

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

In order to place the present study in the proper perspective and to situate it in the context of previous studies, a review of related literature in the area of quality improvement programme in general and faculty development programme in particular is attempted in a comprehensive and systematic manner. This chapter on review of related literature throws light on the researches in the area of quality improvement programme in general and faculty development programme in particular in U.S.A., U.K., Australia, and in India. These researches have implicit bearing on the present study and have helped in the development of its conceptual framework.

In India, the area of quality improvement programme has been comparatively a little explored and mainly discussed at the conceptual level in seminars and conferences. A few studies, that too, on innovations have been conducted at the doctoral level and through small investigative projects. The projects included the components such as examination reform, semester system, methods of instruction, orientation programmes, etc. In U.S.A., much work has been done on faculty development programme. The major dimensions of the study in U.S.A. have been : (a) instructional development programme which focuses

on curriculum development, methods of instruction, special programmes for gifted students, remedial teaching programme for academically weaker students, examination reforms etc., (b) professional development programme which focuses on pre-service and in-service orientation programmes for university and college teachers and equipping them with better knowledge and skills for carrying out high quality instructional activities; and (c) institutional development programme which focuses on optimum participation of teachers in decision-making processes in the institution. Researches have also been conducted on the wider concept of faculty development which include all the three dimensions. Researches in other countries such as U.K. and Australia have concentrated mainly on developing the pedagogical aspects of the faculty programme. For the sake of convenience, the foreign and Indian literature pertaining to faculty development has been organised under the following sections :

1. Faculty Development Programme in Wider Perspective : It focuses on varied types of faculty development programmes in general and their effectiveness.

2. Instructional Development Programme : Instructional development programmes are classified under the following sub-sections :

- (a) Programmes initiated for improving under-graduate education;
- (b) Remedial teaching programme for academically weaker students ;

- (c) Special programmes for academically high achievers, talented in organisational and manipulative skills;
- (d) Methods of instruction; and
- (e) Examination reforms.

3. Professional Development Programme : It focuses on pre-service and in-service programmes for university and college teachers for acquainting them with the recent developments in their fields of study or interest and orienting them to the adoption of a variety of teaching methods for improving the teaching-learning and evaluation processes.

4. Regional COSIP and COHSSIP Conferences : The regional COSIP and COHSSIP conferences were held in 1977-78 for evaluating the work done by the colleges for making the COSIP and COHSSIP a success and for deciding the future line of action.

The sources of related literature on quality improvement in higher education include the reports of various commissions and committees, articles and research papers published in various journals, published and unpublished doctoral studies, and books written by educationists in foreign countries and in India. A few studies undertaken in this area in foreign countries have been taken into consideration.

1. Faculty Development Programme in Wider Perspective

Centra (1978) undertook a project, 'Types of Faculty Development Programmes'. The main purposes of the project

were : (i) to identify the pattern of practices used by institutions for faculty development and (ii) to investigate the perceived effectiveness of individual practices. The sampling units for data collection were 93 doctoral granting universities, 315 four^{year}/_{year} colleges (B.A. or M.A.) and 326 two-year colleges. The data were collected through a questionnaire. Factor analysis technique was used for processing the data. The major findings regarding faculty development practices were classified into four groups or factors which are discussed as follows :

(i) High Faculty Involvement : The practices in this group tended to involve a high proportion of faculty at the college level. The experienced teachers worked with inexperienced teachers, and those with special skills offered assistance to others. Workshops, seminars or other programmes to acquaint faculty with the goals of instruction and the type of students enrolled were arranged. Informal assessment by colleagues, or self-assessment rather than formal teaching evaluation was encouraged.

(ii) Instructional Assistance Practices : In this group of practices, specialists provided assistance to individual faculty members in improving teaching skills and strategies. Special assistance was given in : (a) teaching and evaluating students' performance; (b) application of instructional technology to teaching; and (c) use of audio-visual aids.

(iii) Traditional Practices : The practices in this group included visiting scholars' programmes, annual awards in teaching, sabbatical leave grants for instructional improvement etc.

(iv) Emphasis on Assessment : The practices such as formal ratings by students, colleagues and administrators were least recognised.

Effectiveness of Group Practices : The following practices were found most effective and followed by teachers which are arranged here in order of merits.

