FACTORS IN LEARNING EFFECTIVENESS : A STUDY OF STUDENTS AT THREE LEVELS OF EDUCATION

Dissertation submitted to the Jawaharlal Nehru University
in partial fulfilment of the requirements for
the award of the Degree of
MASTER OF PHILOSOPHY

IN

PSYCHOLOGY OF EDUCATION

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1988

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DECLARATION

Certified that the dissertation entitled "Factors in Learning Effectiveness : A Study of Students at Three Levels of Education", submitted by AKSHAYA KUMAR ROUT is in partial fulfilment of eight credits out of a total requirement of twenty-four credits for the degree of Master of Philosophy of this University. This dissertation has not been submitted for any other degree of this University, or any other University, and is his own work.

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TO

MY TEACHERS

A C K N O W L E D G E M E N T

Researcher extends his deep sense of gratitude and appreciation to Supervisor - Dr. (Mrs.) Sushila Singhal, for her stimulating discussions, suggestions and critical comments. Researcher cannot pay for her painstaking effort in checking first draft of his dissertation.

He conveys his unflinching reverence to Shri D.P. Ray for his perennial source of inspiration. His understanding and cordial personality is never payable on his part through words.

He deprived the parents his honest presence at the time of need and social gatherings. He is ever grateful to them for their philanthropic – recipient-relationship throughout gruelling years of his career.

His sincere thanks to Dr. M.S. Frank of St. Stephen's College, Delhi University and Principal, JNU Central School for their encouragement and institutional support during data collection.

Finally, he wishes to acknowledge the inspiration and unconditional support of teachers and friends. He expresses his personal thanks to Shri Om Prakash for his efficient typing.

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ABSTRACT

Learning effectiveness has been widely discussed by the experts of different persuasions. This study was undertaken to ascertain the factors of learning effectiveness by testing the effects of levels of education, streams of education and sex on academic performance, locus of control, perceptions of fairness, students' satisfaction, personal, universal and total helplessness. 80 respondents (20 males and 20 females from arts and 20 males and 20 females from science) were taken from each level of education. The selection of sample was made by purposive method of sampling. Levels of education (+2, graduate and post-graduate), streams of education (arts and science) and sex (male and female) were taken as independent variables. Academic performance, locus of control, perceptions of fairness, students' satisfaction, personal and universal helplessness as psycho-social and educational variables. Academic performance was measured by the annual examination marks of each level of education. Suitable instruments were used to assess locus of control, perceptions of fairness, students' satisfaction, personal and universal helplessness. 't' test, analysis of variance and correlational analysis were done over the variables. It was found that levels of education, streams of education and sex are likely to be

determining factors of learning effectiveness. Moreover, academic perfcrmance has association with psycho-social variables. Development of internal locus of control, self-confidence and students' satisfaction through motivational techniques could be undertaken to make the learning productive. Orientation programmes for students and parents and training facilities are suggested to achieve learning effectiveness.

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CHAPTER-I

INTRODUCTION

Learning is a key process in shaping human behaviour, it pervades everything we do and think. The psychological study of learning embraces much more than the learning of skills or academic subjects and bears upon the fundamental problems of emotional development, motivation, social behaviour and personality. Learning can be defined as a relatively permanent change in behaviour which occurs as a result of experience or practice (Morgan et. al., 1978). This definition has three important elements: (1) Learning is a change in behaviour, for better or worse. (2) It is a change that takes place through practice or experience; change due to growth or maturation is not learning. (3) Before it can be called learning, the change must be relatively permanent. It must remain for a fairly long time. Exactly how long cannot be specified but psychologists usually think of learned changes on behaviour as lasting for days, months or years in contrast with the behavioral effects of such factors as alertness or fatigue.

Learning effectiveness may be defined as the process of achieving productivity out of acquired experiences. Learning may be effective or ineffective. It can only be judged by the learner. An effective learner is expected to possess knowledge, understanding of various concepts,

analysis, synthesis, application, appreciation, original and fresh thinking (Modey, 1982). In addition to these, an effective learner is expected to express his ideas clearly and coherently. It has been recognised that, in order to develop as an effective learner, the student needs to have a sense of his own identity, from which comes a sense of vocation and self-confidence. A matured confident student will be able to look critically at one's learning strategies, to experiment with alternatives and to adopt flexible learning strategies which may be suitable for particular courses, or even part of courses (Wright, 1982).

Sources of Learning Effectiveness:

Learning effectiveness may be contingent on forces arising from the four domains, namely, learner, teacher, context and content.

Learner Characteristics:

Learner characteristics are important for learning. These include aptitude, interest, ability, study habits and motivation. Aptitude refers to innate ability to learn. The learner is expected to have aptitude to learn the materials given/taught and gather relevant information from the surrounding. Interest refers to preferences of the learner. The learner has to be given freedom to choose the subjects for himself/herself and find what one is

interested in. Ability refers to capacity to do something. The learner is expected to possess general and specific ability to perform the required tasks and master skills. Study habits refer to one's schedule of study/plan of study. An effective learner uses a definite plan of study, scans the study materials, outlines the materials and reviews materials.

Motivational processes influence learner's acquisition, transfer, use of knowledge and skills. Motivational processes have been shown to affect (a) how well learners can deploy their existing skills and knowledge, (b) how well they acquire new skills and knowledge, and (c) how well they transfer these new skills and knowledge to novel situations (Dweck, 1986).

Studies on motivation deal with the causes of goal-oriented activities (Atkinson, 1964; Beck, 1983; Dollard and Miller, 1950; Veroff, 1969). Achievement involves a particular class of goals - those appear to fall into two classes; (a) learning goals; in which individuals seek to increase their competence, to understand or to master something new, and (b) performance goals, in which individuals seek to gain favourable judgements on their competence or avoid negative judgements on their competence (Dweck and Elliott, 1983; Nicholls, 1984).

The attitude is an important characteristics of the learner. Attitude is a state of mental readiness to perceive things in a particular way. A positive attitude of the learner toward teaching, teacher and content are likely to influence learning effectiveness.

Teacher Characteristics: Learning effectiveness also depends on the characteristics of the teachers. Amidson and Thenter (1963) defined teaching as an intensive process primarily involving the class-room talk which takes place between teacher and pupils and occurs in certain definable activities. This definition is likely to include various characteristics of the teacher such as intelligence, motivation, personality, teaching skills, classroom behaviour, teacher cue resources and interpretations, and teacher mediating responses. An intelligent teacher thinks rationally, acts purposefully and deals with environment effectively in the classroom context. Motivation to teach the student is important in teaching-learning process. Personality of the teacher generates self-confidence among students and their acquisition of knowledge and its application in various fields. Teaching skills of the teacher also affect the students acquisition of knowledge, and its application and performance in the classroom.

Context Characteristics: It refers to the conditions of learning and delivery of the curriculum to the learner.

According to Dun Kin & Biddle (1974), context variables include context in community and context in classroom. Context in community includes climate, institution size, ethnic composition of the community and physical facilities. Classroom context includes climate, size, text materials, curriculum and institutional aids. Institutional context is known as organisational climate.

Organizational climate includes context in classroom and context in institution. Organizational climate may be called as a global assessment of the interaction between the task achievement dimension and need satisfaction dimension within the organization. In short, the organizational climate is the extent of the task-need integration (Lonsdale, 1964).

Chopra (1963) found that out of six types of climate - the climate schools, the open climate led to a significantly higher job satisfaction for teachers as compared to the climates as autonomous, familiar, controlled, closed and parental climate in schools.

Many other studies have been shown that classroom organization and management, teacher's personality (Singh, 1981) teacher's attitude towards teaching (Goyal, 1981) were responsible for success of students in classroom learning situation.

Riccotti (1982) found that the learner in schools with innovative organizational designs i.e. the non-graded and open space made greater gain in reading achievement than those students in the traditional setting.

Content Characteristics: The content may be defined as planned and organized learning teaching materials. It aims to provide systematic background to the taughts in different fields of education. In making the teaching-learning process effective the content domain is given special importance in the National Policy of Education. It is suggested that the curricula may be enriched by giving it a cultural orientation. Students are desired to develop sensitivity to beauty, harmony etc. along with subject knowledge. Adequate facilities should be given to the students for oral and written communication. Moreover, vocation related activities and development of scientific temper should be given due importance in curriculum (National Policy of Education , 1986). The growing concern for essential values and increasing cynicism in society has brought to focus the need for readjustment in the curriculum in order to make education a forceful tool for the cultivation of social and moral values.

In a culturally plural society like India it is felt that education should be used to foster universal and eternal values in students oriented towards the unity and integrity of our people. The value education is

applied to eliminate obscurantism, religious fanaticism, violence, superstition and fatalism. Moreover, value education is to be based on heritage, national goals, and universal perception.

Educational technology should be employed in the spread of useful information, the training and retraining of teachers, to improve quality of teaching and learning, sharpen awareness of art and culture, inculcate abiding values, etc. both in formal and non-formal sectors. The generation of relevant and culturally compatible educational programmes ought to form an important objective of educational technology and all available resources in the country ought to be utilised for maximising learning effectiveness at all levels of education.

Work experience should be viewed as a purposive and meaningful manual work. It needs to be organized as an integral part of the learning process itself resulting in either goods or services useful to the community. It should be considered as an essential component at all stages of education to be provided through well-structured and graded programmes. It should comprise of activities in congruence with the interests, abilities and needs of students. The levels of work skills and knowledge are to be upgraded with the stages of education. This experience may be helpful in entry into the workforce. Prevocational

programmes provided at the lower secondary stage may facilitate the choice of the vocational courses at the higher secondary stages.

Mathematics is visualised as the main vehicle to train a learner to think, reason, analyse and articulate logically. Apart from being a specific subject, it is treated as concomitant to any subject involving analysis and reasoning.

Science education is proposed to be strengthened so as to develop in the learner well-defined abilities and values such as the spirit of enquiry, creativity, objectivity, the courage to question, and an aesthetic sensibility.

The above discussion should indicate that learning effectiveness is likely to be affected by a number of factors operating on i.e. learner simultaneously such as personality, attitude, achievement, motivation, level of aspiration, method of study, environment, aptitude, ability, reinforcement, use of media, locus of control, academic performance, student satisfaction and the like. In this exploratory study the role of personality orientation is examined in academic performance, student satisfaction, personal helplessness, universal helplessness and total helplessness (indicators of learning effectiveness).

Helplessness:

It is a state of passivity/unresponsiveness/depression of performance. Researches concerned with learned helplessness in humans were initially guided by extrapolations of results obtained over animals. Seligman (1975) maintained that the uncontrollable events produced three related deficits. These deficits were (i) motivational deficits on tasks administered after the helplessness teaching (performance), (ii) cognitive deficits consisting of deficits in ability and (iii) depressed effect. All the three deficits were the result of an expectation that outcome were independent of any response the person could make. Helplessness may be personal (self), universal (others) and addition of personal and universal is known as total helplessness. There is a considerable agreement that exposure to variety of uncontrollable stimuli can lead to debilitated performance on a variety of tasks (Miller and Norman, 1979). The helplessness syndrome is found more among the person in the lower strata of the society than the person in the higher strata of society (Sahoo et. al., 1985). The assistants in office/management are more prone to be helplessness than the high executives.

Perceptions of Fairness:

The concept of perceptions of fairness usually refers to the distribution of gains according to one's contribution. According to the Random House Dictionary of

English language college Edition (1977) the literal meaning of the term "perceive" is to become aware of or identify by means of the senses. That is to apprehend/understand. The term "justice" has been defined as quality of conforming to principles of reason, to generally accepted standard of right and wrong. This has also been defined as "the maintenance of what is just according to law and a court of justice.

In psychological literature, the term "perceived justice" has been used interchangeably as "distributive justice", fairness in reward, equity of access to opportunity etc. In terms of equity theory, perceived justice has been discussed in relation to individual's (his/her) relative gains (one's outcome from a deal/relationship minus one's contribution to that relationship). Adams and Rosenbaum (1962) held that the theoretical notion offered are quite relevant to any social situation since exchanges take place, explicitly/implicitly and between team-mates, teachers and students, lovers, children and parents, patients and therapists, and opponents and enemies. In Adam's (1965) conceptualization, a distinguishing characteristic of social exchange theory (i.e. relationship) is that resultants have potentiality of being perceived as either just/unjust by participants. Adams held that manifested dissatisfaction and other behaviour were responses to actually felt injustice rather than

relative deprivation. There are expectations involved in what is "fair". A just relationship exists for an individual when that individual perceives relative gains to be equal for self and the partner.

Locus of Control:

Phares (1957) introduced the concept of locus of control in psychological research. Locus of control refers to a personality construct, deriving from social learning theory of Rotter (1966, 82), which focuses upon a person's expectancies that they can help in determining the outcomes/experiences in which the person is engaged.

Locus of control (Rotter, 1966) is a concept which seeks to determine whether the individuals attribute the cause/control of events either to themselves (internal) or to their environment (external). Internal and external locus of control symbolises the tendency for internals to believe that they can control events and for externals to believe that they cannot have implications for their attitudes, perceptions and behaviours in work settings. Roark (1978) found that internals were inclined to attribute the obtaining of their present jobs to their own actions. Hammer & Vardi (1980) found that internals attribute past job changes to their own initiatives. Keller (1984) found evidence that health and locus of control were related to turnover. Keller (1984)

observed that internals were more likely to take upon themselves to leave an unhealthy job situation than the externals.

Student's satisfaction:

Student's satisfaction is of basic concern to education. This represents an organizational behaviour of students. Student's satisfaction may be defined as feeling which is intrinsic to the activity sensed differently by different students. This may be a function of the outcome achieved in reality, and hence inferred from expressive behaviour.

A satisfied student body is the nuclei of the effective functioning of the educational institution both at the level of individuals and the institution. In fact, the effectiveness of educational institutions cannot be simply evaluated in terms of its efficiency or student output as such, to the exclusion of their social and personal development. If the students do not feel satisfied, they cannot put their heart and soul in learning and the performance target cannot be achieved.

