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REVIEW OF RELATED RESEARCH

Review of related literature, provides a comprehensive understanding about what has already been known about a topic. It forms the basis for subscribing rationale for having chosen the problem for the study. Review of related literature allows the researcher to acquaint himself with the current knowledge in the field or area in which he is going to conduct his research. It enables the researcher to define the limits of his study. It also helps the researcher to delimit and define his problem. The knowledge of the related literature brings the researcher up-to-date on the work, which others have done and thus state the objectives clearly and concisely.

By reviewing the related literature, the researcher can avoid unfruitful and useless problem areas. The researcher can select those areas in which positive findings are very likely to result and his endeavours are likely to add to the knowledge in a meaningful way. Through the review of related literature, the researcher can avoid unintentional duplication of well established facts. It is no use to replicate a study when the stability and validity of it’s results have been clearly established.

The review of related literature gives the researcher an understanding of 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 studies. It also provides an insight into the statistical methods, through which the validity of the results is to be established.
The important specific reason for reviewing the related literature is to know about the recommendations of the previous researchers, listed in their studies for further research.

Good, Barr and Scates (1941) analysed the purpose of review of related literature as given herewith: To show whether the available evidence material solves the problem adequately without further investigation, To provide ideas, theories, explanations or hypotheses valuable in formulating the present study, To suggest the research methods to the problems, To locate comparative data useful in interpretation of the results, To contribute to the general scholarship of the investigator, It helps the research worker to find what is already known, what others have attempted to find out, what methods of attack have been promising (or) disappointing and what problems remain to be solved, It furnishes him with indispensable suggestions about comparative data good procedures, likely method and tried techniques, It makes him alert to research possibilities that have been over looked and research approaches that have proved to be sterile, and It prevents pointless repetition of research.

From the above discussion, it is clear that for any worthwhile investigation, a review of literature in the field is of great help to the investigator. The studies tell us how much work has been already done in a certain field and provide necessary knowledge and insight into the methods used to collect, analysis, interpret data and the findings. It also suggests solutions and recommendations. Having realized the importance of related studies the investigator tried his best to study and record the related literature.

In the review of related literature, the findings of the research studies are quoted as under:

1. Studies related to Teaching Aptitude of Teachers.
2. Studies related to Social Adjustment of Teachers.
3. Studies related to Job Satisfaction of Teachers.
TEACHING APTITUDE

The findings of the previous research related to teaching aptitude are presented here under:

Teaching Aptitude and Gender of the Teacher

Suraj (1968) studied the relationship between Intellectual Efficiency (IE), Self-Acceptance (SA) and Teaching Skills (TS) of the teacher trainees. The study revealed that the sex differences in the three relationships, viz., (IE-TS), (SA-TS) and (IE-SA), are significant.

Mehta (1972) found that the general ability factor called the ‘Teaching Ability' was highly loaded with the achievement variables of training. In women pupil-teachers, the contribution of personality variables was more than in men. In both men and women, cognitive abilities contributed more than personality variables.

Nair (1974) revealed that sex was found to be not affecting the teaching ability of teachers.

Upadhyaya, B. M. (1976) found that sex and socio-economic background were not related to aptitude for teaching.

Sharma, R.C. (1984) revealed that an insignificant difference was found in teaching aptitude ability in sex-wise and discipline-wise comparison.

Reddy, Bhoom N. (1991) found that the female respondents performed relatively better in the teaching aptitude test.

Singh, D. (1991) found that in the case of both male and female teachers, teaching effectiveness was positively related to fluency, flexibility, originality, composite creativity and intelligence.
Reddy, S. R. (2001) found that both men and women prospective mathematics teachers were possessing high teaching aptitude without having any significant difference in their teaching aptitude.

Arun, K.K. and Geeta, H. (2006) found that the prospective teachers of both groups (male & female) have high aptitude for teaching than the other three aptitudes; guidance, management and research. Male prospective teachers were better in guidance and management aptitude while female prospective teachers have high aptitude for teaching and research.

Kuraishy, S. and Ahmad, J. (2010) found a significant difference between male and female prospective teachers on the measure of mental ability, attitude towards children, professional information and total teaching aptitude. Male subjects were found to be better than their female counterparts in respect to mental ability, professional information and total teaching aptitude.

Augustine, J. (2010) found no significant difference between men and women student teachers in teaching competency and teaching aptitude.

Prem Sunder (2010) found that all the D.Ed. students have positive aptitude towards teaching and there is a significant difference between the aptitude of boy and girl students towards teaching.

**Teaching Aptitude and Locality of the School**

Nair (1974) found that the locality of the school was found to be not affecting the teaching ability of the teachers.

Bhasin, C. (1988) found no significant difference between rural and urban, government and non-government, and male and female teachers with regard to their aptitude and effectiveness.
Prakasham, D. (1988) found that the teachers of urban schools significantly excelled over teachers employed either in semi-urban and rural schools or schools located in industrial areas on both teaching competency and teacher effectiveness.

Periasamy, C. (2001) found no difference between urban and rural students of DIETs in their aptitude for teaching.

Ravana Reddy, S. (2001) found that both rural and urban prospective mathematics teachers were possessing high teaching aptitude, without having any significant difference in their teaching aptitude.

**Teaching Aptitude and Management of the School**

Prakasham, D. (1988) found that female teachers scored invariably higher in all types of schools, categorised in terms of territory, management type and organizational climate.

Srinivasan, V. (1992) found that government school teachers differed from aided school teachers with regard to the attitude towards teaching.

Sudarsan, S. (2001) found a significant difference in the mean achievement scores of teachers of the government and private schools.

Parvati, S.G. and Jagadesh (2009) found that the teachers working in government and private secondary schools do not differ significantly in their attitude towards teaching profession.

**Teaching Aptitude and Experience of the Teacher**

Debnath, H. N. (1971) found that experience was significantly related to teaching efficiency.
Upadhyaya, B. M. (1976) found that the previous experience and discipline were found to be significantly related to aptitude for teaching.

Singh, N.A. (1985) found that in teaching competence, those with low experience from urban areas, trained in integrated mode, had higher teaching competence.

