Chapter II

REVIEW OF RELATED STUDIES

2.0 OVERVIEW

Human beings have the privilege of not having to begin anew in every generation but take advantage of knowledge that has been accumulated over the centuries. This fact is of particular importance in research. The knowledge gained by the previous researchers not only leads the present researchers to a greater understanding of the problem and stimulates their research work but also provides comparative data on the basis of which they could evaluate their own research programmes.

As the problem of the present study is “Teaching Competence and Self-Efficacy of Higher Secondary Teachers in Dindigul Educational District in relation to the Academic Achievement of their Students,” the investigator reviewed studies in India and abroad related to teaching competence, self-efficacy and the academic achievement of Higher Secondary students, and has presented below the salient features of these studies.

2.1 TEACHING COMPETENCE - STUDIES ABROAD

Newman (1994) analyzed the New York City teachers’ competence which led to the evaluation of tenurial teachers. He argued that teacher competence could be measured objectively in terms of attendance, class control and completion of clerical duties. This study included those aspects of teaching that were subject to the perception and attitude of the person who was doing the evaluation as well. How well teachers are able to meet the needs of their students and how well they are able to motivate them to learn are a couple of instances of teachers’ behaviour that cannot be evaluated objectively. Other factors that affected teacher competencies were the influence of
teachers’ union and the input from children’s parents. Newman concluded that 5 to 20% of the teachers in New York City schools were not competent.

**Stewart & Mwanatabu (1994)** researched on those competencies needed for working with diverse learners. 161 teachers and principals in the state of Washington from districts with students’ population of over 10,000 were surveyed on their perceptions about the importance of nine selected competencies that improved students’ learning and the extent to which these competencies were emphasized in their training. The results showed a discrepancy between the practitioners’ perceptions of the importance of some competencies and the faculty’s perceptions of these competences. A significant discrepancy was found between the practitioners’ perception of the emphasis placed on these competencies during teacher training and that of the faculty. These results suggest that schools of education pay a lot of attention to those competencies needed to promote the intellectual development of the learners.

**Fai & Tommy (1996)** examined the relationship between teacher competence and teachers' inferences of students' self-concept and knowledge. The study found that the more competent the teachers were the better they could infer students' self-concept and knowledge. In addition, the contribution of teacher competence in classroom procedures towards predicting teachers' inference of students' self-concept and knowledge was greater than the contribution of teacher competence in interpersonal skills. This was due to the fact that the items for measuring teacher competence in classroom procedures included some elements of teachers' communication with students inside the classroom. It was clear that teaching was a two-way process between teachers and students. Teachers made use of the teaching methods to communicate with students and students gave teachers their feedback. Thus communication and interaction between
teachers and students became obvious. In the final analysis, teachers who were competent in teaching methods and skills could communicate with students better and had better abilities to gauge and assess their students' self-concept and knowledge.

Henson, Tyson & Sientz (2000) examined a new model of teacher efficacy that proposed to define important variables clearly and integrate two theoretical traditions in the study of teacher efficacy. A new instrument was developed to assess a means-end task analysis and context-specific efficacy, both important parts of the model. Task analysis and global- and context-specific efficacy were measured in 109 emergency certification teachers underlying the fact that task analysis may be more explicit in the case of novice teachers. Factor analyses of the global- and context-specific efficacy measures suggested subtle but important distinctions in constructs related to efficacy. Canonical correlation analysis indicated the importance of personal teaching competence to instructional efficacy judgments and external locus of control to classroom management efficacy. Although task analysis was not found to be a significant predictor of either global- or context-specific efficacy, exploratory results suggested the potential value of task analysis in future assessments of teacher efficacy.

Linda (2000) attempted to determine if there was a significant difference in the perceptions of student-teachers' efficacy as measured by themselves, their cooperating teachers and their university supervisors. A self-constructed instrument containing 30 items related to student-teacher competencies was used for this evaluative study. The sample consisted of 24 student-teachers, 25 classroom teachers and 8 university supervisors who completed surveys for the 34 student-teachers enrolled during the spring semester of 1992.
Several demographic areas were considered but the area of interest was the type which differentiated the three groups listed above. One-way analysis of variance showed significant differences among the three types for the following items: using a variety of teaching methods, attending to routine tasks, demonstration of warmth and friendliness, evaluation of pupils’ progress, following school policies, maintaining pupils’ records and conferencing with parents.

**Murberg (2001)** investigated the influence of teacher competence on third grade students regarding their achievement in public and independent schools in Sweden. Regression analysis was employed to explore the relative effects of several indicators of teacher quality. Teachers’ gender, their teaching experience, in-service training and co-operation with colleagues had no significant influence on student achievement. Teacher certification for teaching in early grades was shown to have a strong effect on students’ mean reading test scores. This effect was as strong in independent schools as in public schools. Students in independent schools performed better on the reading test than their counterparts in public schools. Though school type had no intrinsic influence it was a mediating factor for parents’ and teachers’ education. These effects worked in opposite directions. However, while students in independent schools had better educated parents those in public schools had better educated teachers.

**Deakin (2001)** reported on a 2001 Australian summit on teacher standards, quality and professionalism. This invitational programme included 50 senior policymakers, researchers and practising teachers who participated in two workshops involving international experts. They identified where the profession should be in relation to teaching standards, quality and professionalism in five years. The summit emphasized the extensive work that had already been done in areas such as training,
research and professional development. Strengthening the profession could be achieved using a process of continuous development and effective mechanisms for teacher recruitment and retention. The challenge, according to the summit, was to understand and operate effectively within professional as well as political contexts.

The summit recommended that resources and efforts be directed towards ensuring that all teachers were engaged, supported and made accountable in relation to teacher standards, quality and professionalism. Three key areas identified for action included professional teaching standards, engaging the profession and national commitment and support. The steps proposed to achieve this target included dissemination of the working document, promotion by the Australian College of Education and action on teacher standards, quality and professionalism.

Earnest (2004) evaluated an early childhood institution’s attempt to improve school effectiveness and classroom-learning environment. This longitudinal study implemented over four years involved the investigation of factors that influenced school effectiveness, teacher professional development and students’ outcome in an early childhood institution in Uganda, including the development of child-centred learning environment. The report is based on the author’s personal reflective journey and experience when she was the principal of an early childhood institution for four years. The study made use of action research methodology within the framework of school effectiveness and school improvement. Uganda’s rapidly expanding education system and largely teacher-centred mode of delivery made this study timely because it provided potentially significant insights into how a school improvement programme could provide a sustainable means of professional development.
Minor et al. (2002) surveyed pre-service teachers regarding their perceptions of effective teachers' characteristics and whether these perceptions were related to educational beliefs. Respondents believed that characteristics such as student centered and effective classroom behaviour, competent instruction, enthusiasm for teaching, knowledge about subject and profession underlined effective teaching. There was no relationship between these perceptions and the respondents’ educational beliefs and preferred grade level for teaching.

