CHAPTER - V

DISCUSSION
The present chapter includes a detailed discussion of findings obtained in this study. The discussion has been organised around the major hypotheses tested for the sake of convenience.

5.1 Group Differences on Learner, Content and Context Characteristics

Assuming the principle of heterogeneity, it was hypothesized that students in open university will significantly differ from students in traditional university in terms of learner, content and context characteristics.

Results (Table -1) indicated that students in both open and traditional universities significantly differed in terms of their ultimate goals. On reasons for taking up the course only the students at state capital varied. On other learner characteristics such as socio-economic status and personal orientation, they did not differ from each other. On immediate goals, students at traditional university in the metropoly scored higher than students at the state university.

The differences between students in open and traditional universities could be explained in terms of
their different experiences. Each student brings a slightly different assortment of meanings to the learning situation. The meanings assigned to any learning situation may be seen as the resultant of past educational record, prior level of knowledge on the subject, previous educational experience at school/college, academic aspirations, individual expectations, social expectations etc. The regular students in the city ascribed multiple reasons for taking up the course and had many ultimate goals, indicating their choice for goals, more realistic and having long-range implications. Open university students as compared to regular students in the metropoly showed more concern for long-term goals. Their ultimate goals were shaped by concern for community rather than for their self-interest. They had fewer reasons to consider for taking up the course. Similar was the case with open university students in the city. Burgess (1971) had reported non-traditional students having several reasons for taking up the course. Ones' goals whether immediate or ultimate were largely guided by the conglomeration of expectations. Maehr (1978) reported that the expectations affected a person's perceptions and the definition of goals. Social expectations were associated with race, gender and other personal characteristics and with the choice of goals.
The lack of significant differences between groups on socio-economic status, and personal orientation showed the homogenous background of students in open and traditional universities such as, similarity in parental education and vocations, value systems, customs, family set up etc. Prior researches have however, suggested that non-traditional students [25 years of age or older] differ significantly from traditional college students on many personal, vocational and maturational variables (Hu, 1985; Griff, 1987; Chartrand, 1990; and Puryear and Mc Daniels 1990). The finding of no difference in personal orientation contradicted the common expectation that open education system encouraged the development of responsibility for one's own actions (Bar-Tal et al., 1975). As a personality variable, it was determined more by personal factors and less by systemic variables. Horwitz (1979) reviewed 24 studies which tested the hypothesis that open classroom students will show more internal control than traditional classroom students. He found six studies showing greater internal control among open classroom students, one study favouring traditional group; thirteen studies no significant difference and four studies mixed results. More studies thus showed no difference.

Results showed that the open university students either in metropolis or in city did not significantly differ from each other on many of the learner characteristics,
except on ultimate goals and on reasons to study in case of the city. Students in traditional university in the metropoly differed significantly from their counterparts in the city in terms of goal perceptions. Students in the metropoly were more concerned about immediate goals whereas in the city, students worked towards long-range goals. The linguistic, cultural and psychosocial diversity among students in the metropoly perhaps promoted the setting up of proximal and pragmatic goals, rich in personal meaning and social relevance. Taylor (1983) and Gibbs et al. (1984) had focussed on the purposes, students had in entering higher education and distinguished between four main educational orientations—vocational, academic, personal and social. Students' feelings about how they were progressing through their studies depended on their own 'study contract'—what they themselves wanted to gain from their courses. And this characterised their goals.

On overall content characteristics, open university students significantly differed from traditional university students in city but not in metropoly (Table-2). In the city, students in traditional university had more positive perceptions on various content characteristics like, presentation, form of expression, language used, relevance, assessment demands etc., while students in open university scored higher on quality dimension. In the open university
in the metropoly, students scored higher on sequencing of materials and level of difficulty. When traditional university students in the metropoly and city were compared, the later group scored higher on various aspects of content dimension. However, open university students in the metropoly and city did not differ significantly. The better perceptions of contents by traditional university students in the city may be explained in terms of effective communication system and closer academic socialization. Instruction was imparted by using a mixture of cues like personal, content-related and organisational. Teachers and students were able to understand and absorb the contents in an appropriate context. Students' academic interests were fostered and revitalised from time to time by classroom teachers as they closely identified with each other. In case of traditional university in the metropoly, the large size of classroom and heterogeneity in student and teacher composition constrained the communication, making the effects thereby less prominent.

The prescribed teaching-learning programme in open university expected students at a distance to optimally achieve the learning objectives. The more detailed the planning, the positive was the opinion on the quality of the study materials. Because studying at a distance was carried out in a highly purpose-directed way by the students, their
subject-profile was more clearly defined leaving little to discretion, than students in traditional university.

In the metropoly as well as in city, students in traditional university perceived the overall impact of course contents as more intensive than students in open university (Table-3). A simplistic explanation of it lay in the inbuilt virtue of classroom setting in contrast to distance learning. The results showed that done well even learning at a distance could infuse some of the virtues among its students like, enhancing self-confidence, ability to adapt to change and to act responsibly. Students in the metropoly had relatively better scope to realise the overall impact of the course contents. Students in the city made limited contacts with course tutors, despite the limited physical distances. They made little conscious attempt to inculcate the qualities like ability to act responsibly, ability to adapt to change, to enhance the level of self-confidence etc. It seemed by a self-selection process, only those who can tolerate non-social learning condition would be attracted to and survive in a distance learning programme, as dialogue is low. Also, some methods of distance education suit some students but not others. Hence the difference in overall course impact was significant between open and traditional university students.