Madhur, S. (1987) found that the teaching experience tended to affect the attitudes of teachers of the higher secondary stage towards creative teaching.

Reddy, Bhoom N. (1991) found that experienced teachers and teacher awardees exhibited a statistically significant superior performance over student teachers.

Shah, B. (1991) found that the variables like locality, type of school, level of educational qualification, grade and teaching experience also determined teacher effectiveness to some extent.

**Teaching Aptitude and Age of the Teacher**

Debnath, H.N. (1971) found that the age was significantly related to teaching efficiency.

Nair (1974) revealed that the age of the teacher had a positive relationship with teaching ability.

Mathur, S. (1987) found that age did not affect the attitudes of teachers of pre-higher secondary, higher secondary and post-higher secondary stages towards creative learning and teaching.

Reddy, Bhoom N. (1991) found that age did not influence the performance on TAT.
Srinivasan (1992) found that the age of the primary school teachers did not affect the attitude of teachers towards teaching.

Khan, W.A. (2001) found no significant difference in the work motivation of the teachers of three different age groups, that is, upto 40 years, 41-50 years and 51 and above.

**Teaching Aptitude and Academic Background**

Nirmala Devi, S. (2005) found that there is no significant difference in the attitude of the student teachers with undergraduate and postgraduate qualifications towards teaching.

Kuraishy, S. and Ahmad, J. (2010) observed that high academic background group was significantly different from low academic background group on mental ability, attitude towards children, interest in profession and total teaching aptitude.

Augustine, J. (2010) found a significant difference between men and women teachers in academic background.

After going through several research journals, educational research surveys and educational abstracts, it was observed that little was done with regard to the teaching aptitude of secondary school science teachers.

**SOCIAL ADJUSTMENT**

The following are the findings related to social adjustment.

**Social Adjustment and Gender**

Seth, S. (1970) found that female teenagers had personal, sexual and social problems. The reason for these problems were found to be the emotional changes that occurred in this period; the lag between physical and social group and in members of the opposite sex. The individual factors of significance were found to be age, religion, marital status, socio-economic status and sibling position.
Dhillon, G.K. (1979) found that in all aspects of school adjustment, adjustment with school mates, administration, teachers and with self, the participants scored significantly higher than non-participants. No significant sex differences were noticed on the dimension of school adjustment.

Vora, J.I. (1980) found that the male student teachers were superior to the female student teachers in social maturity; the higher the socio-economic status, the better was the social maturity; the size of the family had no relation with the social maturity of the student teachers; the self sufficient group scored higher on social maturity than the dependent group; the highly suggestible persons were less socially mature than the less suggestible ones; the persons having good leadership qualities scored higher on social maturity than those with poor leadership qualities; the student teachers coming from the urban area were more mature than the student-teachers from the rural area.

Aggarwal, S. (1988) found that (i) there was a significant difference between the adjustment problems of more effective and less effective female teachers at primary level, the more effective teachers were better adjusted than their less effective counterparts, (ii) social factors were found more prominent in the adjustment problems of more effective teachers, while in the case of less effective female teachers, the emotional factors were found more influential.

Bhaskara Rao, D. Raja Sekhar, D. and Bhuvaneswara Lakshmi, G. (2003) found that men and women prospective teachers were holding average adjustment. When compared with men, women teachers were found to adjust better than their male counterparts. The adjustment level was tending towards high in both men and women prospective teachers.

Balasubramanian, K. and Meenakshi Sundaram, A. (2003) found a significant difference in work adjustment between male and female teachers, and there was no significant difference in work adjustment in terms of other
demographic variables like subject teaching, employment, type of management, locality of the school and type of school.

Reddy, M.V. (2004) found that social adjustment in both men and women teachers was average and there was no difference in the level of social adjustment.

Gurvinder, K. (2007) found that women face more marital adjustment problems. Working women teachers face more marital adjustment problems than non-working women.

**Social Adjustment and Locality**

Balasubramanian, K. and Meenakshi Sundaram, A. (2003) observed no difference between rural school teachers and urban school teachers regarding work adjustment.

Dave, P. and Kulashrestha, A.K. (2004) found that urban teachers seem to be least adjusted in social life and better adjusted in professional life than their rural counterparts; the rural teachers seem to be highly adjusted in social life, better in personal life than their urban counterparts but least adjusted in professional life.

Reddy, M.V. (2004) found that the level of social adjustment of the teachers of urban and rural schools was average without any significant difference between them.

**Social Adjustment and Management**

Reddy, M.V. (2004) found that the level of social adjustment of the teachers in private and government schools falls under average category. But both the sub-samples were with an average social adjustment.
Niradhar, D. (2009) found that (i) working in private or government school was not a major factor for someone’s mental health and adjustment qualities, (ii) both the government and private school teachers were mentally healthy, they were not exceeding each other, (iii) both the government and private school teachers were able to adjust well in their profession, they were not exceeding each other.

**Social Adjustment and Academic Qualification**

Gupta, A.K. (1981) found that adolescents studying schools from joint families tended to exhibit significantly better educational, social and emotional adjustment.

Bhaskara Rao, D., Rajasekhar, D. and Bhuvaneswara Lakshmi, G. (2003) found that the prospective teachers with graduate and post-graduate degrees were having an average level of adjustment. In graduate prospective teachers, the adjustment level was tending towards high adjustment, but it was normally distributed as per expectations in the post-graduate prospective teachers.

John Louis Manoharan, R. (2008) found that teacher trainees’ educational qualification has influence on adjustment. But it is interesting to note that trainees with just graduate qualification had a higher level of adjustment than those with post-graduate qualifications. Sex and optional subject groups do not have any influence on adjustment of the B.Ed teacher trainees.

**Social Adjustment and College (Institution)**

Sarojini, S. (1971) found that emotionality and adjustment problems were significantly more for boys than girls during the period of late childhood and pre-adolescence. Emotionality and adjustment problems were more for pupils in co-educational institutions than for those in single sex schools. During the years of fourteen to sixteen, boys had more adjustment problems than girls.
Sharma, G.R. (1978) found that non-professional college students had more problems than the professional college students in the area of social adjustment. The medical students and the science students had greater problems in social, emotional and educational areas of adjustment than the commerce students.

