Chapter I

Introduction

"You will be nearer to heaven through playing football than through prayer"

-Vivekananda
Naidu (1973) investigated the relationship between perception, learning and memory as they occurred within the same individual under taboo, low taboo and non-taboo conditions. The children were assigned randomly to the three conditions and the method of minimal changes was followed. Evidence for this reciprocal facilitation and impairment was found in all the three processes. Perception, reasoning and learning of primary school children studying in different types of schools were studied by Banga (1980) in relation to their personality, characteristics. The results revealed significant differences in cognitive processing attributed to differences in school atmosphere (English and Hindi medium). Malhotra (1982) experimentally studied internal representations in the reasoning process in children in solving linear syllogistic reasoning measures were related.

Persistence is another dimension of cognitive processing, which was measured by using a highly reliable questionnaire covering striving, adhering, continuing and completing a task despite failures and obstacles. Persistence was significantly and positively related to need for achievement, level of aspiration, and negatively with anxiety. Both Ausubel’s advance organizer model and Bruner’s instructional model were found superior to traditional teaching strategy for teaching concepts to higher secondary school pupils so far as knowledge transfer and heuristic transfer of the concept were concerned. However, Bruner’s and Ausubel’s models are differentially effective and superior to one another, depending upon the nature of the learning situation.
Walia (1983) analysed the processing of information, under verbal and non-verbal cues concerning object colours, using postgraduate students and the experimental method. In a similar line, information integration analysis was done in analysing social perception in relation to age and nature of task (Srivastava, 1984) in a series of three experiments. Cognitive algebra for production of task performance varied as a function of the nature of the task and developmental level of the subjects. Integration rules were also changed according to age. Decision-making conditions of uncertainty was investigated experimentally using 192 children (CA 10-16) varying in type of school in which they were studying. Decision-making under conditions of risk and under conditions of uncertainty was found to be different. Age and sex intervened in the process of decision-making. Risk-taking behaviour among deviant adolescents was earlier reported by Kumari (1981) where high risk-taking behaviour was associated with high aspiration and positive self-esteem and by Sharma, G. (1982) as a function of group structure and personal relevance.

The information-processing approach was studied under differential reinforcement conditions. Using an experimental design with children (CA 10-12), the study revealed differential perceptual organization as a function of reward and punishment. Positive reinforcement was more effective in perceptual search compared to negative reinforcement. However, reinforcement was not a condition for perceptual learning (Harjinder Kour, 1986).

The structure of cognitive processing abilities in tribal and non-tribal children was studied by using a series of cognitive tests and four processes...
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were identified; simultaneous, successive, attention concentration and speed. Difference in processing habits were attributed to age, tribal/non-tribal variations (Das, 1984), Kulkarni (1987) identified the ability for decision making in social situations among adolescents.

The experimental investigations reported here revealed use of adequate control over design, procedure, conceptual base and test materials, as well as data analysis. In short, the studies are highly sophisticated and valid and there is consistency in approach to understanding cognitive processing habits among children, adolescents, and postgraduate students, indicating an improvement over the earlier period.

The second set of studies dealt with cognitive development among children. Based on DAT data on school children, the study by Sharma, N. (1980) revealed that, with advance in age, verbal ability grew more rapidly than others in both boys and girls. Sex affected the growth and development of abilities. Anand Laxmy (1982) reported a very intensive study on cognitive competence in infancy. The major findings were: The psychomotor development index was different in various ages; it was not related to nutritional status; maternal cognitive stimulation and the child's cognitive competence were related. Several other antecedent conditions were also recognized.

RESEARCH IN PSYCHOLOGY OF EDUCATION – A TREND REPORT to variations in, cognitive abilities were also reported among a
discrete genetic population (Chhotu Ram, 1985). Level-I and Level-II abilities were different among Harijans and Brahmins, the differences being more prominent in level-II. Two studies examined schooling vs. non-schooling on the development of memory and categorization skills (Padhee, 1985) and Piagetian conservation of scientific and social concepts (Padhee, 1986). The studies demonstrated the positive effect of schooling and instruction in the development of cognitive abilities. Several factors influence cognitive processing. Deprivation has a detrimental effect (Mukherjee, 1978). Motivational and cognitive factors were identified in the differences of person perception (Krishnan, 1985) and problem-solving was related positively to intelligence and negatively to social deprivation (Verma, 1986). Anxiety, sex and task complexities were found to be significant variables influencing problem-solving.