Iyamu & Otote (2005) studied a sample of 100 professionally trained Social Studies teachers from secondary schools in south central Nigeria for observation in an instructional setting. The investigators used a 20-item four-point rating scale covering important skills and activities related to teaching. Analysing the data, it was found that the overall teaching competence of the teachers was significantly below the acceptable level. It was also found that trained non-graduate teachers proved to be more competent in teaching Social Studies than trained graduate teachers. The recommendations include the need for effective Social Studies teacher education programme, in-service training and regular workshops for teachers to update their knowledge of innovative pedagogy.

Hamdan & Li (2010) studied the teaching competence and dominant characteristics of 309 teachers from different secondary/primary schools in Johor Bahru, Malaysia. Their competencies were determined through teaching skills, concern for school, concern for students and concern for self, forming a comprehensive and practical model of teachers’ competence. The result indicated that all teachers were found to be competent and there were significant relationships between teaching competence and gender and between specialization and academic achievement.
Briihwiler & Blatchford (2011) studied the effects of class size and adaptive teaching competency on classroom processes and academic outcome. In many studies of class size effects, teacher characteristics are missing, even though many argue it is not class size that is important but teacher quality. In the present study teachers’ effectiveness on the learning progress was assessed while teaching a unit with pre-defined learning objectives. To measure adaptive teaching competency a multi-method approach was employed. There were 49 teachers and 898 students. Findings show that smaller classes led to higher academic learning progress, better knowledge of students, and better classroom process. Adaptive teacher competency remains relevant in smaller classes, that is class size and teacher quality were independently important.

2.2 TEACHING COMPETENCE - STUDIES IN INDIA

Sharma (1982) identified different teaching competencies and studied their relationship to secondary school language teachers’ demographic variables. The competencies identified were: giving assignment, loud reading, asking questions, introducing a lesson, using the black board, reinforcement, avoiding repetition, consolidating a lesson, dealing with pupils’ responses and improving their behaviour. Men and women language teachers did not differ in their competence but a significant relationship was found between the age of the language teachers and their teaching competence. A significant positive relationship was found between the teachers’ teaching competence and the academic achievement of pupils of Grade IX in Hindi. The training of student-teachers through instructional materials in micro-teaching setting improved their cognitive, emotional and behavioural competencies. There was no significant difference in the language teaching competence of student-teachers of the experimental and the control groups in real classroom conditions.
Singh (1984) studied the general teaching competence of student-teachers undergoing student teaching programme using micro-teaching and traditional approaches and found that the student-teachers trained in micro-teaching in simulated conditions and real classroom conditions acquired better teaching competence than those trained in traditional training methods. The effectiveness of micro-teaching training technique in developing the teaching competence of student-teachers was more significant in respect of those trained in real classroom condition than those trained in simulated classroom conditions. Singh suggested that micro-teaching should be regularly used in developing teaching skills in colleges of education.

Choudhari (1985) studied the teaching competencies of those teaching English at the secondary school level and found that the pedagogical domain of teaching competence in English consisted of twelve competencies which were independent of one another and which correlated positively with productive variables (pupils’ achievement). The contextual variable of the location of the school and the demographic variables of teachers like their gender and educational qualifications were found to have an effect on half the number of competencies whereas teacher intelligence and attitude were found to be associated with only a few competencies.

Thakkar (1985) studied the effect of different micro-teaching skills upon the general teaching competence of primary teacher trainees and found that there was a significant positive effect of micro-teaching skills upon the general teaching competence of primary school teacher trainees. There was no correlation between intelligence and effect of micro-teaching skills upon general achievement and the effect of micro-teaching skills upon general competence.
Kalyanpurkar (1986) studied the effect of micro-teaching on the teaching competencies of in-service primary school teachers and found that micro-teaching treatment had a positive and significant effect on the development of the general teaching competence of primary school teachers and suggested that micro-teaching should find a place in in-service teacher education.

Prakasham (1986) studied teacher effectiveness as a function of school organizational climate and found that secondary school teachers and teachers working in industrial areas were better in terms of teaching competence than those teachers working in semi-urban and rural areas. However, teachers working in schools run by local bodies were found to be better in teaching competence than those working in government and non-government schools. No significant difference was observed between men and women teachers with regard to teaching competence though men teachers were found to be moderately better in teaching competence under all types of variables. A positive and significant relationship was observed in the teaching competence of teachers and gender was found to have a significant interactional effect on the teacher effectiveness of secondary school teachers.

Pandey (1987) measured the general teaching competence and attitude of Economics teachers and their relationship with students’ achievement at the Higher Secondary level and found that men and women Economics teachers did not differ significantly in their teaching competence. The relationship between teaching competence and attitude towards teaching profession of both men and women teachers was not significant. In the case of total sample and women teachers, a significant relationship was observed between teachers’ teaching competence and students’ achievement but this was not found true in the case of men teachers.
Verma (1988) attempted to strengthen student-teachers’ teaching competence using micro-teaching methods and found that the experimental group showed better competencies in skills like reinforcement, probing and questioning, stimulus variation, illustration with examples and explaining. The teaching competence of women teachers belonging to the science group was better than their men counterparts for they used micro-teaching methods. Thanks to the micro-teaching approach, the teaching competencies of urban student-teachers belonging to the science group showed good results and was found to be better than that of their counterparts from rural areas.

Kaur (1988) studied the development of professional competence of in-service teachers and concluded that teaching competence had a positive correlation with both the process and structure variables. She further stated that in-service training was useful in improving the skills of teachers and added that it had a positive effect on their attitude towards teaching.

Singh (1989) analysed the relative effectiveness of two training strategies in developing teaching competence and a positive attitude towards teaching among student-teachers and found that both the training strategies were significantly effective in developing a theoretical understanding of micro-teaching, general teaching competence and a positive attitude towards teaching. However, only Open Directory Project (ODP) was found to be significantly effective in developing a favourable attitude towards micro-teaching among B.Ed. students.

Asija (1990) studied teaching competence as related to the development of skills specific to teaching Biology through micro–teaching among prospective secondary
school teachers and found that micro–teaching was superior to the conventional training methods in developing the skills of demonstrating, drawing, probing and questioning.

Basi (1991) measured the teaching competence of language teachers of Secondary and Higher Secondary schools and ascertained the difference between the more competent and the less competent teachers in relation to their job satisfaction, locus of control and professional burnout. He found that there was no difference between teaching competencies and job satisfaction on the basis of their locus of control. There existed a positive correlation between the measures of job satisfaction and the criterion measures of teaching competence and a negative correlation between the locus of control and teaching competence, professional burnout variables and criterion measures of teaching competence.

Gor (1992) studied the effectiveness of micro-teaching strategies in developing the teaching competence of primary teacher trainees. Symbolic and perceptual modelling approaches were significantly more effective than traditional approaches to develop the teaching competence of primary teacher trainees. Specific micro-teaching skills developed in simulated conditions significantly improved the teaching competence of these trainees.