Education is a form of activity and students indulge in it for the reason that it should bring them approval and recognition. College provides them opportunities to compete with peers, to make friends, earn status, and this meets their social need of approval and recognition. The

extent to which students satisfy their emotional and social needs through varied college experiences is likely to be reflected in their behavioral outcomes. If the satisfaction derived is close to their expected level, it promotes their desire to work more and then doing better itself may act as reinforcer of satisfaction. The content-context dichotomy of Herzberg et. al. (1969) also popularly known as the two factor theory represents an important theoretical attempt in explaining the phenomenon of satisfaction. This theory had been formulated and used mainly in industrial setting and seldom in educational settings. Herzberg measured employee's satisfaction and dissatisfaction using a form of semi-structured interview known as critical incident technique. He asked respondents to think and describe those times when they felt exceptionally good/bad about their jobs and analyzed the data using content analysis techniques. They observed an important distinction between factors of content (job) and context (environment). Herzberg et. al. argued that the former (content) set of factors namely need for achievement, recognition, work of itself; responsibility, advancement and psychological growth contributed to satisfaction, whereas the latter set of factors (context) like salary: interpersonal relationships with supervisors, company policies and practices; job security, status and personal life contributed more to dissatisfaction.

The pre-potency and uni-directionality of the factors in eliciting feelings of satisfaction and dissatisfaction led Herzberg and his associates to postulate that satisfaction and dissatisfaction are two separate, distinct and independent feelings. Content factors are likely to contribute more as positive feelings and attitudes. Satisfaction of content factors may motivate an individual to perform better. Context factors, however, were necessary pre-conditions for effective content factors.

Herzberg delineated the implications of his theory in the day-to-day organizational functions and employee relations. Although employees gave importance to the needs in the content as well as context domain, they clearly differentiated the importance of each domain in working life. The content seekers did not behave same as the context seekers, since they differed from each other on values, aspirations and needs.

Need and Significance of the study:

In recent times learning effectiveness has been widely discussed by researchers, psychologists, policy makers and experts. There is no consensus views on indicators of learning effectiveness. It felt that there is lack of well documented socio-psychological literature in this area. Moreover, there is no unanimous opinion on how to make the learning effective. The new

education policy and area identified by UGC focus on the need to make the education more effective as a potential tool of social change and modernization.

Surveys and studies by Herbert (1987) show that nine factors increase learning effectiveness. Potents, consistent and widely generalizable, these nine factors fall into three groups, are shown below.

Nine Factors of Educational Productivity

Student Aptitude

1) Ability or prior achievement as measured by the usual standardized tests.
2) Development as indexed by chronological age or stage of maturation.
3) Motivation or self-concept as indicated by personality tests or the student's willingness to persevere intensively on learning tasks.

Instruction

4) The amount of time students engage in learning.
5) The quality of the instructional experience including psychological and curricular aspects.

Psychological Environments

6) The 'curriculum of home'.
7) The morale of classroom social group.
8) The peer group outside school.
9) Minimum leisure-time television viewing.

Collectively the various studies suggest that the three groups of nine factors are powerful and consistent in influencing learning. Syntheses of studies suggest that these generalizable factors are the chief influences on cognitive, affective and behavioral learning.

The present study has been designed to identify various factors of learning effectiveness and to examine its effect of streams of education, levels of education and sex.

CHAPTER II

REVIEW OF LITERATURE

Learning effectiveness may be influenced by the variables like learned helplessness, students' satisfaction, perceptions of fairness, locus of control, academic performance. As the review of literature is - concerned - with above variables. learned helplessness in humans were initially guided by extrapolation of results obtained with animals. Seligman maintained that learning outcomes are uncontrollable events produced three related deficits - motivational, cognitive and emotional (i.e. depressed effect).

(i) Motivational deficits, on task administered after the helplessness training performance,

(ii) Cognitive deficits consisting of deficits of an inability to recognise contigencies between responses and outcomes (retarded contingency learning), and

(iii) Depressed effect: The three deficits were explained as a result of an expectation that outcomes were independent of any response the person could make. There is a considerable agreement that exposures to the variety of uncontrollable stimuli can lead to debilitated performance on a variety of tasks.

Inadequacy 1 Old Theory:

The cornerstone of the old theory is that learning that outcomes are uncontrollable results on three

deficits: motivational, cognitive and emotional. The problems were experienced when learned helplessness hypothesis on animal was applied to understand human helplessness.

Hiroto (1974) administered uncontrollable noise to a group of subjects. The experimenter told the subjects that they could prevent the noise by turning off. Since the noise was uncontrollable, the subjects were unable to prevent the noise. After several successful attempts, the subjects may believe that the problem is uncontrollable. So, neither the subjects nor the other concerned could control the noise termination. In other words, the subjects may believe that the problem is controllable, but they lack the capacity to control it, whereas the other subjects could control the noise. Here, the old hypothesis does not distinguish the controllable state of learned helplessness.

Inadequacy 2:

A second way of illustrating this inadequacy is the following. Hanusa & Chulz, (1977) and Tennen & Eller (1977) have have emphasized those causes of learned helplessness in which a person inappropriately generalizes the expectation of non-contingency to a new controllable situation. It is important to point out that the old hypothesis does not require an

appropriate generalization for helplessness. Helplessness exists when a person shows motivational and cognitive deficits as a consequence of an expectation of uncontrollability over which it occurs are irrelevant to demonstrating. But the old hypothesis does not specify where and when a person who expects outcomes to be uncontrollable will show deficits. The present new version of the model emphasizes the causal attributions generated for noncontingent events as they are hypothesized to determine the nature of the learned helplessness deficits, their chronicity, and generality (Abramson, Seligman and Teasdale, 1978). Sepcifically, uncontrollable outcomes attributed to internal causes are associated with a decrease in self-esteem. Second, attributions to stable causes result in deficits which are chronic or transient respectively. The attributors for uncontrollable events likely to specific to the event or more global, the latter being related to deficits which are pervasive across situations. Thus, the most debiliting learned helplessness deficits are hypothesized to result from internal, stable and global attributions.

A great deal of research with children have focused on the content of their attributions for uncontrollable events in achievement situations, usually exposure to unsolable puzzles. In particular, the internal causes

of ability and effort have often been investigated as exemplers of attributions differing along the dimensions of stability and specificity. It is widely believed that children who tend to attribute failure to stable factors beyond their control, such as low ability, are learned helplessness. These learned helplessness children show a decrease in adaptive goal directed responding or performance deficits on puzzle solving following failure. In contrast, children who tend to attribute failure to less stable modifiable factors under their control such as low effort, are called mastery-oriented and do not show debiliting performance effects following failure (Dweck and Reppucci, 1973).

Brown and Haris (1978) interviewed lower and middle class women in south London and found that 20% of the lower class women showed severe symptoms of depression. Those women who were depressed had an usually high percentage of loss of mother by death before the age of eleven.

Dweck et. al. (1978) have showed that learned helplessness can arise from the pattern of evaluative feedback in the classroom rather than the absolute amounts of positive and negative feedback. Specifically, the learned helplessness response pattern is associated with the proportion of negative feedback given for intellectual

(e.g., accuracy) versus non-intellectual (e.g., neatness) aspects of performance. In fact, limiting negative feedback to intellectual aspects of a task has been shown to produce learned helplessness on the laboratory.

Alloy, Peterson, Abramson and Seligman (1979) did an investigation on which college students were split into global versus specific scorers for bad events on the attributional style questionnaire. According to reformulation all subjects likely to show deficits following inescapable noise when tested on the similar noise task, however, only subjects with a global explanatory style for bad events should show deficits following inescapable noise when tested on the dissimilar cognitive task.

According to Taylor (1979) the good patient (i.e. who is passive complaint and inanimate) may be eliciting learned helplessness was reaction to loss of control that involves cognitive, motivational and emotional deficits following the expectation that the responses and outcomes are independent of each other. On the other hand, the bad patient may be showing psychological reaction as a reaction to loss of control that involves attempts to restore the lost.

Pasahow (1980) manipulated the global specific dimension and imposed bad events on subjects in the learned

helplessness triadic design. It was found that subjects induced to make global explanations for their failure performed worse on the enagrams than subjects encouraged to give specific explanations. This suggests that the manipulation of explanations along the global specific dimensions for bad events appropriately predicts poor performance when bad events are imposed on subjects. These experiments indicate that the measurement and manipulation of explanations and explanatory style, when accompanied by the manipulation of bad events, do what the helplessness reformulation predicts. The global-specific dimension, when manipulated and when measured, governs the breath of helplessness deficits. This internal-external (dimension, when manipulated, governs self-esteem deficits but learning deficits). Finally, tentative evidence suggests that the stable-unstable dimension governs the duration of helplessness deficits.

Metalsky, Abramson, Seligman, Semmel & Peterson (1982) conducted a study on college students and their relation to a low grade on a mid-term examination. According to helplessness reformulation, students who habitually explain bad events in terms of internal, stable and global factors are more likely to react with depression upon learning that they received low grade than students who tend to explain bad events in terms of external, unstable

and specific factors.

Much of the research on the attributional reformulation of learned helplessness has concentrated on individual differences in attributional styles or the tendency to make particular kinds of casual attributions across different situations and time. There is considerable evidence to show that the above, maladaptive attributions are associated with several failures of adaptation (Peterson and Seligman, 1984). However, data relating to the attributions made for specific, non-contingent events in the laboratory and subsequent behaviour provides mixed support for the attributional reformulation of learned helplessness (e.g. Alloy, Peterson, Abramson and Seligman, 1984; Danker-Brown and Baucom, 1982; Oakes and Curtis, 1982; Tennen, Drum, Gillen and Stanton, 1982). However, this casual dimension, despite its potential importance, has received little attention in research on learned helplessness in adults.

The present study revealed the fact that internality and globality for bad events predicted increases on depressed mood for students receiving low grades, but not for students receiving high grades.

Locus of Control:

The effect of personality factors on different spheres have been widely recognised. The studies on the

influence of Locus of control on social and psychological phenomena have also been investigated. Studies on locus of control have been discussed.

Phares (1957) found that the reinforcement for feedback under skill conditions had a greater effect upon the subjects. Changes in performance were significantly greater when the subjects perceived skill than when they perceived chance instructions. In this study the interest centered on expectancy setting is a function of success and failures, depending upon reinforcements whether skill or chance. James and Rotter (1958) confirms the findings of Phares that perception of control would predict the manner in which people would respond to their performance outcomes.

The investigations indicated that locus of control is a correlate of the cognitive activity which should facilitate the maintenance of personal causation. Persons having internal control expectancies would be more cautious and calculating about their choice, involvements and personal entanglements than the individuals with external control orientation. The first study linking locus of control and cognitive activity was conducted by Geeman and Evans (1962). The result of this study supports the assertion that internal avail themselves of an information even if it was negative connotations for themselves more than do externals. It was assumed that this difference

derives from the fact that internals believed that they can act on their own behalf. Therefore, they require more information on other hand externals accept readily what others say. Hence, they possess less information.

Another cognitive function that has been examined in locus of control research is that of attentions. It is the way in which individuals focus upon cues of relevance for goal attainments. Lefcourt and Kline (1969) from their study concluded that internals are more likely to attend cues which help to resolve uncertainties. On the other hand, externals attend all cues which are coming from the external environment.

Debolt (1973) observed that internals tend to be leaders having high aspiration and Stressberg (1973) externals having lower goals expectations and anticipations.

The effects of locus of control were studied in the field of learning. Miller (1973) did his study in a serial learning situation with simple pictures. Because this type of task provided a clear distinction between inter-task and extra-task cues, success and failure climates and so on. The results which he got from the experiment could comply with the hypotheses that the external locus of control subjects being more sensitive to the extra task cues would show greater difference between

the learning climates than internal locus of control subjects. So, Miller (1973) opined on internal locus of control subjects that they would be more motivated to the success approach and failure avoidance system.

One characteristic that is consistently associated with locus of control is susceptibility to attitude change and persuasibility. Compared to externals internals are less persuasible (Ritchies & Phares, 1979). Therefore, susceptibility to attitude change should provide unambiguous information about a stranger's locus of control. Highly persuasible subjects would be perceived as externals and less persuasible subjects as internals.

Rotter and Mutry (1985) from their studies have indicated that internals devote more attention to decisions about skill related matters than do externals.

Internal-external locus of control is an individual difference characteristic which, it has been proposed, affects the turnover process. Blau (1987) using a sample of 119 nurses, this longitudinal study found that locus of control moderated the relationships between two facts of satisfaction, promotion and pay, both withdrawal to cognitions and turnover. In addition, locus of control moderated the relationship between withdrawal cognitions and turnover. Internals showed significantly stronger negative relationships than externals between these

satisfaction facts and withdrawal cognitions turnover. Internals also showed a stronger positive relationship than externals between withdrawal cognitions and turnover.

Mishra, C.M. (1987) found that locus of control is highly related with academic achievement. Boys with internal locus of control are likely to be high on different learning tasks. They have high degree of ability in attaining academic achievement than girls. It may be said that girls are also affected by certain personality factors which influence in their achievement.

Perception of Fairness:

If a person perceives his/her achievement is fair, it estimates to contribute more for future learning. In other words, he may be motivated to work more and get accordingly. Studies related to perception of fairness have been discussed.

According to equity theorists Walster, Berchcid and Walster (1976), a social relation is equitable when the profit input ratios are same for persons or units concerned. Application of the theory to reward allocations have yielded confirmatory results - showing a strong preference for performance-matching allocation. This, however, is not without qualifcations. Except

under salient conditions the matching of rewards to performance is ordinal rather than strictly proporational (Leventhal, 1976). "A second qualification is situational salience of equity which will be enhanced by clear evidence of performance differentials, the presence of productivity goal and other economic cues, and when the reward has been acquired at least partly through the independent work of recipients". (Parcel and Cook, 1977)

The third qualifcation is 'politeness ritual' (Mukula and Schneinger, 1978) low performers were found to favour the equity rule (i.e. to award a smaller amount to themselves than to others who had performed better) and high performers, the quality rule (i.e. to award the same amount to themselves and others who had performed less well). This pattern of choice resulted in a smaller share of the required for self, and correspondingly larger share for the opposite number, than had the alternative rule been adopted. That had the low performers favoured the equity rule, or high performers the equity rule they would have obtained a larger share of reward. Apparently, both high and low performers were willing to sacrifice their material self-interest so that they can demonstrate (their) modesty and politeness and no one can accuse (them) of being selfishly unjust.

Factors leading to equity:

Still it is clear that there are many situations in which distributors favour an equitable diversion of rewards. To prefer a complex and potentially discontent allocation scheme requires some explanation clear, unequivocal information that one person's performance is superior motivators other to favour an equitably division of rewards.

(1) One factor indicating superior performance, and thereby a preference for equity, is the individual contribution to the group task.

