Chapter 2

REVIEW OF RELATED LITERATURE

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This chapter covers the background literature that was drawn upon for the better understanding of the scenario. The bulk of literature that was compiled for this purpose is arranged in six sections. Section 2. I talks about the literature reviewed on personality variable. Section 2. II examines the literature related to the family variable. Section 2. III analyses the achievement motivation variable. Section 2. IV reviews the study habit variable. Section 2. V covers the teacher effectiveness variable. And section 2. VI describes the related socio demographic variables.

SECTION 2. I: STUDIES RELATED TO PERSONALITY

Paunonen and Ashton (2001) in a large-sample study of 717 subjects, 190 male and 527 female undergraduate students, described two broad Big Five factor measures, and were compared with two narrow personality trait measures in the prediction of final grades in an undergraduate psychology course. The two factors evaluated as predictors were Conscientiousness and Openness to Experience (or Intellect). The traits evaluated, which were constituents of the respective factors, were need for Achievement and need for Understanding. In each comparison, the lower level trait measure did better than its higher level factor measure in the prediction of course grades. It is concluded that the aggregation of narrow trait measures into broad factor measures can be counterproductive from the points of view of both behaviour prediction and behaviour explanation.
Polleys (2001) carried out a study with the purpose to investigate the relationships between self-regulated learning (SRL), personality, and achievement. Specifically, the study investigated whether a relationship exists between personality and self-regulated learning, whether a relationship exists between achievement based on assignment to a remedial group and self-regulated learning, and whether achievement moderates the relationship between personality and self-regulated learning. Subjects were 126 college students, approximately half of whom were remedial students. All subjects completed both the Myers-Briggs Type Indicator and the Motivated Strategies for Learning Questionnaire. Statistical measures, including multiple regression correlations, a series of moderated regressions, and a MANOVA procedure were performed in analyzing the data. Significant relationships between SRL and personality were found in 17 instances out of a possible 60 for the whole group of subjects. The multivariate test found no significant influence of achievement on SRL. When subjects were separated into the remedial and non-remedial groups, differing patterns emerged. The non remedial group showed relationships in only seven of the 60 possibilities. The remedial group, however, showed relationships in 15 of the 60 possibilities. The JP personality preference was the most powerful predictor of self-regulated learning for both remedial and non-remedial groups. Although the personality-SRL relationships were different in many factors between the non-remedial and remedial groups, the overall multivariate test showed no significance; hence, achievement was not found to be a moderator of the personality-SRL relationships.
Rindermann and Neubauer (2001) investigated the influence of personality on three aspects of cognitive performance: processing speed, intelligence and school performance. Stepwise regressions between personality scales and different processing speed measures (Zahlen-Verbindungs-Test, Coding Test), psychometric intelligence tests (Kognitiver Faehigkeits-Test, Advanced Progressive Matrices) and school performance (grades) were calculated in a sample of 280 students from German gymnasiaums (aged 14-16 yrs). Results show a weak multiple correlation of personality with processing speed ($R = 0.32$), a medium correlation with intelligence ($R = 0.51$) and a high correlation with grades ($R = 0.69$). Processing speed tests allow one to measure cognitive abilities in a less biased form than intelligence tests, whereas school performance could be influenced in a positive or negative way by personality factors like self-concept, anxiety or motivation.

Busato et al (1999) investigated the relation between J. D. Vermunt's (1992) 4 postulated learning styles (meaning directed [MD], reproduction directed [RD], application directed [AD], or undirected [UD] learning styles), the Big Five personality traits, and achievement motivation among 900 university students. Extraversion correlated positively with the MD, RD, and AD learning styles. Conscientiousness was associated positively with the MD, RD, and AD learning styles, and negatively with the UD learning style. Openness to experience correlated positively with the MD and AD learning styles, and negatively with the UD style. Neuroticism correlated positively with the UD learning style and negatively with
MD and RD learning styles. Agreeableness was associated positively with RD and AD learning styles. Positive correlations were found for achievement motivation with the MD, RD, and AD learning styles, and a negative one with the UD learning style. Regression analyses confirmed these patterns. Although there was some systematic overlap for the 4 learning styles with personality variables and achievement motivation, the authors conclude that it makes sense to measure these 3 groups of variables separately in educational settings.

Huo et al (1997) studied the influences of learning motivation (LM), intelligence (IT) and personality (PE) on academic achievement (AA) and their correlations. The Sample consisted of 217 normal Chinese male and 202 normal Chinese female adolescents (middle school students). Subjects’ IT, PE and LM associated factors—knowledge of learning, skill, movement, social life, test stress, avoidance of failure, self-responsibility, and academic expectation—and final scores of Chinese, English language and mathematics test were assessed. According to the results, subjects were divided into a high IQ and LM group and a low IQ and LM group. Multifactor and multi regression analysis were used to study the main factors influencing AA between male v/s female and between high IQ, LM v/s low IQ, LM subjects, and to analyze correlations of LM, IT, PE on subjects’ language and mathematics scores. Four optimum grouping patterns were provided.
Johnson (1997) reported a study where they examined the relationship between specific personality traits and learning styles and academic achievement in gifted students, resulting in their becoming underachievers and being considered at-risk in the educational system. Additionally, an attempt was made to determine when the rate of sharpest decline in academic performance occurs over a five-year period of time which would have essential implications in intervention strategies to prevent this occurrence. The population consisted of 46 gifted students in a South Carolina school district. Based on a median-split of average cumulative end-of-year grades over a five-year period, the students were categorized into two groups: achievers and underachievers. The two groups afforded an opportunity to examine differences in personality traits, learning styles, and academic performance between the two groups within the population. Two tests, the Sixteen Personality Factor Questionnaire and the Basic Assessment of Cognitive Organization, were administered to the participants to determine personality traits and analytic/global learning styles. The cumulative end-of-year academic grades were used to investigate whether or not there was an identifiable point in time over a five-year time span when the sharpest rate of decline in academic performance occurred. Results of the Spearman Rank-Order Correlation Coefficients showed that there were significant correlations between ten personality traits and academic achievement, and mean differences between the gifted achievers and gifted underachievers confirmed that these personality traits contributed to the academic achievement of these students. There
did not appear to be a significant correlation between analytic and global perceptual tendency and academic achievement although the majority of gifted students were either highly flexible or more global than analytic. In addition, no particular point of decline in academic achievement was readily identified. Findings of this study were consistent with the review of literature which suggested that personality factors may be related to academic achievement, and gifted achievers.

Panda and Samal (1995) presented a comparative study of personality and academic achievement of adolescent daughters of working and non-working mothers. The sample consisted of 120 adolescent girls selected from classes VIII and X in Bhubaneswar, out of which 60 had working mothers and 60 had nonworking mothers. Maudsley Personality Inventory and Psychoticism Scale were administered on the sample for data collection. It was found that working mothers' daughters were more extroverted, independent, confident, emotionally stable, aggressive, and less anxious than daughters of nonworking mothers.

Chitra, Thiagarajan and Krishnan (1994) studied 6 psychosocial factors that could augment the educational achievement, prestige and socio-economic status (SES) among scheduled caste (SC) communities. The factors studied were: personality, intelligence, occupational aspiration, SES, social distance, and awareness of facilities. The personality traits of 104 SC girl students and 100 non-scheduled caste girl students pursuing a higher
secondary course were assessed. SC subjects differed from the NSC group only in their SES, and all 6 psychosocial factors were equally responsible for the academic achievement in both the groups. It was concluded that education causes a positive change in personality, intelligence, and occupational aspiration by narrowing down the gap between the 2 groups.

Sovik, Frostad and Lie (1994) outlined frequencies and characteristics of discrepancies between children's IQ and their basic skill performance among students in 2 different grade levels and examined the relationship between students' learning strategies and discrepancies in basic skills. 110 3rd-graders and 148 8th-graders were observed during group tests in reading and spelling. 32 other subjects from Grades 3 and 8 completed assessments of individual achievement in reading, writing, arithmetic, and intelligence. Subjects were also assessed on 6 personality traits: attention, reflection, working speed, accuracy, feedback, and persistence. The frequency of discrepancies between IQ and academic achievement among subjects with normal IQ was 18.7% in Grade 3 and 25% in Grade 8. A general relationship was found between subjects' scoring on personality traits and the discrepancies, and a similar relationship seemed to exist between task-specific strategies and underachievement.

Maqsud (1993) reported on a study of 120 (60 boys, 60 girls) middle school students in Bophuthatswana on the relation of academic achievement to self-concept and locus of control and
found that measures of extraversion, neuroticism, and psychoticism were related negatively to school achievement.

Maqsud (1993) examined the relationship of extraversion (E), neuroticism (N), psychoticism (P), academic self-concept, and locus of control to academic attainment of 120 lower secondary school pupils in Bophuthatswana (South African region). Results revealed that E, N, and P are negatively related to academic attainment, while academic self-concept and internality are positively associated with measures of academic attainment. No significant sex differences were found. It was also observed that mean E and N scores of the subjects of this study were significantly lower than those given in H. J. Eysenck and S. B. Eysenck's (1975) normative data for English children of the same age.

Shaughnessy (1993) explored personality variables measured by the 16 Personality Factor (16PF) test and their relevance to success, as defined by the final course grade, in college calculus courses with 94 students. Two personality variables were significant predictors of success as determined by the final course grade. A Statistical Analysis System multiple regression procedure found Factor G of the test (conscientious, conforming, moralistic, staid, rule-bound) to be a significant predictor of success. Factor G can be considered a measure of persistence and perseverance. The relevance of Factor A was less clear, but it was statistically significant in the multiple regression.
Green, Peters and Webster (1991) examined whether personality profiles, using personality factors, or clusters of personality factors, are associated with academic success. 129 medical students completed the Sixteen Personality Factor Questionnaire (16PF) and were divided into 4 groups dependent on their academic performance. Most (62%) had no academic problems, but 16 subjects had serious difficulties, which entailed delaying qualification by at least 6 months. There was no relationship between the scores obtained for the subjects' 1st attempt at A-level and their subsequent medical school academic performance. Academic success was not associated with any of the personality factors.

Roy and Veeraraghavan (1990) conducted a study where 60 senior secondary school children completed tests of reading ability and intelligence and a home background questionnaire. Reading ability was a function of home background and personal attributes such as intelligence, interest in reading, reading habits, and personality traits. Reading ability also correlated positively with academic performance, indicating the better the reading ability, the higher the academic performance.

Trivedi et al (1989) examined the role of personality traits and emotional problems in scholastic achievement. 50 high-achieving and 50 low-achieving undergraduates completed the Cornell Medical Index Health Questionnaire, the results revealed that high achievers scored significantly higher on neuroticism as compared to low achievers,
whereas low achievers scored significantly higher on extraversion. High achievers scores significantly lower than low achievers on somatic concomitant of anxiety.

Mehta and Kumar (1985) studied the relationship between academic achievement and personality, intelligence, study habits, adjustment, and academic motivation. 60 male and 60 female postgraduate students were administered the Eysenck Personality Inventory, a study survey designed by H. D. Carter (1958), a group general mental ability test designed by S. Jalota, a test of academic motivation designed by H. Hartley and J. H. Hogarath (1971), and the Bell Adjustment Inventory. Results indicate that psychological variables in terms of personality, intelligence, study habits, academic motivation, and adjustment are not related and are independent of achievement. There was hardly any regularity of relationship among the independent variables.

Khursid and Fatima (1984) compared personality traits of 45 low achievers and 45 high achievers selected from 408 students in Class VII and VIII of A. B. Inter College, Aligarh, India. Subjects were selected on the basis of their final examination grades and were matched with regard to age, grade level, and socio-economic status (SES). Results of R. B. Cattell's High School Personality Questionnaire reveal that high achievers and low achievers differed significantly on 7 personality factors. In comparison to low achievers, high achievers were more reserved, intelligent, obedient, conscientious, adventuresome, self-sufficient, and self-controlled.
Johnson (1983) administered a battery of 15 cognitive tests, the Eysenck Personality Inventory, the 16PF, and the Comrey Personality Scales to members of 105 families (393 subjects) to assess the relationship of scores to educational and occupational levels. Results for 4 groups (males and females of Japanese and European ancestry) show that family background, cognitive ability, and personality appear to be associated with educational attainment to much the same degree.

Kumar (1983) studied high (HAs) and low achievers (LAs) with respect to 10 personality needs including autonomy, abasement, and aggression. From 248 male Intermediate College students, who were administered a personality inventory and whose scholastic achievement scores were available, 41 HAs and 25 LAs were selected for analysis of personality needs. Results show that LAs scored higher on the need for dominance. HAs scored higher on needs for endurance and nurturance. Exhibition and endurance were related to the scholastic achievement of HAs.

Lynn, Hampson and Magee (1983) reported a study on 701 15-year-olds beginning their 5th year of secondary schooling in Northern Ireland, and were administered a questionnaire battery that included the Abstract Reasoning scale from the Differential Aptitude Test, the Junior Eysenck Personality Questionnaire, and measures of work ethic, status aspiration, parental occupation and education, religion, and school type. Findings on these measures were examined in light of subjects' performance on public examinations.
months later, using path analysis. Results show that psychoticism and status aspiration were significant predictors of educational achievement. However, the most important predictor of educational attainment was intelligence.

Abrami, Perry and Leventhal (1982), in Study 1, on 388 undergraduates (a) rated themselves on the Adjective Check List (ACL), (b) viewed a videotape that varied in instructor expressiveness and lecture content, (c) evaluated the videotaped instructor and a test on the lecture, and (d) completed the ACL for the instructor. In study 2, 87 subjects were also exposed to 2 videotaped lectures given 1 week apart. In Study 3, 108 subjects completed the ACL for themselves and their instructors, evaluated their instructor's teaching, and completed a test on common course material. No meaningful or consistent relationship between ratings and student personality characteristics appeared to exist. Personality characteristics of instructors were related to teacher effectiveness ratings. Ratings predicted teacher-produced achievement equally well for classes that differed in the personality characteristics of the students enrolled. Teacher effects on ratings appeared significantly greater than teacher effects on achievement.

Eison (1982) conducted two studies with 511 undergraduates and explored educational and personal differences between learning and grade-oriented students. Subjects were administered a battery of tests that included the 16PF, Achievement Anxiety Test, and Survey of Study Habits and Attitudes. Learning oriented subjects
were more emotionally stable, trusting, imaginative, forthright, placid, self-sufficient, and relaxed than their grade oriented counterparts. Learning oriented subjects also had better study habits, less debilitating test anxiety, and higher collaborative and participative learning styles.

In a study by Kaur and Dheer (1982) 90 first-, middle-, and later born female college students were administered a structured interview and the Maudsley Personality Inventory. Subjects’ examination grades were used as a measure of academic achievement. Findings show that birth order had no significant effect on either academic achievement or the introversion-extraversion dimension of personality. However, birth order did significantly affect neuroticism. Firstborns obtained higher neuroticism scores than middle- and later borns, and later borns obtained higher scores than middle borns. Findings suggest that middle borns were more emotionally stable than the other 2 groups.

Goh and Moore (1978) examined the relationship between "personality fitness" and academic achievement. 175 subjects from 3 educational levels - university, vocational technical institute, and high school--were administered the Eysenck Personality Questionnaire, Raven's Advanced Progressive Matrices, and an information questionnaire. The personality dimension of introversion had the highest correlation with academic performance for the university sample, especially for
students in the "hard sciences." Raven's intelligence score was the best predictor for the vocational sample.

Merrifield and Hummel, (1977) explored relationships between achievement measures and those of aptitude, sex, and personality traits in a sample of 226 8th-grade students in a suburban school. 18 aptitude measures (Stanford Achievement Test) and the 14-scale High School Personality Questionnaire were administered and factor analyzed; salient tests and scales were selected as predictors of standardized measures of academic achievement. Results of a sequential, step-wise multiple regression analysis indicate that an evaluation of systems test (Figure Analogies) and a production of systems test (Word Grouping) together predicted 48-52% of variances in standardized tests of language, mathematics, and social studies. The finding that, sex was not a significant predictor of achievement reflected a possible breakdown in the previously identified strong sex-linked patterns between traits and achievement.

Brar (1976) studied personality traits (extraversion-introversion and neuroticism) and academic achievement in 70 noncommissioned officers (NCOs), 70 junior commissioned officers (JCOs), and 50 commissioned officers (COs) in a training college center of the Indian Army. A substantial negative correlation was found between academic achievement and neuroticism. For NCOs and COs there was also a strong negative correlation between academic achievement and extraversion, but for JCOs this
correlation was positive. Age was not related either to extraversion or neuroticism.

Paramesh (1976) administered the Eysenck Personality Inventory to 155 high school boys (mean age 16.14 yrs). Scholastic achievement, as measured by scores on a secondary school graduation examination, was also assessed. No significant relationships between personality and scholastic achievement were found.

A study by Stewart and Valentino (1976) showed that, the Wide Range Achievement Test and WAIS or WISC scores of 180 emotionally disturbed 11-18 year olds were related to the personality profiles (16 PF or High School Personality Questionnaire) by means of canonical variate analysis. Results indicate that the emotionally disturbed adolescent who is low in ego strength, tense, guilt prone, sensitive, shy, and submissive tends to be more intelligent and demonstrate higher academic achievement.