Students in traditional university both in the
metropoly and city perceived a supportive and positive context of learning than students in open university. However, students within open and traditional universities did not differ significantly in their perceptions of overall context characteristics. This may be due to the fact that open university students both in metropoly and city were provided with the same kind of learning centres and opportunities of interaction. The amount and nature of the interactions among students, feedback system, opportunity to acquire skills etc., were quite comparable. However, perceptions of delivery system, teacher-pupil interactions, opportunity to apply skills, administration etc. were dissimilar for the two groups. The structure, philosophy and mode of functioning of traditional universities whether in city or in metropoly, were very much analogous as the underlying organizational model is the same, leading to closed type perceptions of overall teaching-learning atmosphere.

A significant difference was observed between the perceptions of students in open university and those in traditional university. This could be attributed to some of the fundamental characteristics of distance education system. The semi-permanent separation between teacher and learner and; between learner and learner among other things, affect the interaction patterns, inter-subjectivity and immediacy of feedback etc. Students learning at a
distance were deprived of the traditional teacher dependency and thus had no benefits accrued by teacher attitude, enthusiasm, concern for helping students understand well and the ability to appreciate students' learning difficulties etc. Several researches observed that the lack of social contacts was not as important as the lack of communication, which caused difficulties for many students. It made a difference, if one could discuss problems at study with fellow beings or teachers, reveal difficulties and possibly eliminate them. Knowles (1978) described some of the difficulties like, overcoming fears of making the personal change needed in learning new material, using and building on existing experience, gaining motivation to embark on new learning etc.

Although students in open and traditional universities differed significantly from each other in their perceptions of overall context characteristics, their perceptions of barriers to learning were not so dissimilar. The findings (Table-5) implied that students in traditional university both in the metropoly and the city were in a difficult position as compared to open university students. It seemed that in metropoly, both traditional and open university students perceived more number of barriers compared to their counterparts in the city. Obviously, living in metropoly required them to meet many personal,
social, institutional and environmental demands, challenges which constrained the learning patterns/processes. These in turn, had ramifications for perceptions in particular and behaviour in general.

5.2 Group Differences in Approaches to Learning

Hypothesis two was formulated to test the significance of mean differences between students in open and traditional universities on approaches to learning.

The t-test analyses [Tables 6 & 7] showed that open university students in the metropoly and city did not significantly differ from students in traditional university in adopting either deep or surface approaches to learning. In the metropoly however, the traditional university students differed significantly from their counterparts in open university on strategic approaches to learning. Quite interestingly, traditional students in the city did not adopt different approaches to learning as compared to open university students. Students within traditional and open universities also adopted similar approaches to learning.

The results suggested that students were either largely unaware of the processes underlying their study, or they had similar conceptions of learning and knowledge. Perry (1970) was of the view that the learning difficulties experienced by college students were not rooted in their
lack of motivation, study skills, or ability; they sprang from their view of knowledge itself. Saljo (1982) observed that adults held different conceptions of learning, which can be categorised into five stages:

* Learning as a quantitative increase in knowledge,
* Learning as memorizing,
* Learning as acquisition of facts, methods, procedures etc.,
* Learning as the abstraction of meaning, and;
* Learning as an interpretative process aimed at the understanding of reality.

The qualitative differences between stages 2 and 3 on the one hand and stages 4 and 5 on the other, were found very similar to the distinction between surface and deep level approach. Presumably, the approach student adopted to learning tasks had to do with his conception of knowledge and learning. Vu and Galofre's (1983) study supported the present finding of no difference between students in open and traditional universities in approaches to learning. Vu and Galofre investigated the learning behaviour of students at two medical schools; one with a traditional curriculum and one with an objective-based mastery curriculum. Despite the curriculum differences, most students at both schools did not have a well-planned study system and were not motivated to search actively beyond what they were instructed to do.
It was observed that in the metropoly, the traditional university students adopted strategic approach more consistently as compared to the open university students, because the context of learning exerted positive and significant impact on traditional students, who were very much responsive to the situational demands. They entered the institution with the intention of achieving success, and thus adopted strategic approach. Cole (1985) compared students in a problem-based school with a conventional school on approaches to learning and was of the view that differences in approaches to learning reflected most likely the contrasts in the educational environment. Newble and Clarke (1986) found marked differences between the responses of students on approaches to study in a traditional and in an innovative problem-based medical school.

5.3 Relationships among Learner, Content and Context Characteristics and Approaches to Learning

Hypothesis three tested the significance of relationships among learner, content and context characteristics, and approaches to learning of students in open and traditional universities.

Results (Table - 10) showed that for traditional university students in the metropoly, socio-economic status correlated significantly with achievement motivation. A
similar finding had also been reported by earlier researchers. McClelland (1955a) found that SES was closely tied to the nurturance, assistance and training given by the parents. The higher the educational level of parents, the earlier was the onset of independence training. The achievement motivation was found strongest in middle SES boys, whose mothers fostered early self-reliance and mastery [Winterbottom, 1958]. Rosen (1959) and Katz (1967) found that SES accounted for the substantial amount of variance in achievement motivation than ethnicity. One's culture appeared to affect achievement not only by defining what success and failure meant [Maehr & Nicholls, 1980], but also by delineating how the success and failure could/should be pursued [Fyans et al., 1983].