Mangal, S.K. (1979) found that the teachers’ adjustment consisted of five factors. They were adjustment with academic and general environment of the institution, socio-psycho-physical adjustment, professional relationship adjustment, personal life adjustment, financial adjustment and job satisfaction.

Sumbali, K. (1981) found that aggressive subjects showed poor home, emotional and college adjustment at the adolescent level. The aggressive and normal subjects were equally well adjusted socially.

Gupta, B.D. (1988) found that science and arts teachers did not differ significantly with respect to adjustment and academic and general environment of the institution.

Gurvinder, K. (2007) found that college lecturers as well as school teachers face more marital adjustment problems.

**Social Adjustment and Profession**

Knab (1982) has aptly remarked that work related stress has become a major factor affecting the well-being of members of teaching profession. This stress leads to emotional exhaustion (Maslach, 1978) which causes a loss of concern for the school and detachment from the people with whom one works. Walsh found that a cynical deterioration in the quality of teaching and depression increased the use of sick leave and efforts to leave the profession.
Gupta, B.D. (1988) found that effective science and arts teachers did not differ with respect to professional adjustment.

Dave, P. and Kulshrestha, A.K. (2004) found that (i) the distribution of adjustment scores of the teachers working in primary schools was found to be normal in nature with slight divergence, which may have been due to sampling fluctuation. The mean value of scores indicated that the primary teachers are highly adjusted in social life and least adjusted in professional life, (ii) the distribution of the teachers according to the level of adjustment in different areas revealed that majority of the teachers have average level of adjustment. They seem to be satisfied or very satisfied with their personal, professional and social life.

Niradhar, D. (2009) found that most of the government and private school teachers were mentally healthy and having highly adjustable quality in their profession.

Social Adjustment and Age of the Teachers

Tulpule (1977) found in the area of social adjustment that thirty percent showed poor adjustment, submissive and retiring tendency; six percent indicated aggressiveness in social contacts. In the area of emotional adjustment, about eighty percent of the girls were found to be emotionally maladjusted; seventeen percent showed average adjustment; and only three percent were found to be well adjusted. The higher middle group was the most aggressive and the least submissive group in social contacts.

Social Adjustment and Experience

Gupta, B.D. (1988) found that teacher effectiveness along with adjustment was found to be related to experience of the teachers. They were found most effective in the 11-15 years experience group after that it began to decline.
Social Adjustment and Salary

Gupta, B.D. (1988) found that teacher effectiveness dependent on social adjustment seemed to be related to salary. The number of effective teachers decreased as the salary increased.

Social Adjustment and Effective Teachers

Chhaya (1974) revealed that effective teachers when compared to non-effective teachers had better adjustment as measured by Bell Adjustment Inventory.

Singh (1981) concluded that high effective teachers were better adjusted than average and low effective teachers.

Kaur (1993) found that the variable of adjustment is a good predictor of teacher effectiveness.

The above studies related to adjustment of teachers, available till date, indicate that a study is required in the area of social adjustment of secondary school science teachers.

JOB SATISFACTION

The following are some research findings related to job satisfaction.

Job satisfaction and Students

Anjaneyulu (1968) made an observation that satisfied teachers rated a large number of their students as excellent, good, and average on pupils qualities and behaviour, than dissatisfied teachers. Dissatisfied teachers rated a large number of their students as poor and below average.
Smith (1978) found that working with children was cited most often by teachers as a source of satisfaction with their jobs. Job satisfaction of teachers was positively related to 'students' liking for teachers and teachers' liking for students'.

Dawis (1981) found a relationship between working with students and job satisfaction.

**Job Satisfaction and Security of Job**

Security is one of the most frequently studied factors. Blum (1952) reported that security was less important to the better educated person, perhaps, because there was not so much fear of lay off in the kind of jobs that the highly educated obtained or the highly educated were justifiably more confident of being able to find other jobs if necessary.

Blum and Naylor (1968) made an observation that security contributes to job satisfaction, but cautioned that 'secure' is social as well as economical. Hence, it is believed that social security and economic security are essential to be happy in any job. Kalanidhi (1973) reported that the women workers in industry treated security as the most important job factor. Similar results were obtained by the Fortune Survey (1974) which stated that security for old age was one of the five factors significantly related to job satisfaction.

Dawis (1981) found that one of the primary sources of teachers' job satisfaction was job security. Both male and female groups describe job security to be the source of highest satisfaction (Wills, 1982).

Sivasankar Reddy and Rajasekhar (1992) found a difference in the levels of job satisfaction of permanent and temporary job holders.
Job Satisfaction and Attitude

Attitude towards teaching was found to have a significant relationship with job satisfaction in many studies conducted on job satisfaction.

Goyal, J.C. (1980) found that large majority of teacher educators were favourably inclined towards their profession and were satisfied with the job.

Nayak, K.D. (1982) found that teaching attitude has a significant positive relationship with the job satisfaction of female teachers.

Garg, D.P. (1983) studied teaching attitude and teaching behaviour of highly satisfied and dissatisfied teachers of secondary schools and found a positive and highly significant relationship obtained between teachers' attitude and job satisfaction. Highly satisfied teachers possessed a more favourable teaching attitude and showed better teaching behaviour than highly dissatisfied teachers.

Kakkar (1983) identified a positive relationship between vocational attitude and job satisfaction.

Som (1984) observed that female teachers tended to be higher than males in their attitude towards teaching, teaching profession and pupils.

Kulsum (1985) found that teachers' attitude towards teaching profession and teachers' effectiveness turned out to be the common predictors of both job satisfaction and job involvement.

Cornelius (2000), Mathai (1992), Mahapatra (1987) and Rama Krishnaiah (1980) observed that attitude towards teaching profession was related to success in teaching
Ishwara, P. and Laxmana, P. (2008) found that organizational and individual cases related factors influence the perceived levels of job attitudes of university teachers.

Jasmine Maria Sylvester (2010) observed no significant difference between male and female teacher educators with regard to attitude towards teaching profession. Gender differentiation did not have influence on the attitude towards teaching profession.