Gupta & Kaur (1993) studied the role of job satisfaction, locus of control and professional burnout on teaching competence. Those teachers who were professionally efficient and enjoyed good relations with students as well as their colleagues and the head of the institution possessed a high level of teaching competence and enjoyed an equally high level of job satisfaction.
Kulkreti (1994) studied the relationship between job-motivation and teacher competence and found that competent teachers had joined the teaching profession because they regarded teaching as a prestigious profession. They believed that the teaching profession provided them with a reasonable salary, security, opportunity for improving their knowledge and for undertaking social service. They had chosen the teaching profession because they had an inherent interest in teaching. Incompetent teachers, on the contrary, entered the teaching profession because they thought that this would get them fame, and enough leisure with very little by way of work.

Thiagarajan & Jeyalatha (1995) studied teachers’ teaching competence as perceived by students and correlated it with the achievement of students at the Higher Secondary level, and reported that teaching competence and the achievement of boys had a significant relationship. It was found that the relationship between teaching competence and the achievement of boys and girls differed significantly.

Pandiyan (2000) studied the effect of developing teaching competence in History among B.Ed. trainees on information-processing approach. The purpose of the study was to gauge the effect of information-processing approach in developing teaching competence and subsequently enhancing students’ achievement. 10 teacher trainees who opted for History as an optional subject were taken for this experimental study and were taught the information-processing approach model for one month. A scale to measure teaching competence was developed by the investigator. An achievement test in History constructed and validated by the investigator was used in this study with a pre-test and post-test method. The study revealed that the information-processing approach enhanced the academic achievement and teaching competence of the teacher trainees and there was
a significant, positive relationship between the teacher trainees’ teaching competence and their academic achievement.

**Bhattacharya (2001)** studied the degree of teaching competence and the level of adjustment of women student-teachers and found that women student-teachers teaching science and non-science subjects possessed an average level of teaching competence and a moderate level of adjustment with no significant difference between their teaching competence and level of adjustment. In terms of teaching science and non-science subjects, there was a significant correlation between teaching competence and the level of adjustment among women student-teachers teaching science and non-science subjects.

**Palaniyandi (2001)** identified the competence needs of pre-service teacher trainees as perceived by the pre-service trainees themselves on the one hand and identify the competence needs of the pre-service trainees as perceived by the practising teachers on the other. Teacher educators and student-teachers from six District Institutes of Educational and Training (DIETs) constituting 273 pre-service trainees, 106 teacher-educators and 462 practising teachers working in these districts were the sample for the study. The study revealed that those competencies related to the learning process were rated the highest. Practising teachers, teacher-educators and pre-service teacher trainees rated these competencies as the most essential followed by teacher-related and learner-related competencies.

**Xavier & Amalraj (2002)** conducted a correlation study on teaching competence and its dimensions among post-graduate Chemistry teachers with a view to gauging their teaching competence. The study included data from 89 post-graduate Chemistry teachers working in Higher Secondary schools in Kanyakumari district in Tamil Nadu. A Teaching Competence Rating Scale was used to assess the teaching competence of
these teachers. The study revealed that there existed a significant relationship between the post-graduate Chemistry teachers’ low level of competence and their teaching in terms of content, organization, knowledge, clarity, communication, rapport with students, use of audio-visual aids and personality.

Saeed & Mahmood (2002) investigated the competence level of primary school teachers in the disciplines of Science, Mathematics and Pedagogy. The sample comprised 1,800 randomly drawn Primary Teaching Certificate (PMC) teachers working in different Government primary and middle schools in 22 districts of the Punjab province. Their competence was determined by developing standardized achievement tests in each of the three subjects. It was found that these teachers have a low level of competence in all the three areas. On an average, their achievement rate was pegged at 30.8% in Mathematics, 34.1% in Science and 39.2% in Pedagogy, below the minimum set criterion of 40% against each subject. Gender was found to be a significant indicator. The competence level of women teachers was lower than their men counterparts.

Jayakanthan (2003) examined the relationship between general teaching competence and teachers’ attitude towards teaching. The study included a sample of 300 teachers from 14 schools. The General Teaching Competence Scale of Passi, et al. and the Teacher Attitude Scale of Ahulwalia were used in this study. The study revealed that the Government and Aided school teachers differed significantly in their general teaching competence that men and women teachers differed significantly in their teaching competence, and that age and qualification influenced teaching competence. It also revealed that Government and Aided school teachers differed significantly in their attitude towards teaching, that men and women teachers differed significantly in their
attitude towards teaching, and that the general teaching competence of teachers and their attitude towards teaching were significantly related to each other.

Prasad & Muthiah (2003) studied teacher effectiveness and the variables related to temperament with regard to secondary school teachers. The purpose of this study was to test the significant differences among teachers graded high, average and low with regard to five temperamental variables and examine the correlation between teacher effectiveness and these variables. The study was carried out with a sample of 300 teachers from various secondary schools in Thirunelveli district in Tamil Nadu. MTA Test of Personality for measuring the variables of temperament, a Checklist on Teacher Effectiveness developed and validated by the investigators themselves and a Personal Information Schedule were used in this study. The study revealed that there exists significant differences among teachers graded high, average and low with regard to five variables, namely, self-sufficiency, sociability, stability, objectivity of temperament and inferiority. The study also revealed that there is a significant positive correlation between teacher effectiveness and these five variables.

Naik (2006) analysed the independent as well as the combined effects of Teacher’s Personality (Introversion and Extroversion), Teacher's Attitude (Favourable and Unfavourable) and Teaching Effectiveness Rating on the academic achievement of students in Physical Science. The sample consisted of 208 men Physical Science teachers in 101 secondary schools. They were rated by 624 students chosen randomly. It was found that introversion and a positive rating on teaching effectiveness have a strong influence on students' achievement. Teachers with an introvert personality type, a favorable attitude towards their profession and rated effective in their teaching influence the academic achievement of students more than those teachers with an extrovert
personality type, a favorable attitude towards their profession and rated effective in their teaching. Teachers with an extrovert personality type, a favourable attitude towards their profession and rated effective in their teaching influence the academic achievement of students more than those teachers with an extravert personality type but an unfavourable attitude towards profession and rated ineffective in their teaching.

**Ranjini & Mohanasundaram (2012)** studied the Teachers’ competencies and Academic achievement of secondary teacher trainees. The investigators adopted the survey method to find out the teacher’s competencies and academic achievement of secondary teacher trainees. The population of the study was secondary teacher trainees from B. Ed College of education under the control of Tamil Nadu Teacher Educational University, Chennai. The sample consists of 189 secondary teacher trainees from Thoothukudi. A teacher competency scale, academic achievement and the personal information from were used for collecting the data. Survey method was adopted for this present study. The data was analysed using percentage analysis and ‘t’ test. It was found that the level of teacher competency and academic achievement of secondary trainees were average. And there is significant difference in teacher competencies of secondary teacher trainees and academic achievement with reference to gender and religion.