For open university students, in the metropoly SES correlated negatively with achievement motivation but positively with disorganized study methods. It seemed that better socio-economic conditions did not enhance students' motivation to compete with others and maximise their grades etc. These encouraged them to organise one's study time and methods better. Students coming from better educated and higher economic status families may possess a high degree of achievement need, but its cultivation needs conscious effort (Deepak, 1980).
For traditional university students in the city, SES correlated negatively with all the dimensions of approaches to learning, whereas it correlated insignificantly with deep strategy in case of open university students. It seemed the prevailing psycho-social atmosphere at home and outside had a debilitatory effect on the learning patterns of traditional university students. Rather, they were not encouraged to take interest in study beyond necessary. They had large number of reasons for taking up the course, and adopted rote method of learning. However, students in open university displayed personal interest in study matters. They entered into the course with more positive attitudes towards studying. They had clearer reasons for taking up the course. They, thus relied on meaningful learning strategies and had high hope for success.

In open university in the metropolis, the students' reasons correlated positively and significantly with deep approach and fear of failure. Reasons also correlated positively with relating ideas and achievement motivation for students in the traditional university. It seemed that in metropolis, both open and traditional university students were conscious of their intentions and purposes of the course. In the city for open university students, the reasons correlated negatively with fear of failure. Reasons for taking up the course had low but positive association with various indicators of deep approaches to learning in
case of both open and traditional universities students. The results thus implied a close link between strong reasons/intentions and strategies of learning. These findings are similar to those of Biggs (1982) and Entwistle and Newble (1986).

Both open and traditional university students in the metropolis were equally concerned about the immediate goals of learning. But students in traditional university displayed more interest in ultimate goals. These students were more certain and careful about the purpose of learning. They set their goals having pragmatic concern. These in turn facilitated the adoption of strategic approach rather than the deep approach to learning. In city both in the open and traditional universities the students had immediate goals which correlated negatively with intrinsic motivation, achievement motivation, extrinsic motivation and strategic approach. For open university students, ultimate goals correlated positively with surface strategies. These results indicated that in the city, students did not possess definite goals and even if they had some goals, the discrepancy between goal perceptions and goal attainment was high. Students in open university were mainly interested in earning a degree and in order to attain this, they adopted basically rote method of learning. Tinto (1975) reviewed a number of studies related to student drop-out from the
higher education, and observed strong links between the persistence at college (as opposed to drop-out) and the extent to which a student perceived it facilitatory of her or his own goals, namely: career aspirations or mere general intellectual development. The finding of positive relationship between ultimate goals and strategic approach in case of traditional university students in the metropoly did not support the finding of Watkins and Hattie (1981), who indicated that more mature students tend to be less motivated by pragmatic concerns and thus more liable to adopt a deep level approaches to learning. Contrary to this, the instrumental motives for going through higher education were often deployed through reproducing/surface strategies. The finding of positive association between ultimate goals and surface approach in case of the open university students in the city was confirmed by Ramsden (1983). O'Neil and Child (1984) showed that students tended to adopt learning strategies congruent with their motives for learning.

For the open and traditional universities students in the metropoly, the personal orientation correlated negatively with surface approach, indicating that the internals adopted surface approach. The association was significant for the open university students. In case of the open university students in the city, the association between personal orientation and surface approach was
positive and significant, indicating a reverse finding of externality being associated with the surface approach. For traditional university students, personal orientation correlated positively with the achievement motivation, indicating that the externality was associated with the achievement motivation. It seemed that the locus of control of open university students both in the city and metropoly was differentially influenced by the socio-cultural, perceptual and familial factors, which in turn determined the use of learning strategies. The finding of positive correlation between personal orientation and achievement motivation found support in earlier research findings. Lefcourt (1965) observed a low correlation between externality and need for achievement measures. Biggs (1985); Ramsden (1985); and McCombs (1986) stressed the importance of self control in learning for students who would adopt a deep level approach to learning, where the focus is on the meaning aspect than on the epiphenomena of the contents/subject-matter. Such an approach is necessary for the student to achieve high quality learning outcomes. Watkins (1987) also showed that the personal control over one's learning success was a causal factor in the adoption of more achievement-oriented approach to learning. It seemed that the open university students both in metropoly and city were less motivated and had little personal control over their learning.
For students in traditional university in the metropoly, the quality correlated positively with achievement motivation and negatively with relating ideas, positively with the use of evidence, and negatively with fear of failure and disorganised study methods as in case of students in open university. In face-to-face teaching-learning situation the instruction was perceived better and this fostered an achieving spirit among students. Students were implicitly encouraged by teachers to compete and to score high in the examinations. However, they were not motivated enough to apply the classroom knowledge to outside world. Contrarily, the positive perceptions of study materials helped students, who were learning at a distance, to relate ideas to practical field, and to use evidences wherever necessary. The physical absence of teachers made them feel nervous at times. They lacked guidance about how to organise one's study time and how to proceed in learning. The perception of learning materials as lucid, organised and better quality did not guarantee higher academic motivation or better learning strategies. Similar results were found over students in open university students in the city. For them, the quality correlated positively with deep approach and relating ideas and negatively with achievement motivation. Students in traditional university in the city, however were unable to perceive a link between quality of
education and the approaches to learning. This may be because of the previous educational experiences and the learning history of these students.