(2) The application of an equity principle can actually influence by situational factors, one such factor, the outcome of group effort. If the group is successful, the resultant accrue to the group (and the supervision) regardless of any variation in individual contribution.

(3) The third factor is that levels of ability, efforts, and task difficulty will lead to greater rewards even after the effects of task outcome and individual contribution into account.

Many of these involved in the study of intimate relationships have begun taking social (exchange view of relationship) development and maintenance, (Huston and Cate, 1979). According to this perspective individuals in intimate relationship act to maximize their rewards and minimize their cost.

Huston and Burgess (1979) suggest that people do not particular by attend to the issue of distributive justice when their level of rewards in relationship are high, in their classic study of the dynamics and of married life, found that the marital satisfaction was influenced the level resources (rewards) their husbands provided them. Several laboratory studies demonstrated that individuals would tolerate inequitable conditions if they were being rewarded at a high level not available elsewhere. No studies have looked reward level in connection with equity and equality as influences on relationship satisfaction.

Returning to the role of status in reward allocation, the relevant evidence concerning the effects of status ranking is equivocal. For example, Commins and Lockwood (1979) found that increase in group status lead to more ingroup favouring bias and relative to groups which saw themselves as of equal status to comparison groups, higher status group exhibited more ingroup favouritism.

According to social identity theory, intergroup bias is a means of enhancing the ingroup's status - vis-a-vis the outgroup. It serves to safeguard members social identity (i.e. that part of a person's self-concept which is derived from group membership and its association value

and emotional significance) which is linked to the in-group's status.

Groups in need of safeguarding their social identity were those with insecure social identity namely, groups, regardless of their status rank, which perceive the existing status relationship to be illegitimate and/or unstable. From this point of view, insecurity of status plays a crucial part in determining the scope and psychological meaning of intergroup bias (Eiser, 1980).

Extensive reviews of the research literature warrant the conclusion that the division of people into social categories will activate a tendency of bias favouring their group, when the members of opposite categories are free to allocate monetary points to another without fear of reprisal (Ng 1982), this tendency will translate into an allocation bias favouring the ingroup.

A concern for fairness in general is applicable to the intergroup membership is not blatant but shows the constraints on fairness. Conversely, it can be said that justice is not blind but is often tempered with bias. The confluence of equity and social identity research, though overdue, holds premise for intergroup allocation research.

France (1984), for instance, found with a sample of high school students that the frequency of being

described as a low achiever was negatively correlated with several indices of self esteem. Conversely, one can assume that people whose status is congruous would feel more secure in social identity terms when this congruity is publicly confirmed. A main effect of status salience was predicted, that is, the greater ingroup favouritism in the incongruous status conditions over the congruous status condition was expected to increase by increasing the salience of the status relationship.

Student's Satisfaction:

Student's satisfaction may be the outcome of many overlapping factors. The importance of these factors may change from one setting to another and from one group type to another. Factors of satisfaction could be broadly conceived as of two types:

(1) those relating to characteristics of education, and
(2) those pertaining to the characteristics of students.

Factors pertaining to the characteristics of education may be further grouped into factors of content and context. Content factors are intrinsic to the education itself, whereas context factors stem from external sources.

Factors relating to the characteristics of students are those that act on content and context factors like age, sex, socio-economics status, personality traits and level

of aspiration etc.

Content and Context Perspective:

The content-context dichotomy of Herzberg et. al. (1959) also popularly known as the two factor theory represented an important theoretical attempt in explaining the phenomenon of satisfaction. This theory had been formulated and used mainly in industrial setting and seldom in educational settings. Herzberg measured employee's satisfaction and dissatisfaction using a form of semi-structured interview known as critical incident technique. He asked respondents to think and describe those times when they felt exceptionally good or bad about their job and analyzed the data using content analysis technique. They observed an important distinction between factors of content (job) and context (environment) in that the first group of factors dealt specifically with the nature of jobs, while the second related to the environment - in which the jobs were performed. Herzberg and his associates argued that the former set of factors consisted of need for achievement, recognition, work itself, responsibility, advancement, and psychological growth and these contributed to satisfaction. Whereas the latter set of factors like working conditions, salary, interpersonal relationship with supervisors, subordinates and employees, technical supervision, company policies and practices, job security, status and personal life

contributed to satisfaction.

Herzberg delineated the implications of his theory in the day to day organizational practices and employee relations. Although employees gave importance to the needs in the content as well as context domain, they clearly differentiated the importance of each domain in working life. The content seekers did not behave the same as the context seekers, since they differed from each other on values, aspirations and needs.

A number of investigators had attempted to replicate and extend the generality of the two factor theory with varying degree of success, using different types of population, variables and situations. The content-context framework of Herzberg and his associates had been widely used.

Student's satisfaction appears to involve a large number of physical, psychological and personal factors. Schaffer's (1953), somewhat older theory states that overall job satisfaction will vary directly with the extent to which the needs of an individual can be actually satisfied on a job; the stronger the needs, the more closely will be job satisfaction depend on their fulfilment.

Serigione (1967) in a study of the factors, that affect job satisfaction and dissatisfaction, found that

satisfaction factors for the teachers tended to be linked to the work itself. He also showed difference between work, and conditions of work and pointed out that where satisfaction was related to work itself, job context factors, i.e. conditions of work were responsible for dissatisfaction.

Hoppock (1967) in his composite theory concluded that job satisfaction depends upon the context to which the job a person holds and meets the needs. The degree of satisfaction is determined by the relationship between what is experienced and what is wanted by the individual. Job satisfaction, being a complex phenomenon with several inter-related factors such as personal, social, cultural and economic, has been explained by various theories of which the most significant is the two factor theory postulated by Herzberg et. al. (1968), which suggests two different sets of factors - motivators and hygienic factors, which influence job satisfaction/dissatisfaction. While the motivators include advancement, development and the work itself, the hygienic factors include salary, working conditions, company policy, supervision and the work group.

It has been believed that workers with higher educational degrees/accomplishments tended to be more dissatisfied with their jobs. Rao (1970) in his study on

the socio-personal correlates of jobs satisfaction of factors found that the higher educational level of teachers enhanced their job satisfaction.

Mohan (1974) in a study of work motivation and organisational climate, found that work motivation among employees was a direct function of the organisational climate relating job satisfaction with the leadership style. Singh and Pestonjee (1974) found that greater job satisfaction results from a democratic form of leadership.

In a study linking organizational incentives and teaching amongst secondary school teachers, Lorlic (1975) found that satisfaction with teaching and internalized (motivations were of primary importance to teachers). He argued that extrinsic rewards such as salary and ancillary rewards such as working hours and conditions while important were not more significant than the intrinsic towards.

Pestonjee and Akhtar (1969) found that for teachers, social service, fame, independence and self-expression on the job were most preferred include salary, working conditions company policy, supervision and the work group.

When job satisfaction of the teachers in schools is considered specifically, it has been observed that women

teachers are more satisfied with their job than their male counterparts (Bernad & Kulandivel, 1976; Anand, 1977). Chandra (1978) found that teachers with favourable attitude towards teaching adjudged the teaching job as more fabourable to those who had unfavourable attitude towards teaching.

Lindquist, Charles and Whiteheau, John (1986) analyzed that perceptions and causes of burn-out, job stress and job satisfaction among 241 Alabana correctional officers responding to a 'survey instrument', 39% of the ss. considered their job more than moderately stressful, 29% reported moderate stress, 32% were satisfied with their job, 52% were somewhat satisfied, and 16% were not satisfied. After examining reported levels of burnout, stress and job satisfaction, findings were compared to those from other studies. Multiple regression procedures were utilized to identify significant predictors. Results indicate that a number of patentially alterable, organizational factors has significant impact on officers perceptions, accordingly, several intervention strategies are offered for consideration.

Sinha & Prakash (1986) administered questionnaires designed to assess job satisfaction, intrinsic motivation work values, and job involvement to 60 government and 50 private enterprise employees in India. Analysis of data obtained from the 60 completed questionnaires was

accomplished using t tests and correlations. Quality dimensions correlated positively with satisfaction, and some differences could be detelted between a private and government workers.

Khaleque and Rahman (1987) measured overall job satisfaction identified some determinants of job satisfaction, and evaluated the perceived importance of job facets (e.g. duration of work, job security) to the overall job satisfaction in 1,560 workers (mean age 33 years) from 4 jute industries in Bangladesh. Results indicate that the satisfaction variables were not undirectional in their effects. Job facets were sources of both satisfaction and dissatisfaction, overall job satisfaction of the subject was influenced by the satisfaction with job facets and personal life, and the degree of satisfaction depended on the satisfaction with the number of job facets and their perceived importance.

Person, Cecil A. (1987) conducted a longitudinal field experiment of job changed over a 1 year period with 42 geographically dispersed railway track maintenance gangs in western Australia. Gangs consisted of 2-11 workers. Exptl-groups that employed participative goal setting were compared with a control unit that continued to employ the traditional work procedures. When the perceptual, behavioral and effective responses was evaluated over 80 trails, it was determined that subjects

subjects

who were engaged in participative goal setting reported higher perceived states of involvement in decision-making and greater job satisfaction, goal setting performance were positively related.

William & Robert (1987) propose a structural equation model to delineate the various aspects of self-reported job satisfaction. The model specifies structural linkage among 4 factors (1) Background, (2) perceptions, (3) organizational and (4) subjective rating of overall job satisfaction. The model is evaluated by using data random probability sample of 105 Black female managers (mean age 38.5 years) living in 5 Southern States. Results support the predictions derived from the proposed model and indicate that it explained 66% of the variance in overall job satisfaction. Organizational measures, in general, accounted for most of the explained variance.

CHAPTER III

METHODOLOGY

This chapter includes problem statement, objectives of study, hypotheses, sampling, research design, variables explored, tools used, statistical techniques and procedures.

Statement of Problem

The problem under investigation is to identify the factors of learning effectiveness and to test the effects of levels of education, stream of education, and students' sex on them.

Objectives of the Study

(1) To find out the effect of levels of education (+2, undergraduate, and postgraduate) on locus of control, students' satisfaction, perception of fairness, academic performance, personal helplessness, universal helplessness and total helplessness.

(2) To find out the effect of stream of education (Arts and Science) on locus of control, students' satisfaction, perception of fairness, academic performance, personal helplessness, universal helplessness, and total helplessness.

(3) To find out the effect of sex (male and female) on locus of control, students' satisfaction, perception of fairness, academic performance, personal helpless-

ness, universal helplessness and total helplessness.

Hypotheses

(1) Male and female scores may differ significantly on locus of control, students' satisfaction, perception of fairness, academic performance, personal helplessness, universal helplessness and total helplessness.

(2) The scores of arts and science students may differ significantly on locus of control, students' satisfaction, perception of fairness, academic performance, personal helplessness, universal helplessness and total helplessness.

(3) The scores of +2, undergraduate and postgraduate students scores may differ significantly on locus of control, students' satisfaction, perception of fairness, academic performance, personal helplessness, universal helplessness and total helplessness.

(4) There may be significant relationship among locus of control, students' satisfaction, perception of fairness, academic performance, personal helplessness, universal helplessness and total helplessness of male students.

(5) There may be significant relationship among locus of control, students' satisfaction, perception of fairness, academic performance, personal helpless-

ness, universal helplessness and total helplessness of female students.

(6) There may be significant relationship among locus of control, students' satisfaction, perception of fairness, academic performance, personal helplessness, universal helplessness and total helplessness of arts students.

(7) There may be significant relationship among locus of control, students' satisfaction, perception of fairness, academic performance, personal helplessness, universal helplessness and total helplessness of science students.

(8) There may be significant relationship among locus of control, students' satisfaction, perception of fairness, academic performance, personal helplessness, universal helplessness and total helplessness of +2 students.

(9) There may be significant relationship among locus of control, students' satisfaction, perception of fairness, academic performance, personal helplessness, universal helplessness and total helplessness of graduate students.

(10) There may be significant relationship among locus of control, students' satisfaction, perception of

fairness, academic performance, personal helplessness, universal helplessness and total helplessness of postgraduate students.

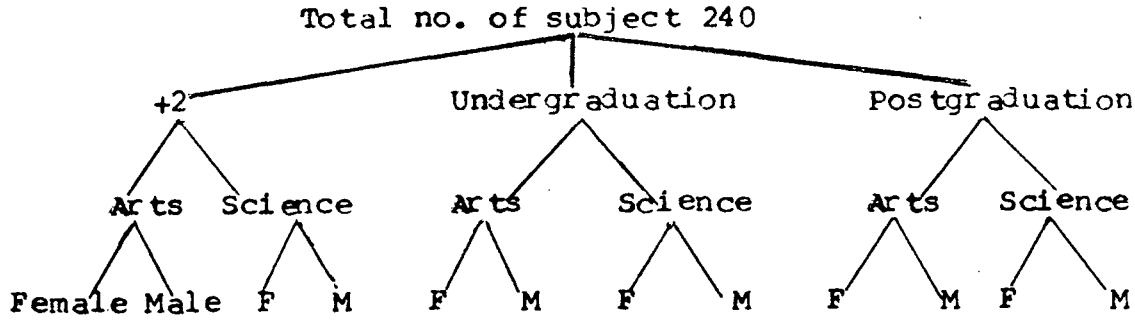
Sample

Purposive sampling method was used to select students from +2, undergraduation and postgraduation level. +2 subjects were from central schools, undergraduate subjects and postgraduates were from two Central Universities in a cosmopolitan city. A total of 240 subjects were taken for the study. This study included 80 subjects (20 males and 20 females from Arts, and 20 males and females from Science) were taken from each level of education.

Research Design

In order to examine the relationship that might be existing among various variables like levels of education, stream of education, sex, locus of control, students' satisfaction, perception of fairness, academic performance, personal helplessness, universal helplessness and total helplessness, a factorial design order of 3 X 2 X 2 was used. 3 levels of education (+2, undergraduation and postgraduation, 2 stream of education Arts and Science) and 2 sex (females and males) were studied.

Diagramatic representation of the design:



Learning effectiveness can be identified by taking into consideration the following psycho-social and academic variables.

1	2	3	4	5	6	7
Personal helpless-ness	Univer-sal hel-pless-ness	Total help-less-ness	Perce-ption of fa-irness	Locus of control	Acade-mic perfo-rmance	Stude-nts' satis-faction

Statistical Techniques

Mean and standard deviation of 7 variables (+2, undergraduate, postgraduate, female, male, Arts and Science) were calculated. Besides these, (1) ANOVA of 7 variables (locus of control, students' satisfaction, Perception of fairness, academic performance, personal helplessness, universal helplessness and total helplessness) and (2) product moment correlation were used,

Variables

The following variables were studied.

