CHAPTER 2
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An understanding into the determinants of students' satisfaction and performance remained important if the educational system was to be made more meaningful and effective for its clientele and its efficiency relatively upgraded. The existing literature utilized two main theoretical perspectives, (a) the perspective focussing on content and context factors and (b) a perspective attempting a fit between person and environment. Research appeared to be wanting of studies focussing on student satisfaction in general, and particularly of those incorporating of characteristics of the education itself and the characteristics of the students. This Chapter included a critical review of researches within these two perspectives and a proposal for integrated perspective to be empirically tested in this research.

2.1 CONTENT-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 jobs and analyzed the data using content analysis technique.

They observed an important distinction between factors of content and context in that 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 et al argued that the former set of factors namely need for achievement; recognition; work itself; responsibility; advancement; and psychological growth contributed to satisfaction, whereas the latter set of factors working conditions; like salary; interpersonal relationships with supervisors, subordinates and employees; technical supervision; company policies and practices; job security, status and personal life contributed more to dissatisfaction than to satisfaction.

The pre-potency and uni-directionality of the factors in eliciting feelings of satisfaction and dissatisfaction led Herzberg and his associates to postu-
late that satisfaction and dissatisfaction were two separate, distinct and independent feelings. Content factors if operative should contribute more to positive feelings: satisfaction of content factors will motivate an individual to perform better. Context factors were, however, necessary preconditions for effective content factors.

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 seeker did not behave the same as the context seeker, 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 et al had been widely used. Researches could be reviewed broadly under three categories.

1. Studies supportive of the theory.
2. Studies partially supportive of theory.
3. Studies non-supportive of theory.
2.1.1 STUDIES SUPPORTIVE OF THE THEORY

Gibson (1961) tested the generality of the two-factor theory over 1700 employees. Results of male employees confirmed the Herzberg theory, although only four factors were reported as satisfiers. Fantz (1962) studied rehabilitation patients in three hospitals. Employees described good events in terms of content-factors, while bad events in terms of context factors.

Haalin and Nemo (1962) studied 80 schizophrenics both unimproved and former patients and used 50 students as a control group. Results showed that positive mental health depended on the development of orientation toward self-actualization, achievement, responsibility. Improved schizophrenics obtained higher content and lower context scores. College students obtained higher content and lower context scores than either of the two schizoid groups.

Schwartz, Jenusatie and Stark (1963) studied 112 low level supervisors using critical incident technique. Results revealed that job content and context factors were found to be associated with good and bad experiences. Pleasant experiences were related to the conditions of job itself and unpleasant experiences were related to factors in work environment. Herzberg (1964) tested
the two-factor theory in other cultures, on a sample of 139 lower level supervisors representing a wide range of industries in Finland. Results showed that almost 90% of positive feelings at work were brought about by one of the content factors. While only less than 10% of negative attitudes involved the content factors, 80% of the events described as dissatisfying related to context factors as opposed to 15% of events describing job satisfaction. Similar results were obtained by Friedlander and Walton (1964).

Friedlander (1964) tested the two factor theory among low-medium and high status groups and between white-collar and blue-collar occupational groups. 1408 employees were used as subjects. Content factors were found to be more important to white-collar employees, while the context factors were more important to blue-collar employees. Haywood and Dobbs (1964) measured the attitudes of 100 eleventh and twelfth grade students in public high school toward tension inducing situations. They found that there was a significant tendency for subjects who were high in motivation orientation to be high in approach orientation. Those high in hygiene orientation were also high in avoidance motivation.
Halpern (1966) investigated the contribution of content and context factors to overall job satisfaction. Ratings of 4 content and 4 context factors and overall job satisfaction were obtained over 93 male subjects. The content factors contributed more to overall satisfaction than did the context factors. The average correlation between content factors and overall satisfaction was significantly higher than the average correlation between the context factors and overall satisfaction. Bloom and Barry (1967) found that context factors were more important to black employees, consistent with Herzberg's observation that context needs must be met before content becomes operative.