Language development was studied in children in only one study (Sharma, C., 1982) in the age-group of 2 ½ to 4 years, in relation to mother's language among other factors. Language development was related to age and mother's language, the elaborated language being favourable for language development. Creativity was associated with certain psycho-cultural variables. (Chauhan, 1984).

Cognitive style constitutes another dimension of the information processing variable. Science students at the university level were more field-independent than Arts/Commerce students. Language students were field-
dependent (Kumar, 1984). High creatives were field-independent and low creatives were field-dependent (Vasesi, 1985). Cognitive style was related to age, achievement, home environment and social class membership (Paul, 1986). Scanning strategies training could bring higher field-independence scores and, correspondingly higher achievement and its persistence over a period of time (Dash, 1982) as observed in elementary school children.

The studies reviewed here illustrate an attempt to look at cognitive processing in terms of nature, varieties, its interrelationship with other information processing habits nature of cognitive growth and antecedents, risk-taking behaviour, correlates of cognitive processing, creativity and cognitive style in children and adults. The basic designs of studies and analysis procedure warrant the conclusions drawn.

• Learning process:

Learning is hard-core area in educational psychology. It is therefore expected that research will be more in this area. The major areas covered in these researches are: bilingualism, language learning, reasoning and problem-solving, understanding, culture and learning, verbal and motor learning as related to knowledge of results, concept, learning, personality factors associated with learning, cognitive processes and learning, cognitive processes and learning, cognitive learning and logical thinking. The studies have been extensively reviewed earlier by Rao, Mehta and Rao (1979). The trend of research focus has apparently been on language learning and concept
acquisition, experimental studies on learning, and general studies. The findings could be considered as more theoretical experimental rather than educationally meaningful, except for the fact that samples were drawn from school situations. Implications from concept learning research could be drawn, however, for curriculum development.

"Learning research has been little disappointing in terms of number during the post 1980 period but has been of increasing classroom relevance. Pandian (1983) demonstrated the relationship among learner characteristics, cognitive style, learning style and preference to teaching strategy, using adequate sample tests, and analysis techniques, Panda, N. (1985) studies the effects of cognitive style and adjunct questions, on learning from connected discourse, using a repeated-measure factorial design. Learning outcomes were studies using analysis of variance and tests for specific effects. The results, based on a series of studies, revealed that field-independent students learnt and retained prose significantly more than field-dependent students. Students who read the text with adjunct questions learnt faster and retained longer than those who used the traditional reading style, without any interspersed question. Post-adjunct questions produced better learning and retention scores than pre-adjunct questions in prose learning. Specific adjunct post questions produced significantly better learning and retention than general adjunct post questions. Level-I (simple recall, knowledge level), and level-II (paraphrase, conceptual, etc.) questions led to significantly better retention than the level-III (higher
order, presuppositional) adjunct post questions. Delayed retention scores were significantly more than immediate retention scores, which was also evident for field-independent studies. According to K. C. Panda the independent students proved to be significantly superior to field-dependent students in processing and comprehending scientific textual materials, at all levels of questions, and at both the retention tests. Panda and Mohanty (1981) also tested the effectiveness of adjunct questioning and cognitive style with varying linguistic structure.