Independent Variables:

1. Levels of education (+2, undergraduation and post-graduation).
2. Stream of education (Arts and Science).
3. Sex (Male and Female).

Dependent Variables:

1. Locus of control.
2. Students' satisfaction.
3. Perception of fairness.
4. Academic performance.
5. Personal helplessness.
6. Universal helplessness.
7. Total helplessness.

Operational definition of Variables

. Learned helplessness: It is a state of passivity/unresponsiveness/depression of performance. Researches concerned with learned helplessness in humans was initially guided by extrapolations results with animals. Seligman (1975) argued that uncontrollable events produce three related deficits: (1) Motivational, (2) Cognitive, and (3) Emotional (depressed effect). The learned helplessness may be personal and universal

helplessness. Addition of these two is the total helplessness.

, Perceptions of fairness: According to the Random House Dictionary of English Language, (Edn. 1977) the literal meaning of the term 'perceive' is to become aware of or identify by means of the senses. That is to apprehend/understand. The term 'justice' has been identified as quality of conforming to principles of reason/to generally accepted standard of right and wrong. This has also been defined as 'the maintenance of what is just according to law and the court of justice'.

In psychological literature, the term 'perceived justice'/'perceptions of fairness' has been used relatively and interchangeably as 'distributive justice', perception of 'fairness in reward'/'equity access to opportunity' etc. In terms of equity theory 'perceived justice' has been discussed in relation to individual's (his/her) relative gains (one's outcome from a deal/ relationship means one's contribution to that relationship).

Locus of control: Internal-external locus of control (Rotter, 1966) is a concept which seeks to determine whether individuals attribute the cause or control of events either to themselves (internal) or to their

environment (external). Internals are more confident of their own potentiality than externals. Furthermore, they think that the environment is guided by their own ability.

Students' satisfaction: Logically, satisfaction can be defined as a feeling which is intrinsic to the activity sensed differently by different people. This may be a function of the outcome achieved in reality, and hence inferred from expressive behaviour. For example, a satisfied student body is the nuclei in the effective functioning of educational institutions both at the level of individuals and the institutions.

Academic performance: Academic performance is known as the knowledge attained or skills in different levels of education, usually through teachers' evaluation of the pupil's in examinations. In this study, the marks obtained by the students in the annual examinations conducted by the +2 colleges and universities have been taken to indicate the academic performance.

Tools Used:

The following tools were used for measuring the different explanatory variables.

1. Learned helplessness scale (it was used at 3 levels of education, 2 stream of education and 2 sex).

2. Locus of control questionnaire (it was used at 3 levels of education, 2 streams of education and 2 sexes).
3. Perceptions of fairness scale, (it was used at 3 levels of education, 2 streams of education and 2 sexes).
4. Students' satisfaction scale (8 selected items were taken for the present study). It was used at 3 levels of education, 2 streams of education and 2 sexes).

Description of the Tools

First section of the questionnaire contains personal information of the respondents: sex, academic performance and level. Second section includes instructions and concerned questionnaires.

1. Learned helplessness scale (Seligman, 1966) was modified by R.N. Kanungo, McGill (1986) was used. This scale consists of 12 items. This scale is divided into two parts. For the part (1) answer according to (a) how do you/yourself feel about the item (i.e. personal helplessness). The second part (b) is an appraisal of how you think other students of your university/college/school feel (i.e. universal helplessness). A scale of 0-5 is provided, where 5 indicates a feeling of being totally helplessness, and 0 indicates totally in control

or confident.

2. Perception of fairness: Perceptions of fairness scale formulated by A.R. Khan (1986) was used. This scale consists of 6 items with 5 sub-items in each. The final form of the perceived justice scale consisted of six input dimensions and five output dimensions. Thus the maximum possible score on this scale is 150 and the minimum score is 30. The reliability of the scale as reported by Khan is r=.84 (i.e. P .01). The respondents are required to respond on a 5 point scale by judging themselves as "to what degree" the statements were true of themselves. If it was true about 80 to 100 per cent, 40 to 60 per cent, 20 to 40 per cent and 20 per cent or below. Responses were given scores of 5, 4, 3, 2 and 1 respectively. The score on the total number of items indicated the scores on perceived justice. High scores indicated a higher degree of perceived justice and vice versa.

3. Locus of control: Rotter's I & E scale (1966) measures individual differences in a generalized expectancy or belief. The final version of the scale consists of 29 items forced choice test inclusive of 6 filler items intended to make the purpose of the test somewhat more ambiguous. On the basis of item analysis and factor analysis Rotter (1966) pointed out reasonably high internal

consistency for an additive scale. Since the items are not comparable half underestimates the internal consistency. At the same time Rotter (1966) found the test-retest reliability for a one month period quite consistent for different samples. Reliability of the scale has been well established. The applicability and use of this scale in Indian college students has been justified by various researchers (Faroqui, 1984 and Ravindran, 1984).

Students' Satisfaction: Several factors are responsible for motivation of students in +2/college/university. Student's satisfaction scale was used as a measure of a academic satisfaction. This scale was developed by A. Deepak (1980). 8 selected items were taken from Deepak's scale and administered on students. The scale measures student's satisfaction in relation to academic knowledge, targets, overall condition of college, appreciation of course-work by teachers, social interaction and job opportunities. The reliability of the test was determined by the internal consistency of the scale viz. correlating each item with the total score of the scale. Items having a correlation with total score were considered to be reliable items (Deepak, 1980).

Procedures

The questionnaires (perceptions of fairness, learned helplessness, locus of control and student's satisfaction)

were administered in group setting. Each questionnaire contained instruction separately. There was no time limit to complete the questionnaires. The subjects were asked to mention their academic performance, percentage of marks and sex. Perceptions of fairness scale consisted of 6 items with 5 sub-items under each item. Subjects were asked how they think about investments and reward from their education. There are no right or wrong answer in it, so look at statements are true yourself, indicate your answer by a tick mark in only one of the alternatives of the given percentages as answers.

Learned helplessness questionnaire consisted 12 items. Each item had two parts. All the "a" items indicate personal helplessness and all the "b" items were universal helplessness. Addition of "a" and "b" items indicate total helplessness. A scale of 0-5 is provided where 5 indicates a feeling of totally helplessness, and 0 indicates totally controlled or confident. Students were asked to encircle the best approximate about themselves and others. The students were instructed in the following way. "This is not a test, It is personal oriented scale which has been designed to find out how you think about certain things. Because it is an opinion scale there are no right or wrong answers. Pairs of statements describing two different opinions are listed. Look at each pair of

statement and indicate which particular statement in each pair with (a) or (b) is indicative of your opinion or nearly indicative of your opinion. Please make a tick mark in the right of the statements in each pair. Scoring was done according to scoring key.

Student's satisfaction questionnaire consisted of 8 selected items. Each item was indicative of motivational factors which were found to be important in +2/ college/university education. These factors were dimensions of students' satisfaction in their educational institution. Each item is followed by five point scale 80-100% (5), 60-80% (4), 40-60% (3), 20-40% (2) and 20% or below (1). Addition of total numbers is the indicative of students' satisfaction.

Academic performance was taken into consideration of all the students as indicative of students' performance at different levels of education. Academic performance was coded as A/A+(1), B+/A-(2), B-/C+(3). Similarly male is coded as I and female as 2.

Statistical analysis like mean, SD, 't' correlation and ANOVA were calculated for the variables (+2, undergraduate, postgraduate, arts and science, female and male).

CHAPTER IV

RESULTS

The following statistical analyses were carried out on the data:

4.1 Mean, SD and 't' test

4.2 Analysis of Variance

4.3 correlational analysis.

Mean and SD were computed on variables, ; academic performance, locus of control, perceptions of fairness, students satisfaction, personal helplessness, universal helplessness and total helplessness separately for male, female, arts, science, +2, graduates and postgraduates. 't' test was used to determine the significance of mean differences between male and female, arts and science, +2 and graduates, +2 and postgraduates and graduates and postgraduates on locus of control, perceptions of fairness, student satisfaction, personal helplessness, universal helplessness, total helplessness and academic performance.

Mean difference by sex: (Table-1)

Mean differences between males and females on academic performance, locus of control, perceptions of fairness, student satisfaction, universal helplessness and total helplessness are not significant. These results exhibit that females do not score differently than males on academic performance, locus of control, perceptions of

fiarness, student satisfaction, universal helplessness and total helplessness. However, the mean difference between males and females on personal helplessness is significant at .05 level. It is observed from the table 1 that males score higher on personal helplessness than females indicating that males feel more helpless in the system.

Mean differences by streams (Table-2)

Mean difference between arts and science students are significant on locus of control, perceptions of fairness, students' satisfaction, universal helplessness and total helplessness. So, it can be concluded that stream as an independent variable plays significant role in variations in locus of control, perceptions of fairness, student satisfaction, universal and total helplessness on the part of learners. It is observed from the mean table that science students are more confident (i.e. low scores in personal, universal and total helplessness than arts students. Moreover, science students are higher on locus of control, student satisfaction and academic performance than arts students.

Mean difference of +2 and graduate students (Table-3)

Mean differences between +2 and graduate students on locus of control, perceptions of fairness, student satisfaction and personal helplessness are significant at .05 level. It is observed from the mean table that graduates

score higher on locus of control, perceptions of fairness, student satisfaction and personal helplessness than +2 students. However, mean differences between +2 and graduate students on academic performance, universal and total helplessness are not significant at .05 level. So it can be concluded that level as an independent variable plays insignificant role in variations in academic performance, universal and total helplessness on the parts of learners.

Mean difference of +2 and post-graduate students (Table-4)

Mean differences between +2 and postgraduate students on locus of control, perceptions of fairness, student satisfaction, personal, universal and total helplessness are significant at .05 level. It is observed from the mean table that postgraduates are higher on locus of control, perceptions of fairness and student satisfaction than +2 students. However, postgraduate students are less confident (i.e. high mean score on helplessness) than +2 students. The mean difference between +2 and postgraduate students on academic performance is not significant at .05 level. It exhibits that there is no difference between +2 and postgraduate students in levels of academic performance.

Mean difference of graduate and postgraduate students (Table-5)

Mean difference between graduate and postgraduate students on academic performance, locus of control,

perceptions of fairness, student satisfaction, personal, universal and total helplessness are significant at .05 level. It is observed from the mean table that the post-graduate students score higher on locus of control, perceptions of fairness and student satisfaction. They score lower on academic performance than graduate students. Moreover, postgraduate students are higher on personal, universal and total helplessness than graduate students. This implies that postgraduate students are less confident than the graduate students.

Summary of results for locus of control (Table-6)

The table 6 shows that the main effects of levels and streams of education on locus of control are significant at .05 level. It means that locus of control is influenced by levels and streams of education. The interaction effects of streams and sex on locus of control is significant at .05 level. This means that locus of control is influenced by streams and sex. The main effects of sex on locus of control is not significant at .05 level. This means that sex as an independent variable plays insignificant role in determining locus of control. The interaction effects of levels and sex on locus of control is not significant at .05 level. This indicates that the combined effect of levels and sex have no significant influence on locus of control. The interaction effects

of levels, streams and sex on locus of control is not significant. This means that the combined effect of levels, streams and sex have no significant influence on locus of control.

Summary of results for student satisfaction (Table-7)

The table 7 indicates that the main effects of levels and streams on student satisfaction are significant at .05 level. This means that levels and streams have significant influence on student satisfaction. The interaction effects of levels and streams on student satisfaction is significant at .05 level. This means that the combined effects of levels and streams have significant influence on student satisfaction. The interaction effects of levels and sex on student satisfaction is significant at .05 level. This means that the combined effects of levels and sex have significant influence on student satisfaction. The interaction effects of stream and sex on student satisfaction is significant at .05 level. This means that the combined effects of streams and sex have significant influence on student satisfaction. The main effect of sex on student satisfaction is not significant. This means that sex as an independent variable has no significant influence on student staisfaction. The interaction effects of levels, streams and sex is not significant at .05 level. This means that the combined effects of levels, stroams and

sex have no significant influence on student satisfaction.

Summary of ANOVA for perceptions of fairness (Table-8)

The table 8 indicates that main effects of levels and streams of education on perceptions of fairness are significant at .05 level. This means that levels and streams of education have significant influence on perceptions of fairness. The interaction effects of levels and streams on perceptions of fairness is significant at .05 level. The interaction effects of streams and sex on perception of fairness is significant at .05 level. This means that the interaction effects have significant influence on perceptions of fairness. The main effects of sex on perceptions of fairness is not significant at .05 level. This means that sex as an independent variable has no significant influence on perceptions of fairness. Interaction of levels and sex on perceptions of fairness is not significant. This means that the combined effects of levels and sex on perceptions of fairness have no significant influence on perceptions of fairness.

Summary of results for personal helplessness (Table-9)

The main effects of levels, streams and sex on personal helplessness are significant at .05 level. This means that personal helplessness is influenced by levels, streams and sex. The interaction effects of levels and sex on personal helplessness is significant at .05 level. This means that

the combined effects of levels and sex affect personal helplessness of the students. Interaction effects of streams and levels on personal helplessness is significant at .05 level. This means that the combined effects of streams and levels affect personal helplessness. However, the interaction effects of streams and sex on personal helplessness is not significant at .05 level. It indicates that the combined effects of streams and sex have no significant influence on personal helplessness. Moreover, the interaction effects of levels, streams and sex on personal helplessness is not significant at .05 level. This means that the combined effects of levels, streams and sex have no influence on personal helplessness.

Summary of results for universal helplessness (Table-10)

The above table 10 indicates that the main and interaction effects of levels, streams and sex on universal helplessness is significant at .05 level. This means that the levels, sex and streams have significant influence on universal helplessness. The interaction effects of levels and streams on universal helplessness is significant at .05 level. This means that the combined effects of levels and streams have significant influence on universal helplessness. Moreover, the interaction effects of levels and sex on universal helplessness are significant at .05 level. This means that the combined effects of levels

and sex have significant influence on universal helplessness. However, the interaction effects of stream and sex on universal helplessness is not significant. This means that the combined effects of streams and sex have no significant influence on universal helplessness. Moreover, the interaction effects of levels, streams and sex on universal helplessness is not significant. This means that the combined effects of levels, streams and sex have no significant influence on universal helplessness.