The mode of presentation did not correlate significantly with approaches to learning for a traditional university students in the metropoly, whereas it correlated positively with syllabus boundness, and negatively with use of evidence and strategic approach in case of open university students. Distance learners found better presentation helpful in meeting course requirements, but not in grasping the subject-matter. It did not foster reliance on any particular approach to learning, but interfered with the strategic approach. The students in traditional university in the city found mode of presentation inversely related to intrinsic motivation, surface approach, fear of failure and achievement motivation. For students in the open university also, the mode of presentation was correlated negatively with intrinsic motivation, strategic approach and achievement motivation. The presentation of materials, no matter how excellent, failed to sustain students' motivation for learning and understanding.

The better sequencing of materials reduced fear of failure among students in open university in the metropoly, whereas it interfered with the ability to relate ideas from one topic to another among students in traditional
university. For students in open university in the city, the sequencing of materials correlated negatively with surface approach, but not with any approach adopted by the traditional university students.

For students in open and traditional universities in metropolis as well as in city, the form of expression did not correlate significantly with approaches to learning. The adequacy of language used had positive perceptions among students both in open and traditional universities. This led them to adopt meaningful learning strategies fairly consistently. They could draw an integrated picture of lessons taught/read. They could also relate ideas to solve problems in real life situations. As expected, the motivation for learning was not facilitated. Although students in both the universities were banking on text materials, they did not find these rewarding. Their learning behaviours/ orientations were most probably guided by some other causes than content characteristics.

For students in traditional university in the metropolis, the relevance of materials correlated positively with the use of evidence and intrinsic motivation, and negatively with the surface approach, while for open university students, it correlated negatively with intrinsic motivation and surface approach. The students in traditional university in the city did not perceive the relevance of
materials significantly associated with approaches to learning. For students in the open university, the perceived relevance was positively associated with negative attitudes towards studying, and negatively with the use of evidence, surface approach and syllabus boundness. Thus, students in both open and traditional universities had similar perceptions of relevance of materials. This was so perhaps, because of the variability in goals and expectations for taking up the course. Fransson (1977) demonstrated that approaches to learning depended heavily on perceived relevance of materials and anxiety. Interest in subject-matter encouraged the adoption of a deep approach, while a stressful learning situation encouraged more surface learning. Extrinsic motivation was found closely related to vocational relevance (Ramsden & Entwistle, 1981).

The level of difficulty correlated negatively with strategic approach of students in open university in the metropoly. It correlated negatively with surface approach in case of students in traditional university in the metropoly. These results are found meaningful in terms of immediacy of corrective feed-back. Students at a distance usually do not receive corrective feedback while facing difficulties in studying through the materials, and thus, they cram the materials. They memorise the terms and concepts without understanding. Students in face-to-face setting make efforts to clear the doubts and difficulties
with the assistance of classroom teachers. This discouraged them from employing rote strategy of learning. For students in traditional university in the city, the level of difficulty correlated negatively with intrinsic motivation, whereas it correlated positively with the use of evidence and strategic approach for students in the open university. It seemed that the open university students in the city as compared to those in metropoly had more scope to meet the course tutors. They were encouraged by the tutors, counsellors and at times by programme co-ordinators to express their difficulties and doubts in studying. They were also told about the usefulness of study techniques etc. This helped students to rate the course materials of low difficulty level and to adopt an organized learning strategy.

For open university students in the metropoly, the assessment demands correlated positively and significantly with achievement motivation, and for traditional university students in the city with surface approach, but not with approaches to learning in case of traditional university students in the metropoly. It seemed that the differences in perceptions of assessment demands influenced the adoption of learning strategies both for the open and traditional universities students. Several longitudinal interview-based studies in America and United Kingdom also demonstrated the
overwhelming impact of assessment pressures (Becker et al., 1968; Snyder, 1971). Miller and Parlett (1974) found that the academic environment defined by examinations in a Scottish University led to the employment of distinctive strategies of learning by different students. The finding of positive association between assessment demands and achievement motivation was confirmed by Ford (1981). He pointed out that the type and quality of students' learning may be conducted in the way in which the work is assessed. Such influence would seem likely more in case of extrinsically as opposed to intrinsically motivated students. In a similar vein, Ramsden (1984) stressed that the student perceptions of assessment influenced their behaviour.

The finding of positive association of orientation with intrinsic and achievement motivation for students in open and traditional universities in the metropoly indicated that both the institutions were equally good in fostering the intrinsic as well as achievement motivation of students. Academic interest of students can be reinforced with the appropriate use of reward at the right time. This would also imbue among students the value of academic credentials of the respective institutions. The students in traditional university felt inadequate to make use of any organizational strategy consistently. Open university students found orientation hindering their efforts to actualize the goals.
of course requirements. For students in traditional university in the city, the orientation correlated with achievement motivation positively, whereas it did not correlate with any of the dimensions of approaches to learning in case of open university students.