Mehryar, Hekmat and Khajavi (1975) has conducted a study using subject’s own ratings of their academic performance. University students were divided into subgroups of 312 academically successful and 170 unsuccessful subjects. A comparison of mean scores of the 2 groups on 9 personality variables covered by Eysenck’s PEN (Psychoticism, Extraversion, Neuroticism) Inventory and the Psychological Screening Inventory showed that academic success, as rated by subjects themselves, was associated with low
psychoticism, neuroticism, and discomfort but high extraversion and defensiveness.

Nagpal and Wig (1975) collected health and personality data on 41 students who had failed the university examination but had rejoined classes, and on a comparable group of controls. A structured questionnaire based on these data was prepared, covering a wide range of nonintellectual and semi-intellectual factors, and was administered to approximately 1,080 students, a year's intake at Punjab University in Chandigarh, before their examinations. Those passing the examination and those failing it were compared in terms of the questionnaire factors. Results indicate that the poor achievers were older, had less well educated parents, were inadequately motivated, were inconsistent in their studies, and had poor academic records and poor previous adjustment.

Cooper, Boss and Keith (1974) obtained school marks in English, history, mathematics, and science for 582 10th graders. Personality was measured by the 13 non intellective factors of the High School Personality Questionnaire. It was shown that Factors C, G, F, Q2, and Q3 (Ego Strength vs Ego Weakness, Superego Strength vs Superego Weakness, Surgency vs Desurgency, Self-Sufficiency vs Group Dependency, and Strong Self-Sentiment vs Weak Self-Sentiment) were significant discriminators between the subjects who did well in all 4 subjects and those who did poorly in them all. Factors A, E, H, and I (Affectothymia vs Schizothymia,
Dominance vs Submissiveness, Parmia vs Threctia, and Premsia vs Harria) were significant discriminators between subjects who performed better in the sciences than in the humanities.

Hogan and Weiss (1974) administered the California Psychological Inventory (CPI) to 54 male undergraduates who had been elected to Phi Beta Kappa; 67 undergraduates of approximately equal intellectual ability who had not been elected; and 87 unselected undergraduates. Significant differences were found between groups on all comparisons except one. Phi Beta Kappa subjects had higher scores for responsibility, socialization, and self-control compared with the 2 other groups. The non-Phi Beta Kappa high achievers were characterized by conscientiousness, industry, and dependability. Phi Beta Kappa subjects were not particularly interested in ideas or cultural pursuits, not particularly tolerant or empathic, but were stable, pragmatic, and task-oriented.

Mahmoudi and Snibbe (1974) studied the influence of teacher expectancy on student performance. Subjects were 107 5th graders and their 5 teachers. The instruments used were the Wide Range Achievement Test, the Group Personality Projective Test, the Culture Fair Intelligence Test, the Study of Values, and the State-Trait Anxiety Inventory. The treatment involved reading to each experimental group and/or its teacher a statement that indicated how "special" the individuals involved were. It is concluded that manipulation in the affective domain can influence achievement
scores, but only under certain conditions of expectancy will significant changes take place.

Bohn (1973) compared biographical, personality, and interest factors of 74 work-study students who completed several personality scales including the California Psychological Inventory (CPI) and the Adjective Check List (ACL), as well as the SVIB. Biographical data and aspiration levels of persisters and dropouts were very similar. Persisters were found to be more self-assertive, independent, and achievement-oriented than dropouts on the basis of the CPI and ACL scores.

Bohn (1973) had conducted a study where high school academic achievement, as measured by GPA, was related to ratings of 11 personality traits, gathered in the course of a longitudinal study of personality. GPA was found to be related to many traits, but most centrally to industriousness and intelligence.

Pandey (1973) administered the 16 Personality Factor Questionnaire to 350 entering freshmen (219 whites, 131 blacks; 193 males, 157 females) at Lincoln University in Missouri in the fall of 1969. 75% of the white students achieved "good" academic standing, 11% became dropouts, and 14% were on probation at the end of the fall semester. 74% of the black students achieved "good" academic standing, 6% dropped out, and 20% were on probation at the end of the fall semester. Analyses of variance indicated (p < .05) that the good students were humble and submissive while the dropouts were assertive, stubborn, and independent. Both dropouts
and those on probation were assertive, stubborn, and independent. Dropouts, however, were more intelligent and of stronger superego strength than probationers.

Gruber and Kirkendall (1973) tested 91 14-17 year old students in Grades 9-11 and examined whether any differences exist in the nature of relationships between personality traits of the disadvantaged and others. It was found that both high-and low-achieving gifted students from disadvantaged environments displayed more desirable personality scores than others. A low degree of relationship among intelligence variables was also reported.

Berman and Eisenberg (1971) reviewed some previous work on factors in academic achievement and reported a study using 270 final-year high school students. They correlated final-year grades with IQ, family and socio-economic data, and CPI scores in order to define the characteristics of the successful student within a culturally and economically homogenous group. Certain personality traits were found to correlate with achievement, i.e., motivation, sense of well-being, independence, and conformity. Exceptionally high achievement correlated with high IQ, and it is suggested that identification with parents' values and life models may be relevant.

In a study by Richter and Scandrette (1971) students at Niles West High School, Skokie, Illinois, were rated by all of their teachers once each year on the following traits: motivation, industry, initiative, influence and leadership, concern for others, responsibility, integrity,
and emotional stability. Mean trait ratings of 39 seniors who made the high honor roll for 7 consecutive semesters were compared with ratings of 39 seniors matched for sex and IQ who had not achieved this distinction. Mean differences significant at the .01 confidence level were obtained for all factors. Mean teacher ratings of dropouts were compared with mean ratings of subjects who remained to graduate, matched for sex and IQ. Subjects who graduated were rated significantly higher on all traits.

Entwistle and Entwistle (1970) administered the Eysenck Personality Inventory and a questionnaire relating to academic motivation and study methods to 257 undergraduates. A correlational analysis of these scores in relation to academic performance at the end of the 1st year shows superiority of the introverts and subjects with good study methods. Introverts also tended to have better study methods, but this only partially explains their high academic performance. There was no relationship between neuroticism and attainment. A supplementary approach used an item-analysis to identify characteristics of successful students. From this analysis, items which identified good students were also positively related to stability and introversion.

Bhatnagar (1966) reported that there is a confusion in the relationship between personality variables and academic achievement due to the (1) use of a wide variety of tools, (2) use of invalidated techniques, (3) heterogeneity of samples, (4) inadequate control of correlated variables, (5) imprecise definitions of
personality traits, (6) diverse methods of identifying over- and under-achievers, and (7) inherent weaknesses of the test of significance used in most studies.

Davids (1966) reported that high achieving boys and girls tend to have psychological characteristics that differentiate them from low achievers. They have a higher need for achievement, dominance, endurance, order, and interception. In addition they score higher on measures of self assurance, socialization, maturity, achievement potential, and intellectual efficiency. Academic under achievers showed a greater need for heterosexual activity and succorence.

Flaherty and Reutzel (1965) carried out a study to discover the "non-intellectual aspects of the personality, as measured by the CPI, which are related to intellectual achievement". 149 students, (the entire freshman class of Mount Mercy College, a small liberal arts college for women) were studied during Freshman Orientation Week. High and low achievers were selected based on the upper and lower quartiles at the end of the freshman year on the basis of grade-point average. All scales on the CPI differentiated between high and low achievers. Significant differences were found at the .001 level for dominance, self-acceptance, responsibility, achievement by conformity, intellectual efficiency, and flexibility.
SECTION 2. II: STUDIES RELATED TO FAMILY

Guo and VanWey (1999) asserted that previous research has consistently found a negative statistical relationship between sibship size and children's intellectual development. Two explanations have been offered for this finding. The prevailing explanation is that the relationship is causal, suggesting that limiting family size would lead to more intelligent children. A second explanation maintains that the relationship is spurious—that one or more undetermined factors correlated with family size are causally related to intellectual development. Using data on children from the National Longitudinal Survey of Youth, they reexamined the issue using change models. These change models allowed, to control such unmeasured effects as family intellectual climate, family value system, and family genetic heritage. They began by replicating in these data, the negative statistical relationship between three cognitive measures and sibship size. They then applied the change models to siblings, and measured at two points in time as repeated measures of the same individuals. By considering sibship size as an individual trait that changes over time, they controlled for effects that are shared across siblings and over time. When these shared effects are controlled, the negative relationship between sibship size and intellectual development disappears, casting doubt on the causal interpretation of the negative relationship, that was conventionally found.

Harvey (1999) examined the effects of early parental employment on children in the National Longitudinal Survey of Youth. Minimal effects on children's later functioning were found.
Early maternal employment status and the timing and continuity of early maternal employment were not consistently related to children's development. Working more hours was associated with slightly lower cognitive development through age 9 and slightly lower academic achievement scores before age 7 but had no significant relation to children's behaviour problems, compliance, or self-esteem. Early parental employment appeared to be somewhat more beneficial for single mothers and lower income families. There was some support for the hypothesis that early parental employment positively affects children's development by increasing family income.

Schmitt, Sacco, and Ramey (1999) had examined a longitudinal data and were used to examine the effects of parental employment status and school climate on children's academic and social development. Hierarchical regression, analyses of covariance, and latent growth modeling were used to assess various aspects of change as a function of work status and school climate with family income and education as control variables. Parental employment was associated with positive changes in social and academic progress even after controlling for prior developmental level, climate, and family income. School climate had minimal effect on the outcome variables. Income and education were related to various school outcomes.

Cherian and Malehase (1998) attempted to study the relationship between financial conditions in the home and scholastic
achievement of 234 Standard 7 pupils (103 boys, 131 girls). A questionnaire was given to the children who were chosen at random from 34 Junior Secondary Schools in the Mankweng Education Circuit of South Africa. Pearson correlation coefficient and analysis of variance showed no relationship between financial conditions at home and scholastic achievement of children from single parent and two-parent families.

Deal, Wampler and Halverson (1998) reported an observation of 143 families with children in early/mid childhood. Boys' school behaviour and academic performance were more influenced by parents' marital relationship and family organization. Girls were more influenced by marital communication style and the affective quality of family interaction.

Finn (1998) identified four types of at-home parental engagement consistently associated with school performance: actively organizing and monitoring children's time, helping with homework, discussing school matters with children, and promoting reading activities. Research has not consistently linked parents' in-school engagement and student achievement. Teachers may pay more attention to students with actively participating parents.

King (1998) reported the relationships between high school and college academic performance to Family Environment Scale scores. The study was conducted with a sample of 346 college students. Low high-school grade point averages (GPA < 2.5) were
two to four times as common among students with high Conflict, or low Expressiveness, Cohesion, or Recreation scores. Moral-Religious subscale scores were also associated with favorable high school academic performance as well as increased college classroom attendance. Control variables included the Beck Depression Inventory, Shipley Institute of Living Scale, and reports of parental divorce or bereavement histories. A primary objective was achieved in providing simple guidelines for the identification of students at high risk for psychosocial problems using the Family Environment Scale.

Marcon (1998) discussed that the proponents of early childhood education frequently refer to the importance of parent involvement for children's school success. However, little is known about characteristics of families that are more likely to become involved in their children's educational experience. This study provided follow-up data on 221 inner-city children (median age = 144 months) previously found to benefit from increased parent involvement during preschool, kindergarten, and the primary grades. Demographic and school-related predictors of involvement were further examined as children made the transition from elementary to junior high school. Findings indicated that parents whose children had attended Head Start were significantly more involved in their children's education at year 8 or year 9 than were parents whose children had attended pre-kindergarten in the same public school system. Current involvement was associated with higher grades,
while past involvement had a positive impact on achievement test scores and school competence.

Nord (1998) observed that the patterns of fathers' involvement in their children's schools, linked to family structure, are consistent with existing research and with the notion that there is a division of labour in two-parent families, with mothers taking more responsibility for child-related tasks, whereas in single-parent families the lone parent assumes the responsibility. Fathers and mothers in two-parent families may be operating under the mistaken assumption that fathers do not matter as much as mothers when it comes to involvement in their children's school. The results also support research showing that single fathers and mothers are more similar in their parenting behaviour than are mothers and fathers in two-parent families. The involvement of fathers in their children's schools is also important for children's achievement and behaviour. In two-parent households, fathers' involvement in their children's schools has a distinct and independent influence on children's achievement over and above that of mothers. These findings show that fathers can be a positive force in their children's education, and that when they do get involved, their children are likely to do better in school.

Nord (1998) discussed that the parent involvement in children's education is important for children's school success; however, not all children have parents who are involved in their schools. This issue brief examines, factors that are associated with
fathers' and mothers' involvement in their children's schools among children in kindergarten through 12th grade living in two-parent and single-parent families. Findings are drawn from data from the National Household Education Survey (NHES) for 1996. Findings noted include the following: (1) children in elementary school are more likely than children in middle or high school to have parents who are highly involved in their schools; (2) children with more family resources, as measured by parents' education and household income, are more likely than children with fewer resources to have parents who are highly involved in their schools; and (3) children whose mothers and fathers are highly involved in their schools are more likely to have greater levels of "social capital" as measured by activities shared with parents and high parental educational expectations. The issue brief concluded by noting that by the time children reach high school, a much smaller proportion than in grade school have parents who remain highly involved in their schools. Although part of the decrease is attributable to schools offering parents fewer opportunities for involvement, parents too are stepping back as their children grow older. Research suggested, however, that adolescents benefit when their parents are involved.

Seyfried (1998) conducted a study with the purpose to identify the factors associated with the academic success of predominantly, middle-class African American preadolescent students. This study proposed an ecological model that considered the interaction of family environment, teacher perceptions of social skills, and student characteristics. The estimated model explained 58% of the variance
in grade point average. Path analysis revealed three direct effects on grade point average, (a) grade level (negative), (b) teacher perceptions of social skills, and (c) academic ability. Findings revealed that teacher perceptions of social skills was a stronger predictor of grade point average than academic ability.

Bianchi and Robinson (1997) conducted a study to investigate the amount of time that children spend on activities that might be deemed to affect their cognitive and social development and how that time varies in terms of four family characteristics: parental education, maternal employment, number of parents in the household, and family size. Using 1989-90 time diary data for children in California, the amount of time children spend reading or being read to, watching TV, or doing household chores was examined. As anticipated, the findings revealed that children of highly educated parents spend more time studying and reading but less time watching TV. However, contrary to expectations, children of mothers who are employed part-time watch significantly less TV than children of mothers at home full time. With few significant differences across the other variables, the results reinforce the argument that parental education is the greatest predictor of the human and social capital investments children receive.

Lam (1997) from their study concluded that the children's academic achievement has been shown to be influenced by many family factors, including family structure, socio-economic status, and parenting styles. This study investigated the relationships among family structure, socio-economic status, authoritative parenting, and
children's academic achievement in a sample of 181 eighth graders in 2 inner-city schools in the mid western United States. Family's influence on the child's academic achievement was first examined with a social address paradigm, then with a family process paradigm. The interactive effects of social address and family process on children's academic achievement were subsequently examined with an integrated paradigm using path analysis. Results of the study indicate that authoritative parenting and children's academic achievement were significantly correlated. Results also suggested that effective parenting includes: (1) a high degree of monitoring; (2) a high degree of support or involvement; and (3) a high degree of psychological autonomy granting. The results also support the integrated research paradigm as one that can help researchers better understand the intricate relations among various family factors and their impact on children.

Moore, Andres and Pepler (1997) reported that the children's exposure to family violence may lead to increased school difficulties, as shown in studies demonstrating the relationship between children's adjustment disorders and stressful family events. To examine the unique effects of violence on children's cognition, this study compared the academic performance and conflict levels of two groups of children, ages 6 to 12, and their mothers: those living in battered women's shelters and those in homeless shelters. Seventy-three families (113 children) from battered women's shelters and 55 families (82 children) from homeless shelters completed a variety of tests including the Conflict Tactics Scale, the General Health Questionnaire
and the Child Behaviour checklist. The children completed the Wide Range Achievement Test, the Digit Scan, and the Children's Locus of Control Scale. Few significant differences were found among the children's test results; in addition, the results were similar for homeless shelter children with no violence in their histories and for those with past exposure to violence (not within the past year). The prediction that extreme family violence would lead to extremely poor school performance also was not supported. Furthermore, when families were retested 10 months after leaving the battered women's shelter, no changes were found in children's cognitive performance. Although children in shelter situations do experience school difficulties, the data demonstrate that school performance is not uniquely affected by family violence.

Rivera (1997) stated in an article that although much research has been done to determine how familial processes affect academic achievement, few researchers have directly studied culturally or linguistically diverse populations, in particular Latinos. The primary purpose of this study was to investigate the effects of distal variables (maternal intelligence, maternal education, maternal employment and poverty) and of the proximal variables (home environment and parent child interaction) on the academic achievement of Latino adolescents. The study utilized the National Longitudinal Survey of Youth (NLSY) for its sample. The study hypothesized that the effects on Latino adolescents' academic achievement of maternal intelligence, maternal education, hourly rate of pay, hours worked weekly by mother, and family poverty
status would be mediated through the home environment and the parent-child interactions. The observed linear relationships between the predictor variables, the mediating variables, and the outcome variables were not as hypothesized. In almost every instance and for each group under study, maternal intelligence was a significant predictor of the academic achievement measures. Finally, the findings indicated that home environment was a significant predictor of academic achievement but not a significant mediator.