Summary of results for total helplessness (Table-11)

The main effects of levels, streams and sex are significant at .05 level. This means that the levels, streams and sex as independent variables have influence on total helplessness. The interaction effects of levels and streams on total helplessness is significant at .05 level. This means that the combined effects, streams and levels have significant influence on total helplessness. Moreover, the interaction, effects of levels and sex is significant at .05 level. This means that the combined effects and sex have significant influence on total helplessness. Moreover, the interaction effects of levels and sex have significant influence on total helplessness. However, the interaction effect of levels and sex is not significant. This indicates that the combined effect of levels and streams has no significant influence

on total helplessness. Moreover, the interaction effects of levels, streams and sex on total helplessness is not significant. This means that the combined effect of levels, streams and sex has no significant influence on total helplessness.

Summary of ANOVA for academic performance (Table-12)

The table 12 indicates that the main effects of levels and streams on academic performance are significant at .05 level. This means that the main effects of levels and streams have influence on academic performance. The interaction effects of levels and streams on academic performance is significant. This means that the combined effects of levels and streams have significant influence on academic performance. The interaction effects of levels, streams and sex on academic performance is significant at .05 levels. This means that sex as an independent variable has no influence on academic performance. However, the interaction effects of levels and sex on academic performance is not significant at .05 level. This indicates that the combined effects of levels and sex have no significant influence on academic performance. Moreover, the interaction effects of streams and sex on academic performance is not significant. This means that the combined effects of streams and sex have no significant influence on academic performance.

Correlation for Males (Table-13)

The correlation between academic performance and locus of control for males is -.19 (P .05). This means that there is negative association between the above variables. The correlation of perception of fairness with academic performance and locus of control for males are -.36 (P .05) and .20 (P .05) respectively. These imply that the association between academic performance and perceptions of fairness is negative and the relation between perceptions of fairness and locus of control is positive.

The correlation of student satisfaction with academic performance, locus of control, and perceptions of fairness for males are -.19 (P .05), -.02 (P .05) and .60 (P .05) respectively. This implies that the association between academic performance and student satisfaction for males is negative. Association between student satisfaction and locus of control for males is negative and not meaningful. The relation between perceptions of fairness and student satisfaction for males is high and positive. The correlation of personal helplessness with academic performance, locus of control, perceptions of fairness and student satisfaction for males are .05 (P .05), .02 (P .05), .22 (P .05) and .16 (P .05) respectively. The association between academic performance and personal helplessness for males is negative. The relation between

locus of control and personal helplessness for males is positive and not meaningful. The association between perceptions of fairness and personal helplessness for males is positive and meaningful. The relation between personal helplessness and student satisfaction is positive and meaningful.

The correlation of universal helplessness with academic performance, locus of control, perceptions of fairness, student satisfaction and personal helplessness for males are .00, .05 (P .05), .15 (P .05), .04 (P .05) and .87 (P .05) respectively. The association between academic performance and universal helplessness for males is meaningless. The relation between locus of control and universal helplessness is positive and not meaningful. The association between perceptions of fairness and universal helplessness is positive and not meaningful. The association between student satisfaction and universal helplessness for males is positive and not meaningful. The relation between universal helplessness and personal helplessness for males is positive and very high.

The correlation of total helplessness with academic performance, locus of control, perceptions of fairness, student satisfaction, personal helplessness, universal helplessness and total helplessness for males are -.02 (P .05), .04 (P .05), .19 (P .05), 10 (P .05),

.97 (P .05) and .97 (P .05). The association between academic performance and total helplessness is negative and not meaningful. The relation between locus of control and total helplessness is positive and not meaningful. The association between perceptions of fairness and total helplessness is positive and meaningful. The relation between student satisfaction and total helplessness is positive and not meaningful. The relation of total helplessness with personal and universal helplessness is positive and very high.

Correlation for females (Table-14)

The correlation between academic performance and locus of control for females is -.09 (P .05). This implies that there is negative relation between locus of control and academic performance for females.

The correlation of perceptions of fairness with academic performance and locus of control for females are -.36 (P .05) and .20 (P .05) respectively. This means that the association between academic performance and perceptions of fairness is negative and moderate. The relation between perceptions of fairness and locus of control is positive.

The correlation of student satisfaction with academic performance, locus of control, and perceptions of fairness for females are -.29 (P .05), 11 (P .05) and .55 (P .05) respectively. The association between academic performance

and student satisfaction is negative and meaningful. The relation between locus of control and student satisfaction is positive and meaningful. The association between perceptions of fairness and student satisfaction is positive and high.

The correlation of personal helplessness with academic performance, locus of control, perceptions of fairness and student satisfaction for females are -.22 (P .05), .27 (P .05), .48 (P .05) and .29 (P .05) respectively. The association between academic performance and personal helplessness is positive. The relation between locus of control and personal helplessness is positive. The association between perceptions of fairness and personal helplessness is positive and meaningful. The relation between student satisfaction and personal helplessness is positive.

The correlation of universal helplessness with academic performance, locus of control, perceptions of fairness, student satisfaction and personal helplessness for females are -.14 (P .05), .32 (P .05), .35 (P .05), 15 (P .05) and .84 (P .05) respectively.

The association between academic performance and universal helplessness is negative and not meaningful. The relation between locus of control and universal helplessness is positive. The relation between perception of fairness and universal helplessness is positive. The

association between student satisfaction and universal helplessness is positive. The relation between personal helplessness and universal helplessness positive and very high.

The correlation of total helplessness with academic performance, locus of control, perceptions of fairness, student satisfaction, personal helplessness and universal helplessness for females are -.19 (P .05), .31 (P .05), .43 (P .05), .23 (P .05), .96 (P .05) and .96 (P .05) respectively. The relation between academic performance and total helplessness is negative and meaningful. The association between locus of control and total helplessness is positive. The relation between perceptions of fairness and total helplessness is positive and moderate. The association between student satisfaction and total helplessness is positive. The relation between personal helplessness and total helplessness is positive and very high. Moreover, the relation between universal helplessness and total helplessness is positive and very high.

Correlation for Arts students (Table-15)

The correlation between academic performance and locus of control for arts student is -.07 (P .05). This means that the relation is negative and not meaningful.

The correlation of perceptions of fairness with academic performance and locus of control for arts students are -.31 (P .05) and .10 (P .05) respectively. The association between academic performance and perceptions

of fairness is negative and meaningful. The relation between perceptions of fairness and locus of control is positive and not meaningful.

The correlation of student satisfaction with academic performance, locus of control and perceptions of fairness for arts students are -.15 (P .05), -.10 (P .05) and .61 (P .05) respectively. The relation between academic performance and student satisfaction is negative and not meaningful. The association between locus of control and perceptions of fairness is negative and not meaningful. The relation between perceptions of fairness and student satisfaction is positive and high.

The correlation of personal helplessness with academic performance, locus of control, perceptions of fairness and student satisfaction for arts students are -.25 (P .05), .05 (P .05), .62 (P .05), and .40 (P .05) respectively. The relation between academic performance and personal helplessness is negative and meaningful.

The association between locus of control and personal helplessness is positive and not meaningful. The relation between perceptions of fairness and personal helplessness is positive and high. The association between student satisfaction and personal helplessness is positive and moderate.

The correlation of universal helplessness with academic performance, locus of control, perceptions of fairness, student satisfaction and personal helplessness for arts students are -.25 (P .05), .17 (P .05), .54 (P .05), .27 (P .05) and .84 (P .05) respectively. The relation between academic performance and universal helplessness is negative and not meaningful. The association between locus of control and universal helplessness is positive and meaningful. The relation between perceptions of fairness and universal helplessness is positive and high. The association between student satisfaction and universal helplessness is positive and meaningful. The relation between personal and universal helplessness is high and positive.

The correlation of total helplessness with academic performance, locus of control, perceptions of fairness, student satisfaction, personal and universal helplessness are -.26 (P .05), .11 (P .05), .60 (P .05), .35 (P .05), .96 (P .05) and .76 (P .05) respectively. The association between academic performance and total helplessness is negative and meaningful. The relation of locus of control with total helplessness is positive and not meaningful. The association between perceptions of fairness and total helplessness is positive and high. The relation between student satisfaction and total helplessness is positive and meaningful. The association between personal

and total helplessness is positive and very high. The relation between universal and total helplessness is positive and very high.

Correlation for Science students (Table-16)

The correlation between academic performance and locus of control for science students is -.17 (P .05). This implies that the association between academic performance and locus of control is negative and meaningful.

The correlation of perceptions of fairness with academic performance and locus of control for science students are -.26 (P .05) and .04 (P .05) respectively. The association between academic performance and perceptions of fairness are negative and meaningful. The relation between perceptions of fairness and locus of control is positive and not meaningful.

The correlation of student satisfaction with academic performance, locus of control and perceptions of fairness for science students are -.11 (P .05), .04 (P .05) and .10 (P .05) respectively. The association between academic performance and student satisfaction is negative and not meaningful. The relation between locus of control and student satisfaction is positive and not meaningful. The association between perceptions of fairness and student satisfaction is positive and meaningful.

The correlation of personal helplessness with academic performance, locus of control, perceptions of fairness and

student satisfaction for science students are -.12 (P .05), .34 (P .05), .04 (P .05) and .09 (P .05) respectively. The association between academic performance and personal helplessness is negative and not meaningful. The relation between locus of control and personal helplessness is positive and meaningful. The relation between perceptions of fairness and personal helplessness is positive and not meaningful. The association between student satisfaction and personal helplessness is positive and not meaningful.

The correlation of universal helplessness with academic performance, locus of control, perceptions of fairness, student satisfaction and personal helplessness for science students are -.03 (P .05), .32 (P .05), .06 (P .05), .02 (P .02) and .88 (P .05) respectively.

The association of academic performance and universal helplessness is negative and not meaningful. The relation between locus of control and universal helplessness is positive and meaningful. The association between perceptions of fairness and universal helplessness is positive and not meaningful. The association between students satisfaction and universal helplessness is positive and not meaningful. The relation between personal and universal helplessness is positive and very high.

The correlation of total helplessness with academic performance, locus of control, perceptions of fairness, student satisfaction, personal and universal helplessness

for science students are -.08 (P .05), .34 (P .05), .05 (P .05), .05 (P .05), .97 (P .05) and .98 (P .05) respectively. The association between academic performance and total helplessness is negative and not meaningful. The relation between locus of control and total helplessness is positive and meaningful. The association between perceptions of fairness and total helplessness is positive and not meaningful. The relation between student satisfaction and total helplessness is positive and not meaningful. The association of total helplessness with personal and universal helplessness are positive and very high.

Correlation for +2 students (Table-17)

The correlation between academic performance and locus of control for +2 students is .00. This means that there is no meaningful relation between academic performance and locus of control.

The correlation of perceptions of fairness with academic performance and locus of control for +2 students are -.44 (P .05) and -.13 (P .05) respectively. The relation between academic performance and perceptions of fairness is negative and moderate. The association between perceptions of fairness and locus of control is negative and not meaningful.

The correlation of student satisfaction with academic performance, locus of control and perceptions of fairness for +2 students are .37 (P .05), -.16 (P .05) and

.77 (P .05) respectively. The association between academic performance and student satisfaction is positive and meaningful. The relation between student satisfaction and locus of control is negative and not meaningful. The relation between perceptions of fairness is positive and high.

The correlation of personal helplessness with academic performance, locus of control, perceptions of fairness and student satisfaction for +2 students are .04 (P .05), .01 (P .05), .04 (P .05) and .01 (P .05) respectively.

The association between academic performance and personal helplessness is positive and not meaningful. The correlation of personal helplessness with locus of control is positive and not meaningful. The association between perceptions of fairness and personal helplessness is negative and not meaningful. The relation between students satisfaction is negative and not meaningful.

The correlation of universal helplessness with academic performance, locus of control, perceptions of fairness, student satisfaction and personal helplessness for +2 students are .09 (P .05), .21 (P .05), -.12 (P .05), -.19 (P .05) and .82 (P .05) respectively. The relation of academic performance with universal helplessness is positive and not meaningful. The association between locus of control and universal helplessness is positive and

meaningful. The relation between universal helplessness and perceptions of fairness is negative and not meaningful. The association between universal helplessness and student satisfaction is negative and meaningful. The relation between universal helplessness and personal helplessness is positive and very high.

The correlation of total helplessness with academic performance, locus of control, perceptions of fairness, student satisfaction, personal helplessness and universal helplessness for +2 students are .07 (P .05), .13 (P .05), -.05 (P .05), -.10 (P .05), .95 (P .05) and .96 (P .05) respectively. The association of academic performance with total helplessness is positive and not meaningfull. The relation between locus of control and total helplessness is positive and meaningful. The association between total helplessness and perceptions of fairness is negative and not meaningful. The relation between total helplessness and student satisfaction is negative and not meaningful. The association between total helplessness and personal helplessness is positive and very high. The relation between total helplessness and universal helplessness is positive and very high.

Correlation for graduate students (Table-18)

The correlation of academic performance with locus of control for graduate students is -.24 (P .05). This means that the relation between academic performance and

locus of control is negative and meaningful.

The correlation of perceptions of fairness with academic performance and locus of control for graduate students are -.25 (P .05) and .23 (P .05) respectively. This means that the association between academic performance and perceptions of fairness is negative and meaningful. The relation between locus of control and perceptions of fairness is positive and meaningful.

The correlation of student satisfaction with academic performance, locus of control, and perceptions of fairness for graduate students are .01 (P .05), .08 (P .05) and .14 (P .05) respectively. The association between academic performance and student satisfaction is positive and not meaningful. The relation between locus of control and student satisfaction is positive and not meaningful. The association between perceptions of fairness and student satisfaction is positive and not meaningful.

The correlation of personal helplessness with academic performance, locus of control, perceptions of fairness and student satisfaction for graduate students are .05 (P .05), .02 (P .05), .09 (P .05), and .00 respectively. The association between academic performance and personal helplessness is positive and not meaningful. The relation between locus of control and personal helplessness is positive and not meaningful. The association between perceptions

of fairness and personal helplessness is positive and not meaningful. The relation between student satisfaction and personal helplessness is not meaningful.