**Job Satisfaction and Teaching Experience**

According to Siegel (1969), job experience is related to satisfaction in a rather interesting fashion. As one might expect, new employees tend to be relatively well satisfied with their jobs.

Rao (1970) found no association between job satisfaction and experience. Anand (1977), Ramakrishnaiah (1980) and Padmanabhaiah (1984) pointed out that the years of experience possessed by teachers had no role to play in the determination of level of job satisfaction. No significant relationship existed between the number of years served as a principal and ratings of subjects and their overall job satisfaction (Surbida, 1984).

Neeraja Dwivedi and Pestonjee (1975) found that job satisfaction increased with increasing experience for a period of 10 years and after that it starts going down. Hodge (1977) observed that the level of job satisfaction increased for both Negro and White professors as years of employment at the institutions increase in number.

Weinroth (1977) indicated that experienced teachers, over 55 years of age, with older children, had lower motivation and higher job satisfaction in the intrinsic area compared to (1) the young, childless, inexperienced teachers, and (2) older, experienced teachers with school aged children. Young inexperienced teachers with pre-school children wanted less work pressure and were less satisfied with the amount of pressure on the job than older, experienced teachers with school aged children.

Lewis (1982) also found that teachers who had continuous experience in the current school were more satisfied than others.


Nongrum, M. (1992) found no significant differences between teachers with different lengths of experience.

Das, Lakshahira and Panda, B.B. (1995) found that (i) there was no significant difference in the degree of job satisfaction of male and female college teachers, (ii) experienced college teachers did not have better job satisfaction than the inexperienced college teachers and (iii) experienced higher secondary teachers did not have better job satisfaction than inexperienced higher secondary teachers.

Thaker, M.J. (1996) found that the secondary school principals having experience of 9-16 years were more satisfied and the principals having experience of 0-8 years were least satisfied.

Tahira Khatoon and Hasan, Z. (2000) found a perceptible and significant difference in the job satisfaction between groups of teachers with different levels of teaching experience.
Bhuyan, B. and Choudhury, M. (2002) found no association between levels of job satisfaction and the experiences of the college teachers.


Sreenivasan (2007) stated that low experience teachers have low job satisfaction than high experience teachers.

Neelakandan and Rajendran (2007) indicated that high experience employees have higher job satisfaction than low experience employees. Gandharva and Joshi (1999) also agreed with this statement.

Saveri, Sr. (2009) found a significant association between job satisfaction and total number of years of teaching experience of B.T. Assistant Teachers.

**Job Satisfaction and Locality**

Basi, S.K. (1991) found that female teachers, urban school language teachers and higher secondary level language teachers were found more externally controlled and satisfied with their jobs than the rural and high school language teachers.

Bhuyan, B. and Choudhury, M. (2002) found no association between levels of job satisfaction and sex of teachers working in urban and rural colleges.

Aggarwal, S.C. and Vishal Aggarawal (2009) found that highly satisfied teachers of the secondary schools were highly committed while teachers with low job satisfaction had low commitment. For low job satisfaction group, teachers of urban and rural schools were found to differ in their commitment.
Saveri, Sr. (2009) found a significant difference between urban and rural school B.T. Assistant Teachers in their extent of life satisfaction.

Jasmine Maria Sylvester (2010) found no significant difference between the teacher educators belonging to urban and rural areas with regard to job satisfaction in their teaching profession.

**Job Satisfaction and Educational Qualification**

Hoppock (1935), Sinha and Sharma (1962), Anand (1972), Weaver (1974), and Bernard and Kulandaivel (1976) concluded that there was no relationship between level of education and job satisfaction among employees of various occupations.

Rao (1970) and Carrell and Elbert (1974) found a significant relationship between job satisfaction and educational level of individual teachers and it was considered as the significant determinant of job satisfaction.

Paramaji (1978), Al-Khaldi (1981), and Amar Singh (1985) found that employees with higher educational levels were less satisfied with their salary than those with lower educational levels. Weiner (1981) found that the teachers with bachelor degree were more satisfied with their work than those who had master degrees.

Kakkar (1983) found a relationship between educational level and job satisfaction.

Anirudh and Maudal (1990) found that education had negative association with job satisfaction.

Rajadurai, V. (1996) found that the secondary grade teachers were satisfied in their job with master’s degree qualification.
Shajan (1998) identified that teachers with master or higher degrees were less satisfied with job than simple graduates.

Bhaskara Rao and Sridhar (2003) concluded that there was a high job satisfaction in U.G and P.G teachers without any significant difference between them.

Vyas, M.V. (2002) found that educational qualification was not related to job satisfaction of primary schools teachers.

Tanjoth (2004) found no difference with teachers with Bachelor degrees and master's degrees.

Sreenivasan (2007) identified that post graduates were more satisfied with their job than graduate teachers.

**Job Satisfactions and Management**

Stagner, Flabee and Wood (1952) found that job satisfaction was related to better employee-employer relationship. When the behaviour of administrators conformed to teachers' expectations of the formers role, satisfaction was high; non conformity produced high dissatisfaction (Bidwell, 1959).

Butler (1961) observed that degree of satisfaction was related to feeling of freedom or lack of it that was allowed by the management in the classroom.

Anjaneyulu (1968) found that in committee schools, the teachers were dissatisfied because of lack of job security, rigid and orthodox service conditions and too much of domination by the management; in mission schools, the factors were low standards of pupils, lack of parental co-operation and lack of right prospects in the job; in local board schools, the factors were too much
interference by politicians, lack of social status, non-availability of suitable accommodation, equipment and furniture; in government schools, rigid and orthodox service conditions, lack of parental co-operation and frequent transfers to distant places were the factors producing dissatisfaction.

Sommers (1969) observed that most of the teachers felt that there was a lack of communication between teachers and administrators.

Bernard and Kulandaivel (1976) found that the teachers of government aided private schools appeared to be better satisfied than the teachers of municipal and government schools. It was also found that teachers working under different managements had different problems.

Smith (1977) found that the satisfying elements in the principalship to be directly controlled by the principals themselves while control of the dissatisfying elements rested with the upper level school district management.