Moiseenborg and Gruenfeld (1968) investigated the relationship between content-context variables to job involvement over 96 supervisors. The content factors correlated with job involvement. The total content satisfaction scores accounted for considerably more variance in overall job satisfaction than did context variables.

Davis and Allen (1970) analyzed the length of time that high and low feelings persisted for a group of 700 employees according to each of Herzberg's 16
factors. Results indicated that for responses as a whole there was a definite tendency for high feelings to persist for a longer period of time than the low feelings. Advancement and recognition provided higher feelings for longer periods. Lack of advancement and company policy tended to provide low feelings.

Ahmedabad Textile Industry's Research Association (1970) in India investigated the job attitudes of supervisors to determine which characteristics of supervisor's job provide satisfaction/dissatisfaction, and to examine the effects of those attitudes upon the supervisor's performance, turnover and interpersonal relationships. The instrument used was the semi-structured interview of Herzberg. 150 supervisors from 20 different mills in Ahmedabad were used as subjects. Results indicated that factors of achievement, responsibility and advancement contributed to the feelings of satisfaction. Dissatisfiers consisted of interpersonal relations with superior, technical supervision, company policy and administration.

Deyal and Saiyadin (1970) using the methodology of the original study, interviewed 40 Indian male students, 20 each from technical and non-technical background. Results indicated that job content factors
were more often cited as satisfying situations, and conversely, job context factors were often mentioned as 
dissatisfying situations.

Mukherjee (1970) tested 100 semi-skilled workers 
and showed that content factors were most important 
whereas context factors were least important in deter-
mining job satisfaction. Maslow (1972) studied causes of 
work satisfaction and dissatisfaction using 182 indivi-
duals in Kibbutz as subjects. Results indicated that 
four of the five factors which were seen to result in 
more satisfaction than dissatisfaction were work itself, 
achievement, interpersonal relationships and responsibili-
ity, while one factor resulting in more dissatisfaction than satisfaction was the working conditions.

Basu and Pestonjoe (1972) examined 50 senior executives 
from public sector. The obtained results indicated 
that content factors contributed more to satisfaction.

French, Metersky and Thaler (1973) tested the 
validity of the two factor theory by using sample of 
25 male engineers and 20 male system analysts. Re-
sults indicated that achievement, work itself were 
identified as content factors while company policy 
and administration were identified as context factors.

Karp and Nickson (1973) tested 50 black working poor 
from department of commerce and observed that subjects
perceived content factors as a source of satisfaction
and context as a source of dissatisfaction.

Locke (1973) studied all employees in solid waste
management. Results indicated that white collar
employees were more satisfied with job than blue collar.
White collar employees were more likely to derive satis-
faction from content factors, whereas blue collar em-
ployees from context factors. Smith, Smith and Rollo
(1974) extended the convergent and divergent validity
of two factor theory to compare factor structure for 107
black, 217 white employees and 110 bank employees. Re-
sults indicated that bank employees had the highest job
satisfaction followed in order by civil service white
and black employees. Gozzo (1974) tested the validity
of two-factor theory on 100 process workers, 40 trades-
man and 23 white collar and technical workers. Results
revealed that job content factors accounted for satis-
faction above a hedonic neutral point, while job con-
text variables accounted for dissatisfaction below the
neutral point.