Verna, Campbell and Beasley (1997) in a study involving 109 male and 116 female high achieving high school students (ages 16-18) and their parents investigated the causal linkages among home environment, self-concepts, prior ability, and socio-economic status on mathematics achievement, science achievement, and Scholastic Aptitude Test-Quantitative (SAT-Q) and Verbal scores. Students were from 47 schools, had a mathematics and/or science grade point average of 86 percent and above, and had been placed in a gifted class in their schools. One hundred fifty-three participants were also semi-finalists or finalists in the Westinghouse Talent Search. Results of the study showed that prior ability played a major role in influencing the child's educational achievement; males perceived much more parental pressure than females; boys showed a greater math self-concept than females; boys exceeded girls in scores on the SAT-Q and Verbal score; and socio-economic status was a major contributing force for family processes and offered a positive connection with prior ability. A key finding indicated that pressure for intellectual
development had direct negative effects on self-concepts for both males and for females, while exhibiting positive effects for females' math achievement.

Akimoff (1996) examined how teachers in a Christian school in the North Bay, California, area, perceive the academic and behavioural performance of students whose parents are involved in the school compared to the performance of students whose parents are not involved. Parental involvement includes parents attending parent-teacher conferences, open houses, classroom activities and events; keeping in touch with the teacher through phone calls and notes; volunteering in the classroom; and being a guest speaker. Parents also demonstrate their involvement by reviewing the child's schoolwork, reading with the child, and monitoring the child's academic progress. Behavioural performance referred to the student's ability to interact socially with other students and to comply with teacher expectations. Seven kindergarten through sixth-grade teachers (Caucasian female) in a Christian school were asked to fill out questionnaires and to answer interview questions regarding the importance of parental involvement. The results of the study indicated that parental involvement is essential in helping children achieve optimum success in school, both academically and Behaviourally. The results suggest that parental involvement should be encouraged in the classroom and at home for a number of reasons, including: (1) parental involvement sends a positive message to children about the importance of their education; (2) parental involvement keeps the parent informed of the child's
performance; and (3) parental involvement helps the school accomplish more.

Bronzaft (1996) reported that the relationship between high academic achievement and personal characteristics is fraught with myths. Three studies examined this relationship in academic high achievers (AHA). In study 1 participants were 529 of 850 members of the New York Phi Beta Kappa (72 percent return), who have responded to a 1979 mail questionnaire. In study 2 participants were 414 Phi Beta Kappa members (55 percent return), who have responded to a 1981 mail questionnaire. In study 3 participants were more than 900 of 2,000 Phi Beta Kappas over 50 years old, responded to a national mail questionnaire and 20 individuals responded to telephone interviews. Major findings include the following: (1) birth order did not relate to school success; (2) important for academic performance were fair parental treatment and self-discipline; (3) families expected and cultivated high academic achievement; (4) men were more likely than women to believe that academic achievement and life satisfaction were strongly related; (5) the love of learning was learned in homes where parents valued learning and was reinforced in enriched school environments; (6) older AHAs typically rated their physical and mental health as good or excellent, and life satisfaction as positive or very positive. They also indicated high marital satisfaction, positive relationships with children, and close extended family relationships; (7) perceived contributors to life satisfaction were humour, religious beliefs, and good work habits; (8) most AHAs
reported good family relationships; and (9) the most common vocational choices were education, professional, and business, with more than half of respondents indicating they were happy with their occupation.

Sui-Chu and Williams (1996) expanded the parameters of "parental involvement" in educational research regarding its effect on academic achievement. The study included talking with children about school-related activities and helping with homework in the new definition. Integrating these findings challenged the belief that lower-income parents are less involved with their children's school activities.

Huang (1995) in a study attempted to build on research that has already been conducted to explore some of the factors that differentiate learning environments that may influence the academic achievement of Asian-American students. Their learning environments, in terms of parent guidance, teacher support, class order, satisfaction, and teaching quality, were studied with attention to gender and language spoken at home. Subjects were 1,527 eighth-grade Asian Americans of differing ethnic backgrounds from the National Education Longitudinal Study of 1988. The student questionnaire and results from a battery of eighth-grade tests were used to gather student data. In general, Asian-American students had favorable learning environments at home and in school. Students reported good parent support, positive teacher support, good teaching quality, and satisfaction. Girls had a more favorable
perception of parental guidance and class order than did boys. Language-minority students reported less parental guidance and lower class order than students from English-speaking families, and this was coupled with lower achievement in reading and science standardized test scores.

Du Bois, Eitel and Felner (1994) examined the effects of family environment and parent-child relationships on school adjustment during the transition years to early adolescence. 159 4th-6th grade students completed questionnaires at baseline and at 2-year follow-up, concerning family climate, social support at home, parental acceptance and rejection, school grades, school attendance, self-esteem, and school work competence. Results show that Subjects in families who were supportive and organized reported higher levels of scholastic self-concept. Subjects who reported rejection from parents reported lower levels of self-esteem and school adjustment.

Keith and Lichtman (1994) measured the influence of parental involvement on the academic achievement of 1,714 eighth-grade Mexican American children. They developed and tested a structural equations model which considered and controlled for diversity of family backgrounds and values, students' previous achievements, and other factors. They found that parental involvement did influence subjects' academic achievement.

Leveque (1994) reported that the academic achievement of Native American students in the United States has consistently been
the lowest in the nation. This study examined the school performance, involvement of Native parents in the school life of their children, and assimilation patterns of a specific group of Native Americans who have lived in Barstow, California, for at least three generations. The case study approach used participant observation, ethnographic interview, and documentary analysis. Analysis of norm-referenced test data indicated that Native American students (K-12) in Barstow Unified School District (BUSD) scored as well as, or better than, the BUSD mean percentile scores for the total student population and the Caucasian sub population in all areas except second-grade reading in 1992 and third-grade reading in 1993. Between 1991 and 1993, the dropout rate for Native American students was only 10 percent, and the honour roll rate was 30 percent. At least 36 percent of Native students who attended BUSD between 1988 and 1993 continued their education past high school. The strongest link between educational opportunities and Native student achievement was found in the involvement of parents in the design and implementation of programs. The Native American families in Barstow are the descendants of Navajo and Pueblo railroad workers who chose to come to Barstow (thus assuming "immigrant" characteristics). Full assimilation into the majority culture occurred over three generations. Thus, the strongest elements contributing to Native student achievement were parental involvement and family acculturation patterns.

Vickers (1994) reported a study comparing academically at-risk elementary students with typical students to determine
differences in family functioning. Researchers collected data on the families and students and determined that at-risk families were different in demographics and family functioning and were less cohesive and adaptable than families not at risk.

Williams (1994) described that two things in particular could change the status of students in elementary and secondary education system and make improved academic achievement possible. One is providing role models that students can relate to in the classrooms, and the other is getting families involved in their children's education. A study on family life and school achievement by Reginald M. Clark argues that the family's main contribution to the child's success in school is made through the parent-child relationship. The overall quality of a family's lifestyle is the determinant of whether children came prepared for academic performance. Children who know what is expected of them and who experience the intergenerational transmission of behaviour patterns that emphasize education perform better in school. Parents must be interested in their children's activities. They must have and communicate high expectations for school and home performance. Disadvantaged circumstances must not be used as excuses for failing to support children or grandchildren, because parent involvement is the key to academic and social success.

Hill (1993) in his document presented findings from phase 1 of the Victorian Quality Schools Project. This phase, the first of a 3-year longitudinal study, sought to identify characteristics of effective
schools and develop a model of teacher and school effectiveness. Data were derived from four instruments--parent questionnaires, teacher questionnaires, student records, and teacher records. The sample of 13,900 primary and secondary students and 930 teachers was drawn from a total of 90 out of 96 Catholic and independent schools in Victoria, Australia. The key findings are as follows: (1) The school profiles provide an effective framework for monitoring and reporting achievement; (2) schools have considerable influence on overcoming inequalities stemming from family socio-economic status; (3) early childhood education is important for later achievement; (4) student attentiveness has a large effect on achievement; (5) the key to improved educational outcomes is teacher effectiveness.

Maqsud and Coleman (1993) asserted that research indicates that parents have a strong influence on the development of their children's achievement motivation. They reported a study of 180 Bophuthatswana adolescents to determine the effects of living in a boarding school or with family. They found significantly higher achievement motivation scores for the adolescents living with family.

Christenson (1992) reviewed research findings with respect to family influences on student achievement. He identified five family and home environmental factors that affect student achievement and whose effects may be altered through intervention: parent expectations and attributions, structure for learning, home affective environment, discipline, and parent involvement.
Keith and Lichtman (1992) in their research investigated the influence of parental involvement on the academic achievement of 1,714 Mexican-American 8th-grade students, a sub sample of the National Education Longitudinal Survey (NELS 88). A structural equation model was used to investigate the direct, indirect, and total effects of parental involvement, previous academic achievement, and home rules on standardized achievement tests. Both the student and the parent surveys were used in the study. Results indicated the following: (1) parental involvement does influence positively the academic achievement of 8th-grade Mexican-American students; (2) parents who have a high socio-economic status and whose children have previously obtained high grades tend to be more involved in their children's education and have higher educational aspirations for their children; (3) parents are more involved with female children than with male children; (4) parents' language proficiency does not influence academic achievement but does influence parental involvement; (5) the strongest influence on academic achievement was previous achievement (grades); (6) family rules did not affect students' academic achievement; (7) Mexican-American males had higher overall academic achievement when compared to Mexican-American females; and (8) children whose parents were born outside of the United States had slightly higher math achievement than children whose parents were born in the United States.

Paulson (1992) in a study compared adolescents' and parents' perceptions of parental demands, responsiveness, and
commitment to achievement, and explored the relations between these perceptions and the adolescents' school achievement. The subjects were ninth grade students and their parents. The adolescents and their mothers and fathers responded to separate questionnaires containing the same scales for measuring parenting characteristics of demandingness, responsiveness, and commitment. Low to moderate relations between adolescents' and their parents' reports of the three parenting characteristics were found. Both mothers and fathers reported significantly higher levels of all three characteristics for themselves than their adolescents' reported for them. Boys' reports of both their mothers' and fathers' parenting characteristics significantly predicted the boys' achievement in school as measured by self-reported grades. Parents' own reports of their parenting characteristics did not predict achievement outcome in their sons. Girls' reports of their parents' parenting characteristics did not predict the girls' scholastic achievement. Fathers' (but not mothers') reports of their parenting characteristics significantly predicted achievement outcome in their daughters.

Feldman and Wentzel (1990) reported the relations among observed family interaction patterns, preadolescent boys' classroom self-restraint, and academic achievement. They studied a sample of 65 intact families. Findings identify Behavioural self-restraint, a form of social competence, as a noncognitive mediator between the quality of family functioning and academic achievement in early adolescence.
SECTION 2. III: STUDIES RELATED TO ACADEMIC ACHIEVEMENT MOTIVATION

Anderman and Midgley (1998) reported that research has shown a decline in motivation and performance for many children as they move from elementary school into middle school; however, research has also shown that the nature of motivational change on entry to middle school depends on characteristics of the learning environment in which students find themselves. This digest outlines some suggestions for middle school teachers and administrators for enhancing student motivation and discusses three theories that are currently prominent and that have particular relevance for young adolescent students and their teachers. Attribution theory emphasizes that students' perceptions of their educational experiences generally influence their motivation more than the objective reality of those experiences. Through instructional practices, teachers can unknowingly communicate a range of attitudes about whether ability is fixed or modifiable and convey their expectations for individual students. Goal theory focuses on the reasons students perceive for achieving: a task goal orientation represents the belief that the purpose of achieving is personal improvement and understanding; an ability goal orientation represents the belief that the purpose of achieving is the demonstration of ability. Studies found that the adoption of task goals is associated with more adaptive patterns of learning than is the adoption of ability goals. A third motivational theory of importance for middle school educators is self-determination theory. This theory describes students as having three categories of needs: needing a sense of competence, of relatedness to others, and
of autonomy. Most of the research focuses on the last of these three needs. Within the classroom, autonomy needs could be addressed through allowing student choice and input on classroom decision making. It is important to recognize that supporting student autonomy does not require major upheaval in the classroom or that teachers relinquish the management of students' behaviour. Even small opportunities for choice can increase students' sense of self-determination. Few educators would argue with the premise that student motivation is an important influence on learning. Motivation is of particular importance for those who work with young adolescents. Considerable research has shown a decline in motivation and performance for many children as they move from elementary school into middle school (Eccles and Midgley, 1989). Often it has been assumed that this decline is largely caused by physiological and psychological changes associated with puberty and, therefore, is somewhat inevitable. This assumption has been challenged, however, by research that demonstrated that the nature of motivational change on entry to middle school depends on characteristics of the learning environment in which students found themselves (Midgley, 1993). Although it is difficult to prescribe a "one size fits all" approach to motivating students, research suggested that some general patterns do appear to hold true for a wide range of students.

Dev (1998) reviewed research results from 14 studies that focus on the intervention methods practiced to enhance academic intrinsic motivation for students with learning disabilities (LD) and
measures used to assess academic intrinsic motivation in students with LD. Data analysis showed that intrinsic motivation strongly related to academic achievement in students with LD.

Goldberg and Cornell (1998) as part of a national study, administered measures of intrinsic motivation, perceived competence, and academic achievement to 949 academically gifted second and third graders at the beginning and end of the school year. Structural equation modeling indicated that intrinsic motivation influenced perceived competence and that perceived competence influenced subsequent academic achievement.

Albaili (1997) studied 168 undergraduate students at the United Arab Emirates University. Used the "Learning and Study Strategies Inventory" to examine the differences between low-, average-, and high-achieving students. They discovered that motivation was the most powerful discriminating factor separating the students.

Laurent et al (1997) analyzed the interrelation between achievement and personal-motivational variables in students at risk of school failure and students not at risk. Results from 606 third graders show that students with and without academic problems are different with respect to certain motivational-affective variables. Prediction of academic success from affective and motivational variables was discussed.
McLean (1997) in a study of 69 high-achieving and 55 low-achieving high school students in northwestern Alberta found that high achievers had significantly more positive scores than low achievers on motivation for schooling, academic self-concept, reference-based academic self-concept (perception of others' views), locus of control (internal), and instructional mastery. Locus of control was the strongest discriminator between groups.

Bruce and Singh (1996) explained that students in intermediate grades often found the academic demands more difficult and complex. Four factors are identified: ability, quality, quantity of instruction, and motivation. They examined the direct and indirect effects of variables shown to influence academic achievement. They claimed that motivation and homework are especially noteworthy since they can be potentially manipulated by schools.

Lucking and Manning (1996) in one of their article examined factors contributing to low academic achievement among young adolescents and provides data documenting low achievement in 12- to 14-year olds. Strategies for improving this population's achievement are offered, taking into consideration factors contributing to low achievement, such as difficulty constructing wholes during learning experiences, lack of motivation, disenchantment with schooling, and anxiety concerning peers.

Tuckman (1996) reported a study where two experiments involving 226 college students were conducted to determine the relative effectiveness of increasing students' incentive motivation for
Review of Related Literature

studying and prescribing a text-processing strategy for them to use in studying. Findings suggested that the use of students' acquired learning strategies depended on their motivational levels.

Abouserie (1995) in a study of 135 undergraduate students suggested that students' personality traits in general, and their self-esteem and achievement motivation in particular, have a substantial influence on their approaches to study and to levels of knowledge processing.

Fortier (1995) proposed a motivational model of school performance, based on the theoretical framework of Deci and Ryan (1985) and structural equation modeling, was prepared and tested with 263 Montreal (Canada) 9th graders. Perceived academic competence and perceived academic self-determination positively influenced autonomous academic motivation, which had a positive impact on school performance.

Karsenti and Thibert (1995) in their paper reported the types of motivation related to school achievement. A total of 1428 students from an inner city high school in the Montreal (Quebec) area participated in the study, 714 males and 714 females. The students ranged in age from 12 to 18, and approximately 40 percent were minorities (Hispanic, Asian, Black). The study used the "Academic Motivation Scale" (AMS), a measure of motivation towards education based on self-determination theory. "Amotivation" indicated that no link between actions and the ensuing outcomes is perceived; "intrinsic motivation" refers to being engaged
in an activity for itself and for the pleasure and satisfaction derived from participation; "extrinsic motivation" pertains to behaviour in which the goals of actions extend beyond those inherent to the activity itself. The results of the study demonstrated that academic motivation is significantly related to grade point average (GPA), and that motivation does not occur under the same conditions for boys and girls or for junior-high and senior-high students. Amotivation appeared to be a better predictor of school achievement for girls and junior-high students, while intrinsic motivation seemed to foretell school achievement for boys and senior high students. These data revealed that the relationship between GPA and motivation emerged differently for boys and girls, as for younger and older students. The data also indicated that amotivation was the type of motivation most significantly related to GPA for both boys and girls, across all levels of secondary schooling. The findings suggested that development of self-determined motivation in adolescent boys and girls should be an important goal for educators, and that further study of amotivation could lead to better understanding of adolescent academic motivation and perhaps help to identify at-risk students.

Lumsden (1995) reported that a multitude of factors affect the attitudes and behaviours that students bring to the learning situation. This document discussed some motivation-related terms and concepts. It then examined several factors that affect students' basic beliefs about and attitudes toward learning. The first section differentiated between the following terms: ability focus and task focus, performance goals and mastery goals, and learning and
performance. The concept of "motivation to learn" implies that no external reasons exist for the pursuit of academic activities. Variables that contribute to the development of motivation to learn include parent role, developmental changes, self-perceptions of ability and competence, self-worth and effort, causal attributions, meaning, autonomy, and relatedness and belonging.

Senecal (1995) assessed the role of autonomous self-regulation as a predictor of academic procastination. He maintained that academic procastination is often a motivational problem related to fear of failure. He revealed that students with intrinsic reasons for studying procastinate less than those with less autonomous reasons (for example, external regulation).