- (i) Special assistance provided to teachers in course design, teaching strategies, audio-visual aids, testing and instructional technology were the most effective practices of this group. Other practices in this group were : classroom visitation by an instructional resource person, simulation procedure to help faculty practise new skills, and use of video-tapes in the class.
- (ii) Workshops, seminars, and other similar presentations.
- (iii) Financial assistance for projects was found essential.
- (iv) Various assessment practices laid emphasis on assessment with formal ratings by colleagues and by students.

Kozma (1978) undertook a project, 'Faculty Development and the Adoption and Diffusion of Classroom Innovations.' The purposes of the study were to increase the use of instructional technologies by faculty members and to involve participants in the dissemination of these innovations

among their colleagues. An experimental study was conducted. A group of eleven professors received faculty fellowship to become intensively involved in the reanalysis of their teaching. They significantly increased their use of innovations when compared to a random sample of other faculty members. Participants in an alternative less expensive small grant programme also increased their use of innovations. During the period of fellowships, the participants contacted a large number of their colleagues to discuss instructional matters. These contacts served to increase the awareness and influenced the attitudes of others for the adoption of innovations.

The faculty and instructional development office at SanJose University, California (1974) conducted a survey seeking information on, 'How faculty members would like to improve instructions ?' The faculty members throughout the country evinced significant interest in developing programmes for professional competencies. The result of this survey was a project with two areas of emphasis :

- (i) the development and testing of a self-appraisal form to help faculty members in identifying specific levels of interest and commitment for their own professional growth
- and (ii) the development of a series of instructional modules on topics identified in the survey. The office prepared the materials such as self-appraisal form, setting

content objectives, preparing lectures, conducting discussions, constructing multiple choice test-items, performance testing, improving instructor-student relationships, developing opinion, interest, and attitude questionnaires, types of self-paced learning and planning and preparing eight types of self-paced programmes.

In India, a variety of faculty development programmes have been discussed in the reports of various committees and commissions as well as by individual educationists. The University Grants Commission (U.G.C.) (1975) in its guidelines on 'Faculty Improvement Programme' has clearly mentioned that one of its major functions pertains to the raising and maintenance of standards in higher education and the focal point in the improvement of standards is to augment the professional competence of teachers in affiliated colleges. The U.G.C. has initiated a number of faculty improvement programmes (discussed in chapter I) for this purpose.

The editorial of the Journal of Teacher Education (1975) highlighted that the most significant contribution to raising of standards in the universities would be the development of intellectual skills among students such as self-study, library consultation, reflection, discussion, paper-reading, notes-taking, use of reference-materials etc. The teachers should adopt varied methods of instruction such as discussions, projects, work, field work, library reading etc. for developing higher

intellectual skills. among the students.

Chauhan (1975) stated that finance is not always a major constraint in improving university education. Basically, the question is of more effective instruction and the seriousness of purposes among the student community. Considerable improvement in quality is possible with the current resources available through modification of courses and curricula, optimising the use of physical facilities, change in methods of instruction and examinations, more effective use of time etc.

Parikh (1976) mentioned that for improving the quality of education, there is a need to provide academic inputs such as revision of curricula, adoption of new methods of instruction, examination reform, encouragement to experimentation and innovations, use of instructional technology etc.

2. Instructional Development Programme

An effective faculty development programme contains the components that have immediate face validity, that is, have specifically to do with the primary function of the faculty member, instruction in the classroom. In this sense, instructional components are primary and the personal and organisational components are secondary. The most effective change programmes begin at the 'process' level of professional relationships and day to day activity, for this is the level where most people experience immediate systems stress and

hence most willing to consider change. A number of programmes have been initiated for instructional development which are mentioned below :

(a) Programmes Initiated for Improving Undergraduate Education : Talley (1974) undertook a project, 'The Development of Instructional Innovations in Social Sciences as they compared with Practices and Opinions in Selected Junior Colleges of Texas.' The purposes of the study were : (i) to determine the innovative teaching techniques utilised in junior college Social Sciences instructional programmes; (ii) to ascertain the innovative practices in Social Sciences departments of selected schools as perceived by the departmental chairmen; (iii) to obtain the opinions of respondents with regard to use of innovative teaching techniques in Social Sciences; and (iv) to compare selected variables concerning the academic background of the departmental chairman with the ten most innovative and ten least innovative junior college Social Sciences departments. The investigation was a descriptive survey in which personal interview schedule was used for collecting data. The programmes were analysed in terms of percentages only. The major findings were :

(i) Twenty five percent of respondents indicated that they were using audio-visual aids extensively. (ii) A total of 36 current instructional practices were determined out of which 30 percent were such as small group discussion, independent

study and team teaching. The techniques which considered excellent were : (a) interaction between social study staff-members and students; (b) audio-visual aids; (c) current events; (d) lecturing; (e) mini-courses; (f) social activism; (g) guest lectures; and (h) audio-visual projects developed by the students. Seventy per cent of the most innovative respondents perceived these courses beneficial in terms of administration. Sixty per cent stated that these courses were necessary in order to qualify for their administrative position. It was reported that 50 per cent of the most innovative departments were headed by individuals who had earned a doctorate.