Delivery of course materials correlated positively with intrinsic motivation and negatively with extrinsic motivation for open university students in the metropolis, whereas it correlated positively with surface strategy in case of traditional university students. The better perceptions of the delivery system encouraged open university students to take personal interest in the subject matter, and discouraged them from studying at a superficial level and thus the reproduction of factual knowledge. Quite interestingly, students in the traditional university perceived delivery of lectures as implicitly reinforcing reliance on factual knowledge. Neither students were encouraged, nor were they motivated to go deep into the matter. They found the learning tasks as externally imposed rather than intrinsically rewarding/challenging. It seemed that teachers' own objectives and the teaching practices were often incongruent. The formal 'curriculum' had its goals as originality, problem-solving, independent thought and analytical skills, but the message reaching students implicitly (hidden curriculum) was of dependence on
assessment procedures. This encouraged rote memorization of facts and concepts considered important by the teachers (Entwistle, 1984).

Open university students in the city perceived the delivery system as promoting achievement motivation. It had detrimental effects on deep level approach to study. The better perceptions of the delivery of lectures by traditional university students helped in developing positive attitudes towards studying, in addition to their efforts to maximise the grades.

Contrary to the common expectations, the feedback did not significantly correlate to approaches to learning. It rather had detrimental effects on relating ideas and strategic approach both for the open university students in the metropolis as well as in the city. Feedback to be effective has to be really strong and timely in order to be useful for adult, mature and experienced learners like in the present group. Feedback has a more complex role than that attributed to it by a simple confirm/right, correct/wrong approach (Birenbaum and Tatsuoaka, 1987). Kulhavy and Stock (1989), which emphasized the role of the learner's response certitude in his/her instructional behaviour.

Teacher-pupil interactions did not correlate with any dimensions of approaches to learning either for the open
or traditional university students in metropoly.

Relating of ideas correlated negatively with teacher-pupil interactions in case of the traditional university students in the city. While in the metropoly, the teacher-pupil interactions did not correlate with approaches to learning at all.

It seemed that the adoption of learning strategies was not strongly influenced by the interactional patterns among students and teachers either in open or traditional university. Students in both the institutions failed to perceive teachers as dispensers of sanctions (rewards and punishments). Teachers in their capacity can play strategic roles in traditional as well as in distance system, but this would require a much more conscious effort on their part. Bááth (1982) argued that the distant tutors have several pedagogical functions apart from that of correcting errors and assessing students' papers. They can play a principal role in linking the learning materials to learning by trying to relate them to students' previous reinforcement patterns (Skinner), or to his mathemagenic activities (Rothkópf), or to his previous knowledge and cognitive structure (Ausubel) or to his previous comprehension of the basic concepts' and principles of the curriculum (Bruner) or by concentrating on the task of establishing a good personal relationship with the learner.
(Rogers). A failure to perform any of the role can adversely affect students' motivation and strategy of learning. Conversely, building on these roles as the basis of interaction with students would promote an appropriate use of learning strategies.

Peer-group interactions correlated positively with negative attitudes towards studying and achievement motivation for traditional university students, whereas it did not significantly correlate with any of the dimensions of approaches to learning for open university students in the metropolis. For traditional university students in the city, it correlated positively with achievement motivation, whereas for open university students it correlated positively with the use of evidence and surface approach. It seemed that the peer-group interactions served as a more potent variable in accounting for reliance on different learning strategies. In an educational system having face-to-face interactions, students get wide scope to socialize themselves and, to interact with fellow students etc. This in turn, provides opportunities to assess one's performance in relation to others. Although such practices are relatively difficult in the distance system, students manage to develop contacts and rapport with other fellow colleagues. Unlike traditional students, open university students have low achievement needs and high affiliative
needs. Instead of indulging in competition with others, they prefer to learn in a cooperative manner. Their learning was shaped by the intention of completing task requirements and for this they relied on rote strategies.

For open university students both in the metropoly and city, the administration correlated negatively with most of the dimensions of approaches to learning. Students in metropoly perceived administration as interfering with their ways and methods of learning. It did not prove effective in changing attitudes towards teaching-learning processes. Traditional university students in the metropoly also had negative perceptions of administration, but felt discouraged to adopt rote strategy of learning. The administration of open and traditional universities in the metropoly did not differ much. Traditional university students in the city perceived administration positively. It implicitly supported and rewarded organizational learning strategy. The adoption of meaningful strategy of learning was valued and students' problems and needs were attended by the staff. The findings thus indicated that the city institutions differed in the use of learning strategies.

In face-to-face educational setup, the reliance on surface level approach to learning did not promote the acquisition of skills. Quite interestingly, in open/distance education setup students who adopted surface
strategy of learning were found efficient in acquiring the necessary skills. Perhaps a strong motivation for getting a degree led them to memorise the concepts without wasting time in defining the problems and grasping the meaning of the terms and concepts used. They seemed to be serious about completion of course requirements. The freedom of syllabus was perceived as a remote goal by them. For open university students in the city, better opportunities to acquire skills did not promote organised study methods and positive attitudes towards studying. For the traditional university students, the opportunity was independent of approaches to learning.