Nagpal (1979) studied the effect of punishment procedures in the discrimination-learning of the mentally retarded (IQ 45-52). Punishment contingency had its effects in trial to criterion and percentage of errors. Studying effects of personality aspects of the trainable category appears irrelevant as learning capacity of this group is extremely limited. Chatterjee (1973) demonstrated the problem of labelling in the attainment of conservation concepts by providing relevant cues. Rewards and punishment differentially influenced self-perception during learning situations (Teraiya, 1981). Manjula (1984) and Parmar (1986) studied concept learning. In the study by Manjula (1984), using two (caste groups) X 3 SES, a difference in concept learning was observed as a function of caste membership and level of SES, including interactions. This study suffers from being of repetitive (Das, 1980). Parmar (1986) studied Piagetian concept attainment in school children (CA 11 + to 16+) and their groupings, of which followed similar Piagetian stage-specific trends. Learning and instruction were the dimensions of the
study reported by Pillai (1987). The study examined the validity of Gagne's model of learning and drew implications for change in the cognitive preference of the learner. Experimental and control groups were used. The findings confirmed Gange's instructional strategy as valid for classroom instruction. However, it needs to be further tested for different levels of skills.

The next three studies dealt with the role of personality factors in learning (Jain, 1974; Nirmaladevi, 1984; Purandare, 1984). Jain (1974) examined the modality of transfer effects. Intelligence and introversion were significant factors, whereas intolerance for ambiguity and rigidity failed to effect inter-sensory transfer. The sample in the case of the study by Nirmaladevi (1984), included 128 5th year students in the postgraduate classes. The effects of authoritarianism, rigidity and anxiety were demonstrated in varying degrees on verbal paired associate learning using an experimental procedure. Anxiety and strategy effects were examined in relation to serial learning by Purandare (1984), using undergraduate women students belonging to 40 high and 40 low anxiety groups. Low anxiety resulted in better serial learning than high anxiety conditions. Experimenter and subject introduced strategies made significant differences in learning.

Learning studies reflect control over design, conceptual basis, procedure, and data analysis and have implications for classroom practice and climate as well.
1.2. CLASS ROOM MANAGEMENT

Research in this area has a distinct ecological flavour (Doyle, 1986; Shulman, 1986). The central assumption of this process-product approach is therefore, classrooms are characterized by certain features of group setting, regardless of the particular teachers and students. Classroom research provides the context for the application of psychology to instruction.

1.3. CLASSROOM CLIMATE

Classroom climate is a significant determinant of pupils’ learning & academic growth. Sustained research in the area began in 1970 with the pioneering work of Buch and his associates. Several studies have emerged from this tradition with increasing methodological sophistication over the years; the earlier studies, being more of the descriptive and survey type. Buch and Santhanam (1970) have given a description of such studies. However, the studies aimed at identifying salient features of teaching behaviour in different situations and under different conditions. Farogi (1981) has presented a systematic review of studies reported during 1971-76 and analysed the studies lining (a) presage and process variables, (b) process and product variables, (c) use of feedback on teacher behaviour under the general rubric of communication and influence processes. Positive effects of feedback from interaction analysis in changing teacher behaviour in terms of use of praise, encouragement, questions, acceptance of pupils’ ideas, etc., are reported in Santhanam and Susan (1976). At the preservice level, micro-teaching has been
found to provide confirmatory evidence of modifying behaviour of pupil teachers. Farogi (1981) emphasized the need for more control studies to uncover the relationship between relatively more subtle variables like teacher personality and attitudinal characteristics, instructional objectives, instructional constraints, pupil characteristics and intra-teacher differences. A beginning has however been made in construing research based on theory.

Panda (1988), the author has concluded that the studies are of the survey type and are correlational in character. Input-output research can be planned, he suggests, to find out the effectiveness of a particular type of leadership on classroom performance and student activities. The studies are based on perceptions of teachers and pupils of classroom happenings, which are subjective. Since these factors are flexible reliability of perceptions is also difficult to obtain. Lack of reproducibility of the factors makes it difficult to obtain valid conclusions. The inter-twined factors make it difficult to exercise controls and the lack of a comprehensive tool of measurement creates further barriers. While a strictly controlled experimental study is not possible, studies with lesser control that will not affect the natural functioning of the classroom may be revealing.