Chambers (1994) reported a study where a middle school teacher presented three case studies of seventh-grade students who began the school year poorly but then decided to change. All three students had challenging home situations but, after becoming motivated to succeed, showed dramatic and rapid improvement. Such motivational changes are seen as stemming ultimately from reasons intrinsic to the individual student.

Fontaine (1994) studied the relationship between achievement motivation at school and child-rearing practices and found that more motivated children live in more rigidly structured families. Fontaine suggested more research on the differential influences of social context and gender.
Jegede's (1994) reports on a study of 160 Nigerian secondary students, to determine the influence of achievement motivation and gender on performance in English language learning: Found that, if adequately motivated, the students are capable of mastering English. He attributed the lack of gender differences to social change in Nigeria.

Brown and Walberg (1993) contended a study, to examine the effect of motivational manipulated conditions on students' mathematics scores, elementary students received either ordinary standardized test instructions or special instructions (do as well as possible for themselves, parents, and teachers). Those given special instructions scored significantly higher in the test, implying that motivation makes a substantial difference.

Ginsburg and Bronstein (1993) examined familial factors in relation to 93 fifth-graders' motivational orientation and academic performance. High parental surveillance of homework; parental reactions to grades that included negative control, un involvement, or extrinsic reward; and over- and under controlling family styles were found to be related to children's extrinsic motivational orientation and low academic performance.

Maqsud and Coleman (1993) asserted that research indicated that parents have a strong influence on the development of their children's achievement motivation. They also reported a study of 180 Bophuthatswana adolescents to determine the effects of living in a boarding school or with family, and found
significantly higher achievement motivation scores for the adolescents living with family.

Oxford (1993) reported a study where 107 students participated in a study exploring factors that influence satellite-delivered language achievement. Of the factors (motivation, learning style, learning strategy use, gender, previous language learning experience, and course level), student motivation was by far the most significant determiner, followed by learning strategy use.

Perry (1993) reported attribution retraining, the restructuring of an individual's explanations for events in his environment, and has proposed as one method of enhancing college student motivation and achievement, particularly for high-risk students. Drawing on previous research and theory, the most promising strategies for using attribution retraining with this population were discussed.

Schultz (1993) examined relationships among socio-economic advantage, achievement motivation, and academic performance in an urban elementary school population of 130 African-American and Hispanic fourth- through sixth-grade students. Results indicate that socio-economic advantage and achievement motivation are significant mediators of academic performance among minority children, independent of intellectual ability.

Valas and Sovik (1993) reported the effects of the controlling strategies of the mathematics teacher on student achievement,
interest, and mathematics self-concept were demonstrated in a longitudinal study involving 161 seventh graders and 164 eighth graders. This empirical test of the self-determination theory of Deci and Ryan provides insight into student motivation.

Wambach (1993) described a study of motivational factors influencing 19 first-year students who made the dean's list their first quarter in college, despite a poor academic performance in high school. He applied Weiner's attribution theory of motivation. Most students attributed their prior academic performance to a lack of motivation/effort.

Wigzell and Al-Ansari (1993) presented that the problem of failure and underachievement in foreign language learning is associated with negative attitudes and poor motivation rather than lack of aptitude. Results of a survey of low achievers at the University of Bahrain are reported.

Bergin (1992) in his study investigated relationships between secondary students' school achievement, leisure activities, and motivation. Leisure activity variables predicted school achievement but were weak compared to motivation variables, which were weak compared to goals for college. Number of leisure activities and hours spent in leisure activities correlated positively but weakly with grade point average.

Celay and Tapia (1992) in their study, reported three models of achievement motivation in the classroom. Results with 155 high
school students suggested that the model of C. S. Dweck and E.S. Elliott offered a better explanation of the relationships among achievement motivation, attributions, emotional reactions, expectancies, and performance than do the other models.

Deci (1992) reported a study where students (n=457, ages 8-21) with learning disabilities or emotional handicap were assessed on self-perceptions and perceptions of home and classroom contexts. Students' achievement and adjustment were able to be predicted from the motivationally relevant variables of self-perception and perception-of-context.

Ford (1992) in his study explored the influences of social, psychological, and cultural determinants of underachievement as perceived by 148 intermediate grade African-American students in gifted, above average, or average academic programs. Psychological factors played the greatest role in underachievement or poor achievement motivation. Underachievement behaviours were noted among students in all academic programs.

Gilbert (1992) reported that clinical psychologist Taibi Kahler's Process Communication Model is based on six personality types (dreamers, persisters, promoters, reactors, rebels, and workaholics). By satisfying people's individual communication needs, the model helps improve student motivation and achievement, enhances staff morale, and reduces the need for discipline.
Keith and Benson (1992) in their study examined the effects of school learning variables (quality, motivation, academic coursework, and homework) on high school students' grades across five ethnic groups using data from a national longitudinal study. Results indicated that the variables were important to students' grades.

Keith and Cool (1992) tested influence of ability, time, quality of instruction, motivation, and academic coursework on high school students' (n=25,875) achievement. Intellectual ability and academic coursework had powerful direct effects on achievement, and homework had smaller direct effect. Indirect effects of quality of instruction and motivation were stronger than direct effects; quality affected motivation, which affected coursework.

Mitchell (1992) measured the constructs of intrinsic and extrinsic motivation for college students' learning, examining self-assessed motivation, composite ACT score, and grade point average (GPA). Extrinsic motivation more strongly (though negatively) predicted GPA. There was a significant positive relationship between GPA and intrinsic motivation. Motivational indicators were sensitive to gender differences.

Murray and Warden (1992) presented questionnaire results concerning self-handicapping, course-related expectancies, and study habits. Reports that self-handicappers were more likely than others to make external and unstable attributions. Concluded that the underlying cognitive mechanism of self-handicapping strategies
is a defensive attribution pattern that protects an individual from making unequivocal causal inferences of inability.

Sylva (1992) suggested that the long-term effects of early education are mediated by enhanced educational aspiration and motivation, not cognitive skills per se. This model is discussed with reference to the Plan, Do, Review Cycle in the High/Scope curriculum and the experimental work of Dweck and Legett on the development of mastery orientation.

Watkins and Hattie (1992) conducted a research with 1,266 Australian secondary school students and supported 2 propositions critical to the motive-strategy congruence model of J. B. Biggs (1985). Students tend to use learning strategies congruent with motivation for learning, and congruent motive-strategy combinations are associated with higher average school grades.

Grolnick (1991) reported an investigation of relations among children's perceptions of their parents, motivation, and school performance for 456 children in grades 3 through 6, and suggested that perceived maternal support and involvement are associated with perceived competence, control understanding, and perceptions of autonomy, whereas paternal support is related to perceived competence and autonomy.

Smith (1991) reported a study where motivational aspects of seventh graders' and ninth graders' decisions to adopt or reject educational goals advocated by parents are studied using 988
adolescents, both black and white, for whom questionnaire and achievement test data are available. Both social structure and the interpersonal environment appeared to influence adolescent inclinations toward parental goals.

Pintrich and De-Groot (1990) in a study, on relationships among student motivational orientation, self-regulated learning, and classroom academic performance were examined for 173 seventh graders. Results provided empirical evidence for considering motivational and self-regulated learning components in models of academic performance. Involvement in self-regulated learning is tied closely to student efficacy beliefs.

SECTION 2. IV: STUDIES RELATED TO STUDY HABITS

Entwistle (2001) described the interaction of cognitive and conative processes in learning with student perceptions of assessment procedures. Learning outcomes are viewed as a function of stylistic preference, approach to studying, awareness of targets, motivational approach, and suitable response to task demands. The author commends the notion of composite concepts, perhaps like a disposition to learn or understand, that appear to capture real-life experiences of learning. Interviews with students that described such experience are offered in support of this notion, whereas factor analyses of self-reports showed the co varying nature of approaches to studying, stylistic preferences, academic success, and understanding.
Fajonyomi (2001) examined the effectiveness of study skill counseling, rational emotive therapy, and a combined treatment in improving the academic performance in English of 40 Nigerian senior secondary school students. The effect of gender was also examined. Three experimental groups were pre tested, treated for 10 weeks and post tested on the English Language Performance Test. Results showed that the 3 treatment models had an equivalent significant effect on students’ performance. There were no differences between treatment and control groups based on gender. Based on the results it is recommended that school counselors might use any of these models in helping low achievers in English, to improve their performance.

Kovach, Fleming and Wilgosh (2001) carried out a study and this study was a replication and extension of previous studies investigating the relationship between secondary and post-secondary students' thoughts about achievement and their study habits. The focus group interviews were conducted to further explore student perceptions. The findings indicated that students with a more incremental view of intelligence reported better study habits. Similarly, students who reported liking school more or who considered themselves to be good students all reported better study habits. High school students, however, indicated that they perform less than 50% of the study habits identified in the Study Habits Inventory-High School (SHI-HS). A positive correlation was observed between students’ reported grades, their study habits, and their thoughts about achievement.
Rosenfeld, Richman and Bowen (2000) in their investigation compared school outcomes for 827 middle and 988 high school students who differed in the extent to which they perceive their parents, friends, and teachers, alone and in combination, as important sources of social support. Findings indicated that middle and high school students who perceived high supportiveness from all 3 sources of support, as opposed to none, 1, or 2, had better attendance; spent more hours studying; avoided problem behaviour more; had higher school satisfaction, engagement, and self-efficacy; and obtained better grades. Positive school outcomes were promoted when teacher support is perceived in combination with perceived support from parents and friends. Implications of the results for human service providers were presented.

Boone (1999) had conducted a study to determine the effectiveness of self-directed instruction (SDSS) on student attention, study skills, and grade averages for reading, mathematics, science, and social studies when contrasted with a comparison group receiving teacher directed study skills (TDSS) instruction and a control group receiving no special study skills instruction (NSS). Inquiry of teacher reactions to explicit study skills instruction was of secondary interest. The study involved a total of 80 participants. Three students were dropped due to excessive absences which resulted in 77 participants, an experimental group (N = 25), a comparison group (N = 26), and a control group (N = 26). The self-directed study skills intervention for the experimental group and the teacher-directed study skills intervention for the comparison group
were conducted for 4 weeks for a total of 8 sessions. The control group received no special study skills instruction. The instruments used were the Attention Problems Scale and the Study Skills Scale from the Teacher Rating Scales of the Behaviour Assessment System for Children (BASC) and quarter grade averages in the areas of mathematics, reading, science, and social studies. Repeated measures analysis of variance and analysis of covariance were used in the analyses. The results supported the effects of the use of cognitive self-instruction in the area of study skills at the post treatment measure and attention problems at the follow up measure. The results failed to support a treatment effect for the cognitive self-instruction intervention in mathematics, reading, science, and social studies quarter grade averages. However, qualitative data revealed that instruction of attention focusing, and study skills is a positive approach to increasing student engagement in school tasks. Suggestions for further studies included increasing the number of training sessions and integrating the training sessions as part of the regular classroom routine.

Silver (1999) reported that current research reveals that there are many factors affecting academic achievement. The overall purpose of this research was to empirically evaluate the hypothesized structural relationships among five social cognitive latent variables and a latent GPA variable. Data were collected for the latent constructs of study skills self-efficacy, learning goal orientation, performance goal orientation, perceived future consequences, and persistence, as each is defined under the social cognitive theoretic
perspective, as well as grade point average. Of the 398 community college students administered the survey in a sample of convenience, 386 consented to participate. Data were screened and cases were excluded on the basis of outlying response patterns and excessive amounts of missing data. The resulting data set contained 338 cases. The initial specified structural model hypothesized that SSSE would have a direct relationship with estimated GPA, and would indirectly be related to GPA through all of the constructs within the model. Findings showed that study skills, self-efficacy and persistence have a direct positive relationship to grade point average for this sample. Not surprisingly, indirect relationships to GPA were detected for perceived future consequences and performance goals. The performance goals construct was negatively related to persistence. There was also a direct negative relationship between future consequences and persistence. Individuals with a greater focus on the future social rewards of doing well academically (good grades lead to a personal payoff, such as rewards from my family, money, graduation, etc.) demonstrated lower persistence responses. Finally, the practical significance for the GPA construct in the study, also termed effect size, was .44 ($R^2 = .44, p < .05$). This finding allowed the interpretation that, overall, this research does contribute to our understanding of academic achievement and the role of self-efficacy for self-regulated study behaviours, goal orientation, perceived future consequences, and persistence.

Albaili (1997) examined the differences between low-, average- and high-achieving college students on the Learning and
Study Strategies Inventory scales. A total of 168 18-26 year old undergraduate students at the United Arab Emirates University were classified into 3 achieving groups based on their grade point average scores. The low-achieving students scored significantly lower than the average- and high-achieving students on all of the scales. However, no significant differences were observed between the average- and high-achieving groups on any of the scales. Furthermore, a stepwise discriminant analysis revealed that motivation was the most powerful discriminating factor that separated low-achieving students from their high-achieving peers.

Al-Hilawani and Sartawi (1997) investigated the influence of GPA, academic majors, and academic levels on the study skills and habits of female university students. 480 female students (mean age 21 years) from all majors in the Faculty of Education at the United Arab Emirates University participated in this study. The statistical analysis indicated that students who had high GPA achieved significantly better on the study skills and habits instruments than did students who had low GPA. Students majoring in special education and educational psychology obtained a significantly higher score than did students in the "other majors" classification (e.g., Pre-School Education, Elementary Education, and Arts Education). However, the statistical analysis revealed that there were no significant differences on study skills and habits due to student's academic levels. Learning centers and introductory courses on good study skills and habits are recommended to help university students who have academic problems.
Hess (1997) reported that an important contributing factor to academic success in college is the presence of adequate study habits that allow students to learn independently. According to recent research, optimal classroom performance is achieved when learners exhibit a variety of useful study habits, use deep and surface level processing of information, and effectively monitor their own reading comprehension. In the current study, four hypotheses were tested: (1) Individuals who employ a greater number of productive study habits achieve higher levels of academic success than those who employ fewer; and those who use more deep level study than surface level study will achieve higher levels of academic success than those who primarily rely on surface level study. (2) Individuals who employ a greater number of productive study habits will achieve higher levels of reading comprehension than those who employ fewer; and those who use more deep level study than surface level study will achieve higher levels of reading comprehension than those who primarily rely on surface level study. (3) Individuals who employ a greater number of productive study habits will achieve higher levels of meta comprehension than those who employ fewer; and those who use more deep level study than surface level study will achieve higher levels of meta comprehension than those who primarily rely on surface level study. (4) Individuals who employ more meta comprehension will comprehend what they read better than those who use less meta comprehension. To test these hypotheses, 106 students were assessed on the Estes/Richards Study Habits Inventory, and were graded on their performance in a Learning and Development Class, completed a
questionnaire about their self-monitoring activities (to assess meta comprehension), and responded to comprehension questions about a reading passage. Participants were also asked if they like to read, and additional information was obtained on a variety of indices. The results supported hypotheses 1, 2 and 3, but not 4. Because of instrument unreliability, the link between meta comprehension and reading comprehension was not well tested in the current investigation. Additional research is needed to clarify, replicate, and extend these findings.

Jegede, Jegede and Ugodulunwa (1997) conducted an experimental analysis of the effects of achievement motivation and study habits on Nigerian secondary school students' English language performance that was carried out in 1990. The two hypotheses tested were that each of the treatment groups would perform significantly better in English than the control group and that the students treated for the combination of improved study habits and higher achievement motivation would perform better in English than any of the other groups (study habit, achievement motivation, and control). The sample consisted of 160 students in 10th grade, selected from 4 schools in Nigeria. Students' entry and exit achievement motivation, study habits, and English language performance were examined. Analyses of covariance were used to test the significance of the results, and both hypotheses were supported.
Abdullahi (1996) examined the extent to which the study habits of secondary school students influence their academic performance. 198 male and female secondary school students (aged 15-20 years) in Kwara State, Nigeria completed the Study Habit Inventory. The subject's scores in English language from the Junior Secondary School Examination were used as the criterion measure. Results indicated that the subjects's study habits predicted objective achievement on the English test, indicating that students share some measure of blame for poor academic performance. Study habit patterns showed that, although the students spent much time on study period procedure, they showed very little concentration and consultation with their teachers.

Hancock (1996) studied behaviours common to elementary school students and were incorporated into a questionnaire administered to 793 fourth and sixth graders. Factor structures varied by sex and grade level, but gender differences in study strategies apparent by grade six may be the source of persistent gender differences in academic achievement.

Verma (1996) explored the effects of study habits and locus of control on academic performance of secondary school students in different school courses. The study was conducted on 504 male students studying in tenth class in ten secondary schools of Delhi. Two instruments "Study Habits Inventory" by B.V. Patel and the Hindi version of "Rotter's Internal External Locus of Control" by Kumar and Srivastava were employed for data collection. The results of the study yielded that study habits had significant effect on
academic performance in Hindi, English and Social Studies; and locus of control had significant effect on academic performance in English, Hindi, Math, General Science and Social Studies. The interaction effect of the 2 variables, however, emerged as significant in Math and General Science.