### 2.3 SELF-EFFICACY - STUDIES ABROAD

**Multon (1991)** tested meta-analytically the hypothesis that self-efficacy beliefs relate positively to academic performance and persistence. Results revealed positive and statistically significant relationships between self-efficacy beliefs and academic performance and persistence outcomes across a wide variety of subjects, experimental designs and assessment methods.
**Hipp (1996)** explored the relationship between principals' leadership behaviours and teacher efficacy in Wisconsin Middle Schools. An adaptation of Bandura's social cognitive learning theory of self-efficacy provided the theoretical framework. Phase 1 of the research surveyed 10 principals and 280 teachers from 10 middle schools. Principals and teachers completed “The Nature of Leadership Survey” (Leithwood 1993) and teachers completed an adapted version of S. Gibson and M. Dembo's Teacher Efficacy Scale (1984). Data for phase 2 was collected through interviews with 10 principals and teachers.

The data collected indicates that three of Leithwood's transformational leadership behaviours—modelling behaviour, inspiring group purpose and providing contingent rewards—were significantly related to general teaching efficacy. Model behaviours and providing contingent rewards were significantly related to personal teaching efficacy. Qualitative data confirmed these results and suggested eight additional leadership behaviours that reinforce and sustain teacher efficacy. In addition, a significant difference was found between general and personal teaching efficacy. The implication is that if a strong sense of efficacy motivates teachers to higher levels of competence and success then an increased focus and emphasis on this teacher attribute is called for.

**Bandura (1997)** postulated four sources of efficacy expectations: mastery experiences, physiological and emotional states, vicarious experiences and social persuasion. Mastery experiences are the most powerful source of efficacy information. The perception that a performance has been successful raises efficacy beliefs thereby contributing to the expectation that that performance will be proficient in future as well. The perception that one’s performance has been a failure lowers efficacy beliefs thereby contributing to the expectation that future performances too will be inept. The level of
arousal, either of anxiety or excitement, adds to the feeling of mastery or incompetence. Attributions play a role as well. If the success is attributed to internal or controllable causes such as ability or effort, then self-efficacy is enhanced. But if success is attributed to luck or the intervention of others, then self-efficacy may not be strengthened.

Ghaith & Shaaban (1999) investigated how teaching experience, gender, and grade level taught correlate with personal and general teacher efficacy and perceptions of teaching. The target group was 292 Lebanese teachers from different school backgrounds. Gibson and Dembo’s (1984) 16-item teaching efficacy scale in addition to a 28-item measure that addressed teaching concerns (Ghaith and Yaghi 1997), was adopted. The results of the study revealed that personal and general teaching efficacy were not internally related and that they represented two distinct indices.

Personal teaching efficacy, rather than general teaching efficacy, was found to be related to the perception of teaching concerns. More specifically, the study showed that teaching experience and personal efficacy were negatively correlated with the perception of teaching concerns; that is, the longer their years in teaching and the more confidence they had in their personal ability to provide effective teaching the less concerned they were about problems related to teaching such as the relation with parents and supervisors or meeting students' individual needs. On the other hand, gender, grade level taught and general efficacy were not found to be related to the teachers' perceptions of any of the categories of teaching concerns.

Ross (1992) studied the relationships between student achievement, teacher efficacy and interaction with coaches were investigated in a sample of 18 Grade VII and VIII History teachers in 36 classes implementing a specific innovation with the help of 6 coaches. Student achievement was higher in classrooms where teachers had better
contact with their coaches and in classrooms where teachers had greater confidence in the effectiveness of education. Teachers who relied on school administrators reported less involvement with their coaches and these teachers obtained lower student achievement. There was no interaction between efficacy and coaching possibly because there was virtually no peer observation.

**Ross (1999)** measured teacher efficacy on three occasions during an eight month in-service programme. The study found that it was the use of in-service knowledge, not exposure to it that contributed to changes in teacher efficacy. Interaction among participants persuaded them that it was possible for cooperative learning techniques to reach those students disadvantaged by home conditions. Any increment in personal confidence that might have arisen due to better teaching skill was offset by increased standards arising from social comparisons among teachers. Teacher changes were related to student outcomes although not in the expected direction.

**Ross (1999)** involving 2,170 teachers in 141 elementary schools used structural equation modelling to examine the antecedents of collective teacher efficacy. The study found that prior student achievement in Grade 6 Mathematics predicted collective teacher efficacy as expected by social cognition theory. The study also found that school mechanisms and processes that promoted teacher ownership of school directions (shared school goals, school-wide decision-making and empowering principal leadership) exerted an even stronger influence on collective teacher efficacy than prior student achievement. School cohesion and support contributed to collective teacher efficacy but only in domains in which the school had control over its directions.

**Henson, Jennifer & Grant (1999)** investigated the relationship between self-efficacy in pre-service teachers and simple but salient feedback from a non-
experiential source. Pre-service teachers were placed in matched pairs according to teaching experience and were then assigned to either a treatment group or a control group. The treatment group read a stimulus paragraph designed to bolster beliefs about efficacy, rated their agreement with it, wrote their opinion about why pre-service teachers were considered effective and completed the Teacher Efficacy scale. The control group followed the same protocol but read an unrelated paragraph. Results suggest that the stimulus paragraph had minimal effect on teacher efficacy and this was primarily due to changes in general teaching efficacy. The results indicate that self-efficacy is strongly experiential.

Chifari, et al. (2000) compared teachers’ perceived self-efficacy with their approach to the computer as an educational tool. A Computer Self-Efficacy (CSE) scale, modified from an English version developed by Eachus and Cassidy (1997), was administered to 43 teachers from various schools. In the light of these results, the researchers argue that self-efficacy towards the computer should be considered one of the important factors in programming further training on ICT for teachers.

Goddard & Hoy (2000) undertook a theoretical and empirical analysis of the construct of collective teacher efficacy. Firstly, a model of collective efficacy was created for use in schools. Secondly, an operational measure of collective teacher efficacy was developed and tested and found to have strong reliability and reasonable validity. Finally, on examining urban elementary schools in one large Midwestern district, it was found that collective teacher efficacy was positively associated with differences between schools in student-level achievement in both reading and Mathematics.
Goddard & Yvonne (2001) applied social cognitive theory to offer a theoretical analysis of this relationship. Using a hierarchical linear modelling, they empirically tested the strength of the relationship between these two theoretically related yet conceptually distinct constructs. Analysis of data collected from 438 teachers in 47 schools in a large urban school district showed that collective efficacy predicted variations in teacher efficacy above and beyond the variants explained by a number of school contextual factors, including socio-economic status and student achievement.

Adeyemo & Ogunyemi (2002) studied the interactive and relative effects of emotional intelligence and self-efficacy on the occupational stress of university academic staff. It made use of simple random sampling in selecting 300 academic staff from all the eight faculties of the institution concerned. The study sample responded to three valid and reliable instruments: Emotional Intelligence Scale, General Perceived Self-Efficacy Scale and Occupational Stress Scale. Data analysis involved the use of Pearson correlation and multiple regression procedure to investigate the predictive capacity of the independent variables on the dependent variable. The results indicated that the two independent variables when taken together were effective in predicting occupational stress. Each of the variables contributed significantly to the prediction of occupational stress with self-efficacy making higher contribution to the prediction of occupational stress. On the basis of this finding, it was argued that emotional intelligence programming and self-efficacy intervention techniques would benefit teachers immensely in coping with stress.