Dyer and Parker (1975) tested the content-context
dichotomy in a survey of randomly selected 200 members
of American Psychological Association. The results re-
vealed that respondents defined intrinsic outcomes as
those deriving from the job itself and the extrinsic
outcomes as those derived from the context of the job. Herzberg (1976) demonstrated that feelings of satisfaction and dissatisfaction were two separate and parallel continua, rather than opposite ends of same continuum. Gordon (1976) determined motivational value of various aspects of learning environment using 200 trainees. Responses showed that trainees recalled more pleasant experiences than negative ones for all major characteristics of training programmes. Achievement and work itself were identified as content factors. Company policy and administration, interpersonal relationships and working conditions were identified as context factors. Whitehill (1976) studied 173 production workers, and indicated that content factors contributed to satisfaction, whereas context factors were often cited as reasons for dissatisfaction. Bayer (1976) argued that Herzberg's two-factor theory was applicable to study students' satisfaction. To him satisfaction was a function of correspondence between reinforcement system of work environment (context factors) and individual needs (content factors). Results indicated that non-drop outs were more satisfied followed by non-academic drop outs and academic drop outs, non-drop outs, differed from drop outs on recognition and quality of education. The students were, however, less
satisfied with academic offerings, requirement of university, faculty and staff competence. The context factors contributed more to dissatisfaction.

Hosen (1977) investigated whether the non-monetary aspects of job were the same for unpaid workers, as for paid workers, using 135 kibbutz members and 187 industrial employees. Results indicated that pay did not affect the responses and the order of satisfaction was similar in the two groups. Satisfaction with the work itself and with supervision was followed by satisfaction with promotion and co-workers. Fetz (1977) showed that favourable outcomes tend to be attributed to the self and unfavourable ones to the environment. The self was seen as a source of job satisfaction and the environment as the source of job dissatisfaction. Gardner (1977) studied 70 London bus drivers and 26 conductors. Aggregate and individual analysis confirmed that workers were more concerned about context factors than content factors. But workers showed more satisfaction than dissatisfaction with content factors, and more dissatisfaction than satisfaction with context factors.

Harien, Kerr and Kerr (1977) administered a job satisfaction questionnaire on 274 persons, 109 high
schools, 26 managers and supervisory personnel (all males) and 32 clerical workers (all females). Results indicated that content factors were listed ahead of context factors and this tendency was more pronounced for respondents with greater educational and vocational experiences. Stake (1978) reported sex differences in work values on the basis of Herzberg's content-context dichotomy over 54 males and 54 female college students. Results indicated that in comparison to males, females expressed greater expectations for greater intrinsic work enjoyment and fewer for future responsibilities.

Holdaway (1978) conducted a study to ascertain the relationship between overall and facet satisfaction over 20,000 employed K-12 teachers. Results indicated that for both the free responses and scaled response questions the content factors were most closely related with overall satisfaction. Correlation analysis showed that overall satisfaction was most highly related to satisfaction with achievement career-orientation, recognition and intellectual stimulation. Administration and policy were the major source of dissatisfaction. The relationship between overall satisfaction with teaching and personal variables indicated that 69% of elementary teachers were satisfied as compared with percentage of 78 and 79 for junior and senior high school teachers respectively.

McGhee and Tullar (1979) reported that worker's responses
were defensive reactions to questions about job satisfaction. The results were in line with Herzberg's content-context theory.

The above discussion indicated that both content-context factors were important in predicting satisfaction, and to this extent theoretical framework of Herzberg et al should be useful in the study of satisfaction in settings other than industry.

2.1.2 STUDIES ONLY PARTIALLY SUPPORTIVE OF CONTENT AND CONTEXT FRAMEWORK

Friedlander (1963) attempted to identify the various categories of workers to whom specific features of the job environment were of great importance. Results in part substantiated the two-factor theory in that three factors emerged as source of satisfaction. Two factors corresponded in part to Herzberg content-context factors, while the third factor seemed to draw from both content and context.

Centers and Bugental (1966) investigated the strength of content and context factors over a sample of 692 employees of different occupational groups. Results showed that at the higher occupational levels content factors were more valued. At lower occupational levels context factors were more valued. Sex differences
were also observed. In Indian context Lahiri and Srivastava (1967) studied 93 middle managers and reported that satisfied and dissatisfied feelings were unipolar. Managers and workers emphasized different factors as the source of satisfaction and dissatisfaction. The sources of satisfaction were common for the two groups, but the sources of dissatisfaction were different.