Caren (1974) undertook a project 'An Assessment of the Interim Term Programme in Liberal Arts Colleges'. The purpose of the study was to assess the major structural and administrative patterns associated with the interim term programme in liberal arts colleges and the major consequences which related to changes in the nature of learning environment. The study was conducted in three successive stages :

(i) analysis of college documents pertaining to interim term from 142 colleges; (ii) final construction of a questionnaire and mailing it to concerned colleges, and (iii) case-study of three institutions which represented substantially different contexts and environments. The major findings were : from the structural point of view, the interim term programme provided

a learning environment which differed substantially from that which existed in semesters free from time - place constraints; effective utilisation of hiatus between semesters; the introduction of new options in the formal curriculum; and simulation of change in the nature of teaching-learning process. In contrast to semesters, the curriculum of interim term was experiential; there was greater emphasis upon students and less upon structures-oriented primarily to the transmission of a particular content at a specified level. There was greater use of independent and directed study; off-campus learning resources; and interdisciplinary mode of investigation. From administrative point of view, there was evidence that many students did not work hard during the interim term as they did during semesters and many faculty did not adopt learning objectives or a pedagogy consistent with the dynamics of teaching and learning in an intensive learning mode.

Howard (1975) undertook a project, 'Developments in Instruction in Selected Four-Year College Reading Improvement Programmes throughout the United States (1950-74).' The purpose of the study was to examine the organisation, programme format, and duration of College Reading Improvement Programmes (CRIPs) in selected four-year American Colleges and universities from 1950 to 1974 and to collect information which might be

vital to effective counselling and planning for higher education in the area of reading improvement. The survey relied substantially on responses from questionnaires to 155 CRIPs and visits made to eight programmes. The major findings were : (i) CRIPs were viable parts of the reading continuum and were essential entities for any university or college. (ii) Choices of techniques used in training of students in these programmes were dependent upon the population being treated. (iii) Directors were not influenced by each other in the type of materials and machines used in programmes; however, there was a great uniformity in the use of certain types of equipment such as SRA, educational development laboratories, films and pacers. (iv) Many of the CRIPs of 1950s and 1960s were tutorials. The 1970s showed a shift to more laboratory work. (v) Directors of CRIPs were aware that there was a need for change in the organisational aspects.

Schantz (1976) had undertaken a project 'A Survey of Reading Improvement Programmes at Selected Two and Four-Year State Colleges and Universities.' The purposes of the study were to replicate a portion of a previous study; elaborate upon that portion; and expand the study to include two-year colleges. The replication, elaboration and expansion provided answers to eleven questions which dealt with the availability of College Reading Improvement Programmes, responsibility for such programmes, their nature, clientele

served, faculty, instructional aspects, facilities, finances, publicity, evaluation and future needs. The final questionnaire considered the changes which had occurred in such programmes from 1965 to 1975. The data were collected from 114 institutions through mailed questionnaire. A composite of 114 college reading improvement programmes emerged. Comprehension, study skills, vocabulary development and rate of reading were stressed in all the programmes. Many courses are now available for credit of one, two, three or more semester hours. Letter grades or pass/fail were most popular marking systems. Courses, usually lasted a semester or a quarter but minicourses were common and flexible options for scheduling existed. The most common teaching orientation consisted of the lecture, ^{and} laboratory method. In most cases, laboratory experiences were totally individualised. Although a wealth of materials and machines were available, wide use is now made of teacher-made materials and techniques as well as college text books. Multi-media techniques have increased and there has been widespread use of recreational reading of paper-back books. Respondents from institutions in the first survey in 1965, felt that the aspects of college reading programmes which had changed in ten years were techniques and materials, faculty attitude towards the programme, flexibility of schedules and course offerings. Two year institutions placed faculty attitude

first on the list of change; flexibility and innovative methods came next.