Venkatarami Reddy and Krishan Reddy (1978) observed that the teachers employed under private managements were the most satisfied while those in the government managements were the least satisfied. Similar results were obtained by Venkatarami Reddy and Babjan (1980) and Venkatarami Reddy and Ramakrishnaiah (1981). In a comparative study of job satisfaction Tabatsbai (1981) revealed that private sector employees were more satisfied with their job than public sector employees.

Saxana (1989) found that the teachers in schools with open climate are likely to have higher over all job satisfaction than their counterparts in closed climate schools.

Nongrum, M. (1992) found that the type of management appeared to be associated with teachers job satisfaction with the government school teachers showing significantly more satisfaction.
Basha (1994) found that job satisfaction was significantly more among the public sector employees than those in private and co-operative management. Further, subjects from the private and co-operative sector did not differ in their level of job satisfaction.

Zaffane (1994) found that satisfaction increased when greater certainty about future directions or outcomes of the organizations was experienced and when job uncertainty perceived positive work group performance.

Rana (1994) found that communication was one of the critical areas in the whole process. It was most prominent by its absence, and, consequently tended to be a major source of dissatisfaction.

Ausekar, Pratibha (1996) found that private school teachers and the government school teachers were found to be more satisfied with factors like promotion, recognition, independence, salary, job security, job status and educational policies, whereas the teachers in private schools were more satisfied with factors like responsibility, achievement, working conditions and personal life.

Maheswar Panda (2002) found no significant difference between government teachers and private teachers in respect to their job satisfaction. And the college teachers, in general as well as both categories, were satisfied with their job.

Ramatulasamma (2003) identified that the managements' policies were not conducive to promotion of job satisfaction.

Bhaskararao and Sridhar (2003) found significant job satisfaction in teachers working in private and government secondary schools without any difference.
Sabarwal (2003) observed that most of the dissatisfied teachers felt that there was a lack of communication between teachers and administrators.

Vijayalakshmi (2005) observed a low and positive correlation between teacher effectiveness and job satisfaction. Only management of the school has significant impact both on teacher effectiveness and job satisfaction.

Usmani, Pandey and Jasmin Ahmad (2006) found that government and government aided school teachers were highly satisfied whereas unaided or private school teachers were least satisfied. Full job satisfaction may be one of the reasons behind this.

Maheswar Tahlkur (2007) concluded that the management was the most prominent correlate of job satisfaction for the high group of secondary school principals.

Sukla Roy Choudhury (2007) concluded that there was no significant relationship between professional awareness and job satisfaction of the college and university teachers with respect to their institution.

Ishwara, P. and Laxmana, P. (2008) concluded that overall or general job satisfaction of the university teachers was significantly associated with perceived levels of specific job satisfaction.

Saveri, Sr. (2009) found a significant difference between aided and government school B.T. Assistant Teachers in their extent of job satisfaction.

Sharma, B.K. and Sabita, P.P. (2009) found that the teachers of private schools were highly satisfied whereas the teachers of government schools were only above average in job satisfaction. The result of highly satisfied teachers of private elementary schools may be attributed to the facilities, working conditions, effective discipline policy and balanced work demands, etc. The
result related to relationship of organizational health of schools and job satisfaction of teachers indicated a positive and substantial correlation between them.

**Job Satisfaction and Age**

Age of an individual is one of the most important demographic variables which influences job satisfaction. There is a wide spread belief that productivity declines with age.

Hull and Kolstad (1942) observed the results of several investigations and concluded that job satisfaction was relatively high at the start, dropped slowly to the fifth or eighth year, then rose again with more time on the job. The highest level of morale was reached after the twentieth year.

Herzberg, et al. (1957) reported that, in general, job satisfaction was high among young workers, low among middle aged employees and it would increase again after the middle age.

Saleh and Otis (1964) reported that job satisfaction increased up to 60 years of age and then declined in the terminal period of 60-65 years among the managers in different companies.

Sinha and Sharma (1962) and Anand (1972) observed a significant relationship between age and job satisfaction. Altimus and Tersine (1973) noticed that younger workers were significantly better satisfied with regard to self esteem, self-actualisation and total work satisfaction.

Belasco and Alutto (1972) study found the most satisfied teachers to be older and teaching in the elementary school. Similar results were obtained by Smith (1982) and Al-Khaldi (1983). Birmingham (1985) also observed that teachers over 55 years of age and under 25 were the most-satisfied.
Lavingia (1974) found that young teachers were more satisfied in both groups of primary and secondary teachers. Srivastava and Sobha (1986) found that young teachers significantly experienced higher level of job satisfaction and professional honesty than old teachers. Kakkar (1983) and Kulsum (1985) found that age and sex had a significant relationship with job satisfaction.

Neeraja Dwivedi and Pestonjee (1975) reported that age was the important factor which played a significant role in the determination of job satisfaction. Holdaway (1978) reported that both facet and overall satisfaction were related to age of the teacher. Kentle (1985) also found that age was significantly related to job satisfaction.

Richard and Dewhirst (1979) disclosed that age demonstrated a significant positive relationship with extrinsic satisfaction and there was no such relationship between age and intrinsic satisfaction.

Mokry (1981) found that the young female teachers begin their job with enthusiasm, hope and satisfaction and older female teachers end up with feeling of frustration, disappointment and dissatisfaction, whereas young male teachers begin their job with low or average feelings of satisfaction and end up with a somewhat better level of satisfaction.

Godkin (1982) found a positive correlation between the age of respondents and the level of expected satisfaction on their job.

Kentle (1985) found that age was significantly related to job satisfaction.

Sajili (1995) reported that the satisfaction increased up to 45 years of age and then declined in the terminal period of 45-65 years among the lecturers. Tripri (1999) found the most satisfied teachers to be older and teaching in the middle school. Similar results were obtained by Shekah (2003). Aajana (2005) observed that teachers over 55 years of age and under 25 were the most-satisfied.
Dhar and Jain (1992) found that job involvement and job satisfaction were positive correlates which implies that involvement in job increases with job satisfaction and vice-versa.