Rothe (1968) observed in a sample of 96 college students that students endorsed content factors as the most liked and context factors as least liked aspects of their job. Rao (1971) tested the two factor theory on 94 females, 60 managers and 60 male clerical workers. The results partly supported the theory in that satisfaction and dissatisfaction were found to be two separate and distinct feelings. Contrary to the theory, both content and context contributed to both satisfied and dissatisfied feelings.

Lamanna (1973) tested the two-factor theory on 20 secondary and elementary school principals using a semi-structured interview procedure. Results indicated that content factors achievement and recognition were significantly mentioned as source of job satisfaction. The context factors were found to be significantly mentioned in periods of job satisfaction and dissatisfaction. He concluded that some of the factors mentioned
by principals as contributing to job satisfaction and dissatisfaction were unidirectional.

Ghadiially and Shahla (1976) studied 50 male college students. They were required to read a description of satisfied and dissatisfied workers. They were given 10 job characteristics (content and context factors) and asked to choose 3 which they felt might be most important contributors to satisfaction and dissatisfaction. Results showed that job satisfaction was unidimensional in that only content factors contributed to it, on the other hand dissatisfaction was multi-dimensional in that both content and context factors contributed to it.

Gardner (1977) tested the Herzberg's theory on a sample of 104 male London bus drivers and conductors. Respondents were asked what they liked about their jobs and then what they disliked. Analysis of aggregate responses supported the two-factor theory, whereas individual analysis supported only half the theory relating to content factors. Content factors contributed more to satisfaction, context to dissatisfaction. The individual analysis indicated that content factors contributed to satisfaction whereas both content and context factors contributed to dissatisfaction. Agrawal (1978) observed that both content and context factors were satisfiers in certain cases and context in others.
Renon, Viswanathan and Balasubramanian (1978) indicated that the presence of content-context factors contributed more to satisfaction than the amount of dissatisfaction caused by the absence of these. Factors like work itself and recognition acted as bipolar variables, whereas remaining job factors interpersonal relationship, security, advancement, etc. acted as unipolar variables. Both content and context factors contributed to satisfaction.

2.1.3 STUDIES NON-SUPPORTIVE OF CONTENT-CONTEXT FACTORS FRAMEWORK

Ewen (1964) indicated that two of three context factors acted like contents. Recognition caused both satisfaction and dissatisfaction. Ott (1965) administered a 115 item job attitude questionnaire to 350 telephone operators and factor analyzed their responses. Results indicated that sources of satisfaction and dissatisfaction were not independent and that distinction between the factors had no usefulness for summarizing satisfaction and dissatisfaction. Wernimont (1966) reported that content factors caused more satisfaction dissatisfaction than the context factors. Burke (1966) studied 187 college students, 48 females and 139 males. The results indicated that the subjects of both the groups endorsed more
context items than content ones when describing both satisfactory and dissatisfaction situations.

Ewen, Smith, Hulin and Locke (1966) examined the several hypotheses pertaining to the two-factor theory. They used 793 male employees as subjects. Results indicated that content factors were more strongly related to both overall satisfaction and dissatisfaction than the context factors.

Hinrichs and Hirschkind (1967) investigated the tenability of Herzberg et al (1959) hypothesis concerning the content-context effect on overall job satisfaction. In addition they also looked at respondent's perceptions of factors which tend to influence their current overall satisfaction positively as well as perceptions of factors which tend to influence their satisfaction negatively. 613 technicians were used as subjects. They found that content factors influenced satisfaction positively for the high satisfaction group, while for the low satisfaction group they had equal positive and negative influence.

Dunnette, Campbell and Hakel (1967) studied 133 executives, 89 clerks, 44 secretaries, 129 engineers, 49 salesmen and 92 army personnel to identify highly satisfying and dissatisfying job situations. Three
Herzberg's content factors and one context factor acted as both satisfiers and dissatisfiers. Some individuals derived satisfaction from job content factors, others from context, and some others from combinations of content and context.