The ability to apply skills correlated positively with strategic approach for traditional university students, and with negative attitudes towards studying for open university students in the metropoly. A higher ability to apply skills made students more methodical and well-organised in their study. It brought about changes in attitudes towards studying. It seemed that both the institutions put equal emphasis on students' ability to apply skills to solve practical problems at work. For open university students in the city, the ability to apply skills did not significantly correlate with approaches to learning, whereas it correlated positively with attitudes towards studying and achievement motivation. Probably the open
university students in the city got better opportunities to apply the necessary knowledge and skills. The occupational demands perhaps facilitated the process further. They were more confident and this helped them to develop more positive attitudes towards studying and to excel others.

For open university students in the metropoly, the employment potential correlated positively with surface approach and achievement motivation and with extrinsic motivation and strategic approach for open university students. Employment potential correlated negatively with negative attitudes towards studying and achievement motivation and positively with relating ideas among open university students in the city. It did not significantly correlate with any of the approaches to learning in case of traditional university students. Employment potentiality of course/programme acted as a strong motivator for both open and traditional university students in the metropoly, but not for students in the city.

5.4 Relationships among Learner, Content and Context Characteristics and Academic Performance

Hypothesis four tested the significance of relationships among learner, content and context characteristics and academic performance of students both in open and traditional universities.
It was observed that for traditional university students, academic performance correlated positively and significantly with ultimate goals. Perceptions of clear goals are thus found to be related to scholastic success. Parish and Rothlingshafer (1954) studied failing college students who were highly intelligent and found that they perceived a number of interests outside the scholastic field. A similar group of highly intelligent students, for whom scholastic goals were clear, were found successful in their studies. It was also observed that for both traditional and open universities students in the city, academic performance correlated negatively with their socio-economic status. However, the 'r' values were not significant indicating weak relationship. Contrary to expectations, students having good socio-economic background did not perform well in the examinations. Socio-economic background embodied parental education and vocation; value system, customs, family etc. These in turn, may be supportive of intellectual growth or may retard it. In case of students both in open and traditional universities, the socio-economic background seemed to depress the cognizing effects leading to lesser improvement in their performance in examinations. Jha (1970) and Sudance (1973) reported a negative relationship between academic performance and socio-economic status. However, a positive relationship between socioeconomic status and academic performance was
obtained by Anand (1973); Abraham (1974); Krishnan (1982) and White (1982). Overwalle's (1989) study indicated that socio-economic background exerted little impact on educational attainment. However, inconclusive evidence has been produced by various researchers investigating the relationship between socio-economic status and academic achievement.

For students in the traditional university in the city, academic performance correlated negatively with their personal orientation, whereas it was positive in case of open university students. The 'r' values were not significant, indicating lack of substantial relationship. Owie's (1983) study posited a definite relationship among locus of control, instructional type and academic achievement. Findley and Cooper (1983) found an average correlation of $r=.30$ between measures of academic locus of control and academic achievement. They also indicated that the academic achievement and locus of control relationship was considerably weaker at college stage compared to high school level. Foss and Reitzel (1988) and Ehrman (1989) indicated that students' self-perception of their competence were a critical factor in learning anxiety. In a recent study, however, Howard (1990) revealed that either internal or external locus of control orientation had no significant influence on academic performance.
For open university students both in metropoly and city, academic performance did not correlate significantly with any of the learner characteristics viz., SES, reasons immediate goals, ultimate goals, personal orientation etc. This finding was in contradiction to Powell's (1981) finding. He suggested that learning and performance was strongly influenced by the interaction between several student characteristics such as expectations, learning style, personality etc. and the parallel features of courses and teachers.

For traditional university students in the metropoly, academic performance did not significantly correlate with any of the content characteristics, whereas it correlated negatively but significantly with the form of expression, and positively with the quality and level of difficulty in case of open university students. Academic performance correlated positively with the presentation, and; negatively with sequencing of materials for open university students in city, whereas it correlated positively with relevance of materials and assessment demands for students in the traditional university. It seemed that the academic performance of students in open and traditional universities in the city as well as in the metropoly had differential causal relationships with content characteristics. In the metropoly, the academic performance of traditional university students remained largely
uninfluenced by content-related characteristics whereas in city, it was affected. Perhaps, the content-related factors were much more standardised in the former case than in the latter. Moreover, despite the cultural and educational diversity, students' expectations and perceptions of content characteristics were less dissimilar in the metropoly than in the city.

The differences in academic performance of students in open and traditional universities may be explained in terms of the criteria used for evaluating learning to a large extent. It can be conceived of as an independent variable which to a considerable extent determine the processes and outcomes of learning (Anderson, 1970; Marton, 1973 a,b; McKenzie, 1973; Marton and Saljo, 1976b).

To sum up, certain content characteristics like presentation, sequencing of materials and assessment demands contributed to academic performance, but not others. Contrary to the expectation, academic performance did not improve despite high ratings on quality dimension by students in both the universities. Bayer (1975) reported that students' satisfaction was contingent on curriculum, staff competence, quality of interaction and course offerings. The finding of positive association between academic performance and the level of difficulty in case of students in open university in the metropoly, was
incompatible with other findings. Bean and Kuh (1984) and Bean and Bradley (1986) found that course difficulty was negatively related to grades.