Lawrence (1978) undertook a project, 'A Study of Effectiveness of the Thirteen College Curriculum Programmes (TCCP) at Talladega Colleges as Perceived by the Graduates (1971-74)'. The purpose of the study was to determine the value of TCCP in terms of : (i) quality, content and material of instruction; (ii) improvement of undergraduate education in America; and (iii) estimates of knowledge of subject-matter. A structured questionnaire based upon values of TCCP and an open questionnaire were administered to the graduates of Talladega College. The major findings were : (i) The college graduates agreed that TCCP was an effective and valuable programme. (ii) The quality, content and materials of instruction seemed to be more than adequate at Talladega College. (iii) Graduates agreed 100% that students were expected to participate freely in discussion. (iv) Undergraduate education in America would improve markedly if there were more personal concern for students, full counselling of students and courses more relevant to contemporary life. Students should receive credit for community services, and college involvement with community. It was found through examination notes and other documents that TCCP had also generated a generous supply of teaching counselling, motivational materials and

techniques geared to the cultural background of students that could be utilised to assist them in optimizing their career aspirations.

Jabker and Halinski (1978) quoted the report of a survey conducted on Instructional Development Programme at Illinois State University. It was found that many of the faculty had attempted to revise syllabi, created new courses and curricula, and generated instructional materials such as slides, tapes, video-tapes, self-instructional units etc. The majority of teachers devoted time and energy to improving quality of instruction. Further, it was mentioned that such programmes were found very much helpful for students' learning.

Rauer (1974) undertook a project, 'A Study of the Distinguishing Characteristics of Effective Developmental Programmes in Selected Community Colleges.' The study sought to identify distinguishing characteristics of Developmental Programmes that were cited highly effective in community colleges and to formulate recommendations which would be applicable to similar programmes in other community colleges. Four colleges were selected to participate in the study. The data were collected through personal visits and by interviewing the programme directors. The major findings were : (1) A variety of learning modes were considered to be effective characteristics of the programmes.

- (ii) Physical environment was considered important.
- (iii) Academic degree credit should be given for each course taken. (iv) Counselling should play a major role in any developmental programme. The pertinent recommendations were :
- (i) Teachers' characteristics should include full time commitment to the programme, availability to the students, and patience with and sensitivity to students' learning and personal needs. (ii) Provision should be made for teachers to spend time periodically for professional and personal growth. (iii) Students should receive academic degree credits as a result of their participation in the programme. (iv) Instructional characteristics should provide positive feedback to students in terms of their progress and interest. (v) Counselling services should be provided on full time basis. (vi) The programme should be subjected to continuous and rigorous evaluation from its inception.

Abramowitz (1974) undertook a project, 'Criteria for Programme Review of Baccalaureate Degree Programmes in Arts and Science.' The purpose of the study was to identify criteria which could be used by colleges and universities and by state agencies in reviewing Baccalaureate Degree Programmes in Arts and Science, the backbone of all professional and other graduate programmes. Criteria for programme review were developed after compiling the criteria from the four programme reviewing agencies such as Regional Accrediting Agencies

recognised by the United States Commission of Education; Professional Accrediting Agencies recognised by the United States Commission of Education State Agencies and Institutional Members of the Regents; and Regional Coordinating Council for Post-secondary Education in New York. The subject-heading for the criteria were : institutional objectives, educational programmes, faculty, library, student personnel services, physical plant and equipment, finance and accounting, and administration. Criteria concerning programme tended to be described wither qualitatively or both in qualitative and quantitative terms.

Eannello (1974) conducted a study, 'Factors that Influence Implementation or Non-implementation of Curricular Programme Plans for Community Colleges as approved by Boards of Regents.' The study was conducted by mailing a questionnaire to the Heads of 20 colleges. It was revealed that the major obstacles were financial in nature and lack of adequate facilities for organisation of additional curricular activities. The study recommended that a more detailed and precise planning is necessary and careful analysis of community needs should be coupled with detailed financial requirement in the very earliest stage of curricular programmes.

(b) Remedial Teaching Programmes for Academically Weaker Students : Manikas (1974) conducted a project, 'A Remedial Programme for Underprepared Disadvantaged Black Junior College Students.' The purpose of the study was to determine the components of remedial programmes and their effectiveness if they existed in the past and present curricula for underprepared Black Junior Students. The method consisted of a survey of the literature on past and present remedial programmes and analysis of selected programmes to finalise components and to determine reasons for their effectiveness. The programme effectiveness was determined in terms of attrition rate and grade point average. The programmes which were frequently organised were : (i) group counselling; (ii) individual counselling; (iii) block programmes; (iv) reading development programmes; (v) mixed course load; (vi) group tutoring; and (vii) individual tutoring. The programmes were declared successful on the basis of the attrition rate and grade-point average.