House and Wigder (1967) used Herzberg's data to show that achievement and recognition were seen by most respondents as more of a dissatisfier than supervisors and working conditions. Lindsay and Gazlow (1967) studied 270 professional and non-professional personnel. An analysis of variance showed that 75 per cent of variance in satisfaction was accounted by both content and context factors. Hulin and Smith (1967), Graen and Hulin (1968) found that both content and context could act as satisfiers and dissatisfiers. Satisfaction and dissatisfaction were qualitatively different.

Kosmo and Bohling (1969), and Gruenfeld and Weissenberg (1970) observed that content factors related more strongly to overall satisfaction and dissatisfaction than the context factors. Schneider and Locke (1971) reported that content events were more likely to lead to both satisfaction and dissatisfaction than were context events, self was more likely to be given credit for satisfying events and others blamed for dissatisfying events and vice versa.
Hulin and Waters (1971) studied 160 non-supervisors female employees. They found that content factors accounted for a greater proportion of the variance in overall satisfaction. Bobbit and Dahling (1972) and Wall (1974) indicated that individuals attributed satisfaction to their own actions and dissatisfaction to those of others. The higher the individual's social desirability score, the greater their tendency to attribute the dissatisfaction to content factors rather than to context.

Rac and Rao (1973) observed no support for content-context dichotomy over 250 skilled workers as subjects. Harris and Locke (1974) reported replicating earlier results, consistent with previous, that white collar employees were more likely to derive both satisfaction and dissatisfaction from content events especially achievement, and blue-collar from context especially money.

Weaver (1975) reported some positive evidence for worker's preference in rating of the job characteristics. Sutaria (1976) reported a study in which 155 female semi-skilled workers in five textile mills of Ahmedabad participated. Results indicated that content factors did not always act as satisfiers and context as dissatisfiers. Females derived satisfaction from salary, interpersonal relationships and company policies; and dissatisfaction from work, lack of recognition and inadequate working conditions.
Kerr, Merlan and Stogdil (1977) tested two-factor theory to find out whether the systematic discriminations made by respondents between content-context factors were reflections of realities of their work situations or such discriminations were due to a kind of self-perception. The sample consisted of 533 respondents out of which 188 occupied managerial positions and 22 were undergraduate upper classman businessmen. Respondents systematically distinguished between content and context factors.

Porumal and Pai (1978) administered a job satisfaction scale to 127 agriculture extension officers. They found that officers were highly satisfied in regard to job security, cooperation and supervisors. At the same time they were highly dissatisfied with recognition, opportunities for advancement and control of supervisors. Rao and Sohal (1978) assessed the importance of content and context factors on 70 regular veterinary assistant surgeons and 26 special surgeons. Results indicated that both the groups considered recognition, achievement, work itself, working and conditions as most important factors determining satisfaction.

Khawles and Khawles (1978) indicated wide differences in the levels of satisfaction existed between the super-
visors. There was tendency for some supervisors to regard most of the job aspects satisfactorily, while others saw these job aspects as unsatisfactory.

A few researchers have tried to look into personality characteristics of content and context factors. Myers (1964), Saleh and Gzygier (1969) studied personality characteristics of content and context seekers. They indicated that individuals differ in their reactions to job factors. Concern with content factors signified approach tendencies, while concern with context factors signified avoidance tendencies. Jorapur (1978) examined the effects of content, context and personal factors on job satisfaction. Results indicated 76% respondents were satisfied, 14% were dissatisfied with wages and 33% mentioned bad working conditions as a source of dissatisfaction. The less educated appeared to be more satisfied. Upwardly middle workers were more satisfied than downwardly.