For open as well as traditional universities students in the metropolis, academic performance did not significantly correlate with any of the context-related characteristics. However, for traditional university students in the city, academic performance correlated positively with employment potential, orientation and peer-group interactions. Similarly, for open university students, it correlated positively with the feedback system and negatively with the delivery system. The positive association of academic performance with feedback was also reported by Tuckman (1990b). The above findings indicated that students both in open and traditional universities in metropolis were similar in their perceptions of overall context characteristics. This may be explained in terms of the absence of group cohesiveness; inadequate academic socialization; poor study motivation and unstimulating academic atmosphere. The interactive effects of all these did not contribute to academic performance of students.

Academic performance of traditional university students in the city was positively influenced by orientation, employment potential and student-student interactions. Students perceived context-related
characteristics as part of more open institutional climate. Possibly this helped them to perform better. Tripathi (1973) and Pillai (1974) reported that open climate institutions are significantly different from closed climate ones in respect of student achievement. Research on faculty-student interactions and peer interactions showed that both were positively related to satisfaction (Endo and Harpel, 1982; Pascarella et al., 1986). However, research on peer interactions and grades reported both positive and negative effects (Aitken, 1982; Bean and Bradley, 1986; Pike, 1989b). The finding of positive association of academic performance with feedback was supported by many other research findings (Kulhavy and Stock, 1989; Howard, 1990). Paul (1990) studied the effect of delivery system on selected educational outcomes (student's progress rate, satisfaction and achievement) among non-traditional students in an undergraduate business administration degree programme. His findings indicated significant variability when the delivery systems were compared for two learning outcomes: the student progress rate and the level of satisfaction. The third outcome (achievement) did not vary.

5.5 **Group Differences on Academic Performance**

Hypothesis five tested the significance of mean differences between students in traditional and open universities on academic performance.
Results [Table-9] showed that traditional university students in the city differed significantly from their counterparts in open university on academic performance, whereas in the metropoly the difference was not significant between the traditional university and open university on academic performance. It seemed that the benefits accruing from studying in the metropoly equally contributed to the academic performance of students in open as well as traditional universities. Sashi (1972) studied the academic achievement of both regular and correspondence students of Delhi University. She found no significant differences between regular and correspondence students, thus lending support to the fact that learning through correspondence education was in no way inferior to the traditional education. In fact, the academic achievement of students in open classrooms had been compared with those in traditional classroom setting in a plethora of studies. Horwitz (1979) reviewed 102 such studies. He observed 14 favoured open schools, 12 favoured traditional schools, 29 showed mixed results and 47 revealed no significant differences (the largest number).

The better performance of traditional university students as compared to open university students in the city could be attributed to several factors. It was observed that these students had few but strong reasons for taking up
the course. Their ultimate goals were realistically set and
were well within the achievable limits. They had positive
perceptions of both content and context characteristics.
They were highly motivated and were quite enthusiastic about
the course. The pooled effects of all these variables
[perceptual, attitudinal, motivational etc.] predisposed
the students to perform better. Students in open university
had different experiences, learning histories, and
heterogeneous processes of socialization with divergent
thought patterns, which created different conditions for
deriving benefits from instruction. These in turn, may have
interfered with their performance. The relationship between
educational background, persistence and performance had been
widely researched. Morgan et al. (1982); Baath (1982); and
Clyde et al. (1983) demonstrated a diversity of motivations,
orientations to study, and teaching strategies among adults
studying at a distance. The finding of significant
difference was supported by Panda (1980). He investigated
the academic achievement of students passing through regular
and correspondence courses and showed statistically
significant differences.

5.6 Relationship between Approaches to Learning and
Academic Performance

Hypothesis six tested the significance of
relationship between approaches to learning and academic

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performance of open and traditional universities students.

Results showed that for traditional university students in the metropoly, the disorganised study methods and negative attitudes towards studying correlated positively and significantly with academic performance. This finding was in agreement with earlier findings. Rao (1965) found that school attitudes were significantly related to scholastic achievement. Similarly, organised study methods and active thinking processes had been reportedly found to predict academic achievement of students (Weinstein and Underwood, 1985). It was observed that in case of students in open university in the city, academic performance was negatively associated with various indicators of deep and surface approaches. Ramsden's (1979); Entwistle’s (1981); Watkins and Hattie's (1982) studies supported the finding of negative association between academic performance and surface approach. In Fillipho schools, the deep level rather than surface level learning approaches/strategies were found more conducive to academic success (Watkins and Astilla, 1982; Watkins, 1984). For open university students in the metropoly, the academic performance correlated positively with surface strategy and negatively with strategic approach. Students pursued their vocational ends by using minimal strategies of memorising and reproducing, rather than by attempting to understand the meaning of what they were learning. Similar findings
had been reported by Sen (1989). He found college students' performance was positively associated with surface approaches to learning.

For traditional university students in the city, the strategic approach correlated positively and significantly with academic performance. This finding was in line with earlier findings by Biggs (1976, 1981); Das and Kirby (1984); Ramsden et al. (1989). The syllabus boundness was also associated with academic performance. Parlett (1970) obtained similar findings. The open university students' academic performance was not significantly correlated to approaches to learning.

5.7 Predictors of Approaches to Learning

Hypothesis seven stated that the approaches to learning adopted by students in both open and traditional universities can be reliably predicted by using learner, content and context scores.