Fair (1973) undertook a project, 'Special Programmes for Disadvantaged Students in Higher Education.' A questionnaire and an interview schedule were used for data collection. Out of 20 institutions in Illinois University having special programmes, 19 of them participated in the study. The Directors of programmes ranked the special programme components

and practices in order of their importance. The rank-order indicated that the most important components and practices were special tutoring, special counselling, modified admission criteria, orientation sessions, remedial courses (College credit), developmental study skills, long term time for degree, financial aids, supervised study centres, and preparatory programmes.

Gaston (1977) conducted a study, 'A Descriptive Analysis of Developmental Programme Curriculum funded by Title III Grants at Seven Selected Developing Institutions of Higher Education.' The study communicated evaluative information concerning departmental programmes that catered to low income underprepared disadvantaged students. English Reading and Mathematics provided the content emphasis of the curriculum developmental programmes identified in this study. The major findings of the study were : (i) Curriculum Developmental Programme (CDP) at seven academic institutions in this study used various teaching methods to accompany different learning styles. (ii) They had used a variety of equipments, materials, and supplementary books to facilitate the learning process for students. (iii) CDP had personnel that had been effectively prepared through conferences, workshops, professional study, evaluative meetings and inservice training with the purpose of assisting underprepared disadvantaged students to achieve maximum psychological and academic growth and development.

(iv) CDP at the seven academic institutions in this study concluded that a very high percentage of students successfully completed their freshman year of academic pursuit and that a very high percentage of these students were continuing their academic pursuit as sophomores. (v) The programme had been effective in raising significantly the level of academic competency of underprepared, disadvantaged students.

William (1973) undertook a project, 'An Evaluation of the Effectiveness of Audio-tutorial Minicourses for Enrichment and Remedial Instruction in the Biological Sciences.' The study was designed and conducted to determine the effectiveness of audio-tutorial mini-courses in increasing achievement in the Biological Sciences at the college freshman level. An experimental study was conducted. Seventy five students in the experimental group attended regular lecture and laboratory periods in addition to completing 10 minicourses in the science learning centres. The 79 students in the control group also attended regular lecture and laboratory periods but completed library assignments on the topics covered in minicourses. Pre-test was given to all the students before taking the minicourses and post-tests were given after completing the minicourses. The major findings of the study were : (1) The audio-tutorial minicourses, when used as an adjunct to lecture and laboratory techniques did assist students in learning. (ii) The study further concluded that

96.9 per cent of the students achieved 70 per cent of the stated behavioural objectives. (iii) The study concluded that no significant difference was found between post-test means of the audio-tutorial groups and the library research group when the data were treated by analysis of variance.

(c) Special Programme for Academically High Achievers : Dudley (1959) reported about the Advanced Placement Programme for the academically high achievers. The Advanced Placement Programme was first started by Michigan State University and the University of Florida. Under this programme, the gifted students were allowed to study college level courses in high school and upon completion of an examination subject to college policy, to receive college credit.

(d) Methods of Instruction : Teaching is the process of arranging situations that are conducive to effective learning. To make instructional process effective, teacher can play a vital role by exercising his talents through various methods, for example by narrating, describing, illustrating, discussing etc., In the area of methods of instruction, a number of studies have been conducted both in the foreign countries and in India.

Lambert, Phillip et. al. (1964) compared team teaching with self-contained class-room material and found significant differences between the two methods as regards to classroom interaction pattern and student achievement, but not in the

student adjustment.

Brinkmann (1966) studied, 'Students' Attitude towards Programmed Instruction.' He reported that most of the students agreed that programmed instruction was an effective way of learning, and they could learn a great deal by using a programme. Nearly all of them disagreed with the statement that programmed learning was a monotonous method of learning. Not a single student considered the programme difficult and at the same time no one felt that the whole programme was easy.

Etters (1967) showed, based on a supplementary programme conducted at Parsons College, how tutoring would help the low achievers. He found that tutorials produced significant results, specifically with undergraduate students.

Leonard (1973) conducted a study, 'A Comparison of the Relative Effectiveness of Written Scripts and Audio-tapes in Teaching Biology.' The study involved 64 students in two experimental groups, and 64 students in a controlled group, selected approximately from 900 students enrolled in general Biology course at Syracuse University. The groups were given two instructional treatments - scripts and tapes on two units of Biology subject-matter. The major findings were : (i) A significant difference in favour of script instruction was found for achievement in the development Biology units.
(ii) Significant less time was needed to complete assignment

when using written scripts than using audio-tapes for both groups for both the units. The group felt that multi-media approach was the best option for learning Biology.