Sense of deprivation was observed among students belonging to different institutions with differing environments (Upadhyaya, 1982). Student morale as an indicator of educational environment in each school was studied. Sharma, R. (1983) compared student morale in government single-shift
government double-shift, private single-shift and government single-shift schools in a rural area. The schools differed significantly in all the seven areas of educational environment measured in terms of student morale. Academic motivation and its relationship with classroom climate was investigated at the high-school level (Kumar, 1984) and high positive relationships between most of dimensions of both variables were obtained, analysis being based on multiple correlation and regression. Classroom climate was investigated at the high-school level (Kumar, 1984) and high positive relationships between most of dimensions of both variables were obtained, analysis being based on multiple correlation and regression. Classroom climate differed significantly. A classroom with high classroom climate had high people psyche and achievement (Doctor, 1984). A study of the learning environment of an achieving class was reported by Singh, R.P. (1984). Pupil's achievement was related to different types of management in school.

Dholakia (1985) developed a standard measure of climate scale and used it in measuring the relationship between classroom climate and pupil growth assessed in terms of motivation, anxiety, adjustment, and feeling of fulfilment. Homour in the classroom helped teachers to remove classroom tensions, depression, anger and aggression (Bharadwaj, 1984). Convent, corporation, and slum schools contributed to differences in incidence of psychological problems of learners which provided a social work perspective, (Shariff, 1985). The social structure of a school did contribute to incidence of dropouts and maladjustment among students (Rather, 1985).
Rao (1986) defined classroom climate as the general academic and psychological atmosphere that prevails in the classroom as an outcome of the behaviours of the teachers and the pupils and their interactions. The studies cited above reveal the consciousness of researchers regarding this dimension as a contributing factor to morale, achievement, and development of several psychological characteristics among pupils. The studies are based mostly on comparative and correlational analysis rather than on controlled experimental set-ups.

- **Teacher characteristics**

  Variable teacher characteristics is one of the significant dimensions in the teaching-learning process. Several studies have contributed to an understanding of desirable teacher behaviour and dispositions. Among these, Kaul (1977) made an early attempt and differentiated most-accepted and least-accepted secondary school female teachers with regard to their personality, values, and interests. The samples were matched on the basis of age, academic qualifications and training. Reservedness, intelligence and conscientiousness were associated with high acceptance, whereas values were not. Malik (1978) made an analysis of personality correlates of ideal and real self-concept discrepancies of pupil teachers, but the findings need to be approached with caution since the self is also a personality dimension. A similar study was reported by Tripathi (1983) who tried to explicate the personality and creativity relationship of pupil-teachers under different SES, female teachers trainees.
were high on abstract thinking, conscientiousness, tender-mindedness, imaginativeness and radicalism, and were somewhat less frustrated than male teacher-trainees. Innovative and non-innovative primary teachers were also differentiated on personality traits were also differentiated on personality traits based on sociometry, principle's rating and self rating, and using the 16 PF Personality Questionnaire and Mehdi's Test of Non-verbal Creativity.

1.4. PROMOTING ACADEMIC ACHIEVEMENT THROUGH SOCIAL AND EMOTIONAL LEARNING

In this day of high-stakes testing, educators are eager and even anxious to find new policies, instructional methods, and educational practices to improve academic achievement. In their search they have re-examined such policies as teacher certification, school choice grade retention, summer schools, and the latest pedagogies for teaching particular academic subjects. Increasingly, however, educators and policy makers are also discovering the importance of social and emotional variables for academic performance and achievement. Consequently, they are turning their attention to methods and practices that foster students' social and emotional development.

Acknowledging the importance of social and emotional variables is one thing. Really understanding their critical role and developing social and emotional skills among students are different matters. What teacher has not felt the frustration of working with a capable student who has neither the motivation nor the perseverance to perform to capacity? What teacher has not felt that he or she could teach better, and his or her students learn better, in
caring, supportive school and classroom environments? Teachers have long recognized, and a body of research now corroborates, that facilitating student achievement means addressing barriers to learning. Many of these barriers are social and emotional.