Doke and Sutarie (1978) indicated that personality dimensions of extraversion-introversion and neuroticism - stability were not strongly related to content and context seeking behaviour. In a later study, Sutarie (1979) noted that significantly more positive effects were reported on performance, attitudes and interpersonal
relations due to happy job experiences which were mainly associated with content factors. The unhappy job factors had significantly more negative effects on mental health and turnover. Neuroticism-stability and achievement motivation played a vital role in determining individual's reaction to content-context factors than the extroversion-introversion dimension of personality.

2.2 AN OVERALL VIEW OF TWO FACTOR THEORY

A great deal of controversy had developed over the accuracy and applicability of content-context perspective. Schmidt (1976) listed numerous criticisms like: its being simple; its rigidity; usage of contradictory terms; method bound nature and its interview technique etc. Wolf (1970) provided the most important criticisms in his statement that people tended to remember and attribute causes of satisfaction to themselves and causes of dissatisfaction to the environment.

Besides its controversial status, a review of researches relevant to content and context perspective indicated an underlying lacunae in conceptualization. First, it was not necessary that content factors would always give rise to feelings of satisfaction only and thus facilitate performance. One single content factor could lead both to satisfaction and dissatisfaction and
affect performance in any manner. Second, individual differences in perception and responding should be taken into account. Given the same context and content not all persons will be satisfied to the same level or perform at the same level.

2.3 PERSON-ENVIRONMENT FIT PERSPECTIVE

A research perspective predominant in educational setting had been of person-environment interaction. Increasingly researches have utilized individual-environment relationships to explore the outcomes such as achievement and satisfaction for the individual. Out of quite a few relevant theories (Barkor (1968); Stern (1963); Holland (1963), Holland's theory of personality types and model environment had been the most often used with college populations.

Holland (1963) stated that the behaviour of an individual was a function of both his personality and the environment in which he lived. The basic assumptions of his theory were three. First, that people may be characterized by their resemblance to one or more personality types. A type was defined as a cluster of personal attributes which may be used to measure the person. Six basic personality types were described: Realistic, in-
vestigative, social, conventional, enterprising and artistic. An individual’s dominant type orientation essentially was the product of his or her life history. People generally possessed characteristics of all six types, but Holland suggested that each individual behaved in a manner reflecting one or two of these orientations more strongly than the others.

A second assumption was that the environments in which people lived may be characterized by their resemblance to one of model environments. Six modal environments could be observed corresponding to the analogous personality types. The final assumption was that congruent person-environment relationships led to outcomes that were predictable and understandable from the knowledge of the personality types and environmental models. These outcomes included vocational choice, vocational stability and achievements, personal stability, creative performance and personal development.

Other concepts, Holland used to describe person-environment interactions, were consistency-inconsistency, homogeneity and heterogeneity. The pairing of a homogeneous personality type and environment will contribute to certain individual outcomes like satisfaction and achievement.
2.3.1 PERSON-ENVIRONMENT CONGRUENCY AND ACHIEVEMENT OUTCOME

Holland (1963) characterized students and colleges in terms of personality types and environmental models and assessed the achievement of individual students. He attempted to predict that congruency would be positively associated with the achievement. The findings revealed that artistic leadership achievement was positively related to congruency in men. None of the results were significant for women.

Postuma and Navran (1970) studied 121 cadets in a military college using Holland's vocational preference inventory. Results supported the congruency hypothesis in achievement. Failing students showed incongruency between faculty and student types.

Rock, Centra and Linn (1970), Spady (1970) and Astin (1971) reported that informal interaction between students and faculty had a direct influence on student's academic performance. Factors like student participation in academic and non-academic interests and peer culture might function as facilitators or inhibitors of academic performance. Patterns of interpersonal relationships and interactions with faculty had an independent and direct influence not only on their intellectual development but also on their academic performance.
Rao (1975) attempted to find out relationship between perceived medical college environment and professional socialization of medical students over 446 fifth year students. Findings revealed that the perceived college environment was not found to be related to academic performance.