Jones et al (1995) investigated the academic skills and conceptions of intelligence of 7th-12th graders. 371 subjects were administered the Study Habits Inventory: High School Scale and the Thoughts About Achievement Scale. Results showed that subjects showed incremental views of intelligence in both studies. Conceptions of intelligence were related to study skills. The more incremental the subject's conceptions of intelligence, the better their study skills tended to be. In Study 1, subjects with an incremental view consistently exerted more effort when studying than did subjects with an entity view. This relationship was less consistent in Study 2. Study skills improved from Grade 7 through 8, and then decreased through Grade 11, due to the use of rote memorization. A slight improvement was noted in Grade 12. It was concluded that study skills programs need to address attitudinal variables, in addition to teaching specific skills.

Loranger (1994) examined the study strategies of successful and unsuccessful learners to determine whether successful learners differ qualitatively in their information processing from unsuccessful learners. He found that, the successful students were more active, purposeful, and flexible in their strategy use. He found that although
unsuccessful students were less efficient in their use of learning strategies, they were satisfied with their academic performance.

Meyer (1994) in a study found systematic, structural gender differences between male (n=266) and female (n=144) college students in perceptions of and approaches to learning. It is argued that gender variation in study behaviour is an important but often neglected source of variation in student learning that can and should be managed by educators.

Freeman and Morss (1993) examined the study habits of 31 Asian and Asian-American college students in the Midwest, using in-depth interviews. Study habits were categorized into 7 factors. Analysis indicated that these students studied regularly, studied for long periods of time, and were very intense. They used study groups and adaptive study approaches. They did not make much use of external aids but focused on comprehension of material presented in their textbooks. Results may have some implications for students whose focus has shifted from reading the textbook to other forms of study.

Thomas (1993) proposed three developments that lend support to the idea that schools must help teach study skills: (1) advances in cognitive psychology suggested that children are active learners; (2) society's concern for at-risk students; and (3) growing demands for improved student performance. There is evidence that systematic study skills instruction does improve academic performance. Study skills entail a beneficial study environment, self-
management, and time and stress management, as well as the more
traditional skills of effective listening, reading comprehension, note-
taking, and sophisticated writing skills. Motivation is essential for
instilling study skills. Research suggested that Behavioural self-
management, mood management, and self-monitoring are
successful tactics in developing motivation. Development of study
skills should be addressed at every educational level. Programs to
enhance teachers' preparation to teach study skills are important,
because the perception they are unprepared negatively affects
student performance. Efforts in Oregon demonstrated both the need
to develop study skills and the outlines of some successes.
Students' eagerness to acquire study skills dissipates quickly,
demanding a strong commitment from school boards,
administrators, teachers, parents, and students to make study skills
instruction maximally effective.

Panda (1992) investigated the study habits of disadvantaged
and non-disadvantaged adolescents in relation to their sex and
academic achievement. 200 9th and 10th graders (100
disadvantaged with 50 boys and 50 girls, and 100 non-
disadvantaged with 50 boys and 50 girls) were randomly matched
with age, sex, area of living, and birth order. A study habits inventory
and academic achievement tests were used for data collection.
High achieving subjects had better study habits than low-achieving
subjects. Boys had significantly better study habits than did girls.
Jones et al (1991) investigated the academic strengths and weaknesses of high school seniors; the academic behaviours (ABs) that discriminate between high academic achievers and low academic achievers; and the relationship between AB, procrastination, and academic achievement. Subjects were 175 12th graders from 3 high schools and their parents. Subjects's academic skills were significantly, though modestly, related to their academic achievement. Subjects demonstrated very few overall strengths, and many weaknesses, in their ABs. Two of the strengths reported were related to what they learned previously to new course materials and to everyday life. Procrastination was related to study habits. Results demonstrated a significant need for teachers to become more involved in improving students' academic skills.

Kaur (1991) examined the relationship between home and school environments and the study habits of 80 male and 80 female students attending Grades 8-10 in India. Results of self-report questionnaires indicated that 85% of boys studied at home according to a planned schedule. Among girls, who had more housework responsibilities than did boys, 82.5% used a planned schedule. 72.5% of parents of girls and 68.75% of parents of boys were interested in their children's homework. Over 90% of boys and girls were satisfied with their schools' facilities, teacher's teaching methods, and the grading system.

Matt, Pechersky, and Cervantes (1991) examined the influence of high school study habits on achievement in high school
and during the 1st semester of college, using data from 159 female and 93 male freshmen. The same study habits that contributed to success in high school were found to be unrelated to academic achievement during the 1st semester in college. Findings suggested that college freshmen need to acquire new study habits to be academically successful.

Kohli and Bains (1986) studied the effects of study habits and attitudes and of means of improving habits and attitudes on the academic performance of bright underachievers attending high schools in Chandigarh, India. The 20 experimental subjects were chosen from 300 subjects administered tests of verbal and nonverbal intelligence. The identified underachievers were administered a study habit inventory by B. V. Patel and a test to assess need to achieve before and after the intervention10 experimental group underachievers were given individual counseling for a 2-months period. Pre- and post counseling test results and performance on tests taken before and after the intervention indicated that individual counseling had a positive effect on study habits and the need to achieve for bright underachievers.

Estes and Richards (1985) administered a Study Habit Inventory to 168 9th- and 10th-grade students to examine the relationship between study habits and test performance. The data were factor analyzed to yield 3 constituents of study practices: Distractibility, Compulsiveness, and Inquisitiveness. These factors accounted for over 50% of the total variation of the items in the
inventory. Tests of hypothetical relationships between habits of study and test performance suggested that test performance is monotonically related to study behaviours associated with inquisitiveness, particularly for studying as part of homework preparation. Compulsivity is also related to performance but only in the distinction between students and those receiving other test scores. Distractibility, although it was the most reliable study habits scale, was found to bear virtually no relationship to test performance.

Kops and Belmont (1985) tested the hypothesis that some poor school achievers are deficient in planning and organizing skills. 20 low-achieving 2nd graders (mean age 96.3 months) and 20 average-achieving 2nd graders (mean age 93.7 months) were administered 5 school-like tasks involving pictures, shapes, letters, words, and numbers; the mazes subtest of the WPPSI; and the Trail Making Test. The tasks used were designed to yield equivalent and high success rates so that the subject’s method of approach to the tasks could be examined independently of available skills and effects of failure on performance. Results suggested that (1) many children who are seriously failing in the early years are inefficient or poor task planners and organizers, often remaining fixed on a given approach; (2) this characteristic may be related to lagging or deficient language skills, but not to spatial organizing skills; and (3) school failure may result from specific cognitive deficiencies and/or failure to effectively organize available cognitive skills. Planning and
organizing are discussed in relation to set, spatial organization, language, memory, and attention.

Mehta and Kumar (1985) reported the relationships of academic achievement with intelligence, personality, adjustment, study habits and academic motivation. They studied the relationship between academic achievement and personality, intelligence, study habits, adjustment, and academic motivation. 60 male and 60 female postgraduate students were administered the Eysenck Personality Inventory, a study survey designed by H. D. Carter (1958), a group general mental ability test designed by S. Jalota, a test of academic motivation designed by H. Hartley and J. H. Hogarath (1971), and the Bell Adjustment Inventory. Results indicate that psychological variables in terms of personality, intelligence, study habits, academic motivation, and adjustment were not related and were independent of achievement. There was hardly any regularity of relationship among the independent variables.

Patel (1985) investigated the impact of study habits on academic achievement among 76 intellectually backward students in the 8th standard at rural and urban schools in Gujarat, India. Correlation analyses of results on the Study Habits Inventory by B. V. Patel (1974) and terminal examination grades revealed that study habits were an important determinant of school achievement for both boys and girls in rural as well as urban settings.

Patel (1985) investigated the impact of study habits on academic achievement among 76 intellectually backward (IQ 78 or
below) students (Std. VIII) at 3 rural and 3 urban schools in Gujarat, India. Results of the Study Habits Inventory devised by M. B. Patel (1974) demonstrated a positive correlation between study habits and academic achievement in all 4 study groups--urban boys, urban girls, rural boys, and rural girls. In addition, girls revealed better study habits than boys.

Wolfenden and Pumfrey (1985) reviewed various studies in the field of behaviour, study habit, attitudes and academic attainment and strategies for study habits. Research has indicated that there is more likely to be a higher correlation between study habits and academic attainment than between study habits and intellectual ability. Study attitudes have been found to be most strongly influenced by an individual's social and psychological needs. Two major kinds of achievement motivation have been identified, including the orientation to success and the disposition to avoid failure. It has been suggested that the more students know about factors such as the state of their own knowledge, their ability to learn, and techniques for learning, the better they will be able to study. A distinction is made between deep and surface approaches to learning, and qualitative and quantitative approaches to assessing study habits were discussed.

Chinnian and Iyengar (1984) studied the influence of cognitive and non cognitive factors on the scholastic performance of 72 students (aged 12-16 yrs) of an English-medium school in India. Subjects were administered tests of intelligence, numerical ability,
abstraction, and vocabulary and a questionnaire covering goals and interests, motivation, study habits, and family and peer relations. The most consistent finding was that most underachievers, as compared with high and normal achievers, showed certain modifiable personal characteristics, such as less effective, less persistent, and less systematic work habits.

Christian (1983) administered a study habits inventory and a need achievement test to 79 female and 68 male high school students to investigate the relationship of need achievement to sex and to motivation. Results indicated no significant differences between scores of males and females and a positive correlation of study habits with motivation.

Ladouceur and Armstrong (1983) reported a study on 39 high school students designated by their teachers as at risk for academic problems received 10, 50-minutes weekly Behavioural treatment sessions that included self monitoring, study skill training, anxiety reducing procedures, and assertiveness training. The academic performance of these subjects was compared at 4 times during the year to that of 30 students at risk who agreed to participate in treatment but were placed on a waiting list (motivated controls), 43 at-risk students who refused to participate (unmotivated controls), and 43 students not at academic risk. Subjects in the intervention group significantly improved their performance from the 1st to the 4th assessment, and both the intervention and not-at-risk groups performed significantly better than did the untreated, non motivated
control group. Subjects in the latter group failed to improve their grades, suggesting that without direct and systematic help, students with potential school problems do not find ways of solving their difficulties by themselves.

Rao, Parvathi and Swaminathan (1983) conducted a study on 70 male and 70 female 15-16 year olds, whose mothers were either employed or not employed outside the home, completed a questionnaire on study habits. No effects of sex or maternal employment were found for reading and note-taking, habits of concentration, allotment of time, or social relationships. However, an interaction effect was found by which daughters with nonworking mothers showed more favorable attitudes and study habits.

Chauhan and Singh (1982) conducted a study to find out the difference in the study habits of boys and girls and the difference in the study habits of children with parents from different professions. 500 10-12 years olds were selected randomly from both rural and urban areas. Subjects with parents from 5 types of professions were selected: agriculture, government service, business, teaching, and defense services. Subjects were administered a 45-item study habits inventory covering 7 major areas: home work, work organization, reading organization of habits, preparation for examination, general habits, interests, and environment of the institution. Analyses revealed no sex differences. Subjects of teachers achieved the highest score on the inventory, followed by subjects whose parents worked for the government and defense
services. Subjects with parents from agriculture had the lowest score. Suggestions for parents and teachers on how to improve children's study habits are provided.

Zarb (1981) studied the relationship between academic achievement and 6 non-academic variables in normal Grade 10 students (30 males, 98 females) from a working-class urban neighbourhood. The variables were (1) study habits, (2) self-concept relative to peers, (3) acceptance of education system, (4) self-concept relative to family, (5) general achievement motivation, and (6) academic self-concept. The battery of measures included the Academic Self-Concept Scale and Survey of Study Habits and Attitudes. Results indicated that academic self-concept and study habits were significant predictors of GPA for both male and female samples. These results suggest that contrary to popular assumptions (probably erroneously based on clinical samples), the best students in a normal population were not necessarily those with a high family and peer self-concept, but those who have developed good study habits and realistically perceived themselves as academically successful. General achievement motivation was a 3rd significant predictor for males only. This probably reflected a persistent tendency for competitive traits to be associated more strongly with successful males than successful females, especially in a working class population with a large southern European immigrant component.
Markle and Rinn (1978) conducted a study to help underachieving students improve academic performance, and an achievement motivation training program was developed for use in an outpatient setting. Significant pre- to posttest differences for 23 8-44 years old participants were noted for achievement imagery, hours studying per week, and days studying per week. Significant differences were also obtained for GPA before training and grades at 1-years follow-up.

Srivastava (1977) inter correlated 6 variables--study habit, general adjustment, reading ability, academic motivation, and total number of problems in family, school, economic, and recreational areas of life. All were found to differentiate significantly between 4 groups of achievers--under, over, high, and low. Each variable was further correlated with the achievement and intelligence scores of these 4 groups. Phi coefficients were employed, each of which was converted into chi squares to find its level of significance. Results indicated the following: (a) All the 6 variables significantly correlated with each other except reading ability and total adjustment. (b) Reading ability, study habit, and academic motivation were more strongly related to achievement than the 3 measures of personality. (c) Except for reading ability, all the variables had a low correlation with intelligence.

Dhaliwal and Saini (1975) studied aspects of over- and underachievement, and tested the adequacy of the operations used to compute achievement indices. Results included the finding that
over- and underachievement are related to the student's study habits, motives, adjustment, and feelings of security and insecurity.

Harris and Trujillo (1975) conducted a study where both a self-management approach, teaching the principles of behaviour modification and self-control (n=36), and a group discussion technique, involving discussion of study habits and problems (n=41), led to improvements in GPAs compared with a no-treatment control group (n = 36) for low-achieving junior high school students. Subjects in both treatment groups reported improvement in their academic abilities relative to those of other junior high school students after the program. More than those in the group discussion condition, those in the self-management group also reported that they were more likely to have a specific time and place to study and that the program had increased their efficiency and time spent in studying.

Hinrichsen (1972) obtained estimated self-reported study behaviours from 144 undergraduates. A step-wise multiple regression indicated the best predictor of grade point average (GPA), as Verbal Scholastic Aptitude Test scores. Variables which significantly increased were effective study time per week (p < .001) and facilitating test-anxiety as measured by the Achievement Anxiety Test (p < .05). Results indicated that estimated self-reported study behaviours may be as useful as on-going records in predicting GPA.
Wittmaier (1972) administered the Achievement Anxiety Test (AAT) to 300 undergraduates. 4 groups of 13 subjects each were selected to investigate the relationship of facilitating (AAT+) and debilitating (AAT-) test anxiety and study habits. Subjects with low AAT- scores had more effective study habits and avoided delaying academic tasks. This suggested that test anxious subject's (high AAT-) test performance is partially affected by ineffective pre-examination behaviour.

Gopal (1970) established the effect of factors, e.g., individual intelligence of the pupils and of their scholastic achievement. 500 8th grade boys of high school were selected at random. The following independent variables were selected: individual intelligence, study habits, socio-economic status, and school attitude; the dependent variable was scholastic achievement expressed in grade marks. Intelligence was measured by using the CIE group intelligence test; the socio-economic status was expressed numerically by using B. Kuppuswamy's Socio-economic Status Scale. Study habits were determined by asking a series of prepared questions and using a rating scale. Measurement of school attitude was based on the Likert technique of attitude scale construction. Achievement was measured by using the Jamia Achievement Test Battery and taking the cumulative score on social studies, general science, and mathematics. The techniques of multiple correlation and multiple regression were applied, and correlation coefficients, regression equation, and its coefficients were determined. It was found that the student's intellectual level
was the predominant factor which determined his scholastic achievement. 64% of the variations in achievement are accounted for by variations in intelligence ($r = .8$). Socio-economic status was related to intelligence ($r = .45$); no substantial relationship existed between study habits or school attitude and intelligence.

Jain and Robson (1969) attempted to ascertain, on the basis of an objective survey, the relative importance of 8 different aspects of study processes for 99 high-, 164 middle-, and 111 low-attainment subjects. Subjects were under- and postgraduate male students of the 8 main Universities of India. A new Study Habits Inventory was developed in the Hindi language for this purpose. High attainers as a group were superior in their study practices. Working habit was found to be most important from the guidance point of view for all the 3 groups.

SECTION 2. V: STUDIES RELATED TO TEACHER EFFECTIVENESS

Hutto (2001) reported that there has been extensive research conducted on student achievement (Anderson, 1994; Brookover, 1979; Fuchs, 1986; Wiggins, 1996) and techniques that enhance learning. There has further been considerable research that focused on teacher evaluation (Anderson, 1979; Berliner, 1976; Gottfredson, 1995; Moses, 1997; Scriven, 1988). However, little research exists that addresses the relationship between student achievement and teacher performance.
Treka (1994) stated that 'teaching and student outcomes are connected' and that 'an increase in teaching experience was associated with an increase in student achievement': The purpose of this study was to examine the relationship between scores received by teachers on the new PDAS (Professional Development and Appraisal System) for Domain VIII (Improvement of Academic Performance for All Students on the Campus) and student achievement scores as measured by the TAAS (Texas Assessment of Academic Skills). Domain VIII of the PDAS focused on student performance. The criteria for this domain required that the teacher become familiar with every students' prior performance. The assumption was that teachers who have personal knowledge of each student were more attentive to the differences and therefore customized the lesson to insure that all students were successful. The research design used was quasi-experimental as certain independent variables were beyond the control of the researcher. The independent variables were the scores of the teacher in all ten criteria of Domain VIII of the PDAS appraisal system while the percentile score for students in math and reading (on TAAS) were the dependent variables. The null hypotheses for this study were tested at .05 level of statistical significance. Findings of the research revealed that there was a significant increase in the TAAS scores for math and reading after the implementation of Domain VIII of the PDAS appraisal system. Grade level had little influence on TAAS scores. Those criteria that had the greatest influence on student achievement were: alignment of instruction, appropriate sequence of instruction, appropriate materials, monitoring of student performance
and attendance, interacting with students in at-risk situations, having an intervention plan in place, having a campus wide program of action, and the campus rating attribute.