Woolfolk & Rutgers (2002) examined the relationship between each dimension of efficacy and several measures of teachers' orientation toward management, control and student motivation. For the 55 religious school teachers studied, the greater the
teacher's sense of personal efficacy the more humanistic was his/her pupil control orientation. The stronger the teacher's belief that teaching can be successful even with difficult and unmotivated students (general teaching efficacy), the more humanistic was his/her pupil control orientation. Teachers who believed that students must be controlled and cannot be trusted were also more likely to believe that extrinsic rewards are necessary to motivate such students. These results have been discussed in terms of possible contextual effects on the relationships between management beliefs and efficacy and the possible connections between the sense of efficacy, class management and student achievement.

Chacón (2005) looked at the self-perceived efficacy of a group of 100 English as a Foreign Language (EFL) middle school teachers in Venezuela and how this related to their self-reported English proficiency. Using the short version of the Teacher Sense of Efficacy Scale based on Tschannen-Moran and Woolfolk Hoy (2001) and two other sub-scales (Self-reported Proficiency and Pedagogical Strategies), Chacón found that teachers' perceived efficacy was positively correlated with their self-reported English proficiency. As for the relation between teachers' sense of efficacy and their use of pedagogical strategies (communication-oriented vs. grammar-oriented), the results indicated that efficacy did not have an influence over the kind of strategies these teachers preferred. The EFL teachers in this study seemed to be more inclined toward adopting grammar-oriented methods of teaching.

Smith et al. (2005) discussed the results of an exploratory study of principals’ self-efficacy beliefs for facilitating and creating effective instructional environments in their schools. Participants included 284 principals from 12 states. The Principals’ Self-Efficacy Survey, which the participants completed, addressed three questions:
(a) the relationship between principals’ self-efficacy beliefs and various demographic factors; (b) differences between the perceived beliefs and the actual practices of principals; and (c) outcome expectancy for principals to facilitate effective teaching and learning in their respective schools.

Findings indicated that in general principals’ self-efficacy beliefs tended to increase with the complexity of the job; principals spent a significantly greater amount of time in management as compared to facilitating instructional effectiveness; and an overwhelming majority of the principals felt their efforts to facilitate an effective teaching and learning environment were productive. The implications of the study included the placement of principals in compatible schools and the exploration of self-efficacy in professional development.

Olalere (2005) investigated teachers' perceived self-efficacy in the implementation of computer education in Nigerian secondary schools. He also examined the influence of gender on teachers' perceived self-efficacy. 161 men and 148 women teachers were asked to indicate their experience and level of proficiency in the use of computers. Percentage analysis indicated that over 60% men and women teachers did not have even minimum experience in the use of computers. Chi-square analysis indicated no significant difference between men and women teachers' competence in the use of computers, basic computer operations and in the use of software application. Based on these findings he recommended that practising teachers should be given in-service professional training in the use of technology and added that pre-service teachers should be given basic and advanced training in the use of technology in education mastery experiences during student teaching and in the year of their induction.
Tournaki & Podell (2005) examined how the interaction between student and teacher characteristics affects teachers’ predictions of students’ academic and social success. 384 general education teachers responded: (a) to one of 32 possible case studies describing a student in which gender, reading achievement, social behaviour and attentiveness were manipulated experimentally; and (b) to a 16-item teacher-efficacy scale. Results showed that teachers with high efficacy made less negative predictions about students and seemed to adjust their predictions when student characteristics changed while low efficacy teachers seemed to be paying attention to a single characteristic when making their predictions. Secondly, all teachers responded similarly to students who exhibited a combination of aggressive and inattentive behaviours, that is, if students were friendly inattentiveness was tolerated more than if they were aggressive. Thirdly, all teachers made higher predictions of academic success for students reading on grade level even when they were aggressive than for students reading below the grade level even when they were friendly. The authors discussed the importance of attending to the complexity of characteristics each student brought to the classroom.

Goker (2006) studied the impact of peer coaching on self-efficacy and the instructional skills of EFL pre-service teachers in Northern Cyprus. Using Bandura's (1995) General Self-Efficacy Scale, Goker found that peer coaching improved pre-service teachers' self-efficacy. The findings of this study showed that experiential activities such as teaching practicum or other mastery experiences seemed to have a great impact on the self-efficacy of pre-service teachers.

George (2006) examined the effects of the project on the long-term self-efficacy of in-service teachers and their use of the Internet in the classroom. The findings revealed: (a) Teachers’ improved level of self-efficacy after the summer workshops
remained high even years after their involvement in the programme; (b) Combining an intense summer workshop with additional online courses showed a significant difference in some aspects of self-efficacy over just having a professional development workshop; and (c) Certain external factors did affect teacher self-efficacy in the long run.

Howard & Patrick (2006) presented three sources of self-efficacy - enactive mastery, vicarious experiences and verbal persuasion - as ways for teachers to figure out what to say and do to strengthen struggling learners' beliefs in their academic abilities and increase their willingness to engage in academic tasks.

Zhao (2007) explored urban school teachers' understanding of the ways in which their experiences in an Urban Immersion Teacher Preparation (UITP) programme and in urban school workplace influenced their perceived self-efficacy, persistence and institutional commitment as urban school teachers.

The findings revealed that those participants who stayed on as urban school teachers had a strong sense of integrated self-efficacy of three dimensions, namely, classroom management, classroom instruction and contextual congruence, and were motivated to persist and learn new competencies despite setbacks and obstacles. The findings also suggested that self-efficacy was a necessary but not a sufficient factor influencing the participants' persistence and institutional commitment. Non-efficacy factors such as pay and managerial bureaucracy were serious barriers to the teachers’ persistence in and commitment to teaching in the urban schools.

Einar & Sidsel (2007) examined the relations among teacher self-efficacy, perceived collective teacher efficacy, external control (teachers' general beliefs about limitations to what could be achieved through education), strain factors and teacher
burnout. Participants were 244 elementary and middle school teachers. The analysis supported the conceptualization of teacher self-efficacy as a multidimensional construct. They found strong support for 6 separate but correlated dimensions of teacher self-efficacy which were included in the following sub-scales: Instruction, Adapting education to individual students' needs, Motivating students, maintaining discipline, cooperating with colleagues and parents, and Coping with changes and challenges. They also found support for a strong second-order self-efficacy factor underlying the six dimensions. Teacher self-efficacy was conceptually distinguished from perceived collective teacher efficacy and external control. Teacher self-efficacy was strongly related to collective teacher efficacy and teacher burnout.