Waleh and Hanlo (1975) explored the differences in vocational maturity and academic achievement variables among 93 female undergraduates, who made congruent, incongruent and undecided vocational choices. The findings supported Holland's notion that congruent person-environment relations were associated with academic achievement. The congruent females tend to be academically more successful compared to incongruent ones.

Alston, Wakefield, Daughtie (1976) compared 82 male and 92 female undergraduates. Results indicated no differences in performance of males and females using Holland's theory. Tober and Hackman (1976) studied 376 faculty, students and administrators to describe 625 most successful and 534 least successful students and found that congruency between students and college characteristics had positive influence on academic performance. Students high on dimensions of intellectual growth and interpersonal relationships performed better.
Higgins and Wastlander (1979) studied 320 counsellors in four states and reported significant relationship between tested personality characteristics and rated job performance. Counsellors rated as effective were positively correlated with social and artistic codes of vocational preference inventory and negatively with realistic and conventional scores.

Rutgers, Schneider and Overton (1979) tested three predictions derived from Holland's theory of vocational preference on a sample of 392 males and 424 female entering college freshman. The responses were categorized in terms of congruency, consistency and differentiation. Results indicated that freshmen with congruent college major choice or with definite major enjoyed greater academic success than those who specified incongruent choices. In all sex comparisons females generally paralleled male trends, and females generally outperformed males. Students, whose personality types were congruent with majors experienced greater success than the incongruent. Similar results were reported by Soliah (1972), Walsh and Lewis (1972), Walsh (1974), and Welsh, Spokane and Mitchell (1976). These studies reported that individuals in congruent environments were more satisfied than in incongruent environments. Congruent students were more stable, persistent, satisfied, had
better academic adjustment and experience greater success than the incongruent peers.

2.3.2 PERSON-ENVIRONMENT CONGRUENCY AND SATISFACTION

Williams (1967), Pervin (1967) found that student congruency was positively associated with satisfaction.

Rand (1960) assumed that a student will be more satisfied if he chooses a college with a student population similar to his personality and interests and tested 7,257 students from two colleges. The findings suggested that the relationship between satisfaction and congruency was small. Student satisfaction with choice of college was only minimally related to the extent to which certain individual characteristics matched those of others at school.

Brown (1968) reported a stronger positive relationship between congruency and satisfaction. Holland (1968) himself examined the homogeneity and satisfaction hypothesis and found that students were less likely to be satisfied in environments characterized by a homogeneous student body. He suggested that students would be more satisfied in environments characterized by heterogeneous patterns. Holland's results indicated that students tend to be more satisfied the more closely they resemble the dominant pressure in their environments.
Sherrick, Davenport and Collins (1971) investigated the relationship among personality, college major and satisfaction with major. The sample consisted of 118 seniors for natural and social science students. Results indicated that social science students who were more satisfied with their major were less flexible than the relatively dissatisfied students. Results supported Holland's conclusion that students were more likely to be satisfied with their major if their personalities were similar to the personalities of their fellow students. Marrow (1971) also supported Holland's contention that congruent person-environment relationships were associated with satisfaction.

Starr, Betz and Menna (1972) administered a measure of college student satisfaction to 1968 university students. Results indicated that satisfaction with the college environment was inversely related to whether or not the student remained in the environment. Students who eventually left the college felt that they put more into the college than they received. Similar results were obtained by Betz, Klingensmith, Menna (1970) and Betz, Menna, Starr and Klingensmith (1971).

Osipow (1973), Walsh (1973) investigated relationship between congruent person-environment interactions.
They reported that students who were congruent with their environments were more satisfied. They noted presence of uniformly high levels of satisfaction among intellectual and artistic subjects. Walsh (1974) reported that congruent males were more able to cope with world in organized and integrated way and tend to be more satisfied.