Kuklinski and Weinstein (2001) described a path model of teacher expectancy effects and was evaluated in 376 1st-5th grade urban elementary school children. The roles of classroom perceived differential treatment environment and developmental differences and one mediator (children's self-expectations) of teacher expectancy effects on children's year-end achievement were examined. Significant differences in effects and effect sizes were presented. A significant age-related decline in direct effects on ending achievement was interpreted as evidence that teacher expectations may tend to magnify achievement differences in the early grades, but serve to sustain them in later grades. Support for indirect effects (teacher expectations --> children's self-expectations --> ending achievement) was limited to upper elementary grade classrooms and was perceived as high in differential treatment. In contrast to prior research that emphasized small effect sizes, the present analyses document several instances of moderate effects, primarily in classrooms in which expectancy-related messages were most salient to children. These results underscore the importance of explicit attention to the inclusion of moderators, mediators, and multiple outcomes in efforts to understand teacher expectancy effects.
Quandahl (2001) asserted that over the years, educational researchers have investigated factors considered to affect learning. Numerous correlational and experimental studies have found associations between achievement patterns and teacher instructional behaviours (e.g., Anderson, Evertson, Brophy, 1979; Rosenshine, 1995). Teacher effect studies represent an important area of research from which a picture of effective teaching is emerging. The purpose of this study was to differentiate the instructional practices of kindergarten teachers who were more effective, effective, and less effective in producing high student achievement. The teacher sample consisted of nine kindergarten teachers from the 1996-97 school year. Archival record data were collected from 208 students (107 students who attended full-day kindergarten and 101 who attended half-day kindergarten during the 1996-97 school year), from four schools with ethnically diverse students and substantial numbers of students on free and reduced lunch. Teacher observation data and an instructional practices questionnaire (constructed from findings of previous teacher effectiveness studies) were used to compare the teachers’ instructional practices. Teacher effectiveness was measured by analyzing the class mean, the dispersion of student scores, as well as the extent to which the teacher was effective in producing consistently high achievement across subject areas from various measures of achievement. Additionally, student scores from first grade were examined to identify teachers whose students maintained or increased in cognitive achievement. The quantitative data were matched with the corresponding qualitative data to
differentiate instructional similarities and differences of teachers who were more effective, effective, or less effective in promoting high achievement with kindergarten students. The results of this study indicate that kindergarten instruction differs substantially from school to school and from class to class. One more effective half-day kindergarten teacher's students did as well or better on kindergarten and first grade assessments, when compared with many of the full-day kindergarten classes. Additionally, this study found that high academic achievement in kindergarten does not necessarily lead to high subsequent achievement. Two out of the three kindergarten teachers, who were identified as more effective in producing high student achievement on kindergarten assessments, were not effective in producing high student achievement in first grade. These teachers self-reported a less developmental approach to kindergarten instruction. These findings suggested that it is possible to discern some common characteristics of teachers who are more effective, effective, or less effective in producing high kindergarten achievement. Teachers who were identified as effective generally self-reported a more developmental philosophy and practices. Interestingly, the effective teachers' students had high first grade academic achievement. Students of one teacher who was classified more effective and self-reported a developmental approach, maintained high achievement in first grade. These results suggested that disregarding developmentally appropriate instructional practices in kindergarten to produce high student achievement may be counter productive. While rote drill and practice to ensure high
student performance may produce short-term gains, concern should be focused on the cognitive development of children over time.

Radmacher and Martin (2001) investigated college teachers' ages and personalities, and students' course grades, gender, enrollment status, academic abilities, and ages as predictors of student evaluations of faculty. An evaluation form containing 7 items reflecting the personality trait of extraversion and 8 items reflecting teaching effectiveness was used to collect data from 351 undergraduates. Teachers' extraversion (.79) and teachers' ages (-.08) were correlated highest, and students' gender was correlated lowest (.08) with teaching effectiveness. Hierarchical regression revealed that teachers' extraversion was the only significant predictor of student evaluations (beta = .76, p < .001) after controlling for enrollment status, course grades, and student ages.

Forte (2000) described that the ultimate goal of education is to increase the knowledge and skills of students. Many factors affect student achievement. There were several studies that suggested that the single greatest factor affecting student achievement is teacher effectiveness. The challenge then became to improve and strengthen the effectiveness of teachers in an effort to increase students' academic achievement. To accomplish this, teacher training must be provided through a professional development program that impacts instructional practices in the classroom. The intent of this study was to stress the importance of professional development programs that are designed to
improve instructional practices and impact on student academic gains. This study examined a professional development program in the Direct Instruction Reading Program at an urban elementary school. Training was provided for third-, fourth-, and fifth-grade teachers. The design of this professional development program was based on well-researched instructional strategies that had been found to increase the level of transfer of knowledge and skills, gained from training, to the classroom. The goal of this study was to determine the impact of the professional development program on teacher performance and student achievement in reading as measured by the Iowa Test of Basic Skills. Professional developing in the Direct Instruction Reading Program was provided for all participating teachers over the 1997-1998 school year. Teacher performance data were obtained through a professional development survey, training forms, and classroom observation forms. Student achievement data consisted of 1997 ITBS reading scores (pretest) and 1998 ITBS reading scores (posttest). This year-long study was evaluated quantitatively and qualitatively. The results of the study suggested that the professional development program did impact teacher performance and student achievement. The findings generated from this study can be used to focus attention on the importance of the development and design of professional development programs and to support the notion that professional development can impact teacher performance and student achievement.
Goldwater and Nutt (1999) reported that little is known about the relationship between teachers' family-of-origin variables, impacting their work attitudes and interpersonal skills, and students' academic outcome. This study investigated whether goodness of fit between teachers' and students' backgrounds is associated with subjective grading and objective achievement at school. 101 7th graders and 20 of their teachers completed the Self-Report Family Inventory. Similarity between teachers' and students' work-culture variables was associated with the subjective grading practices of teachers. The self-report data also revealed effective teacher and successful student profiles.

Johnson (1999) examined teachers' perceptions of school climate in 59 elementary schools in a southwestern U.S. city. They were assessed using the School Level Environment Questionnaire. Exploratory and confirmatory factor analyses led to the use of 35 of the original 56 items arranged in five of the original eight factors. Factor scores were calculated and used in further analyses. Using structural equation modeling, a statistically significant, positive relationship was found between school mean, teachers' perceptions of school climate and school mean student achievement. School climate was also found to be related to teachers' perceptions of how good schools were for students and to teacher job satisfaction. A second model, adding school mean teacher characteristics, did not improve the overall model, though it resulted in a smaller, non-significant relationship between school climate and student achievement. A third model,
adding community and school context variables also was not a better model. It did, however, show such strong relationships between community and school context and student achievement that other relationships in the model were overwhelmed. Overall, schools with higher student achievement; more experienced, non minority, female teachers; with fewer low income and limited English proficient students; and in communities with higher family income and higher adult education levels had more positive school climates. This study revealed the need for better measures of the effectiveness of schools, particularly regarding teacher characteristics and teacher effectiveness. It also pointed out that teachers' perceptions of school climate are important and should be part of school effectiveness assessment as well as a focus for school faculty and administration improvement efforts.

Lin and Lawrenz (1999) explored the feasibility and validity of using a time-series design in the assessment of teaching effectiveness. One outstanding beginning chemistry teacher, 1 experienced chemistry teacher, and 2 classes of students taught by the 2 teachers participated in the study. Despite the constraints inherent in the design, the results indicated that time-series procedures were effective for monitoring student learning and assessing teaching effectiveness. The time-series data revealed a sharp drift of the learning curve in the "treatment" stage. Additionally, the data showed high correlations with established tests and discrimination between high and low achievers. The
results of the time-series methodology reported here were corroborated by analyses of videotapes of the classroom teaching.

Hirsch (1998) in his report outlined current research on teacher policy, summarized legislation from the 1997 legislative session, and forecasts teacher policy trends for 1998. The report is intended to assist states in examining and improving teacher policies by providing information about how other states have approached the issue. Current research demonstrated that teacher quality is the most significant factor affecting student achievement, hence education and qualifications of teachers is an important factor in determining student success. The 1997 legislative session saw numerous states address key components of teacher policy, including teacher certification, salary and other benefits, professional development, and tenure and dismissal. The year 1998 promised to be another busy year for education and teacher policy according to National Conference of State Legislatures (NCSL) survey. Legislators will have to work to increase teacher quality by creating more rigorous teacher certification requirements. Projected teacher requirements and the demand for new educators provided states with a window of opportunity to reshape the composition of their teacher corps over the next decade. States hoped to enhance future teacher quality through more rigorous licensure and professional development requirements and to establish recruitment programs to diversify the teaching population.
Karsenti and Thibert (1998) in their study took an in-depth, global look at the entirety of the teaching practices of six elementary school teachers in Canada who were known to be highly motivating instructors. The study investigated the interaction between teaching practices and the change in elementary-school student motivation. Three teachers were chosen for their reputation as great motivators, while the other three were randomly selected in schools from the same sociological context; the students of these teachers also participated. Teachers were interviewed, their classes were observed, and their teaching materials were examined. Documents and other qualitative data were analyzed by ethnographic content analysis, and a motivation scale was applied to students. Results indicated that effective teachers seem to emphasize, effort more than ability, using attribution feedback to favor student motivation. Effective teaching was also related to the sharing of classroom management responsibilities with students, and with creating a classroom culture in which students were held accountable, had self-determination, and believed that through effort they could succeed. Planning and decision making for these teachers showed awareness of the importance of creating a classroom context in which students were highly motivated, and they were aware when students were not motivated. Student's perceptions of the teachers actions were more important for influencing motivation than the teacher's real actions themselves.

Mendro (1998) comments on J. Frymier's (1998) viewed that teachers should not assume or accept responsibility for student
learning and then summarized some evidence showing the strong connection between school and teacher effectiveness measures and student achievement. Mendro also noted some of the benefits of school and teacher effectiveness measures external to their function as measures of performance. Next, policy issues arising from the use of student data and the associated research were considered. Finally, Mendro concluded with some cautions about using effectiveness measures in teacher accountability systems.

Anderson (1997) discussed in detail the collaborative efforts of a team of elementary school and university educators working within the context of a professional development school (PDS) to foster culturally responsible pedagogy, inspire reflective practice, and enhance student performance. He concluded that the PDS experience increases teacher effectiveness and accountability.

Behrman (1997) examined determinants of cognitive achievement in rural Pakistan, controlling for cognitive ability, family background, various school quality measures, and educational attainment. Estimates indicated substantial variation in school effectiveness. Investments that improve teacher quality and increase student exposure to teachers are likely to have higher returns than those that improve physical infrastructure and equipment.

Horton and Oakland (1997) tested the hypothesis that students learn best when teachers use strategies consistent with students' temperament-based learning style. Analysis of 417
seventh graders did not support the hypotheses—Student achievement was significantly higher when instructional strategies that were designed to promote personalized learning were used.

Ortiz (1997) in his study examined whether teacher behaviours (such as teacher enthusiasm, level of lesson difficulty, teacher voice volume and inflection, teacher use of inquiries, and teacher use of positive feedback) were related to student academic engagement in an inner city day care center. Data were collected by videotaping 13 teachers and 94 ethnic minority children in the day care center. Analysis indicated that all five teacher behaviours were related to student academic engagement, although none of these correlations was statistically significant. Student academic engagement was also found to be significantly correlated with measures of emergent literary skills. Results suggest that educational researchers include engagement among their outcome variables, and that educators add fostering student engagement to the goal of increasing student academic achievement.

Peterson (1997) in his literature review addressed four variables related to school climate: teacher efficacy, collegiality (as promoted by the principal, shared decision making, and staff development), student achievement, and parent involvement. Schools attempting reform should consider how each of these variables can contribute to a positive school climate and improve the chances for lasting, meaningful school reform.
Wright (1997) reported the relative magnitude of teacher effectiveness on student achievement. It was examined, after considering the effects of classroom heterogeneity, student achievement level, and class size on academic growth in the context of the Tennessee Value-Added Assessment System. Results showed teacher effectiveness to be dominant factors that affecting students gain.

Wright, Horn, and Sanders (1997) in a project, used samples from 2nd-8th grade Tennessee classrooms to examine the relative magnitude of teacher effects on student achievement while simultaneously considering the influences of intra-classroom heterogeneity, student achievement level, and class size on academic growth. Results showed that teacher effects were dominant factors affecting student academic gain and that the classroom context variables of heterogeneity among students and class sizes have relatively little influence on academic gain. Thus, a major conclusion was that teachers make a difference.

Bressoux (1996) examined the effects of teachers' training on pupils' achievement in French and mathematics. He compared the effectiveness of three samples of (French) elementary teachers with different levels of experience and training, using a multilevel model. Results showed that training and experience enhance novice teachers' effectiveness. Neither training nor experience significantly affected instructional equity.
Chamot and O'Malley (1996) described the Cognitive Academic Language Learning Approach (CALLA), an instructional model designed to increase the achievement of English-language-learning students, by integrating content-area instruction with language development activities and explicit instruction in learning strategies. The report included examples of ways in which CALLA teachers actively foster school achievement with their students.

Gavlick (1996) proposed a model postulating a relationship between faculty research activity, instructor behaviours; and student achievement is advanced, based on two causal models, one linking research activity and instructional effectiveness and another validating student evaluations as good indicators of instructional effectiveness, as measured by student achievement. The importance of distinguishing and isolating specific teaching behaviours is emphasized.

Holmes (1996) reported a study in which two teacher evaluation instruments were administered to students in undergraduate classes at a Christian college and at a Christian university. The Student Evaluation of Educational Quality (SEEQ) was used as a high-inference evaluation form and the Teacher Behaviour Inventory (TBI) was used as a low-inference rating form. The sample included 414 students from one college with a multicultural population and 67 students from one college with a homogeneous ethnic population. Results indicated that in both the college and the university, no relationship was found between
ethnicity and student evaluations of teachers. In the multiethnic setting, differences were found between the ratings of teacher behaviours by Caucasian students and the students from the remaining ethnic groups ($p <$). The Caucasian students tended to rate teachers lower in the areas of structuring and interaction, and higher in the areas of interest and pacing than the students from the other ethnic groups represented. Student ratings of teacher behaviours were significantly related to students' overall evaluation of teachers and classes. The behaviours that were significantly related to the evaluations differed for each ethnic group. Student evaluations of teachers and ratings of teacher behaviours were significantly, though weakly, related to achievement. The areas of evaluations and ratings that were related to achievement were different for each ethnic group.

Phillips (1996) reported the comparison of two fourth-grade teachers who effected different patterns of achievement (either expected achievement or high achievement) among their students (including those with learning disabilities or low achievement). They found important differences in terms of pacing and format of instruction, student involvement in the lessons, motivation, emphasis on achievement, and instructional planning.

Zigarelli in 1996 using National Educational Longitudinal Study data for 1988, 1990, and 1992, assessed the effects of six effective schools variables on student achievement level. Regression analysis of the data indicated that the most important
effective schools characteristics were an achievement-oriented school culture, principal's autonomy in hiring and firing teachers, and high teacher morale.

Hughes (1995) examined the goal-setting segment of a professional growth evaluation model to ascertain the quality of goals developed, and the level of efforts related to the implementation of those goals. Additionally, the study examined the perception of teachers and their supervisors regarding the relationship between this type of teacher evaluation model and the improvement of student academic achievement.

Koon and Murray (1995) in a study of the validity of student ratings of college faculty focused on the relationship of student outcomes to faculty ratings. Subjects were students of 36 full-time instructors; outcome measures included subject matter knowledge, student self-ratings, and measures of short- and long-term motivation (interest in the subject matter). Results supported validity of student ratings.

A 2-part questionnaire was developed by Papandreou (1995) and presented to 528 graduating high school students in Cyprus in 1994-95. Part 1 consisted of four questions on student gender, academic performance, and area of studies. Part 2 consisted of 41 statements or factors of effective teaching; each factor was rated individually and as part of the group by the students. Grade point average was the criterion for viewing the data of this study; 4 groups of students were identified based on grade point. Results yielded 26
forms of effective teaching based on this average. Overall, the seven most important factors associated with promoting effective teaching, as perceived by students, were: (1) correction of student errors; (2) variety in teaching practices; (3) display of teacher liveliness during the lesson and eye contact with students; (4) movement of teacher around the room; (5) ending the lesson with a content review; (6) clear and complete directions by the teacher; and (7) the use of appropriate student ideas. It was found that teacher effectiveness was viewed differently by good and poor students: the higher the academic performance of the student, the higher the degree of recognition of forms of effective teaching.

Ross (1995) reviewed researches on teacher efficacy and concluded that teachers who believed that they were effective in setting more challenging goals for themselves and their students; took responsibility for student outcomes, and persisted when faced with obstacles to learning. The article suggested that efforts to improve schools should include attention to teacher efficacy.