Social and emotional competence refers to the capacity to recognize and manage emotions, solve problems effectively, and establish and maintain positive relationships with others, social and emotional competence and the learning environments that support their development have been shown to enhance academic performance in various direct and indirect ways (Zins et. al.). Social, emotional learning programming in schools, when carried out systematically and comprehensively, supports caring classroom environments and helps develop positive relationship. SEL programming also provides students with varied skills that positively affect academic achievement. They include:

- Managing emotions that interfere with learning and concentration.
- Developing motivation and the ability to persevere even in the face of academic setbacks and challenges.
- Working cooperatively and effectively in the classroom and in peer learning groups.
- Setting and working towards academic goals.

For example, learning in a history class improves markedly when students are taught to use problem solving to understand and analyze a historic
event. Teaching students social and emotional skills also makes them less likely to behave in ways that interfere with learning. In which the important role of different types of Management in schools are shown in different ways.

A substantial body of research supports the notion that social and emotional variables are integral rather than incidental to learning (Wang, Haertel, and Walberg 1997). Wilson, Gottfredson, and Najaka's meta-analysis (2001) of 165 studies examined the effectiveness of various school based prevention activities. Their study revealed that social and emotional learning programs increased attendance and decreased the dropout rate. Zins et al. found that SEL programs improved student attitudes, behaviours, and academic performance.

Rather than diverting schools from their primary academic mission, improving students' social and emotional competence advances the academic mission of schools, while also ensuring that they meet their broader mission to produce caring, responsible and knowledgeable students. Social and emotional learning provides students with basic skills for success not just in school but ultimately in their personal, professional and civic lives.

- What teacher has not felt the frustration of working with a capable student who has neither the motivation nor the perseverance to perform to capacity?

Such findings should not surprising. The nature of learning, certainly in school settings, is fundamentally social. In the classroom the most successful children are likely to be actively and professionally engaged with their peers.
and teachers (Feshbach and Feshbach 1987; Chen, Rubin, and Li 1997). Such students communicate ideas effectively; listen to, evaluate, and integrate the ideas of others; elicit ideas and input from others; and ask teachers and peers for help when necessary.

Students emotionally connected to peers and teachers who value learning and high academic performance often adopt similar values (Hawkins et al., 2001). Student perceptions of teacher warmth and supportiveness can accurately predict student engagement (Ryan and Patrick 2001). Similarly, students who benefit from positive relationships and interactions tend to achieve above the average academically (Osterman 2000) under different types of school-management.

In short, educators who want children to care about learning must ensure they feel supported and offer them frequent opportunities to use social, emotional learning skills in meaningful ways (Hawkins 1997).

The collaborative for Academic, Social and Emotional Learning, an organization working to establish SEL as an essential part of education, has identified specific ways in which social emotional learning management of schools programs positively affect academic performance under different.

Encourage students to apply the above mentioned skills to classroom behaviour that enhance learning. For instance, a teacher can encourage active listening by asking students to identify specific academic goals for themselves. Such goals could be graduate based or related to academic behaviours. Students
can then anticipate barriers to reaching their goals and identify ways to overcome those barriers.

Encourage students to apply the skills directly to subject matter: Students can apply the skills not just to situations in their own lives but to circumstances facing characters in novels or to actual events, past or present. For a class discussion of the Israeli-Palestinian conflict, students can analyze how each party would define the problem. Questions might include:

"What are the perspectives of each party?"

"What are some possible solutions that would reduce the tension between the parties?"

"What are the possible consequences of each proposed solution?"

Such activities both promote deeper understanding of academic material and help students gain familiarity and ease with the skills.

Use instructional practices that promote social emotional learning and academic learning. Specifically the skill focused classroom-management technique, cooperative learning groups, academic choice periods, peer tutoring and service-learning can improve students' social-emotional competence academic performance. Such techniques help establish a respectful classroom environment and minimize disruptions. Instruction in interpersonal skills, followed by opportunities to use the skills in cooperative learning groups, teachers students to collaborate on group goals. Service-learning can enhance students' social awareness and commitment to others.
Remember that learning is relationship centered. Teachers should make sure they know their students by name, take time to talk with students individually, show concern for their academic progress, and create a caring classroom environment.