The correlation of universal helplessness with academic performance, locus of control, perceptions of fairness, student satisfaction and personal helplessness for graduate students are .29 (P .05), -.14 (P .05), .10 (P .05), -.18 (P .05) and .58 (P .05) respectively. The association between academic performance and universal helplessness is positive and not meaningful. The relation between locus of control and universal helplessness is negative and meaningful. The association between perceptions of fairness and universal helplessness is positive and not meaningful. The relation between student satisfaction and universal helplessness is negative and not meaningful. The association between personal and universal helplessness is positive and high.

The correlation of total helplessness with academic performance, locus of control, perceptions of fairness, student satisfaction, personal, universal and total helplessness for graduate students are .21 (P .05), -.08(P .05), .10 (P .05), -.111 (P .05), .87 (P .05) and .91(P .05) respectively. The association of academic performance with total helplessness is positive and meaningful. The relation between locus of control and total helplessness is negative and not meaningful. The relation between

perceptions of fairness and total helplessness is positive and not meaningful. The relation between student satisfaction and total helplessness is negative and not meaningful. The relation of total helplessness with personal and universal helplessness is positive and very high.

Correlation for postgraduate students (Table-19)

The correlation between academic performance and locus of control for postgraduate students is -.12 (P .05). The relation between academic performance and locus of control is negative and not meaningful.

The correlation of perceptions of fairness with academic performance and locus of control for postgraduate students are -.07 (P .05) and -.05 (P .05) respectively. The association between academic performance and perception of fairness is negative and not meaningful. The relation between locus of control and perceptions of fairness is negative and not meaningful.

The correlation of student satisfaction with academic performance, locus of control and perceptions of fairness for postgraduate students are -.04 (P .05), -.28 (P .05) and -.20 (P .05) respectively. The relation between academic performance and student satisfaction is negative and not meaningful. The association between locus of control and student satisfaction is negative and meaningful. The relation between perceptions of fairness and student satisfaction is negative and meaningful.

The correlation of personal helplessness with academic performance, locus of control, perceptions of fairness and student satisfaction for postgraduate students are .18(P .05), -.25 (P .05), .00 and .03 (P .05) respectively. The association between academic performance and personal helplessness is positive and meaningful. The relation between locus of control and personal helplessness is negative and meaningful. The relation between perceptions of fairness and personal helplessness is not meaningful. The association between student satisfaction and personal helplessness is positive and not meaningful.

The correlation of universal helplessness with academic performance, locus of control, perceptions of fairness, and student satisfaction for postgraduate students are .13 (P .05), -.23 (P .05), .00, .00 and .21 (P .05) respectively.

The association between academic performance and universal helplessness is positive and not meaningful. The relation between locus of control and universal helplessness is negative and meaningful. The relation of universal helplessness with perceptions of fairness and student satisfaction is not meaningful. The association between personal and universal helplessness is positive and high.

The correlation of total helplessness with academic performance, locus of control, perceptions of fairness,

student satisfaction, personal and universal helplessness for postgraduate students are .16 (P .05), -.25 (P .05), .00, .02 (P .05), .95 (P .05) and .95 (P .05) respectively. The association of academic performance and total helplessness is positive and not meaningful. The relation between locus of control and total helplessness is negative and meaningful. The association between perceptions of fairness and total helplessness is not meaningful. The relation between student satisfaction and total helplessness is positive and not meaningful. The association of total helplessness with personal and universal helplessness is positive and very high.

Table 1: Mean difference between Males and Females students

Variables	Male	Female	df/t	Level of Significance
Academic Performance	M = 1.5 SD = .61	M = 1.5 SD = .63	df = 118 t = 0	N.S.
Locus of Control	M = 10.33 SD = 2.68	M = 10.4 SD = 2.45	df = 118 t = .21	N.S.
Perceptions of Fairness	M =129.61 SD = 16.20	M =129.15 SD = 16.58	df = 118 t = .01	N.S.
Student Satisfaction	M = 37.49 SD = 5.90	M = 37.24 SD = 6.84	df = 118 t = .30	N.S.
Personal helplessness	M = 24.77 SD = 7.53	M = 27.24 SD = 8.32	df = 118 t = 2.42	*
Universal helplessness	M = 28.40 SD = 8.33	M = 29.97 SD = 8.88	df = 118 t = 1.41	N.S.
Total helplessness	M = 53.17 SD = 15.32	M = 55.73 SD = 16.52	df = 118 t = 1.25	N.S.

* $P < .05$; NS = not significant

Table 2: Mean difference between arts and science students

Variables	Arts	Science	df/t	Level of significance
Academic Performance	M = 1.25 SD = .47	M = 1.75 SD = .65	df = 118 t = .68	NS
Locus of Control	M = 9.77 SD = 2.32	M = 10.96 SD = 2.65	df = 118 t = 3.32	*
Perceptions of Fairness	M =121.60 SD = 5.95	M =137.17 SD = 19.48	df = 118 t = 8.37	*
Student Satisfaction	M = 35.28 SD = 6.88	M = 39.45 SD = 5.05	df = 118 t = 5.35	*
Personal Helplessness	M = 26.20 SD = 8.90	M = 24.32 SD = 6.72	df = 118 t = 1.84	NS
Universal Helplessness	M = 30.93 SD = 9.22	M = 27.44 SD = 7.64	df = 118 t = 3.2	*
Total Helplessness	M = 57.14 SD = 17.37	M = 51.76 SD = 13.96	df = 118 t = 2.65	*

* $P < .05$; NS = not significant

Table 3: Mean difference between +2 and graduate students

Variables	+2	Graduates	df/t	Level of significance
Academic Performance	M = 1.68 SD = .68	M = 1.58 SD = .63	df = 78 t = 1	NS
Locus of Control	M = 9.40 SD = 2.79	M = 10.31 SD = 2.38	df = 78 t = 2.22	*
Perceptions of Fairness	M =115.78 SD = 19.84	M =132.40 SD = 9.30	df = 78 t = 6.78	*
Student Satisfaction	M = 33.67 SD = 6.14	M = 38.31 SD = 6.45	df = 78 t = 5.09	*
Personal Helplessness	M = 20.62 SD = 7.75	M = 23.11 SD = 4.26	df = 78 t = 2.5	*
Universal Helplessness	M = 25.05 SD = 8.77	M = 26.22 SD = 5.11	df = 78 t = 1.03	NS
Total Helplessness	M = 45.67 SD = 15.77	M = 49.22 SD = 8.34	df = 78 t = .89	*

* $P < .05$; NS = not significant

Table 4: Mean difference between +2 and postgraduate students

Variables	+2	Post-graduate	df/t	Level of significance
Academic Performance	M = 1.68 SD = .68	M = 1.23 SD = .4	df = 78 t = 0	NS
Locus of Control	M = 9.40 SD = 2.79	M = 11.40 SD = 2.07	df = 78 t = 5.23	*
Perceptions of Fiarness	M =115.75 SD = 19.84	M =139.97 SD = 4.34	df = 78 t = 10.86	*
Student Satisfaction	M = 33.67 SD = 6.74	M = 40.11 SD = 4.61	df = 78 t = 7.49	*
Personal Helplessness	M = 20.05 SD = 8.77	M = 36.40 SD = 6.52	df = 78 t = 10.82	*
Universal Helplessness	M = 25.05 SD = 8.77	M = 36.40 SD = 6.52	df = 78 t = 9.30	*
Total Helplessness	M = 45.67 SD = 15.77	M = 68.46 SD = 12.13	df = 78 t = 8.17	*

* $P < .05$; NS = not significant

Table 5: Mean difference between graduate and postgraduate students

Variables	Graduate	Post-graduate	df/t	Level of significance
Academic Performance	M = 1.58 SD = .63	M = 1.23 SD = .42	df = 78 t = 4.36	*
Locus of Control	M = 10.31 SD = 2.38	M = 11.40 SD = 2.07	df = 78 t = 3.11	*
Perceptions of Fairness	M =132.40 SD = 9.30	M =139.97 SD = 4.34	df = 78 t = 6.58	*
Student Satisfaction	M = 38.31 SD = 6.45	M = 40.11 SD = 4.61	df = 78 t = 2.02	*
Personal Helplessness	M = 23.11 SD = 4.26	M = 32.06 SD = 6.22	df = 78 t = 10.65	*
Universal Helplessness	M = 26.11 SD = 5.11	M = 36.40 SD = 6.52	df = 78 t = 11.97	*
Total Helplessness	M = 49.22 SD = 8.34	M = 68.46 SD = 12.13	df = 78 t = 11.66	*

* P < .05

Table 6: ANOVA: Locus of Control

Sources of Variance	Sum of Squares	df	MS	F	Level of significance
Level	160.41	2	80.20	15.01	*
Stream	80.50	1	80.50	5.08	*
Level and Stream	78.36	2	39.14	7.33	*
Sex	.34	1	.34	0.63	
Level and Sex	7.08	2	3.54	0.66	
Stream and Sex	17.60	1	17.60	3.29	*
Level Stream and Sex	7.16	2	3.68	0.67	
Error	1218.24	228	5.34		
Total	1569.91	239			

* $p < .05$

Table 7: Student Satisfaction

Sources of Variance	Sum of Squares	df	MS	F	Level of significance
Level	1765.01	2	882.50	32.9	*
Stream	1000.42	1	1000.41	37.3	*
Level and Stream	679.61	2	339.80	12.8	*
Sex	3.75	1	3.75	0.4	
Level and Sex	58.68	2	29.33	1.1	*
Stream and Sex	68.27	1	68.37	2.5	*
Level, Stream and Sex	39.61	2	19.80	0.7	
Error	6112.2	228	26.8		
Total	9727.7	239			

* $P < .05$

Table 8: ANOVA: Perceptions of Fairness

Sources of Variance	Sum of Squares	df	MS	F	Level of significance
Level	24490.42	2	12245.21	324.8	*
Stream	14183.43	1	14183.43	376.2	*
Level and Stream	16312.82	2	8156.41	216.4	*
Sex	12.60	1	12.60	0.33	
Level and Sex	55.35	2	27.77	0.73	
Stream and Sex	92.50	1	92.50	2.45	*
Level, Stream and Sex	209.75	2	104.82	2.8	*
Error	8588.14	228	37.7		
Total	63944.94	239			

* = $P < .05$

Table 9: ANOVA: Helplessness (Self)

Sources of Variance	Sum of Squares	df	MS	F	Level of significance
Level	5789.50	2	2894.75	83.4	*
Stream	232.07	1	232.17	6.7	*
Level and Stream	688.31	2	344.15	9.9	*
Sex	58.02	1	58.02	1.7	*
Level and Sex	294.26	2	147.13	4.2	*
Stream and Sex	25.35	1	25.35	0.7	
Level, Stream and Sex	47.43	2	23.71	0.7	
Error	7901.9	228	34.7		
Total	15036.9	239			

* $P < .05$

Table 10: ANOVA: Helplessness (Others)

Sources of Variance	Sum of Squares	df	MS	F	Level of significance
Level	6287.58	2	3143.79	73.5	*
Stream	766.84	1	766.84	17.9	*
Level and Stream	486.02	2	243.01	5.7	*
Sex	148.84	1	148.84	3.5	*
Level and Sex	305.73	2	152.86	3.6	*
Stream and Sex	31.54	1	31.54	0.7	
Level, Stream and Sex	20.48	2	10.24	0.2	
Error	9755.32	228	42.8		
Total	17802.6	239			

* $p < .05$

Table 11: ANOVA: Helplessness (Total)

Sources of Variance	Sum of Squares	df	MS	F	Level of significance
Level	24052.10	2	12026.05	88.9	*
Stream	1842.60	1	1842.60	13.6	*
Level and Stream	2312.26	2	1156.07	8.5	*
Sex	392.70	1	392.70	2.9	*
Level and Sex	1193.35	2	596.67	4.4	*
Stream and Sex	113.44	1	113.43	0.98	
Level, Stream and Sex	93.38	2	47.63	0.35	
Error	308378	228			
Total	608395	239			

* $P < .05$

Table 12: ANOVA: Academic Performance

Sources of Variance	Sum of Squares	df	MS	F	Level of significance
Level	8.933	2	4.466	15.95	*
Stream	14.504	1	14.504	51.8	*
Level and Stream	1.433	2	.716	2.56	*
Sex	.004	1	.004	0.01	
Level and Sex	.433	2	.216	0.77	
Stream and Sex	.004	1	.004	0.01	
Level, Stream and Sex	.933	2	.466	1.66	*
Error	65.75	228	0.28		
Total	91.91	239			

* $P < .05$

Table 13: The Correlation for male students

	1	2	3	4	5	6	7
1 Academic Performance	1.00						
2 Locus of Control	-.19	1.00					
3 Perceptions of Fairness	-.36	.20	1.00				
4 Student Satisfaction	-.19	-.02	.60	1.00			
5 Personal Helplessness	-.05	.02	.22	.16	1.00		
6 Universal Helplessness	.00	.05	.15	.04	.87	1.00	
7 Total Helplessness	-.02	.04	.19	.10	.97	.97	1.00

Table 14: The Correlation for female students

	1	2	3	4	5	6	7
1 Academic Performance	1.00						
2 Locus of Control	-.19	1.00					
3 Perceptions of Fairness	-.47	.14	1.00				
4 Student Satisfaction	-.29	.11	.55	1.00			
5 Personal Helplessness	-.22	.27	.48	.29	1.00		
6 Universal Helplessness	-.14	.32	.35	.15	.84	1.00	
7 Total Helplessness	-.19	.31	.43	.23	.96	.96	1.00

Table 15: Correlation for Arts students

	1	2	3	4	5	6	7
1 Academic Performance	1.00						
2 Locus of Control	-.07	1.00					
3 Perceptions of Fairness	-.31	.10	1.00				
4 Student Satisfaction	-.15	-.10	.61	1.00			
5 Personal Helplessness	-.25	.05	.62	.40	1.00		
6 Universal Helplessness	-.25	.17	.54	.27	.84	1.00	
7 Total Helplessness	-.26	.11	.60	.35	.96	.96	1.00

Table 16: Correlation for Science students

	1	2	3	4	5	6	7
1 Academic Performance	1.00						
2 Locus of Control	-.17	1.00					
3 Perceptions of Fairness	-.24	.04	1.00				
4 Student Satisfaction	-.11	.04	.18	1.00			
5 Personal Helplessness	-.12	.34	.04	.09	1.00		
6 Universal Helplessness	-.03	.32	.06	.02	.88	1.00	
7 Total Helplessness	-.08	.34	.05	.05	.97	.98	1.00

Table 17: Correlation for +2 students

	1	2	3	4	5	6	7
1 Academic Performance	1.00						
2 Locus of Control	.00	1.00					
3 Perceptions of Fairness	-.44	-.13	1.00				
4 Student Satisfaction	-.37	-.16	.77	1.00			
5 Personal Helplessness	.04	.01	.04	.01	1.00		
6 Universal Helplessness	.09	.21	-.12	-.19	.82	1.00	
7 Total Helplessness	.07	.13	-.05	-.10	.95	.96	1.00

Table 18: Correlation for graduate students

	1	2	3	4	5	6	7
1 Academic Performance	1.00						
2 Locus of Control	-.24	1.00					
3 Perceptions of Fairness	-.25	.23	1.00				
4 Student Satisfaction	.01	.08	.14	1.00			
5 Personal Helplessness	.05	.02	.09	-.00	1.00		
6 Universal Helplessness	.29	-.14	.10	-.18	.58	1.00	
7 Total Helplessness	.21	-.08	.10	-.11	.87	.91	1.00

Table 19: Correlation for Postgraduate students

	1	2	3	4	5	6	7
1 Academic Performance	1.00						
2 Locus of Control	-.12	1.00					
3 Perceptions of Fairness	-.07	-.05	1.00				
4 Student Satisfaction	-.40	-.28	-.20	1.00			
5 Personal Helplessness	.18	-.25	.00	.03	1.00		
6 Universal Helplessness	.13	-.23	.00	.00	.81	1.00	
7 Total Helplessness	.16	-.25	.01	.02	.95	.95	1.00

CHAPTER V

DISCUSSION

The present study sets out with the objective of finding the factors of learning effectiveness of three different levels of education, two course streams and sex in terms of variables like locus of control, academic performance, perceptions of fairness, student satisfaction, personal, universal and total helplessness. This section discusses the findings of the results. The discussion has been organised around the major hypotheses tested for the sake of clarity.