Results showed that in case of traditional university students in the city, the learner, content and context characteristics together explained 13 percent of variance in the use of deep approaches, whereas for open university students these explained only 11 percent of variance in surface approaches. For traditional university students in the metropoly, the content, context and learner
characteristics accounted for 9% of variance in predicting strategic approach, whereas these explained 10% of variance in strategic approaches adopted by open university students. The two groups in the city thus used different approaches, while those in the metropolis used predominantly strategic approaches. The positive contribution of learner, content and context characteristics in determining approaches to learning had been recognised in several other studies. The personal preferences, values and motives predisposed a person to adopt a distinct study strategy (Biggs, 1979; O'Neil and Child, 1984). The curriculum content seemed to influence learning in a variety of ways. Fransson (1977) had showed experimentally that a learning task perceived to be irrelevant, or which induced anxiety, reinforced the use of the surface approach. The perception of assessment system in terms of the amount of factual knowledge that was required to be learned influenced students' learning behaviour substantially (Elton and Laurillard, 1979). A change in the final year assessment scheme for medical students produced changes in learning behaviour which were the opposite of those intended by the teachers. It was subsequently demonstrated that a change in the format of the examinations largely corrected the problem [Newble and Jaeger, 1983]. A similar situation was encountered by Deardon in a laboratory-based course for engineers [Elton, 1983]. Ramsden's (1984) study showed that several factors
like teaching methods, the degree of enthusiasm and commitment of the teachers and the structure, pace and level at which information was presented influenced approaches to learning.

Comparatively little attention has been give so far to understand how the context of learning affected students' actual use of learning strategies [Thomas and Rohwer, 1986] Speth and Brown's study (1990) examined the effects of two person-dependent variables: learning style and gender and one context-dependent variable: type of examination on test preparation strategies. Ramsden et al.'s (1989) study reported that perceived school environments and pupil's learning were related systematically. School environments offering supportive teaching, coherent structure, emphasis on autonomy and putting moderate stress on achievement were associated with learning involving an active search for understanding, organised study methods and avoidance of superficial approaches.

5.8 Predictors of Academic Performance

Hypothesis eight stated that the academic performance of students in both open and traditional universities can be reliably predicted by using scores on approaches to learning and learner, content and context dimensions respectively.
Results showed that the academic performance of traditional university students in the metropoly could be estimated to a good extent from strategic and surface approaches score. Previous studies reported that surface-related approaches yielded outcomes rich in detail but poor in structure (Biggs, 1979); deep-related approaches produced well-structured outcomes—that may also be reflected in grade-point average (GPA) (Watkins, 1983; Van Rossum and Schenk, 1984); achievement-related (strategic) approaches produced institutionally rewarded outcomes—high GPA (Biggs, 1987b).

The academic performance of open university students either in metropoly or city could not be predicted well by using approaches to learning scores. This finding suggested a positive link between cognitive approach and academic performance. It had support in researches of Marton and Saljo, 1976; Svensson, 1977; Brown and Håyden, 1980; Ramsden and Entwistle, 1981; Watkins, 1982, Entwistle, 1983; Biggs, 1984. Empirical support had been documented to show that strategic and deep learning strategies were associated with increased performance in secondary schools (Biggs, 1985; Entwistle and Kozéki, 1985; Ramsden et al., 1989).

The variations in the academic performance of the traditional as well as open universities students could not be substantially explained by using learner, content and
context characteristics scores. In fact, content scores explained only 5 percent of variance in academic performance of open university students in the city. Results of Jerry and Wilson's (1971) and Creager's (1971) studies indicated positive association between content factors and academic achievement of college students. They found the quality of teaching affected scholarly productivity. In an earlier research on self-directed independent study, Koenig and McKeachie (1959) concluded, "the hypothesis emerged as most plausible in that, factors determining success in independent study are primarily attitudes, motivation, and other traits of personality rather than academic abilities". The finding of nonsignificance of F value for learner characteristics contradicted the earlier findings, thus. It was observed that context factors explained only 5 percent of variance of academic performance of traditional university students in the metropolis. Spady (1970); and Austin (1971) reported that informal interaction between students and faculty had a direct influence on students' performance. In a similar vein, Alwin (1974); Rao (1975); Katz and Hartnett (1976); Pascarella et al. (1978) reported that college environment (which included better faculty, curriculum, library, financial grants etc) influenced the academic performance significantly. Kaohe and McFarland (1975) and Reilly (1976) observed the importance of content-context factors in
performance. They reported that factors like independence, critical facilities, research and experimentation, overcrowding in classes, enthusiasm and defective college education affected students' academic performance significantly.

Deepak's (1980) study showed that content, context and personal factors together accounted for 12 percent of variations in predicting academic performance of college students, whereas in the present study these factors explained only 7 percent of variations in academic performance of traditional university students in the metropolis. This suggested that if students' satisfaction was derived from better educational content, good college environment which met their personal needs, it increased their performance significantly. Perhaps, the higher level of anxiety which arose from adult learners' other life commitments such as families and jobs (Knowles, 1978) played a detrimental role in interaction with other factors in the operation/perception of content, context and learner characteristics. Another potential source of experiencing stress by adult learners could be the constant conflict between teachers' assumptions of dependency among learners and adult assumptions of autonomy and lack of need for direction and control (Steitz, 1985).