- Classroom management strategies to reduce racially-biased treatment of students

According to Daniel Thomas Bullara the students are more likely to be referred for disciplinary problems, to get suspended, and to receive longer repeated suspensions than are white students who share cultural similarities with their teachers. Many teachers and school counselors are becoming increasingly sensitive to the role they play in disproportionately disciplining minority children, and they admit that they are ill-prepared to handle many of the problems that arise in the classroom. Factors that sometimes lead to the mistreatment of minority children are described in this article. Second, the effects of punitive procedures typically used and it has been in the class for a minute or so. Carmella hits the door way as the bell stops ringing and Mr. Jones informs her that she is tardy. Carmella states that she was in the
class when the bell rang, and Mr. Jones retorts that she was not “Prize” if they won the drawing. From that list, items were selected that were not in conflict with the schools rules. For example, they gave out sodas but not gum. Other items were school supplies, such as paper, pens and pencil, notebooks, on time Black. After a student conference, Ms. Livingston amended the incentive program, allowing for all students to participate, and she changed the reward so that it was not in conflict with the class or school rules. The Black student was principals, and counselors out on the school grounds before school, during breaks, and after school provides them the opportunity to interact with the students on a casual basis.

• School and Classroom organization

Over the past decade, there has been a substantial increase in knowledge about teacher behaviors associated with gains in student achievement. Research on such issues as effective instructional behaviors and classroom management has identified the practices of outstanding effective teachers. However, effective instruction is more than the sum of teacher behaviours. The organization of the classroom and of the school provide the context within which teaching takes place, and this context may be pivotal in determining the effectiveness of the school’s instructional program. This volume presents critical reviews of research on school and classroom organization. All of the reviews focus on the achievement effects of alternative school and classroom organizational practices; each attempts to answer the question, “What do we know about how to organize classrooms and schools to accelerate student
achievement?" The reviews examine such school organization issues as ability grouping, departmentalization, special and remedial programs, evaluation processes, and class size. At the classroom level, questions about lesson organization and effective use of time are addressed, and research is reviewed on two widely used alternative classroom organization models, mastery learning and cooperative learning. Each of the chapters centers on evaluations of the achievement effects of alternative school and classroom organizational practices as they are applied in practice, not as they are used in the laboratory or in brief experiments. The emphasis of the book is on practices that are under the direct control of school districts, principals, and/or teachers, and the impact that these practices have on student achievement under real-life conditions. The conclusions drawn in the various chapters do not prescribe particular practices, because there are many factors that must be taken into account in making decisions about how to organize schools, including effects of school and classroom practices on outcomes other than achievement. However, decisions about school and classroom organization must be made in light of the best available evidence concerning the achievement effects of one or another practical alternative under different management of schools.

- Teaching the lesson

Group lessons are by far the most common instructional format in classrooms. The popularity of this format is likely to continue, and hence teachers need to know how to utilize this structure appropriately. Even innovative or alternative instructional programs involve group-based lessons to
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some extent. Considering that teachers are charged with educating classes of twenty to forty students, they will have to use some variation of the traditional instruction recitation-seatwork format, either with an entire class or with small groups (as in beginning reading instruction). In this chapter, we draw upon classroom research (some experimental, but most correlational), linking elements of instruction within this traditionally favoured format to student achievement gain in order to identify a model for presenting group lessons. We also show how this model has been adjusted to various teaching contexts in three different classroom experiments. Finally, by incorporating research on child development and student motivation, we present an expanded model that stresses the relationship between active teaching and active learning. We believe that this model will be useful for planning instruction across a broad range of classroom teaching situations, although we recognize that no single model is appropriate for all situations. What constitutes effective instruction varies with the subject matter, students, and other factors such as Management of Schools.

- Subject matter

Although there are similarities, there are also important differences in what constitutes an effective problem-solving lesson in mathematics and laboratory.