Significance of mean differences by Sex

To find out the significance of level of these mean differences 't' have been used. The 't' table (1) indicates that male and female means do not differ significantly at .05 level on academic performance, locus of control, perceptions of fairness, student satisfaction, universal and total helplessness. However, the means on personal helplessness for male and female differ significantly at .05 level.

ANOVA tables (6, 7, 8, 9) show that there is no significant effect of sex on academic performance, locus of control, student satisfaction and perceptions of fairness at .05 level. However, the tables (10, 11, 12) show that

there is significant interactive effect of sex on personal, universal and total helplessness at .05 level. Equal exposure to environment, equal access to opportunities and equal learning experiences may be responsible for this kind of result. Mishra (1982) in a study of 40 tribal boys and girls found that there is no significant sex difference in locus of control. Heirs and Heckle (1977) showed significant sex differences for girls showing externality. Vesugi and Vinacke (1963) found that females make equal allocations of rewards regardless of relative work whereas males make equitable allocations under different conditions. The reverse may be true (Kidder et. al. 1977). Women teachers are more satisfied with their jobs than their counterparts (Bernad and Kulandivel 1976). Rish(1982) found that sex has effect on helplessness and levels of education.

Significance of Mean differences by levels

Table 't' table (2) shows that +2 and graduate students means differ significantly at .05 level on locus of control, perceptions of fairness, student satisfaction, personal and total helplessness. However, the mean differences between +2 and graduate students on academic performance and universal helplessness are not significant at .05 level.

The 't' table (3) indicates that +2 and postgraduate students means differ significantly at .05 level on locus

of control, perceptions of fairness, student satisfaction, personal, universal and total helplessness. However, the mean differences between +2 and postgraduate students on academic performance do not differ significantly at .05 level.

The 't' table (4) shows that graduate and postgraduate students means differ significantly at .05 level on academic performance, locus of control, perceptions of fairness, student satisfaction, personal, universal and total helplessness.

ANOVA tables (6, 7, 8, 9, 10, 11, 12) show that there are significant effects of levels on academic performance, locus of control, perceptions of fairness, student satisfaction, personal, universal and total helplessness.

Differences in age, cognitive ability, educational experiences and interaction with the environment are likely to be responsible for such differences. Rao (1970) observed that job satisfaction is dependent on levels of education have effect on helplessness syndrome.

Significance of mean differences by stream of education

The 't' table (5) shows that mean differences between arts and science students differ significantly at .05 level on locus of control, perceptions of fairness student satisfaction, universal and total helplessness. However, mean differences between arts and science students on academic

performance and personal helplessness do not differ significantly at .05 level.

ANOVA tables (6, 7, 8, 9, 10, 11, 12) show that main effects of stream are significant at .05 level on academic performance, locus of control, perceptions of fairness, student satisfaction, personal, universal and total helplessness.

The differences between arts and science students are conceived to be the result of interactions among number of factors, namely the external learning conditions, personality characteristics of individual learner, institutionalized norms, values and cultures. Moreover, the use of immediate feedback in science courses, better job prospects, uniformity of syllabus and social background are likely to be responsible for such differences.

Gakhar (1986) administered a battery of tests to 150 science and arts students. He found that science students scored higher than the arts students on achievement test.

ANOVA tables (6, 7, 8, 9, 10, 11, 12) show that interaction effect of levels and streams are significant at .05 level on academic performance, locus of control, perceptions of fairness, student satisfaction, personal, universal and total helplessness.

Tables (9, 10, 11, 12) indicate that interaction effects of sex and level are significant at .05 level

on student satisfaction, personal, universal and total helplessness. However, table (6, 7, 8) show that interaction effects of levels and sex are not significant at .05 level on academic performance, locus of control and perceptions of fairness.

ANOVA tables (7,8,9) indicate that interaction effects of streams and sex are significant at .05 level on locus of control, perceptions of fairness and student satisfaction. However, tables (6, 10, 11, 12) show that interaction effects of streams and sex are not significant at .05 level on academic performance, personal, universal and total helplessness.

ANOVA tables (6, 8) indicate that interaction effects of levels, streams and sex are significant at .05 level on academic performance and perceptions of fairness. However, tables (7, 9, 10, 11, 12) show that interaction effects of levels, streams and sex are not significant at .05 level on locus of control, student satisfaction, personal, universal and total helplessness.

Correlations for males

The previous results show that academic performance is negatively correlated with perceptions of fairness and students' satisfaction. Since the scoring is on external locus of control that means internal locus of control is

positively associated with academic performance. So it can be inferred that high internal locus of control may lead to high academic performance. Similarly academic performance is positively correlated with perceptions of fairness and students' satisfaction. It can be said that perceptions of fairness and students' satisfaction are the contributing factors for the academic achievement. This may be due to the feedback result from personal satisfaction which promotes strong motivation and encouragement to achieve more.

So far as the relationships among personal variables for males is concerned it has been found that locus of control is significantly related with perceptions of fairness, which in turn is also significantly related with student satisfaction and helplessness. Therefore, it can be concluded that for boys all the variables like locus of control, perceptions of fairness, student satisfaction and helplessness are intercorrelated together positively. This may be due to the involvement of common factor of motivation.

Correlations for females

It was found that academic performance negatively correlated with locus of control, perceptions of fairness, students' satisfaction, personal, universal and total helplessness. It shows that males also have deep faith in their hard work or labour for academic achievement,

since locus of control have taken in external direction.

Locus of control is positively correlated with personal, universal and total helplessness. This means that internal locus of control, personal, universal and total helplessness are negatively related. This may be due to the fact that the persons who are helpless usually attribute external factors for any type of cause (Seligman). However, locus of control, perceptions of fairness and students' satisfaction are not correlated. That means the females who believe in hard work, labour for any success, any type of reinforcement is meaningless for them.

Perceptions of fairness are positively correlated with students' satisfaction and both are positively correlated with universal and total helplessness. This unusual result may be due to the fact of passivity and unresponsiveness of external agents upon whom females usually show high dependency. Total helplessness is positively correlated with personal and universal helplessness. It may be due to the factor of generalization of personal feelings.

Correlations for arts students

It was observed that academic performance is negatively correlated with perceptions of fairness, personal, universal and total helplessness. This may be due to the fact that achievement oriented students are not prone to

unequal distribution of justice and are immune to helplessness syndrome. However, academic performance is not significantly correlated with locus of control and students with internal locus of control have faith in their own perseverance and personal needs.

It was found that locus of control is not significantly correlated with perceptions of fairness, students' satisfaction, personal, universal and total helplessness. This may be due to the arts students, who have no faith on perseverance and are low on perceived justice and low level of self-confidence.

Perceptions of fairness is positively correlated with students' satisfaction. This may be due to fulfilment of academic needs of arts students. Personal helplessness correlated positively with universal and total helplessness. This may be that arts students' personal feelings influence in a parallel way the perceptions of outside world. Also total helplessness included personal helplessness score.

Correlations for science

It was found that academic performance is negatively correlated with perceptions of fairness. This may be due to students high achievement motivation. However, academic performance is not significantly correlated with locus of control and students satisfaction. It may be explained

by their faith on hard work and fulfilment of academic needs.

Locus of control is positively correlated to personal, universal and total helplessness. This means that internal locus of control (scoring on external dimension) is negatively correlated with helplessness variables. This may be said that the students with internal locus of control are more confident and less prone to helplessness. Perceptions of fairness is positively correlated with students' satisfaction. This may be due to satisfaction of students' needs and motives. However, perceptions of fairness is not significantly correlated with personal, universal and total helplessness. This can be said that science students' perception of fairness is independent of helplessness factors.

Students' satisfaction is not significantly correlated with personal, universal and total helplessness. This may be due to high self-confidence and ability to control the outside forces among the students.

Personal helplessness is positively correlated with universal and total helplessness. This can be explained in terms of generalization of personal incapacity and unresponsiveness.

Correlations for +2 students

It was observed that academic performance is negatively correlated with perceptions of fairness and students'

satisfaction. This can be said that academic performance is not dependent on perceived justice and need satisfaction of the +2 students. It may be possible that +2 students who are just entering to a new academic career are not well acquainted with the new environment and have less satisfaction. They are also not aware of oquity distribution and do not have capacity to judge differences between inputs and outputs. However, academic performance is not positively correlated with locus of control, personal, universal and total helplessness. This may be said that internal locus of control is positively related and helplessness is negatively related to academic performance. Since locus of control scores have been scored internal direction, this result easily can be attributed to the belief own labour and influence of depression effects coming out of helplessness.

Locus of control is positively correlated with universal helplessness, which indicates the negative relationship of internal locus of control with helplessness. This may be due to the fact that +2 students do not have belief in own work do not attribute internal factors for any consequence.

Locus of control is not correlated with perceptions of fairness, students' satisfaction, personal and total helplessness.

It was observed that perceptions of fairness is positively correlated with students' satisfaction.

This can be said that perceived justice and satisfaction of needs among students are interrelated.

However, personal, universal and total helplessness are not correlated with perceptions of fairness. This can be said that perceptions of fairness is independent of personal, universal and total helplessness.

Students' satisfaction is negatively correlated with universal helplessness. This can be said that satisfaction of students' needs is independent of external passivity and unresponsiveness.

Personal helplessness is positively correlated with universal and total helplessness. This may be said that personal helplessness is reflected in universal helplessness.

Correlations for graduate students

Academic performance is positively correlated with universal and total helplessness. This can be said that academic performance is negatively correlated with locus of control and perceptions of fairness. This may be due to achievement motivation and stimulating environment of students.

However, academic performance is not correlated with students' satisfaction and personal helplessness. Locus of control is positively correlated with perceptions of

fairness. Similarly locus of control is not correlated with students' satisfaction, personal, universal and total helplessness. Perceptions of fairness is not correlated with students' satisfaction, personal, universal and total helplessness. The results reveal that perceived justice, students' satisfaction and helplessness are not interrelated. This can be said that students' perceived justice does not depend on external and personal factors.

Students' satisfaction is negatively correlated with universal helplessness. This may be due to the fact that graduate students are lacking the ability to generalize their personal distress.

However, personal and total helplessness are not correlated with students' satisfaction. Like +2 students personal and universal helplessness are positively correlated.

Correlations for post graduate students

It was found that academic performance is not correlated with locus of control, perceptions of fairness, students' satisfaction, universal and total helplessness. This may be due to the influence of other factors like socio-economic status, classroom environment and study habits of students. Locus of control is negatively correlated with students' satisfaction, personal, universal

and total helplessness. However, perceptions of fairness is not correlated with locus of control. This may be due to the fact that perceived equality and internal locus of control are not parallel to each other.

Perceptions of fairness is negatively correlated with students' satisfaction. Perceived justice is dependent on societal norms and proportional allocation of output according to input. Whereas internal locus of control depends on hard work and perseverance.

Perceptions of fairness is not significant correlated with personal, universal and total helplessness. Helplessness of postgraduate students may be due to lack of control over their surroundings and personal distress. But perceptions of fairness is likely to be independent of helplessness. It was shown that locus of control is not significantly correlated with personal, universal and total helplessness. This may be due to control over the external situation to achieve academic success among postgraduate students. Personal helplessness is positively correlated with universal and total helplessness. This may be due to the perceptions of postgraduate students that they perceive the things as they are.

CHAPTER VI

SUMMARY

The present study was undertaken to identify the factors of learning effectiveness by testing the effects of sex, levels and streams of education on academic performance, locus of control, perceptions of fairness, student satisfaction, personal, universal and total helplessness.

The main objectives were:

(1) To find out the effects of levels of education (+2, undergraduate and post-graduate) on locus of control, perceptions of fairness, academic performance, personal, universal and total helplessness.

(2) To find out the effects of streams of education (arts and science) on locus of control, perceptions of fairness, student satisfaction, academic performance, personal, universal and total helplessness.

(3) To find out the effects of sex (male and female) on locus of control, students' satisfaction, perceptions of fairness, academic performance, personal, universal and total helplessness.

Some testable hypotheses laid down for the present study were:

(1) Male and female scores may differ significantly on locus of control, students' satisfaction, perceptions of fairness, academic performance, personal, universal and

total helplessness.

(2) The scores of arts and science students may differ significantly on locus of control, students' satisfaction, perceptions of fairness, academic performance, personal, universal and total helplessness.

(3) The scores of +2, undergraduate and postgraduate students may differ significantly on locus of control, students' satisfaction, perceptions of fairness, personal, universal and total helplessness.

Purposive sampling method was used to select students from +2, undergraduate and postgraduate level. +2 subjects were from central schools, undergraduate and postgraduate students were from two central universities in a cosmopolitan city. A total of 240 subjects were taken for the study. This study includes 80 subjects (20 males and 20 females from arts and 20 males and females from science) from each level of education.