Chandraiah, K. (1994) found that (i) the middle aged and old aged teachers were more satisfied with their jobs as compared to the younger group of teachers, (ii) age and job satisfaction had significant positive relationship among younger, middle and old aged groups, (iii) correlation coefficients obtained for the subjects age and job satisfaction, tenure of service and age, job satisfaction and tenure of service, were all positive and significant pertaining out the effect of age. (iv) the relationship between experience and job satisfaction did not change the nature and extent of correlation significantly.

Bhaskara Rao and Sridhar (2003) found a positive relationship between age and job satisfaction.

Sreenivasan (2007) observed that high age groups had more job satisfaction than low age groups.

Siddiqui, S. (2009) found that young teachers (25-35 years) had higher level of job stress and less job satisfaction than the middle age teachers (36-45 years) and the late middle age teachers (46-60 years).

Rao (1970), Pestonjee and Singh (1973), Anand (1977) reported no significant relationship between age and job satisfaction. Surbida (1984) also observed that there was no significant relationship between principals’ ages and their ratings of their overall job satisfaction.

Amar Singh (1985) found that age was positively correlated to job satisfaction of doctors and engineers but not in the case of teachers.
Surbida (1984) observed no significant relationship between principals’ age and their overall job satisfaction.

Rana (1990) reported no significant relationship between age and job satisfaction of workers. Das (1994) too observed no significant relationship between principals’ ages and their ratings of their overall job satisfaction.

Bharathi, T. Aruna and Reddy, N.V. Vani (2002) found that age, income, educational qualification and teaching experience had insignificant effect on job stress of teachers.

**Job satisfaction and Gender**

Many investigators considered sex as one of the variables, which would contribute to job satisfaction or dissatisfaction.

Bange (1944) and Stockford and Kunze (1950) found that women were more satisfied than men. Morse (1953) observed that a higher overall level of job satisfaction has been reported in various studies for women than for men.

Chase (1951) and Belesco and Alutto (1972) reported that women teachers tended to be more satisfied with their job than men teachers. Bernard and Kula nadavel (1976) also found that women teachers expressed greater job satisfaction compared to their men counterparts.

Hollen and Gemmill (1976) reported that women teaching professionals experienced less perceived participation in decision making, less overall job satisfaction, and more job related tension than their men counterparts.

Gobel (1977) found that women workers evidenced dissatisfaction with work than did their men counterparts but they expressed more satisfaction with pay. Similarly, Chen (1977) observed that men teachers were more satisfied with their jobs than were women teachers.
Venkatarami Reddy and Krishna Reddy (1978) found that women teachers were more satisfied than men teachers. Venkatarami Reddy and Babjan (1980); and Venkatarami Reddy and Ramakrishnaiah (1981), Padmanabhaiah (1984) also obtained similar results.

Female teachers tend to be more satisfied with their current teaching profession and they perceive a more favourable professional environment than male teachers. Smith (1982), Lewis (1982) and Birmingham (1985) also found that women teachers were more satisfied with their job than men teachers.

Sundararajan, S. and Minnalkodi, B. (1991) found that (i) In most of the dimensions of job expectation, female teachers were found to be more expectant than their male and other grades counterparts, (ii) In most of the dimensions of job realities, male and urban teachers experienced better job realities than their female and rural counterparts.

Bhaskara Rao and Sridhar (2003) found a level of high job satisfaction in men and women teachers without any significant difference between them.

Vijaya Lakshmi (2005) found that women teachers working in government schools were less effective, when compared to other groups of teachers whereas the teachers working in private schools are more effective. Urban and non-language teachers were more effective in teaching and were satisfied with the job.

Sreenivasan (2007) found that all the teachers, irrespective of sex, were satisfied with their jobs.

Ravindra Kumar, A. and Patil, N.H. (2009) found that the women teachers face certain problems such as lack of coordination and cooperation in the workplace. Majority of these teachers were satisfied with their work, job and salary. As expressed by majority of the women teachers, they have not got recognition for the job and work done.
Sarah Basu (2009) found that when gender, marital status and locality of the primary school teachers are taken into consideration, satisfied teachers evince significantly better mental health than their unsatisfied counterparts.

Radhakanta, G. (2009) indicated a significant relationship of job satisfaction with teacher accountability. The study also indicated a significant difference in accountability of male and female secondary school teachers.

Jasmine Maria Sylvester (2010) found no significant difference in male and female teacher educators with regard to job satisfaction in their teaching profession.

Englhardt (1973) and Weaver (1977) however, did not find any significant difference between men and women workers with regard to their job satisfaction.

Cohen (1977) showed that men and women teachers were remarkably similar, sex was found to be unrelated to organizational affiliation, job consciousness, degree of participation in the local association and degree of participation in the job actions. Similarly, Atteberry (1977) reported no significant relationship between sex and job satisfaction of elementary school principals.

Surbida (1984) found no significant relationship between principals’ sex and their ratings of their overall job satisfaction.

Fumham and Goddard (1986) reported no gender difference in overall job satisfaction, although women were generally more satisfied with their working conditions than the men.
Bilgic (1998) did not find clear gender differences in overall job satisfaction in Turkey, but did find clear and significant gender differences related to pay satisfaction and satisfaction with the physical environment.

Vyas, M.V. (2002) found that sex was not related to job satisfaction of primary school teachers.

Jalaja (2004) conducted a study on the job satisfaction of the teacher educators, found no significant relationship between Teacher Educators sex and job satisfaction.

Sukla Roy Choudhury (2007) observed no significant relationship between professional awareness and job satisfaction of male and female teachers.

**Job Satisfaction and Marital Status**

Neeraja Dwivedi and Pestonjee (1975) found that, as far as marital status was concerned, married showed higher job satisfaction than the unmarried.

It was concluded by Weinroth (1977) that age, teaching experience, and age of children in the home affect the motivational needs, job satisfaction, and career aspirations of married women teachers.

Smith (1977) found that husband's marital adjustment was correlated with women's job satisfaction. Those who were generally happy and satisfied, tended to reflect that feeling in both the major areas of their lives - work and family.

