervisor field notes. Advantages and disadvantages; cooperating teacher and supervisor roles; and the effects of collaborative work on student teachers' performance in relation to planning and lesson execution, professional behavior, and self-esteem are explored. The results indicate that, despite a few disadvantages, there are many benefits to introducing collaboration during the student teaching experience.

**Study No -12**


In recent years, the model of imparted learning underlying many traditional pre-service—teacher programmes has given way to an emphasis on constructed learning, in which student teachers are encouraged to develop their own understanding of what it means to be a teacher. Underlying this trend is an assumption that student teachers are becoming more empowered as learners. This paper investigates that assumption. It reports on a study which used Belenky et al.'s (1986) conceptual framework to explore the epistemological perspectives of a group of first-year early-childhood student teachers. Although the student teachers were enrolled in a pre-service programme which seeks to foster reflective practices, few could be considered empowered learners. The paper suggests that, if student teachers are to become more empowered, teacher educators may need to undertake considerable soul-searching concerning their practice.

**2.05 CRITICAL REVIEW**

Review of research studies and literature pertaining to the problem under investigation is of fundamental importance to provide insight in to the problem, broaden the general concepts and principles and sharpen understanding. In this study also, the investigator collected a bulk of related materials to the area of investigation. After a very careful perusal of the collected materials, the
The investigator identified some studies which are related to the chosen area to some extent.

The related studies helped the investigator in formulating hypotheses, objectives, developing tools, dimensions of tools, selecting the methods and statistical techniques required for the analysis of data, etc., related to the topic in hand.

A thorough analysis of the native and foreign studies revealed that there are some factors common irrespective of the culture related to the variables.

The review of literature here shows that there are few studies on Professional Portfolio. Anita Rastogi and Chanchal Goel (2010), M.D. Usha Devi, (2008), Gulhane, G.L., (2007). A few studies have tried to analyze the professional portfolio of student teachers and personality Profile of student teachers. Santhi. S, (2009), Michele Wilson Kamens; Diane Casale-Giannola (2004), Salma Kuriashy and Jarrar Ahmad (2010), Edgar Krull; Kaja Oras; Endrik Pikksaar (2010). From the analysis of the studies, it is clear that the present study stands distinctly different from other studies conducted so far. The present study is made so far to find out the relationship of professional skills and the various dimensions of personality of the student-teachers. The various dimensions immersed in the teaching profession and also were not included in most of the studies.

Hence the investigator tried to investigate the professional portfolio of Student-teachers in colleges of education with ten dimensions. This study also tries to investigate the significant relationship between professional portfolio and personality profile of the student teachers- Inertia, activation and stability.

Thus the present investigation is not only an in-depth study but also unique in nature.