**Poulou (2007)** explored the factors that preceded student-teachers' beliefs of teaching efficacy and shaped their conviction that they could influence instructional strategies, classroom management and students' engagement. In this study, 198 fourth year students from two primary education departments in Greece completed a Teacher Efficacy Sources Inventory and a Teachers' Sense of Efficacy Scale. It was found that self-perceptions about teaching competence, personal characteristics and motivation for teaching were the contributory factors to teaching efficacy. The search for this type of information from student-teachers was based on the assumption that students' feedback comprised a substantive factor in relation to the evaluation and improvement of teacher training programmes.

**Shores & David (2007)** investigated the relationships between self-regulated learning, motivation, anxiety and attribution on the one hand and achievement in Mathematics on the other. Data analyses revealed that significant contributions were made by motivation and anxiety on both test score and Mathematics grade for fifth grade
students. Specific factors such as self-efficacy, worry and failure were related to academic performance while failure attribution was significantly related to Mathematics grade. As for sixth grade students, data analyses showed that relationships existed between motivation, anxiety and academic performance with specific factors such as self-efficacy, intrinsic value and worry significantly predicting both test score and Mathematics grade for sixth graders. The findings stressed the importance of motivation for students and underlined how the constructs cited above interacted to facilitate self-regulation in the course of developing expertise in a domain such as Mathematics.

Ross, Bruce & Catherine (2007) designed a professional development (PD) programme to increase the teacher efficacy of Mathematics teachers. They randomly assigned 106 Grade VI teachers in a particular school district to treatment and control conditions in a delayed-treatment design. The PD explicitly addressed 4 sources of teacher-efficacy information identified in social-cognition theory (Bandura 1997). Treatment teachers outperformed control-group teachers on 3 measures of teacher efficacy. But the results were statistically significant only for efficacy in classroom management. They attributed the teacher-efficacy effects of the PD (6% of the variance) to the priority given in the PD to management of classroom discussions and overt attempts by PD leaders to redefine teachers’ conceptions of classroom success.

Herbert & Anastasia (2007) determined whether teacher and collective efficacy beliefs predicted commitment to the teaching profession. The participants were 26,257 teachers and 6,711 principals who responded to the public school teacher and principal questionnaires of the 1999-2000 Schools and Staffing Survey (US Department of Education, 2005). The authors developed 2 teacher efficacy scales - a collective teacher efficacy scale and a teacher professional commitment scale. The scales showed sufficient
construct validity and reliability. The findings supported the hypothesis that the scales significantly predicted teacher professional commitment. Given the teacher turnover rate, the findings were significant for retaining teachers in the profession.

**Herbert, Steven & Anthony (2007)** examined the construct validity of the short form of the Teacher Sense of Efficacy Scale (TSES), and by extension, given their similar content and psychometric properties, to the long form. The authors' research involved: (1) examining the psychometric properties of the TSES on a large sample of elementary, middle, and high school teachers, and comparing their results to those reported by Tschannen-Moran and Hoy (2001); and (2) conducting a longitudinal analysis (predictive validity) of the TSES as a predictor of subsequent teacher classroom performance and student value-added learning, controlling for school characteristics and teacher experience, among elementary teachers. While the psychometric properties results provided important replication indications, the longitudinal analysis provided a much more compelling construct validity assessment within a broader nomological net of teacher efficacy, teacher performance, student achievement, and teacher and school characteristics.

**Benbenutty (2007)** examined whether the association between teachers’ self-efficacy beliefs and their academic performance is mediated by their homework, self-efficacy beliefs and their use of self-regulatory learning strategies. Path analyses were conducted. The final model revealed that teachers’ self-efficacy beliefs have an indirect effect on their academic performance, which is mediated by their self-efficacy beliefs about their capability to initiate and complete homework assignments and their use of self-regulatory learning strategies.
Marat (2007) examined students’ and teachers’ efficacy in the use of learning strategies in Mathematics and its relationship to achievement. As the second phase of a multi-method doctoral study, 92 students and 10 teachers from a diverse secondary school were surveyed on efficacy in the use of learning strategies and the factors they perceived as facilitating or inhibiting the use of learning strategies in the classroom context. The cumulative findings brought to light illusory-efficacy in a sizable number of student participants who did not achieve, highlighting the importance of true efficacy and learning strategies to reduce disparities, and enhance achievement.

Yeo1 et al. (2008) studied the efficacy of Singapore teachers who taught low achieving adolescent students. They studied three dimensions of teacher efficacy, namely, instructional strategies, classroom management and student engagement in relation to teacher attributes and teacher-student relationship. Data were obtained from the Teacher Self-Efficacy Scale (Tschannen-Moran and Woolfolk Hoy) and the Teacher-Student Relationship Scale Ang. The study revealed significant differences between novice and experienced teachers in teacher efficacy beliefs in relation to instructional strategies, classroom management and student engagement. The study also revealed that conflict in teacher-student relationship was found to predict teacher efficacy for teachers of low achieving students.

David (2008) reported the development of a teacher self-efficacy scale that aimed at accommodating the complexity of the functioning of teachers in secondary schools in Hong Kong. A scale was designed to assess six domains of teacher self-efficacy: teaching highly competent learners, classroom management, guidance and counselling, student engagement, teaching to accommodate diversity and teaching for enriched learning. The total scale and the six sub-scales were evaluated based on the responses of
Hong Kong Chinese prospective and in-service teachers for internal consistency and construct validity and for convergent and discriminate validation with external measures.

Eslami & Fatahi (2008) examined the efficacy beliefs of non-native English speaking (NNES) Iranian EFL teachers. EFL teachers' perceptions of their teaching efficacy in terms of personal capabilities to teach English as a Foreign Language and their perceived English language proficiency level were examined. A modified version of Teacher Sense of Efficacy Scale (Tschannen-Moran and Hoy 2001) was used to assess efficacy for management, engagement and instructional strategies. Based on Chacón's study (2005), two other sub-scales (self-reported proficiency and pedagogical strategies) were also used. The results showed that the teachers' perceived efficacy was positively correlated with self-reported English proficiency. The findings also revealed that the more efficacious the teachers felt the more inclined they were to use communicative-based strategies. The study has implications for the preparation of NNES teachers and the support they need to develop their language proficiency, which, in turn, is related to their perceived self-efficacy.

Mulder, et al. (2008) examined whether there existed a relationship between teachers’ efficacy, attitudes about multicultural populations and multicultural teaching efficacy. One of the hypotheses was that there is a correlation between teachers’ efficacy in teaching White students and culturally diverse students. The other hypothesis was that there is a correlation between teachers’ racial attitude and their multicultural teaching efficacy. The results show significant correlations between multicultural teaching efficacy, multicultural experience, and attitude among the sample of White teachers in two middle school settings with a substantial number of culturally diverse students.
Nadeem (2009) compared formally and non-formally trained in-service public sector teachers’ self-efficacy. Five hypotheses were postulated containing no difference in the self-efficacy of formally and non-formally trained teachers to influence decision making, school resources, instructional self-efficacy, disciplinary self-efficacy and create a positive school climate. Teacher Efficacy Instrument developed by Bandura (2001) consisting of 30 nine-point items was used in the study. 342 formally trained and 255 non-formally trained respondents’ questionnaires were received out of 1500 mailed. Data analysis revealed that formally trained public sector teachers are high in their self-efficacy in all the five categories: influencing decision making, school resources, instructional self-efficacy, disciplinary self-efficacy and self-efficacy to create a positive school climate.