Generally, married adults are better adjusted than their unmarried counterparts (Srole, et al., 1962; Orden and Bradburn, 1968; Bradburn; 1969). As adjustment is positively related to job satisfaction (Kates, 1950; Herzberg, et
al., 1957; Anand 1977; Balasubramanyam and Narayanan, 1977; Venkatarami Reddy and Krishna Reddy, 1978), one may expect that married teachers would be more satisfied with their jobs.

However, the few studies that were carried out in this area obtained contradictory results. AVA (1948), Redfer (1964), Venkatarami Reddy and Krishna Reddy (1978), Ramakrishnaiah (1980) and Padmanabhaiah (1984) reported no relationship between the two variables, while Butler (1961) found that unmarried beginning teachers were more satisfied than their married counterparts. However Iniow (1951), NBA (1957) and Venkatarami Reddy and Babjan (1980) found that married teachers were more satisfied. Sinha and Nair (1965) and Chen (1977) also obtained similar results on factory workers.

Vyas, M.V. (2002) found that married teachers were more positive towards job satisfaction than unmarried teachers of primary schools.

Jalaja (2004) found again that married teachers seem to be more satisfied with their teaching positions than unmarried teachers.

Neelakandan and Rajendran (2007) found that married employees will have higher job satisfaction when compared to unmarried employees. The result was in agreement with the finding of Bhatt (1999) and Bilgic Reyham (1998).

Bhuyan, B. and Choudhury, M. (2002) found that there was no association between levels of job satisfaction and the marital status of the college teachers.

**Job Satisfaction and Salary**

Salary has an important influence on the satisfaction of the employees. With increasing complexity and industrialization of the society, for many people work is turning out, day by day, into a means of earning a living.
Anjaneyulu (1968) found that inadequate salary was one of the most common causes of dissatisfaction among school teachers.

Those who were offered financial incentives had better job satisfaction than those who were not offered such incentives (Pestonjee, 1971). These findings laid support to Ganguli’s (1964) prediction that for the present and in the foreseeable future, money will remain as an important incentive for Indian workers.

It is very unfortunate that the scales of pay of teachers are lower than those of other categories of employees who possess similar or even lower qualifications, experience and responsibilities, observed Perumal (1969). He added that such a disparity promotes an unhealthy and undesirable competition and as a result, teachers become a disgusted and a dissatisfied lot.

In Robert’s (1977) study, teachers ranked good wages as one of the most important job motivation factors.

Counts (1978) found that inadequate salaries and the narrow salary range between beginning and retiring teachers were among the principal reasons for leaving the teaching profession.

Surbida (1984) indicated that principals were satisfied with their jobs and their salaries. In Kentle’s (1985) study, income was rated highly important by 54 percent of the respondents, however, only 33 percent were satisfied with their income.

Uma, S. (1986) noted that significant relationships existed between income and sense of competence and job satisfaction. Moore (1986) concluded that 83 percent of teachers were satisfied with their work on daily basis. They were satisfied with every job facet except salary.
Cobb (1986) on teachers indicated that elementary and secondary school teachers perceived basically the same level of job satisfaction when comparisons were made concerning the factor reports with principal, satisfaction with teaching, salary, work load and community pressures.

Hasan and Sonhadji (2005) observed that (i) the proportion of variance of satisfaction with pay explained by the level of education, rank and salary was significant, (ii) the increment in variance of satisfaction with pay accounted for by salary after level of educational and academic, rank that had been taken into account was significant, (iii) the promotion of variance in satisfaction with promotion accounted for by level of education, rank and salary was significant, (iv) the relationship between academic rank and satisfaction with promotion after controlling level of education and salary was significant.

Sharma (2005) found that majority of physical education teachers were satisfied with the salary drawn.

**Job Satisfaction and Promotions**

Blum (1952) stated that opportunity for advancement was most important to sales, clerical and skilled personnel and least important to the unskilled. Spector (1956) assessed the impact of promotional opportunities on job satisfaction in a laboratory situation and concluded that meager chances of promotion were causing dissatisfaction.

Herzberg, et al. (1959) suggested that job enrichment or vertical enlargement of the job are conducive to psychological growth of the worker.

Regardless of advanced degrees and credentials acquired, in terms of prestige, a classroom teacher still appears to be one step above the student and one step below the lowest level administrator (Bloland and Selby, 1980).
Job Satisfaction and Colleagues

Vanjeist (1951) stated that persons who were rated high in inter-personal desirability by their fellow employees were the most satisfied with their jobs.

According to Neeraja Dwivedi (1971), friends, co-workers, members of the family and neighbors exercise influence on the individual and affect his job satisfaction.

Ramakrishnaiah (1980) found that 93 per cent of the college teachers who were highly satisfied in their job stated that they have cordial relationships with their colleagues.

Davis (1981) found that 80 per cent of teachers’ problems were emanating only from teacher-colleague relationships.

Mokry (1981) found that teacher-principal relationships and inter-faculty relationships have a great effect on teachers’ job satisfaction.

Gopalkrishnan, V. (2009) revealed that while self financing college teachers are satisfied with principal, parents and students, physical facilities, self-esteem and co-teachers, they are dissatisfied with salary and fringe benefits, opportunity for achievement, academic policies, management and job security.

Job Satisfaction and Head of the Institution

One of the most frequently cited reasons given by former teachers for having left the profession was dissatisfaction with their principals, according to Browning (1963) and Yuskiewicy and Donaldson (1972).

Sommers (1969) reported that the principal was the most important determinant of teacher morale. Englhardt (1973) found that satisfaction had a direct relation to principal's consideration to the teaching staff.
Ahuja (1976) stated that dissatisfaction increases when one has to work under an incapable, inefficient and indifferent head or boss.

According to Bloland and Selby (1980), an important factor in teacher career change is dissatisfaction with the principals which may stem in part from the principal's role, often unintentional, in reducing or eliminating teacher opportunity for creativity in the classroom. Lipham, et al. (1982) found that the staff perceptions of principal's leadership were significantly and positively related to job satisfaction.

Teacher satisfaction may also be influenced by the perceived ability of the principal to provide rewards for high quality teaching performance (Daly, 1981). Teacher principal relations and interfaculty relationships have a great effect on teacher's job satisfaction (Mokry, A.I., 1981).