- Achievement effects of group based mastery learning

Over the past decade, mastery learning has been perhaps the most widely used and widely discussed innovation in classroom organization. Yet
the effects of practical applications of mastery learning on student achievement in secondary schools have only recently begun to be understood under different management.

1.5. DEFINING MASTERY LEARNING

The term mastery learning refers to a large and diverse category of instructional methods. The principal defining characteristic of mastery learning methods is the establishment of a criterion level of performance held to represent "mastery" of a given skill or concept, frequent assessment of student progress towards the mastery criterion, and provision of corrective instruction to enable students who do not initially meet the mastery criterion to do so on later parallel assessments (Bloom, 1976; Block & Anderson, 1975). Bloom (1976) also includes an emphasis on appropriate use of such instructional variables as cues, participation, feedback, and reinforcement as elements of mastery learning, but these are not uniquely defining characteristics; rather, what defines mastery learning approaches is the organization of time and resources to ensure that most students are able to master instructional objectives. There are three primary forms of mastery learning. One, called the Personalized System of Instruction (PSI) or the Keller Plan (Keller, 1968), is used primarily at the post-secondary level. In this form of mastery learning, unit objectives are established for a course of study and tests are developed for each. Students may take the test (or parallel forms of it) as many times as they wish until they achieve a passing score. To do this, students typically work on self-instructional materials and/or work with peers to learn the course.
For as long as instruction has been delivered to class groups of students, teachers, administrators, and researchers have debated the question of how classes should be organized. Research on various grouping arrangements has been under way since the beginning of this century; yet irrelevant, or lacking. For some forms of grouping, evidence is indeed lacking or inconclusive, but in many cases there is rather conclusive evidence concerning the achievement effects of particular grouping practices. The best available evidence concerning the achievement effects of common grouping arrangements in elementary schools under different management:

Table: Typology of Elementary School Grouping

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<tr>
<th>Type of grouping</th>
<th>Specific grouping plan</th>
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<tbody>
<tr>
<td>I. Between - Class Grouping</td>
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<tr>
<td>A. Ability Grouping</td>
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<tr>
<td>1. Class Assignment</td>
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<tr>
<td>a. Comprehensive</td>
<td>Ability Grouped Class Assignment</td>
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<td></td>
<td>Gifted Programs, Special</td>
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<tr>
<td>b. Selective</td>
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- Why Group

Grouping of students for instruction is done for many reasons, but most grouping plans exist to deal with one central fact of mass education: that students differ in knowledge, skills, developmental stage, and learning rate. If a teacher is to present a lesson to a class, then it seems intuitively obvious that
the lesson should be neither too easy nor too difficult for the students. If the class is highly heterogeneous, then one lesson will of ability measure. This might produce, for example, a high-achieving fourth grade class, an average achieving class, and a low-achieving class, with students assigned to classes according to some combination of a composite achievement measure, IQ scores, and/or teacher judgments. Students remain with the same ability-grouped classes for ability level, so a meaningful reduction in heterogeneity in the skill being taught is possible. Third, regrouping plans tend to be more flexible than ability grouped class assignment, because changing students between reading or mathematics classes is less disruptive than changing basic class assignments. For this reason, any and between classes, extensive use of individualized instruction, team teaching, and other features more in line with forms of the open classroom than with the still quite traditional Joplin Plan, Bowman, 1971; Ross, 1967). Achievement effects of comprehensive non-graded plans were found (Leinhardt & Pallay, 1982; Madden & Slavin, 1983). Unfortunately, most research on the efficacy of special education has the same type of methodological flows characteristic of studies of gifted programs. Matched comparisons between students assigned programs for the gifted, and special education for students with learning problems do not generally meet the four criteria. Typically, they segregate students all or most of the day, are based on general ability or achievement rather than skill in a specific subject, and different types of Management of Schools.
• Tracking in secondary schools