Rotter's I&E scale, Deepak's students' satisfaction scale, Kanungo's helplessness scale, Khan's perceptions of fairness scale were used. Data on academic performance of last examination were also taken.

It was observed that:

(1) Males and females students do not differ on academic performance, locus of control, perceptions of

fiarness, students' satisfaction, universal and total helplessness.

(2) Arts and science students differ on locus of control, perceptions of fairness, students' satisfaction, universal total helplessness.

(3) The graduate and +2 students differ on locus of control, perceptions of fairness, students' satisfaction and personal helplessness.

(4) Postgraduate and +2 students differ on locus of control, perceptions of fairness, students' satisfaction, personal, universal and total helplessness.

(5) The graduate and postgraduate students differ on academic performance, locus of control, perceptions of fairness, students' satisfaction, personal, universal and total helplessness.

(6) Sex is found important in the nature of relationship among academic performance, locus of control, perceptions of fairness, students' satisfaction, personal, universal and total helplessness.

(7) Streams also influence the relationship among academic performance, locus of control, perceptions of fairness, students' satisfaction, personal, universal and total helplessness.

(8) Levels of education have impact in the relationship among academic performance, locus of control, perceptions of fairness, students' satisfaction, personal,

universal and total helplessness.

CONCLUSION:

It was observed that there are no significant sex differences on locus of control, perceptions of fairness, students' satisfaction, universal and total helplessness. This may be due to equal exposure to opportunity and experience. However, there are significant sex differences on personal helplessness. It was shown that there are stream differences on locus of control, perceptions of fairness, students' satisfaction, universal and total helplessness. However, there are no significant stream difference on academic performance and personal helplessness. These may be explained in terms of equal access to opportunity, learning experiences and immune to helplessness. From the main tables it was shown that science students score high on academic performance, are high on internal locus of control, and low in helplessness (high self-confidence) than arts students.

It was also shown from the correlational analysis that academic performance and locus of control are positively related. Science students are more internal, high in academic performance and high in self-confidence. So it can be inferred that stream has impact on factors of learning effectiveness. It was observed that there are differences of levels on locus of control , perceptions of fairness, students' satisfaction, academic performance, personal, universal and total helplessness. However,

there are few exceptions. Academic performance, locus of control, perceptions of fairness, students' satisfaction, personal, universal and total helplessness are related in respect of sex, streams and levels of education. However, streams and levels are playing dominant role in affecting factors of learning than sex. It can be concluded that psycho-social variables, locus of control, students' satisfaction, perceptions of fairness and academic performance are likely to affect factors of learning effectiveness.

IMPLICATIONS:

The findings showed that academic performance is related to locus of control, perceptions of fairness, students' satisfaction, personal, universal and total helplessness. These psychological variables also vary from one stream to another and level to level. These positive relationship of variables with academic performance can inculcate in the minds of educationists and policy makers to give importance while trying to make the national educational system more productive and effective.

The study shows, the female and male are equally potential in academic achievement. This can help in eliminating discriminating attitude of society toward sex role.

LIMITATIONS:

There are three central universities, many institu-

tions of higher education, and nearly 450 schools in Delhi. The present study was limited to (due to time constraints) two central universities and one central school. Besides these limitations, there are three streams like arts, science and commerce. But arts and science streams were selected for study. Moreover, there is no consensus on factors of learning effectiveness.

This study was limited to five psycho-social and educational variables (academic performance, locus of control, perceptions of fairness, students' satisfaction, and helplessness).

SUGGESTIONS:

Enumerated below are some of the suggestions for further study in the field of learning effectiveness.

Other universities could be incorporated in the study to make the sample more representative. Urban and rural sample could be taken to compare the learning effectiveness of urban and rural students. Commerce students could be taken as another stream of education. Other Public schools could be incorporated in the study.

In order to make the learning productive the educationists and planners should promote internal locus of control through inculcating hard work and perseverance. The perceptions of fairness could be imbibed by inducing

objectivity and non-discriminating attitude of the teachers. Students' satisfaction could be promoted through personal rapport with students to channel their motivation in a proper way. Moreover, helplessness syndrome could be balanced through intervention and counselling.

The above strategies could be followed by educationists, psychologists, and policy makers to make the learning effective.

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INTRODUCTION

Name: Class:

University:

(Put a tick mark like " " which is applicable to you.)

Sex: 1. Male _____

2. Female _____

Class you are studying in:

The division (i.e. class or grade) you have passed in your last examination (i.e. second year) annual examination is within the range of:

1. Third, or B- or C+ (i.e. within 30% to 40% of the marks) _____
2. Second, or B+ or A- (i.e. within 45% to 59%, of the marks) _____
3. First, or A or A+ (i.e. within 60% and above) _____

PERCEPTION OF FAIRNESS SCALE

Following are some statements designed to find out how students think about investments and rewards from their education. There are no right or wrong answers in it, so look at each statement and indicate that 'to what degree' these statements are true themselves. Indicate your answers by a tick mark (✓) in only one of the five alternatives of the given percentages as answers. Remember, each sub-statement is to be read in relation to the statement listed at the beginning, just before the list of the 5 sub-statements namely, a, b, c, d, e. Respond to each statement.

STATEMENTS	Possible answers				
	It is true				
	80% to 100%	60% to 80%	40% to 60%	20% to 40%	20% or below
	5	4	3	2	1
1. Compared to other students in the class and the effort making :					
(a) my grades are fair					
(b) my job chances are fair					
(c) appreciation of my parents/teachers is fair					
(d) my social status is fair					
(e) my knowledge in my subjects is fair					
2. Compared to other students in the class and the time invested (or spent) by me (in education):					
(a) my knowledge in my subjects is fair					
(b) my social status is fair					
(c) appreciation of my parents/teachers is fair					
(d) my job chances are fair					
(e) my grades are fair					
3. Compared to other students in the class and my interest in education:					
(a) appreciation of my parents/teachers is fair					
(b) my social status is fair					
(c) my grades are fair					
(d) my knowledge in my subjects is fair					
(e) my job chances are fair					

contd...

	5	4	3	2	1
4. Compared to other students in the class and my parental support (for education)					
(a) my grades are fair					
(b) my job chances are fair					
(c) my social status is fair					
(d) my knowledge of my subjects is fair					
(e) appreciation of my parents/teachers is fair					
5. Compared to other students in the class and my economic cost in education:					
(a) my job chances are fair					
(b) my grades are fair					
(c) my social status is fair					
(d) my knowledge in my subjects is fair					
(e) appreciation of my parents/teachers is fair					
6. Compared to other students in the class, and my ability to level					
(a) my social status is fair					
(b) my knowledge in my subjects is fair					
(c) my job chances are fair					
(d) appreciation of my parents/teachers is fair					
(e) my grades are fair					

STUDENTS SATISFACTION

Following are some of the factors which are found important in motivation for college education. Kindly indicate your ratings of each of these on dimensions of satisfaction by putting tick mark (✓). It may be helpful to you if you respond by keeping in mind some critical events of your college life; e.g. selective students at the college (you are studying in).

STATEMENTS	Possible answers				
	80% to 100%	60% to 80%	40% to 60%	20% to 40%	20% or below
	5	4	3	2	1
1. Confident of themselves in solving problems					
2. Feeling of adjustment in college					
3. Opportunity for independent thinking, planning and doing their work in college					
4. (i) Learning skills and academic knowledge					
(ii) Social ways of making satisfying interpersonal relationships					
5. Success in terms of your obtained academic results					
6. Successful completion of your targets in routine academic work					
7. Living upto expectations of teachers and poors					
8. (a) The decision to join and continue in college					
(b) Social influence					

THE I & E SOLACE

This is not a test. It is an opinion scale which has been designed to find out how people think about certain things. Because it is an opinion scale there are no right or wrong answers.

Pairs of statements describing two different opinions are listed. Look at each pair of statement and indicate to which particular statement in each pair either (a) or (b) is indicative of your opinion or nearly indicative of your opinion. Please make a check mark (✓) in the right of that statement in each pair.

*1. (a) Children get into trouble because their parents punish them too much.

(b) The trouble with most children now a days is that their parents are too easy with them

2. (a) Many of the unhappy things in people's lives are partly due to bad luck.

(b) People's misfortune result from the mistakes the make.

3. (a) One of the major reasons why we have wars is because people don't take enough interest in politics.

(b) There will always be wars, no matter how hard people try to prevent them.

4. (a) In the long run people get the respect they deserve in this world.

(b) Unfortunately, an Individual's worth often passes unrecognised no matter how hard he tries.

5. (a) The idea that teachers are unfair to students is non-sense.

(b) Most students don't realise the extent to which their grades are influenced by accidental happenings.

*6. (a) Without the right breaks one cannot be an effective leader.

(b) Capable people who fail to become leaders have not taken advantage of their opportunitised.

7. (a) No matter how hard you try some people just don't like you.

(b) People who can't get others to like them don't understand how to get along with others.

*8. (a) Heredity plays the major role in determining one's personality.

(b) It is one's experiences in life which determine what they are like.

9. - (a) I have often found that what is going to happen will happen.

(b) Trusting of facts has never turned out as well for me as making a decision to take a definite course of action.

10.- (a) In the case of the well prepared student, there is rarely, if ever such a thing as, an unfair test.

(b) Many times exam. questions tend to be so unrelated to course work that studying is really useless.

11. (a) Obtaining a success is a matter of hard work, luck has little or nothing to do with it.

(b) Getting a good job depends mainly on being in the right place at the right time.

12. (a) The average citizen can have an influence in government decisions.

- (b) The world is run by the few people in power, and there is not much the little get can do about it.

13. (a) When I make plans, I am almost certain that I can make them work.

- (b) It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.

*14. (a) There are certain people who are just no good.

(b) There is some good in everybody.

15. (a) In many cases, getting what I want has little or nothing to do with luck.

- (b) Many times we might just as well decide to do by filipping a coin.

16.- (a) Who gets to be the boss often depends on who was lucky enough to be in the right place first.

(b) Getting people to do the right thing depends upon ability. Luck has little or nothing to do with it.

17. (a) As far as world affairs are concerned, most of us are the victims of forces we can neither understand, nor control.

- (b) By taking an active part in political and social affairs the people can control world events.

18.- (a) Most people don't realize the extent to which their lives are controlled by accidental happenings.

(b) There really is no such thing as "luck".

19. (a) One should always be willing to admit mistakes.

- (b) It is usually best to cover up one's mistakes.

*20. (a) It is hard to know whether or not a person really likes you.

(b) How many friends you have depends upon how nice a person you are.

21.- (a) In the long run the bad things that happen to us are balanced by the good ones.

(b) Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.

22. (a) With enough efforts we can wipe out political corruption.

- (b) It is difficult for people to have much control over the things politicians do in office.

23.- (a) Sometimes I can't understand how teachers arrive at the grades they give.

(b) There is a direct connection between how hard I study and the grades I get.

24. (a) A good leader expects people to decide for themselves what they should do.

- (b) A good leader makes it clear to everybody what their jobs are.

25.- (a) Many times I feel that I have little influence over the things that happen to me.

(b) It is impossible for me to believe that chance or luck plays an important role in my life.

26.- (a) People are lonely because they don't try to be friendly.

(b) There's not much use in trying too hard to please people, if they like you, they like you.

*27. (a) There is too much emphasis on athletics in high school.

(b) Team sports are an excellent way to build character.

28.- (a) What happens to me is my own doing.

(b) Sometimes I feel that I don't have enough control over the direction my life is taking.

29. (a) Most of the time I can't understand why politicians behave the way they do.

- (b) In the long run the people are responsible for bad government on a national as well as on a local level.

Note: - = Externglity

* = Fillers

LEARNED HELPLESSNESS QUESTIONNAIRE

Each of the following items has two parts. For the first part (a), answer according to how you, yourself feel about the item. For the second part (b) give an honest appraisal of how you think other students of your university feel. A scale of 0-5 is provided, where 5 indicates a feeling of being totally helpless, and 0 indicates totally in control or confident. Please circle the number that best approximates (a) how you feel, and then (b) how other students of your university level.

	Totally in control/confident					Totally helpless
1. (a) Generally speaking as a student of this university I feel	0	1	2	3	4	5
(b) I think that other students at this university feel	0	1	2	3	4	5
2. (a) When I deal with my professors to resolve my problem at this university I feel	0	1	2	3	4	5
(b) In dealing with their professors to resolve problems, other students at this university feel	0	1	2	3	4	5
3. (a) Some students feel they can pretty much control or predict the marks they get, others feel that no matter what they do their marks are beyond their control. How do you feel about the marks you get in your course?	0	1	2	3	4	5

(b)	How do you think other students at this university feel about the marks they get in their courses?	0	1	2	3	4	5
4. (a)	In overcoming troubles I have within the university I feel	0	1	2	3	4	5
(b)	In overcoming their problems I think other students at this university feel	0	1	2	3	4	5
5. (a)	While dealing with the university administration to resolve to my problems I feel	0	1	2	3	4	5
(b)	I think that in dealing with the administration to resolve their problems, other students at the university levell	0	1	2	3	4	5
6. (a)	In trying to make new friends at this university I feel	0	1	2	3	4	5
(b)	In trying to make new friends at this university other students feel	0	1	2	3	4	5
7. (a)	While dealing with fellow students to resolve our mutual problems, I feel	0	1	2	3	4	5
(b)	While dealing with fellow students to resolve our mutual problems, other students feel	0	1	2	3	4	5
8. (a)	In trying to meet the academic standards that this university sets for students, I feel	0	1	2	3	4	5

(b) In trying to meet the academic standards that this university sets, other students feel	0	1	2	3	4	5
9. (a) With regard to the grades I received on exams I feel	0	1	2	3	4	5
(b) With regard to the grades they receive on exams, other students at this university feel	0	1	2	3	4	5
10. (a) In a situation where I have a problem with the administration or a professor at this university I feel	0	1	2	3	4	5
(b) In similar situations, when other students at this university face problems with the administration or professors, they feel	0	1	2	3	4	5
11. (a) When faced with disagreements with a professor in a class, I feel	0	1	2	3	4	5
(b) When other students of this university disagree with a professor in a class, they feel	0	1	2	3	4	5
12. (a) With respect to my ultimate success at this university, I feel	0	1	2	3	4	5
(b) With respect to their ultimate success at this university, other students here feel	0	1	2	3	4	5