A positive association was found to exist between the level of teacher job satisfaction and the principal's perceived level of aloofness (Holder, 1985).

Ara and Nasreen (1986) found that principal's leadership behaviour was positively related to job satisfaction. High desirable leadership behaviours of the principals generated a higher degree of conformity and normalcy in the teachers and vice versa.

Beegum (2001) found that job satisfaction among college teachers was related to certain socio-demographic variables such as faculty, region, locality, caste and community mode of conveyance and education of spouse. It was also found that job satisfaction of college teachers was related to certain personality variables like self-esteem, materialism, spiritualism, orientation and thoughtfulness.
Chumma (2002) found that the members of degree granting colleges of education in Nigeria were satisfied with their overall aspects of their working situations. The greatest source of job satisfaction was co-workers, followed by supervision. Faculty members were least satisfied with pay and opportunities for promotion.

Mei-jing (2003) found that (i) the collective contribution of the predictor variables was statistically significant in predicting the job satisfaction of institutional special education teachers, (ii) the individual contribution of teacher principal relations and school facilities and supportive services were statistically significant in predicting job satisfaction of institutional special educators.

**Job Satisfaction and Level of Occupation**

Trier (1954) observed that occupational status was the most significant factor in creating differences in job satisfaction.

Porter (1962) stated that higher levels of employment offer more ego satisfaction, more status, pay, and self direction.

Shingwekar (1966) found that educational reconstruction can be brought about only when we raise the position and status of teachers.

Anjaneyulu (1968) found that post-graduate teachers expressed dissatisfaction in the job as they found their jobs lacking in social status.

Chumundeshwari, S. and Vasanthi, S. (2009) found a significant difference in job satisfaction and occupational commitment between teachers in different categories of schools. The matriculation school teachers have better job satisfaction when compared to the state board school teachers; the central board school teachers have better job satisfaction when compared to the
matriculation board teachers; the matriculation school teachers have more occupational commitment when compared to the state board school teachers; the central board school teachers are significantly better in their commitment when compared to the matriculation board school teachers.

Job Satisfaction and Facilities

Generally, employees value physical surroundings which are not dangerous or uncomfortable with respect to features such as temperature, humidity, ventilation, lighting and noise moderate rather than extreme degrees, as extremes cause physical discomfort and reduce one's ability to work.

Rudd and Wiseman (1962) found that inadequate equipment and supplies as well as lack of other facilities have often been a source of low morale and dissatisfaction. They also found that physical working conditions must be pleasant for the teachers along with other tools, material, and equipment which they require. Effective teaching depends to a large extent on the physical working conditions such as good accommodation, good ventilation, suitable classrooms, adequate furniture, library, laboratory, play ground, etc.

Rohila (1966) found that if the physical environment in which the work is done is unhealthy, it may contribute to a sense of uneasiness and that work done in poor physical conditions over a longer period of time may result in dissatisfaction with the job.

Shah, K. (1982) observed that dissatisfaction of teachers was due to lack of different kinds of physical facilities, poor buildings, and poor teaching material Srivastava and Sobha (1986) also found lack of physical facilities as a factor of dissatisfaction among primary teachers. Padmanabhaiah (1986) also observed lack of physical facilities as one of the factors for teachers’ dissatisfaction.
Srivastava, M.K. (1986) found the teacher educators were dissatisfied because library, reading room, staff room facilities were not adequate enough to promote sound educational climate.

Ramatulasamma (2003) found a positive relationship between job satisfaction and institutional facilities.

**Job Satisfaction and School Climate**

Shanker, V. (1987) studied teachers responsibility and its relationship with school climate and job satisfaction of teachers at the secondary school level and observed the following: (i) Female teachers of different school climates except autonomous climate were found more responsible towards their profession than their male counterparts; (ii) Teachers responsibility towards their profession was not related to alienation and production emphasis dimensions of organisational climate; (iii) Both male and female teachers working in 'autonomous' and 'controlled' school climate were found to be more responsible and highly satisfied; (iv) Teachers’ job satisfaction did not show any significant relationship with the dimension of 'psychological hindrance' and 'production emphasis' of the organisational climate.

Balawinder Kaur (1986) found that out of the eight organizational characteristics, namely, hindrance, esprit, thrust, consideration, initiating structure and total leadership behaviour appeared as correlates of job satisfaction. Disengagement and hindrance emerged as significant predictors of job satisfaction.

Austin (2004) found that teachers with high level of job satisfaction indicated more favourable impressions of school climate than the teachers with low level job satisfaction. Those teachers with high level of job satisfaction
indicated more favourable impressions of school climate. The variables of the subject taught and type of the school district, appointed or elected superintendent did not make a difference in the relationship between level of job satisfaction and perception of school climate.

**Job Satisfaction and Rewards**

A worker is likely to be satisfied as long as the magnitude of the rewards he or she gets equals or exceeds the rewards comparable to others and will be dissatisfied upon discovering that the magnitude of his or her rewards are lower than those of others (Stouffer, et al., 1949).

Locke and Whiting (1974) found that the company or organisation was viewed as causing the highest percentage of both satisfying and dissatisfying events, with emphasis on promotions and recognition.

According to Bizmen (1976), when the satisfaction of given need can be evaluated according to some internal stimuli, its level will be determined more by the absolute than by the relative magnitude of the reward, and vice versa when internal stimuli do not exist.

Daly (1981) found that teachers' job satisfaction may be influenced by the perceived ability of the principal to provide rewards to high quality teaching performance.

**Job Satisfaction and Recognition**

Johnson (1967) and Hansen and Stanley (1969) found that recognition enhanced satisfaction. Merill (1969) found that meager recognition led to dissatisfaction among teachers. Robinson (1960) concluded that teachers were more interested in public recognition than in recognition from other
professionals. Thus, recognition is one of the most significant factors that influence satisfaction of teachers.

These studies on job satisfaction indicate that a study is needed on job satisfaction of secondary school science teachers.

Thus, the review of the related literature helped to develop a clear insight into the problem and in selecting the present problem, namely, A Study of Teaching Aptitude, Social Adjustment and Job Satisfaction of Secondary School Science Teachers.