For at least sixty years, schools have practiced tracking and ability grouping, and researchers have attempted to determine whether it "works", that is, whether tracking enhances schools' ability to educate their diverse student populations. Researchers typically oppose tracking because the bulk of the empirical literature finds it to be generally ineffective (Esposito, 1973; Noland, 1985; Persell, 1977; Resenbaum, 1980). Several recent educational reform proposals and schooling reports have criticized the negative consequence of tracking (Achievement Council, 1985; Goodlad, 1984; College Entrance Examination Board, 1985; National Commission on Excellence in Education, 1983; Powell, Farrar, and Cohen, 1985; Goodlad, 1984; Ravitch and Finn, 1987). Despite empirical evidence, court decisions, and reform proposals, tracking remains a nearly universal practice in secondary schools. Usually, tracking is not seriously questioned by practitioners and policy makers; it is simply "how schools work". When the issue is raised, practitioners usually support tracking for its benefits to students, and because it seems to ease the instructional problems posed by individual differences. Their experience in different types of managing schools and classrooms climate has apparently convinced practitioners that tracking is necessary. Unfortunately, the tracking literature provides only limited understanding. Until quite recently, two questions have been of primary interest. The first, "Does tracking work?", has resulted in numerous studies of tracking's effects on students' cognitive and affective outcomes. The second question, "what determines track placement?"
How designed for college-preparatory students, vocational students, or general track students. Some schools do not have all three of these tracks, and other have more. The differing college requirements encourage separate tracks for students preparing for entrance into the more selective University in the country system and curriculum ability taken together, the literature on tracking's effects on student outcomes appears to support the following more specific conclusions: first, some tracking systems appear to provide a cognitive advantage for students who are placed in the top tracks. Recent analyses of secondary school and beyond data, for example, provide evidence that not vocationally who are initially similar in background and aptitude exhibit increased differences resulting from their placements in higher and lower tracks. Tracking, therefore, can be seen to affect student outcomes independent of the characteristics that determined the track placement (Alexander & McDill, 1976).

- Achievements effects of substantial reductions in class size under different management of school

Robert, E. Slavin Center for Research on Elementary and Middle Schools. One of the most hotly debated issues of school organization for many years has been the achievement effects of reductions in class size. On one hand, it seems intuitively obvious that teachers can do a better job with a small group of children than with a larger group. On the other, many reviewers of research on this topic have concluded that the evidence relating to achievement effects of reducing class size shows few consistent effects. Recently, a meta-analysis
by Glass, Cahen, Smith and Filby (1982) questioned the conclusion that class size made little difference in achievement, and a review by Robinson and Wittebols (1986) held out the possibility that class size may make difference in the early grades. The question of achievement effects of class size has taken on particular importance in recent years as educators have proposed dramatic reductions in class size, particularly in the secondary grades, as a means of accelerating the achievement of students who are at risk for school failure (e.g. Bain & Achilles, 1986). Changes in federal legislation are expected to make the funds available to help all students in high-poverty schools. Experience with earlier school-wide suggests size (e.g. Doss & Holley, 1982); also, remedial pull-out programs traditionally supported & justified on the basis that they reduce class size for some portion of the school day.

- What does the research say about achievement effects of substantial reductions in class size?

This made to attempt to select studies on the basis of design or other indications of study quality. Most of the studies cited are correlational; researchers simply computed a correlation between class size and achievement, sometimes controlling for. The study had to compare the effects on standardized reading and/or mathematics tests of alternative class sizes in secondary schools over a period of at least one year. Of course, it is important to note that reeducations in class size do have significant effects no other variables, such as teacher and student morale (Glass et al., 1982; Robinson & Wittebols, 1986). Reducing class size may be justified on according to
Gampert & Schulman, (1987) study in many schools would have detected it. Again, it may be that reductions in class size could be part of an effective school-wide approach, but if would not justify reliance on class size reduction alone as a means of improving the achievement enough at this point to say that simply reducing class size is not going to solve the achievement problems of at-risk students, at least not until class size is reduced to one for some portion of students’ school days in the different types of Management of Schools.