Brühwiler & Blackford (2010) assessed teachers' effectiveness on the learning progress while teaching a unit with predefined learning objectives. To measure adaptive teaching competence a multi-method approach was employed. There were 49 teachers and 898 students. Smaller classes led to higher academic learning progresses, better knowledge of students and better classroom processes. Adaptive teacher competence remained relevant in smaller classes, that is, class size and teacher quality were independently important.

Chong, et al. (2010) explored how prior student achievement through school types predicted teacher self- and collective efficacy and perceived academic climate of 222 middle school teachers in Singapore. Teachers assigned to high-track and regular middle schools differed in their perception of self- and collective efficacy to promote organizational changes and student achievement, and the academic climate of the school. Prior achievement was shown to be best predicted by perceived teacher collective
efficacy and academic climate, but not self-efficacy. Further analyses revealed that the teacher collective efficacy partially mediated the relationship between teacher self-efficacy and academic climate.

Arigbabu & Oludipe (2010) studied the differences between Nigerian junior and senior pre-service teachers’ Science Teaching Efficacy beliefs. Data for this study was collected from 221 pre-service teachers enrolled in Junior and Senior Secondary Science Teacher Education programmes in Nigeria using Science Teaching Efficacy Belief Instrument (STEB-B). The results indicated that junior secondary pre-service teachers were as efficacious as their senior counterparts on two dimensions of STEB-B. In addition, analysis did not reveal any significant gender differences on the two dimensions of STEB-B.

Komarraju & Nadler (2013) examined motivational orientations, cognitive - metacognitive strategies, and resource management in predicting academic achievement. Undergraduates (407) completed the Motivated Strategies Learning Questionnaire, Implicit Theories of Intelligence Scale, Achievement Goal Inventory, and self-reported grade point average. A MANCOVA (controlling for sex and age) indicated that low self-efficacy students tended to believe intelligence is innate and unchangeable and high self-efficacy students pursued mastery goals involving challenge and gaining new knowledge as well as performance goals involving good grades and outperforming others. Further, hierarchical multiple regression analysis indicated that self-efficacy, effort regulation, and help-seeking predicted 18% of the variance in GPA. Interestingly, effort regulation partially mediated the relationship between self-efficacy and GPA. Overall, self-efficacious students are able to achieve academically because they monitor and self-regulate their impulses and persist in the face of difficulties. We discuss
implications of these findings for educators seeking to strengthen both self-efficacy and effort regulation towards increasing academic achievement.

Zuffiano et al. (2013) examined the contribution of self-efficacy beliefs in self-regulated learning (SESRL) in predicting academic achievement at the end of junior high school above and beyond the effects of previous academic achievement, gender, socioeconomic status, intelligence, personality traits, and self-esteem. Participants included 170 (87 females) eighth grade students (Mage = 13.47) in a junior high school located in a small town near Rome (Italy). All measures were administered at the beginning of eighth grade. Hierarchical regression analysis supported the unique contribution of SESRL on academic achievement at the end of the school year.

Burgoon et al. (2012) investigated the influence of anatomical self-efficacy on the academic performance of students enrolled in a medical gross anatomy course. To obtain students' anatomical self-efficacy ratings, surveys containing the same anatomical self-efficacy instrument were completed by first-year medical students at a southeastern United States allopathic medical school after each of four gross anatomy assessments. Additional data collected included student demographic information, Medical College Admission Test (MCAT) scores, and anatomy assessment scores, both written examination and laboratory practical. To investigate the potential predictive nature of self-efficacy for academic performance on both the written examination and the laboratory practical components of medical anatomy assessments, hierarchical linear regression analyses were conducted. For these analyses, academic ability (defined as the sum of the physical sciences and biological sciences MCAT scores) was controlled. The results of the hierarchical linear regressions indicated that all four laboratory practical scores were predicted by the corresponding self-efficacy ratings, while two
(i.e., thorax/abdomen and pelvis/lower limb) of the four written examination scores were predicted by the corresponding self-efficacy ratings ($P \leq 0.05$).

Ågediseth, Danielsen & Oddrunsamdal (2012) measured teachers’ support of basic psychological needs, self-efficacy, achievement goals, life satisfaction and academic achievement level in a sample of 240 secondary school students (8th and 10th grades). Correlation analysis showed significant positive relations between all of the variables, except for the relation between need support of competence and performance goals. A subsequent path analysis showed that these variables could be accounted for by a structural model that described basic need support as predictors of self-efficacy and achievement goals, which in turn predicted academic achievement level and perceived life satisfaction. Analysis of intra-class correlation and design effect showed that need support of relatedness also was accounted for by class level responses. Theoretical and practical implications were discussed in terms of the importance of basic need support as a predictor of personal motives in educational settings as well as the students adjustment to school and life.

2.4 SELF-EFFICACY - STUDIES IN INDIA

Arulsamy (2008) studied the self-efficacy of the Secondary School teachers of Vellakoil Union in Erode District, Tamil Nadu. The survey method was adopted for the study. The sample consisted of 100 high school teachers from 10 schools in Vellakoil Union. The investigator used the normative survey method and used the tool developed by Ralf Schwarzer, Gerdamarie S. Schmitz and Gary T. Daymer (1999) to measure the self-efficacy of the teachers. The data was analyzed using mean, SD and ‘t’ test. The findings revealed that the secondary school teachers of Vellakoil union had a good measure of self-efficacy in teaching. But their self-efficacy differed in terms of gender.
Sridhar & Razavi (2008) studied teacher efficacy in relation to student achievement and teacher effectiveness. Teachers' sense of efficacy relates to their judgments about their abilities to promote students' learning. Because teachers' sense of efficacy is a belief that affects teaching and learning, teacher educators, administrators and policy makers are interested in the study of various dimensions of efficacy.

In this study, teacher efficacy in different types of schools in Mysore was examined and the relationship between teachers' efficacy with regard to two dimensions (PE and GTE) with different types of school management in Mysore district was examined. Specifically, gender, qualification, age, teacher experience and attentiveness influenced teachers' judgments about their own efficacy. Hence, teachers' efficacies with respect to these demographic variables in different types of secondary schools were examined. Out of a population of 81 secondary schools and 392 teachers in Mysore city (South), 61 secondary schools and 256 teachers responded to the questionnaire. Two questionnaires were used in the present study. They were: Teacher Efficacy Scale questionnaire (TES) and Demographic Variables inventory. TES questionnaire was designed by Woolfolk and Hoy (1990). It showed that there existed a significant relationship between personal efficacy and type of school. Navodaya teachers' scores on personal efficacy were found to be higher than those from other schools.