Schmidt and Moust (1995) in thus study tested a causal model of the influence of tutor behaviour on student achievement and interest in the context of problem-based learning. Data were gathered from 524 tutorial groups involving students in the health sciences curriculum at the University of Limburg in the Netherlands during 1992-93. Correlations among the 261 tutors' social congruence, expertise use and cognitive congruence behaviours, and small-group functioning and students' self-study time, intrinsic
interest in the subject matter, and level of achievement were analyzed using structural equations modeling. The study found that the tutors' level of expertise use and social congruence not only directly affected their level of cognitive congruence but also affected other elements of the model. The level of cognitive congruence influenced tutorial group functioning, which in turn affected student self-study time and intrinsic interest. The results suggested that subject-matter expertise, a commitment to the students' learning and their lives in a personal, authentic way, and the ability to express oneself in the language used by the students are all determinants of learning in problem-based curricula.

Schonwetter (1995) drew on existing theories and research to further uncover the mysteries of the college teaching/learning paradigm, particularly the causal links between effective instruction and student learning of novel lecture material. The experimental design involved 380 introductory psychology students and consisted of a Lecture Expressiveness (low, high) by Lecture Organization (low, high) 2 x 2 design. Four teaching conditions were defined by the following manipulations: low expressiveness/low organization, low expressiveness / high organization, high expressiveness / low organization, high expressiveness / high organization. The dependent variables included student attention and achievement. The results extended previous correlational research. For instance, organization showed consistent differences in student attention and achievement: (1) organization influenced students' perceived and actual attention; (2) organized teaching impacted students'
perceived and actual achievement outcomes; and (3) organized teaching influenced lower levels of information processing. These findings and their implications are discussed at length and suggestions are made for classroom instructors and college students to capitalize on organization as an effective teaching behaviour.

Schrag (1995) stated that ultimately, student progress depended on teacher quality and motivation, the resources and support that teachers receive, and students' own efforts. Uninspired teachers should watch more innovative colleagues and accept their constructive suggestions. Nurturing a pedagogical culture of collaboration should lie at the heart of efforts to improve teacher accountability.

Stone (1995) defined the term "empowerment" as it applies to teachers and to children. He suggested the foundation needed for empowering includes respect, validation, and success. He also discussed the characteristics of ownership, choice, decision-making, intrinsic motivation, responsibility, independence, risk taking, collaboration, and self-evaluation as factors involved in empowerment.

Greenwood (1994) in his article described a multi step method for identifying effective teacher-developed instructional procedures and translating them for wide-scale use. The method employed both objective and naturalistic assessments of academic gain and engagement and was used to identify effective practices of
Review of Related Literature

Pierce (1994) reported a case study that examined how one effective middle school teacher of primarily high-risk students created a classroom environment that enhanced learner outcomes. Analysis of data collected through participant observation and interviews indicated that the normative nature of this particular classroom was intimately entwined with academic learning.

Tymms (1994) described a longitudinal study that extended a British comprehensive monitoring system--the A Level Information System (ALIS)--to examine the effects of effective and ineffective departments on their pupils as they moved on to University and paid employment. A total of 2,578 students took their A-level exams in 1988 and completed questionnaires toward the end of their coursework. Of these, 1,167 students (47%) were sent follow up questionnaires in 1993. It was hypothesized that effective departments could have negative long-term consequences as they pushed their students on to courses for which they were unprepared. This might adversely affect students' self-esteem and academic achievement. Regression analysis indicated that the impact of having attended effective rather than ineffective departments was slight; rather, the people and life experiences that students encountered after graduation exerted significant influence. It is recommended that monitoring and accountability systems focus on teachers' short-term impact.
Watson (1994) described that if teachers of students with behaviour disorders are to be more effective, there must be several changes in pre service education. Teachers need training in one predominant theoretical philosophy, in remediation of academic deficits, in competent use of behaviour management skills, and in writing individualized education programs.

Weber and Omotani (1994) in their research suggested that, when teachers believe that, they can influence student learning, they usually do. Low-efficacy teachers blame failure on students' family background and motivation, deprecate low achievers, and stratify their classrooms according to ability. Teacher self-efficacy can be strengthened by improving teacher socialization procedures, reducing beginning teachers' responsibilities, fostering collegial relationships, and designing appropriate evaluation systems.

Joyce (1993) reported a study where four educators responded to the article in this issue, which suggested that statistical data do not support a link between student achievement and staff development. The responses revisit the research used in the original article, suggested that the link exists and discussed how future research could be improved.

March (1993) in this study examined the efficacy of Techniques of Responsive Intervention to Validate Effective Teaching (TRIVET) as a model for training administrators and teachers to provide instructional leadership through effective classroom appraisal. The study dealt with the first of a multi-
process to have principals and teachers impact what happens in the classroom by retraining administrators and teachers in how to use a systematic research-based approach of classroom appraisal and analysis. The 45 teachers and 11 principals who volunteered for training and who constituted the 1991-92 cohort were administered a survey questionnaire prior to the beginning of the training. The participants completed the same questionnaire 1 year later. With regard to the effect of TRIVET on student achievement gains, Ohio achievement tests show that pupils with TRIVET trained teachers did a bit better than their peers; and that they had improved attendance, slightly better grades, and improved reading competency. In addition, the program also showed reduced teacher isolation, and the groundwork was laid for a culture of teaching evaluation, change, and excellence.

Orlich (1993) investigates the link between staff development and student achievement, examining studies that were published or accessed in ERIC and that used standardized achievement tests to evaluate students. The article reviews studies related to and different from Hunter's model, noting that statistical data do not support the link.

Schalock (1993) argued that teacher assessment should be extended to include students' learning gains. The conditions that must be met for such an assessment system to be implemented are described, and some alternative strategies for extending the focus of
teacher evaluation and program evaluation to include student learning are discussed.

Chilcoat (1992) gives guidelines to help teacher produce instructional messages that match students' abilities to understand. The behaviours presented facilitate greater acquisition of teacher talk by focusing student attention, reducing the complexity of the message, leading students to key points that maintain student attention, and aiding in future recall.

Black (1992) stated that most praise coming from teachers is ineffective or damaging because the compliments fail to encourage students. Praise should have three qualities: contingency, specificity, and credibility. Praise is most effective if it is personal, sincere, and focused on improvement and if it allows students to judge their own behaviour and achievements without comparisons and competition.

Ross (1992) reported the relationships among student achievement, teacher efficacy, and interactions with 6 history teaching coaches were studied for 18 seventh and eighth grade history teachers in 36 classes. Student achievement was higher when teachers had more contact with coaches and when teachers had more confidence in education's effectiveness.

Sonnier and Sonnier (1992) describes the Sonnier Model of Educational Management, which provides a way to measure the teacher-effectiveness of a lesson, as determined by students'
cognitive achievements with relation to affective attainments. Cognitive achievement is determined by grades earned. Data are co-valued with relation to affective attainments. Teacher-effectiveness is determined by the number of students having learned a lot and having enjoyed the lesson.

Belkin (1991) warns that, without the expectation of joy, there will be no creative personality. Argues that the main purpose of the teacher's activity is to create a success situation for every student. Suggests steps to creating a success situations bank that will allow teachers and students to share successful ideas and avoid illusory successes.

Ellsworth and Monahan (1991) through this study analyzed the impact of the Developmental Discipline Management System (DD) on teaching effectiveness and student achievement in special needs classrooms. DD was developed as a human centered, systems approach to education. Its core philosophy was to help each child achieve self mastery and mastery of subjects and to help teachers feel the importance and dignity of working with children. The population for the study consisted of all certified Chapter One teachers and their assigned students in the primary grades of an inner city Arizona school district. Teachers received 15 hours of training in DD. The teachers in this inner-city district who chose to use the program in their second and third grade classes during the school year were the experimental group. The control group consisted of teachers who chose not to use the program. Student
learning was assessed using the California Achievement Test as a pretest and a post-test administered to the children in each of the 31 classrooms. Academic achievement in the classrooms using DD significantly increased over that of the control group. Results of a teacher confidence survey showed expression of confidence and satisfaction with DD and a belief that the program had significantly improved their teaching. At the end of the year the district administrator rated each of the teachers with a competency evaluation tool. The 18 DD teachers received significantly higher ratings in 5 areas. The teacher assessment tool is appended.

Rugh (1991) reported the findings of a study that described effective teaching practices in Pakistan elementary schools and made recommendations for improving teacher effectiveness are presented in this paper. The research project was conducted by Basic Research and Implementation in Developing Education Systems (BRIDGES) of Harvard University (Massachusetts). During 1988-89, a total of 63 fourth- and fifth-grade teachers were observed in 32 schools, teaching a total of 265 lessons. The teaching practices of teachers whose students had better achievement test scores than those of other students were compared. Findings indicate that effective teachers were more likely to use systematic logical sequences, which involved implementing synergistic practices, variety, and feedback and monitoring; adapting to their contexts; organizing instructional time; creating an orderly environment; and facilitating independent learning. Policy recommendations are made to formulate a clear statement of
objectives; review assessment practices; provide teacher incentives; improve the quality of learning materials; offer practical in service training; and provide instructional leadership.

Zalud and Reyes (1990) discusses effective teaching and components of lessons which vary with situations and can be targeted for enhancement. Offers guidelines for providing corrective feedback and four teacher behaviours that will lead to improvement in student achievement.

Evertson and Randolph (1989) examines second and third grade data from Project STAR, a reduced class size study. Observers viewed teachers, some of whom received in service training on effective teaching and class type. Observers' narratives and ratings of class activities and interaction indicated little change in teaching practices regardless of class type or training. Finn (1989) reported that the researchers followed up on fourth graders from Project STAR, a reduced class size experiment. Using norm and criterion-referenced achievement tests and teacher ratings of student effort, initiative, and behaviour, they found significant small class carry-over effects on every achievement measure and significant participation differences in small class students.

Folger (1989) in a paper summarizes policy and research implications of several studies on Project STAR, noting relationships between class size and student achievement, class size and teaching, and theories of class size effects. It recommends using class reduction to improve achievement and suggests future
research on teaching styles, curriculum objectives, and intra classroom organization.

Folger (1989) discusses Project STAR, a four-year study of class size reduction on student achievement in the early elementary grades. The paper reviews research on class size, puts Project STAR in context, describes its design and introduces several articles noting research implications for policy debate about class size.

Folger and Breda (1989) reported that Tennessee's four-year Project STAR provided one-third class size reduction in early elementary school. Small class students in all types of schools scored significantly higher than regular class students in reading and math. The article discusses lessons learned and cost-effective ways to reduce class size.

Mitchell (1989) in their article reanalyzes and expands upon data from Tennessee's Project STAR which examined the effects of class size reduction on student achievement in the primary grades. It describes six competing theories of class size impact on achievement and test performance, settling on the student group/modeling interpretation of study data.

Dietzer and Annis (1987) discusses recent empirically supported practical techniques for improving teacher effectiveness and student performance. Teachers should consider students' individual differences, students' need to achieve, and their fear of failure and should convey a positive attitude and enthusiasm.
Spiga and Kiser (1987) explored the relation between subscales of the Student Instructional Report (SIR), overall teacher rating (OTR), and student achievement. SIR ratings and scores on an end of term test were obtained from 610 undergraduates in 24 introductory psychology classes. The mean of the students' ratings on each SIR subscale and the mean posttest score for each class were used as the unit of analysis. Student's OTR was predicted by how the same students rated how explicitly the instructor stated course objective, how clearly the instructor emphasized major points, and how well the instructor managed teaching mechanics. These same variables were unrelated to overall academic achievement. Superior achievement was predicted by student ratings that indicated factors such as the instructor being academically demanding and covering material at a somewhat fast pace.

Coatney (1985) discusses major findings and educational implications in the Beginning Teacher Evaluation Study under the 3 categories of time, instructional processes, and classroom environment. The study found that 3 kinds of time were predictors of student academic achievement: allocated time, engaged time, and academic learning time. Effective teachers were able to diagnose accurately level of skill, prescribe appropriate tasks, interact with students with regard to academic content, discuss lesson structure, and give clear directions. An effective classroom environment was characterized by an academic focus and by student responsibility for academic work and cooperation on academic tasks.
McKinney (1984) reviewed and reported results from several previous studies indicate that enthusiastic teachers may "seduce" students into higher achievement and better ratings of the teacher's performance. The present study examined whether high enthusiasm increases achievement and ratings or either low enthusiasm simply decreases achievement and ratings by including a medium level of enthusiasm. 57 undergraduates were randomly assigned to 1 of the 3 treatment groups. The teacher, an actor-university professor, taught the same lesson to each of the 3 groups, varying only his level of enthusiasm. There were no significant differences among the 3 groups on achievement; however, Ss in the high and medium groups rated the teacher as being more effective than the Ss in the low enthusiasm group. Findings provide evidence for the "seduction" hypothesis, but only for student ratings of teacher performance.

Phye (1984) determined whether 202 high- and low-performing students in an educational psychology class viewed individual characteristics of instruction differently and determined which teaching characteristics best predicted overall judgments of teaching effectiveness. All Ss rated instructor effectiveness on a 5-point scale. Findings show that low performers rated the instructor significantly lower than did high performers. High and low performers based their judgments on different characteristics, with high performers viewing organization and planning as important and low performers viewing class time efficiency, written presentation, respect, tolerance, and relevance of work as important.
Smith (1984) conducted a study on 160 high school social-studies students where each assigned to 1 of 8 groups defined by possible combinations of 2 teacher uncertainty conditions (uncertainty v/s no uncertainty), 2 teacher bluffing conditions (bluffing v/s no bluffing), and 2 lecture-notes conditions (with v/s without a lecture-notes handout) to investigate the effect of teacher vagueness and use of lecture notes on Ss' comprehension and performance. Each group was presented with a social-studies lesson, after which they were tested on comprehension of the material. Each group then completed a lesson evaluation. Results show that teacher uncertainty significantly reduced achievement, and lecture notes significantly increased achievement. Ss rated lessons lower on 4 evaluation items when they received lecture notes. It is suggested that low-inference indicators of teacher effectiveness should be developed and that training and evaluation should focus on these indicators.

Englert (1983) examined specific teacher behaviours associated with the academic achievement of mildly handicapped students. Two groups (N = 17) of undergraduate teacher trainees found to be differentially effective in accomplishing student performance outcomes were contrasted on specific direct-instruction variables. Ss were observed twice during a 12-wk practicum program during which pupils' academic gains were recorded. Results suggest that Ss who maintained a high presentation rate with many correct pupil responses per minute were more successful in effecting pupil achievement than Ss with a slower presentation and correct rate.
Galbo (1983) reviews the literature on the effects of teacher anxiety on student achievement, teacher effectiveness, and classroom climate. Various studies have addressed the anxiety of student teachers and beginning teachers, the effect of teacher anxiety on teacher attrition, the effect of teacher anxiety on classroom climate and student motivation, the relationship between teacher anxiety and teacher-student interactions, and the effect of teacher anxiety on test anxiety in students. Overall results of these studies are limited and inconclusive.

Tollefson et al (1983) reported a study where 356 male and 464 female undergraduates, representing all the schools of a university, completed a teacher effectiveness questionnaire (TEQ) the last week of the semester. The TEQ yielded scores on 3 factors: Teaching style, Class Organization, and Workload. ANOVA revealed significant differences for groups of male and female upper- and lower-division Ss expecting high and low grades.

Abrami, Perry and Leventhal (1982) in Study 1, 388 undergraduates (a) rated themselves on the Adjective Check List (ACL), (b) viewed a videotape that varied in instructor expressiveness and lecture content, (c) evaluated the videotaped instructor and a test on the lecture, and (d) completed the ACL for the instructor. In Study 2, 87 Ss were also exposed to 2 videotaped lectures given 1 wk apart. In Study 3, 108 Ss completed the ACL for themselves and their instructors, evaluated their instructor's
teaching, and completed a test on common course material. No meaningful or consistent relationship between ratings and student personality characteristics appeared to exist. Personality characteristics of instructors were related to teacher effectiveness ratings. Ratings predicted teacher-produced achievement equally well for classes that differed in the personality characteristics of the students enrolled. Teacher effects on ratings appeared significantly greater than teacher effects on achievement.

Guskey (1982) investigated whether change in the instructional effectiveness of teachers influences the relationship between naturally formed teacher expectations and student achievement outcomes. Data were gathered from 44 intermediate and high school teachers who participated in an in-service training workshop on mastery learning strategies. Correlations between teachers' initial expectations for students' achievement and students' final examination scores, final grades, and teachers' follow-up expectations for students were all significantly lower in mastery classes of those teachers who experienced some positive change in their instructional effectiveness. Implications regarding related teacher perceptions and classroom behaviours are discussed.

Lester (1982) reported a study where 47 college students rated their instructor on the last day of class as they were taking the final examination. There was no evidence that Ss' evaluations were affected by their course performance.
Cohen (1981) used meta-analytic methodology to synthesize research on the relationship between student ratings of instruction and student achievement, using data from 41 independent validity studies reporting on 68 separate multisection courses relating student ratings to student achievement. The average correlation between an overall instructor rating and student achievement was .43; the average correlation between an overall course rating and student achievement was .47. While large effect sizes were also found for more specific rating dimensions such as Skill and Structure, other dimensions showed more modest relationships with student achievement. A hierarchical multiple regression analysis showed that rating/achievement correlations were larger for full-time faculty when students knew their final grades before rating instructors and when an external evaluator graded students' achievement tests. Results provide strong support for the validity of student ratings as measures of teaching effectiveness.

Centra and Potter (1980) examines a model for investigating school and teacher variables that influence student achievement. The structural model, presented in the 1st part of the review, includes examples of variables and their expected relationships to each other and to student learning outcomes. Variables are grouped as (1) school or school district conditions, (2) within-school conditions, (3) teacher characteristics, (4) teaching behaviour, (5) student characteristics, (6) student behaviour, and (7) student learning outcomes. A summary of some of the school effects and teacher behaviour research, presented in the 2nd and 3rd sections
of the review, generally supports the expected relationships among variables in the model.