Smart (1975) examined the differences in the degree to which job satisfaction was related to and predictive of overall satisfaction of 1646 department chairman in six model environments proposed by Holland. Results indicated that overall satisfaction was related to similarity of their personality type and the environments. The environment composed of similar groups of people in different organizations served as job satisfaction reinforcer system in a manner similar to organization. Nofziger et al (1975) employed a specific typology of person-environment and found student-college congruency was related to satisfaction. Wiggins (1976) correlated job satisfaction of 110 teachers of educable mentally retarded with vocational preference inventory. Results supported the person-environment interactions.

Morstein (1977) assessed the relationship between student's educational orientations and their degree of satisfaction with their academic programs. The sample
consisted of 15,000 students of a public university. Student orientation survey form was used to assess educational attitudes and preferences. Results indicated that students reporting varied degrees of satisfaction with academic programs tended to have different educational orientations and preferences. Dissatisfied students relative fit of student and faculty orientation did not appear to be much.

Wianer and Klein (1978) hypothesized that congruency of vocational interests with present occupation would be positively related to job satisfaction. In two samples of 54 and 47 middle managers the hypothesis was supported for satisfaction with work and supervision. Occupationally dissatisfied individuals did not have interest patterns highly congruent with their present occupation.

Nielsen and Moss (1978) examined person-environment fit hypothesis with 1,750 high school students. Overall, students reported higher levels of satisfaction and socio-emotional adjustment in high social exploration climate. Peiser and Mair (1978) found that subjects whose interest field was congruent with occupational field were more satisfied.
Doty and Betz (1979) examining the concurrent validity of Holland's theory on a sample of 45 males and 43 females working as sales managers and suggested that both males and females congruent with their environment were highly satisfied.

Spokane (1979) investigated differences between congruent and incongruent college women on ego strength, satisfaction and certainty. Results indicated a strong relationship between congruency and satisfaction.

Results of many of the above studies indicated that to some extent individuals tend to change their environments consistent with their personal orientations. An important applied implication of theory was that an identification with the institutional characteristics may stimulate satisfaction and performance. Holland's theory suggested a way of controlling, interpreting and even changing individual-environment interactions, in that personality type might be used as a helpful way to think about educational problems. However, either Holland himself or other researchers using Holland's theory made any comment on the probable inclusion/exclusion of contents of educational experience, a relevant dimension of satisfaction and achievement.
2.4 THE PROPOSED MODEL

A composite view of the review of above studies should indicate that content, context as well as personal characteristics of individuals affect satisfaction and performance. Both satisfaction and performance outcome might be affected to different degrees by a combination of these factors and may also be affecting each other.

Herzberg's two factor theory had emphasized content-context dimensions (excluding personal dimension) whereas Holland emphasized the importance of person-environment dimensions (excluding content dimension). An integrated approach inclusive of all the three dimensions content, context and person was required in meaningful prediction of behavioural outcomes.

The present research proposed to evolve an integrated model of satisfaction and performance by including the three dimensions of content, context and person simultaneously. Each dimension may have a dichotomy of a high score and a low score; and combined interactions of these may result into differential levels of satisfaction and performance. The proposed model may be represented as shown in Figure 1.
THREE DIMENSIONAL MODEL - Factors of Content, Context & Person

Figure 1
The proposed three-dimensional model would clarify as to what combination of content, context or personal factors accounted for a major proportion of variance in predicting satisfaction and performance and thus serve as a validity check on the perspectives of content-context and person-environment fit. A student scoring high on personal, high on content as well as high on context factors might derive more satisfaction, and perform better than a student low on personal, content and context factors. Also it was possible that personal factors acted as mediating variables between content and context factors, and that variables facilitate/inhibit the functioning of content and context factors.

A student high on content, low on context and high on person should be lessor satisfied and perform lower because of lack of motivation to learn. Even if a student was high on personal as well as high on context but low on content would be still dissatisfied, due to lack of challenging and stimulating courses. This indicated the importance of content, context and personal factors simultaneously, as lack of either of these may hinder the functioning of the other variables.