Kumar & Papaiah (2009) studied the self-efficacy of high school teachers with respect to age, gender, teaching experience, qualification, subject taught and type of management of the schools, 30 high school teachers working in 4 Zilla (District) Parishad High schools and 3 Private Un-aided High schools located in Kuppam Mandal in Chittoor District, were selected for the present investigation. The Ohio State Teacher Self-efficacy Scale (OSTES) consisting of 24 statements and developed by Tschannen-
Moran and Woolfolk Hoy (2001) of Ohio State University was used for the current research. The minimum and maximum possible scores on this scale are 24 and 120 respectively. From the calculation of the mean (88.53) and standard deviation (15.28), it has been found that the high school teachers possessed a fairly high level of self-efficacy.

2.5 ACADEMIC ACHIEVEMENT - STUDIES ABROAD

Robert et al. (1972) compared the influences of the educational practices in the United Kingdom and the United States in terms of secondary pupil achievement in basic subject areas at each successive grade level. The objective of the study was to test the hypotheses that significant differences would be found between students' mean achievements in the basic subject areas across ability levels; that specific periods could be identified wherein students' achievement across ability and grade levels for respective countries become statistically different; and that factors could be identified which influence pupil achievement. The test instruments included the California Achievement Test, Otis Ability Test and other data-gathering methods. A few of the major findings were that grade point averages were more significant predictors for student gains and levels of achievement than standardized achievement tests; high ability students consistently gained more than average or low ability students; British high ability students and US average and low ability students showed higher levels of achievement in reading than their respective counterparts; and US students registered higher levels of achievement in language and Mathematics.

Ireson et al. (1999) explored the relationships between different types of ability grouping and both academic and non-academic outcomes for pupils. The sample comprised all Year 9 pupils (aged 13-14 years) in 45 secondary comprehensive schools in England, representing three levels of ability grouping in the lower school
(Years 7 to 9). Measures of pupil attainment in national tests at the end of primary school (Year 6) and at the end of Year 9 were used to indicate academic achievement. All the pupils took tests in English, Mathematics and Science as part of the national assessment during the summer term for that year. Test scores for these pupils at the end of Year 6 were collected retrospectively. Measures of self-concept and attitudes towards school were obtained through self-completion questionnaires. Data on attendance was collected from school records.

The analysis of the effects of ability grouping on pupil attainment and self-concept revealed differences according to the subjects. Overall, there were minor effects of ability grouping on pupil attainment. Effect sizes differed from one subject to another and pupils attaining higher levels on entry to secondary school made greater progress especially in Mathematics but not much in English or Science.

Laczko-Kerr & David (2002) compared the academic achievements of students taught by under-certified primary school teachers, including teachers from the "Teach for America" programme with that of those students taught by regularly certified teachers. Findings for 5 school districts, roughly 300 new teachers, showed that students of under-certified teachers made about 20% less academic growth than the students of regularly certified teachers.

Meece et al. (2006) examined the influence of classroom and school environments on students' academic motivation and achievement. Considerable evidence suggested that elementary and secondary students showed the most positive motivation and learning patterns when their school settings emphasized mastery, understanding and improving skills and knowledge. While school environments are focused on demonstrating that high ability and competing for grades can increase the academic
performance of some students, research suggests that many young people experienced diminished motivation under these conditions.

**Malmberg (2008)** investigated if student-teachers' achievement goal orientations changed during teacher studies and how motivational trajectories were related to academically relevant antecedents and outcomes. A total of 170 participants were observed between two and five time points. Using individual growth models, achievement goal orientations were found to increase over time and peak during the third year of studies. Secondary school grades predicted a higher level of performance-approach goal orientation and graded performance. Reflective thinking, teacher intrinsic motivation and teacher control-expectancy beliefs were related to an increase in mastery goal orientation. Task-irrelevant behaviour was related to low graded performance as well as decrease in performance.

**Adeniyi (2010)** investigated the efficacy of Enrichment Triad and Self-Directed learning models on the academic achievement of selected gifted students in some secondary schools in Nigeria. The study used the pre-test, post-test and control group quasi-experiment design. It examined 75 gifted senior secondary students from eight secondary schools in Nigeria. Multi-stage sampling technique was used for the selection of these participants who were randomly assigned to three experimental groups. The findings revealed that there was a significant treatment effect on the students’ post-test academic achievement scores. The study also indicated that gifted male students exposed to Enrichment Triad and Self-directed models had a higher mean score than their female counterparts exposed to the same treatment. It is, therefore, recommended that both regular and special educators use Enrichment Triad and Self-Directed models to facilitate the academic achievement of their gifted students.
2.6 ACADEMIC ACHIEVEMENT - STUDIES IN INDIA

Muthumanickam (1997) found that the academic achievement of boys and girls was significantly different as the academic achievement of girls was higher than that of boys. He also found that the academic achievement of those studying in government and private schools was found to be statistically significant as the academic achievement of the students of private schools was higher than that of those in government schools.

Jani & Jani (2005) created a scale to gauge teachers’ commitment and investigate the effect of language and science teachers’ abilities and commitment on students’ achievement. The population of the study was teachers and students of the regional medium (Gujarati) high schools of Jamnagar district in Gujarat. The authors used a self-created scale to measure the teachers’ commitment and ability. They selected 24 statements with a five-point scale to measure the selected teachers’ commitment and ability. The study revealed that the commitment and ability of language teachers was higher than that of science teachers; students’ achievement was better in language than in science; the commitment and ability of language teachers was higher than that of their counterparts and their students’ achievement was also high; and the commitment and ability of the teachers positively impacted their students’ achievement.

Baskaran et al. (2006) studied the difference between boys and girls in academic achievement. 200 students (100 boys and 100 girls) studying 6th standard were selected from four higher primary schools in Davangere in Karnataka. The sample was drawn from four English medium schools selected on a random basis. The results showed that there is a significant difference between boys and girls in their academic achievement.
Prema & Francisca (2009) randomly selected 710 students studying in Class XI and XII in the Higher Secondary schools of Tuticorin and Ramnad revenue districts in Tamil Nadu. The study revealed that there is a significant relationship between achievement motivation and the academic achievement of Higher Secondary students.

2.7 SIGNIFICANCE OF RELATED STUDIES

The “Review of Related Studies” has looked into the various studies done within India and outside the country. The “Review of Related Literature” has been classified under six headings: Teaching Competence-Studies Abroad; Teaching Competence-Studies in India; Academic Achievement - Studies Abroad; Academic Achievement-Studies in India; Self-efficacy - Studies Abroad; and Self-efficacy - Studies in India. This exercise has helped the researcher to locate the research gap waiting to be explored, namely, “Teaching Competence and Self-efficacy of Higher Secondary Teachers in Dindigul Educational District in relation to the Academic Achievement of their Students”.

The following chapter will present the research design and methodology undertaken by the present investigator. It also presents the various hypotheses on which the study hinges.