Howard and Maxwell (1980) in their study on the correlation between grades of instruction and student satisfaction has been interpreted as providing support for a grading leniency bias model; that is, easy graders receive better evaluations than hard graders because they are easy graders. Two alternative models that explain the correlation of grades with satisfaction are delineated. A student characteristics model (student motivation) is contrasted with the grading leniency bias model in 2 studies. Study 1 considered between-class relationships among grades, satisfaction, performance, and student motivation for the IDEA (Instructional Development and Effectiveness Assessment System) data from several thousand college and university classes across the US. Study 2 considered within-class relationships among grades, satisfaction, performance, and motivation for 19 large university classes. Both studies demonstrate that the relationship between grades and student satisfaction might be viewed as a welcome result of important causal relationships among other variables rather than simply as evidence of contamination due to grading leniency.

Marsh and Overall (1980) examines undergraduates' evaluations of teaching and were validated against both cognitive and affective criteria of effective instruction. Ss randomly enrolled in 1 of 31 sections of a course in computer programming. They completed a pretest, evaluated teaching at the middle and end of the
course, and completed a standardized final examination. Sections did not differ significantly on pretest measures of ability and interest. Sections of Ss who, on the average, rated their instructors more favorably also did better on the final examination, felt better able to apply course materials, and were more inclined to pursue the subject further. End-of-term ratings correlated more highly with each of the criteria than did the midterm ratings. Finally, although both cognitive and affective criteria of effective teaching were correlated with different components of S ratings, the cognitive and affective criteria were not correlated with each other. This indicates the importance of considering multiple criteria in the evaluation of effective teaching.

Braskamp, Caulley and Costin (1979) studied self-ratings and student ratings of 17 instructors who served as teaching assistants in a large introductory psychology course for 2 consecutive semesters were compared with student achievement on an externally constructed final examination. Instructor self-ratings and student ratings demonstrated good convergent validity during the 2nd semester, especially on scales measuring student involvement in the classroom, teacher support, and teacher skill. There was significant discriminant validity, but student ratings on all scales were more highly inter correlated than were the instructor ratings. Student ratings of the instructor's control of classroom correlated with achievement during the 2nd semester.
Hoffman (1979) reported that F. Costin (1978) found consistent positive correlations between student ratings of teacher skill and students' performance on an externally developed final examination. The present author suggests that these results indicate that teachers who are evaluated by their students as being more effective are more effective.

Perry, Abrami and Leventhal (1979) reported that teacher differences in expressiveness controlled the degree to which lecture content affected student ratings differently from student achievement. The present experiment with 245 university students attempted to replicate statistically this Expressiveness * Content * Measures interaction in a factorial design which investigated 4 simulated classes. The interaction was found for the high-incentive/no-study-opportunity class and the high-incentive/study-opportunity class, which most resembles typical classes, but not for the low-incentive/study-opportunity class or the low-incentive/no-study-opportunity class, which most resembles educational seduction research. In only the high-incentive/no-study-opportunity class did probes of the interaction replicate education seduction research in which content affected ratings and achievement similarly only for low expressiveness.

Chaikin (1978) in Exp I, 60 9- and 60 13-yr-old students watched a videotaped session given by a female teacher. A physical attractiveness stereotype was found in ratings of the teacher; a teacher who looked attractive was rated as more competent and
better able to stimulate and motivate students than an unattractive teacher. Exp II used 40 5th-grade children who participated individually in a lesson given by a female teacher. Close behaviours by a teacher (eye contact, leaning forward, smiling, and head nods) produced more positive ratings than distant behaviours by the same teacher (little eye contact, leaning away, frowning, and side to side head movements). No effects on academic performance measures were found in either study due to teacher characteristics.

Costin (1978) reported the results of a 4-yr study show that moderate but consistent positive correlations support the validity of student ratings of teachers as predictors of students' performance.

Frey (1978) analyzed student ratings of instructions in terms of 2 global factors—pedagogical skill and rapport. Ratings on the skill factor did not covary with class size or the leniency of the instructor's grading but did correlate with a reasonable external criterion of student learning. Ratings of rapport correlated inversely with class size and directly with average class grade and showed only a weak relationship to the external criterion of student learning.

Kavanaugh (1978) raises questions concerning the evaluation of teacher effectiveness. The following may need to be considered among the criteria of effectiveness: a teacher's expectations for students, personal qualities, affective processes, cognitive measures, product measures of pupils, interaction analyses, and students' ratings of teachers. The author questions whether a single instrument has been published which measures adequately all the
factors that may have to be considered in the analysis of a teacher's effectiveness.

Kinicki and Schriesheim (1978) reported a review of research on teachers as leaders shows that current approaches have produced unclear and inconsistent results. A new approach—viewing teachers in a situational context—is suggested. 155 students filled out 2 questionnaires; the 1st (administered during the 5th wk of class) contained measures of teacher leadership behaviour and student role clarity, and the 2nd (administered during the 10th wk) measured overall student satisfaction with the class. Student performance was also assessed at the 10th wk. It was found that (a) student performance significantly correlated with teacher supportiveness and directiveness under low role clarity but not high role clarity, and (b) the differences in these correlations were statistically significant.

Centra (1977) correlated student ratings of instruction with examination performance in 72 sections of 7 courses. In 2 of the courses, students had been randomly assigned to sections. The pattern of correlations across the courses indicated that global ratings of teacher effectiveness and the value of the course to students were most highly related to mean examination performance (12 out of 24 product-moment and partial correlations were .58 or above). Ratings of course objectives, course organization, and the quality of lectures were also fairly well correlated with achievement. Ratings of other aspects of instruction, such as the teacher-student
relationship or the workload difficulty of the course, were not highly related to achievement scores.

Chapman, Holloway and Kelly (1977) 238 high school students in a personalized system of instruction course in psychology rated teachers' specific behaviours and classroom characteristics. High and low achievers differed significantly in their ratings of business-like behaviour of the teacher, excitement, course difficulty, and teacher enthusiasm. Previous academic performance, however, was a more important predictor of academic achievement than were student ratings. When previous academic performance was considered, teacher enthusiasm continued to contribute significantly to the discrimination of high and low achievers.

Crawford et al (1977) obtained data from 28 2nd- and 3rd-grade teachers who were consistent in obtaining student achievement gains on the Metropolitan Achievement Test. 21 dyadic interaction process variables obtained from the Texas Teacher Effectiveness Project Coding System were entered into factor analyses which showed more congruence between the factor structures of the whole-class contexts (morning and afternoon) than between those data subsets and reading group factors. Resulting factor scores were correlated with achievement criteria. Although significant correlations were few in number, the data suggest that in higher socio-economic status classes, verbal praise was particularly ineffective; also, successful teachers in lower social status classrooms interacted privately with students (instead of during
public discussions). Effective teachers in lower and higher social status classes placed an emphasis on fast-paced activities during reading groups.

Leventhal, Perry and Abrami (1977) reported that previous research in college settings on the correlation between teacher ratings and student achievement has produced inconsistent results. Discrepancies may be due to study-to-study differences in teacher and/or student characteristics. 237 university students were tested to investigate a student-based explanation of the discrepancies. Lecturer quality and student perception of lecturer's experience (a student characteristic) were manipulated in a 2*2 design in which achievement and ratings were measured. Major findings indicate that (a) the ratings/achievement relationship varied with students' belief about lecturer experience, supporting a student-based explanation of the discrepancies that supplements a previous teacher-based explanation; and (b) lecturer quality affected ratings much more than achievement, threatening the field use of ratings when predictions are made without regression equations about a teacher's impact on student achievement.

Reavis and Derlega (1976) reported the results of a study with 184 male 8th graders show that in a situation of intermediate favorableness, Ss rated the person-oriented teacher more positively than the task-oriented teacher in terms of effectiveness, encouragement, interest, and how much they learned. In an
unfavorable situation, the opposite occurred. Results support F. E. Fiedler's (1967) contingency model of leadership.

Sachdeva (1976) reported the qualities of college professors on 10 statements as viewed by 270 high-achieving and 210 low-achieving students were described. Most of the Ss attributed greatest importance to the teaching role of their professors. The high-achieving Ss wanted their professors to guide them toward independent thinking, whereas the low achievers were more concerned with course organization, presentation of subject matter, and grading procedures of their professors.

Dusek (1975) reviews and discusses the literature on how teacher bias affects children's learning and performance. Findings indicate that bias effects may exist in tutoring or where teachers have few students and that teachers do form expectations of students' performance. Directions for future research on teacher-bias effects are suggested.

Start (1974) criticizes current methods of assessing teacher effectiveness as ambiguous and not expressed in terms of pupil learning. Specifying what dimensions of learning the school is responsible for can lead to the development of criteria for successful learning. Progress on these criteria could be taken as measures of teaching effectiveness. It is concluded that the task is difficult but necessary.
Nair (1973) explored the hypotheses that (a) high academic achievement is correlated with high teaching efficiency and (b) teaching ability is not related to the socio-economic background of the individual. 80 teacher trainees responded to a questionnaire on socio-economic status, and academic achievement was deduced from 1st degree university examination grades. Neither factor was found to be a good predictive criterion for teacher effectiveness.

Tolor (1973) requested 4 groups of raters (706 students, 90 parents, 21 faculty, and 5 administrators) to name the 4 most effective and 4 least effective teachers at a secondary school. Ss were also asked for standards employed in making their nominations. Results indicate moderate agreement between different rating groups. Administrators and faculty had the most similar perceptions of teacher performance, whereas faculty and parents agreed least. Students showed no significant agreement with any of the other rating groups regarding least effective teachers. Students' judgments were related to class level and self-reported academic achievement suggesting that teacher evaluations represent a complex interactive process necessitating the specification of rater characteristics.

Domino (1971) tested the hypothesis that there is an interaction between a student's achievement orientation and the teaching style he is exposed to, which differentially affects both the amount of learning that takes place and the degree of expressed satisfaction with the scholastic environment. 100 college freshmen,
selected because of extreme scores on the achievement via conformance and achievement via independence scales of the cpi, were assigned to introductory psychology sections taught in either a conforming or an independent manner. An analysis of scores on a final examination consisting of multiple-choice items and essay questions, as well as their ratings of teacher effectiveness and course evaluation, indicated a clear interaction effect. Ss taught in a manner consonant with their achievement orientation obtained significantly higher means on the multiple-choice items, on factual knowledge ratings of their essay answers, and on their ratings of teacher effectiveness and course evaluation.

Rico (1971) developed the Students' Faculty Rating Scale for evaluating teacher effectiveness on the cognitive, affective, motivational, disciplinary, and innovative dimensions. Pre testing with 245 undergraduates indicated the test was reliable ($r = .94$). The final scale was administered to 1,985 Ss in 72 classes. The influence of student sex, academic level, grade estimate in course, and department on the evaluations was examined. No significant sex or academic class differences were found in ratings of teacher effectiveness. Law and engineering students tended to rate their teachers as more effective than the commerce, secretarial, education, and liberal arts students. Ss expecting a high grade in the class rated the teachers significantly higher ($p < .01$) than those expecting low grades. Results support the assumption of a multidimensional nature for teacher effectiveness. Ss placed major
importance on the affective, followed by the cognitive, disciplinary, motivational, and innovative.

Scheuer (1971) assumed that effective teachers of the disturbed and maladjusted possess the same characteristics as effective therapists, a research project investigated the relationship between personality attributes and effectiveness in teachers in this area. Ss were 17 male and 3 female teachers and 169 9-17 yr. Old students. Teacher effectiveness was rated by 4 supervisors using the 20-item teacher competency checklist. The teacher-pupil relationship inventory was used to measure the personality variables of empathic understanding, congruence, level of regard, and unconditionality of regard. A significant gain in academic achievement level was found in those pupils who saw their teachers as possessing a high degree of these attributes.

Section 2. VI: STUDIES RELATED TO SOCIO DEMOGRAPHIC VARIABLE

Bellow (2001) in a current project tested a model which predicted that social, environmental, and personality factors would help explain academic achievement as well as scores on intelligence tests. The participants were 190 African-American high school students recruited from a magnet school, neighborhood school, and an academic enrichment program. The sample was composed of 65 males (34%) and 125 females (66%). Students were individually administered the Kaufman Brief Intelligence Test (K-BIT), the Measure of African American Identity (MAAI), the Castenell Achievement
Motivation Scale (CAMS), modified questions from the Parental Belief Interview (PBI), and modified questions from the Future Expectations subscale of the Cognitive Home Environment Scale (CHES). Increased levels of achievement motivation, parental expectations, educational aspirations, and ethnic identity were related to higher academic achievement. The prediction model demonstrated a significant link between higher educational aspirations, better school achievement, and higher scores on intelligence tests. Academic outcomes co varied significantly with IQ test scores. Gender had a meaningful impact on the structural equation model. This study demonstrated the importance of motivational, cultural, and family factors on influencing scholastic outcomes.

Hunsaker's (1995) review of the literature looked at family influences on the achievement of economically disadvantaged youth, with an emphasis on relationships among families, academic achievement, and gifted education. Theoretical perspectives on the study of families have focused primarily on families as static systems and families as dynamic systems and, more recently, on families as interactive systems. Correlation between single parenting and low academic achievement has been found, though the presence of extended family members appears to overcome this problem in many instances, and processes that support academic achievement may also mediate this relationship. The importance of schools and communities in supporting families and the family culture is stressed. Studies specific to gifted education have found status variables that correlate directly with identification of students as gifted, and that
indicate the importance of focusing on individual expressions of giftedness within cultural contexts when evaluating gifted students within economically disadvantaged families.

Kifer (1975) proposed a conceptual model which relates patterns of academic achievement to the personality characteristics of learners which was tested by a quasi-longitudinal study. Results provided strong evidence for a model which emphasizes the influence of histories of successful academic achievement on personality characteristics, and suggested that rewards for academic achievement provided by the home are related to both high achievement and positive personality characteristics. Instructional models such as mastery learning and the manipulation of time variables were discussed in terms of their potential for providing students the means both to perform well and to develop positive personality characteristics.

Nagpal and Wig (1975) collected health and personality data on 41 students who had failed in the university examination but had rejoined classes. A structured questionnaire based on these data was prepared, covering a wide range of nonintellectual and semi-intellectual factors, and was administered to approximately 1,080 students, a year's intake at Punjab University in Chandigarh, before their examinations. Those passing the examination and those failing it were compared in terms of the questionnaire factors. Results indicated that the poor achievers were older, had less well-educated parents, were inadequately motivated, were inconsistent in their
Niebuhr (1995) in a paper presented the findings of a study that examined relationships between several antecedent variables (student ability, family environment, and school climate) and student academic achievement. The research also examined the role of motivation as a moderator between ability and academic achievement, and as a mediating variable between family environment and academic achievement and between school climate and academic achievement. The study was conducted in a small town in the Southeast United States. A survey questionnaire was administered to 241 high school freshmen, of whom 76 were black, 158 were white, and 7 were classified as "other." Findings indicated that student motivation showed no significant effect on the relationship between ability and academic achievement. However, motivation acted as a moderating variable between ability and academic achievement for black students. The findings suggested that the elements of both school climate and family environment have a stronger direct impact on academic achievement. It is recommended that school-family programs be developed to facilitate student motivation and improve teacher-student relationships.

In a study conducted in 1975, Orme investigated the relationship of personality, ability, and school achievement in 112 11-year old elementary school children. Subjects were administered the Junior Eysenck Personality Inventory and the Colored
Progressive Matrices, and data were correlated with school performance. Results showed that (a) intelligence was the major determinant of school achievement, (b) bright subjects tended to come from smaller families than dull subjects, (c) relatively unstable subjects had a better level of school achievement than stable subjects, and (d) extraversion-introversion had no effect on school achievement.

Reis et al (1995) conducted a 3-year study and compared the characteristics of high ability students who were identified as high achievers with students of similar ability who underachieved in school. Qualitative methods were used to examine the perceptions of students, teachers, staff, and administrators concerning academic achievement. Successful students had supportive adults in their lives, and participated in multiple extracurricular activities. High achieving students characteristically had a strong belief in self and resilience to negative factors.

Stewart and Landine (1995) developed a thesis that Study Skills were best presented from a meta cognitive perspective. As students develop self-regulatory skills along with procedural skills they were best able to make effective use of study skills techniques. They have presented a model of meta learning that brings together a number of variables that may influence learning outcomes.

Pryor (1994) reported a study of 310 ninth grade students and their parents in five communities which was conducted to look at the relationships between parent-school bonding, student-school
bonding, academic achievement, and other variables. Questionnaires were developed for both parents and students asking questions about attachment, commitment, beliefs about school, participation in school events, and communication from the school. Focus groups and telephone interviews provided additional information about family-school relationships. Results indicated: (1) the greater the parents' bonding to school, the greater the student's bonding; (2) student's bonding was closely related to academic achievement; and (3) there was no direct relationship between parent-school bonding and students' report of their academic achievement. Overall, the study supported the hypothesis that the greater the parents' bonds of social attachment to their child's school, the greater the student's bonds of attachment.

Ford (1993) examined family achievement orientation (parental beliefs regarding education) perceived by 73 fifth-grade and 75 sixth-grade African-American students 59 males and 89 females) in an urban school district. Studies showed, that these perceptions affect students' achievement orientation. Family demographic variables contributed little to achievement orientation. But family achievement orientation is very influential.