Hammack (1974) conducted an experimental study, 'A Comparative Study of the Effects of Self-paced and Lecture-laboratory Instruction on Achievement in General Biology Studies.' It was found that the students in either audio-tutorial or lecture-laboratory methods did not differ significantly in post achievement. Cognitive achievement was not more significantly related to one approach than to other.

Marcy (1974) conducted an experimental study, 'A Comparison of Three Methods of Teaching College Chemistry.' Three classes of a community college were taught using traditional lecture-discussion with a typical text, a lecture discussion using a programmed text, and an individualised self paced method. The self-paced approach was shown to produce improved learning. The students using this approach consistently scored very highly on the standardised test. One reason may be the greatly increased involvement in the business of learning by students. The more active type of learning appears to be more effective.

Vincent (1974) had conducted a research study on 'A Comparison of the Discovery Approach with the Lecture Approach in Teaching General Botany.' The statistical results of the study indicated that there was no difference between the two methods for the parameters tested. An opinion survey suggested

that the students taught by the discovery method were able to express their opinions and ideas more clearly than the control group.

Roe (1975) undertook a project, 'A Comparison Between Two Methods of Teaching Social Studies at the College Level.' The central problem of this study was to determine if there was any significant difference between students taught by the face to face instructional method and those taught by an individual instructional programme with reference to achievement of selected objectives applicable to a course of study dealing with ethnic minority groups. Seventy-two students enrolled in an Ethnic studies course at Eastern Montana College in the fall of 1974 were randomly divided into the groups with one being subjected to traditional method and the other experimental method. Students were tested by a series of tests. The study led to the findings that the experimental group scored considerably higher than the students in control group and was found significant at .01 level of confidence.

Smith (1976) conducted an experimental study, 'A Comparison of Three Methods of Teaching Freshmen Mathematics; Lecture, Guided Discovery and Programmed.' The study investigated achievement in Mathematics as affected by three different teaching methods : lecture, guided discovery, and programmed on initial level of mathematical

abilities, preference for Mathematics and time spent on Mathematics out of class. Sixty randomly chosen students were taught college Mathematics, a regularly scheduled course at Southern University in Orleans during the first half of spring semester 1975, in three separate classes using three methods which were being investigated. Discovery approach - a student-centred technique had twenty students; the lecture method - teacher centred expository techniques, consisted of twenty three; and the programmed self instructed students-centred expository techniques, had seventeen students. All the three classes were taught by the same instructor. Pre-test and Post-test data were obtained using teacher constructed test. The major findings were that discovery approach or programmed learning method cannot claim superiority over lecture method. The interest generated in class out of class by discovery method was high. Significantly more progress was demonstrated by them in problem-solving. There was a very strong agreement in favour of guided discovery.

Collingwood and Hughes (1978) studied the 'Effects of Three types of University Lecture-notes on Student Achievement.' There were a series of three different kinds of lecture notes - duplicates of the lecture's detailed notes; copies of the headings, key-points, diagrams, outlines, tables; and references from lecture notes with spaces for the students. The study revealed that the students' preferences were for three types of notes which were distributed before or after

the experimental lecture. A significant interaction between initial preference and treatment was found. The result of the investigation suggested that the efficiency of lectures can be improved through distribution of some kind of notes.

A committee of experts under the chairmanship of Sir Edward Hale (1964) conducted a survey on, 'University Teaching Methods in U.K.' The committee took a sample of 3,374 undergraduate students and 2,017 university teachers, covering 24 universities and 3 colleges. The findings of the survey emerged from the memoranda received from the universities and colleges through an open initiation or request made by the Committee, and through the interviews conducted on sampled university teachers and students. The interview schedule took several aspects of teaching-learning process into consideration. The major findings were : (i) Students' opinion was critical both of the lecture as a method of teaching on the ground that it was a 'one way process' and also of the quality of some lectures. All the evidence was that one in showing a strong demand more for teaching by tutorial and seminar methods, (ii) Two university teachers out of three were satisfied with the amount of lecturing they did. The overwhelming weight of university teachers' opinion was that lectures had an essential function, particularly for opening up a subject for students who were not in a position to do it for themselves by unassisted reading, and also for giving more detailed information

where suitable textbooks were lacking. (iii) At Oxford, which represented the traditional system, 9 out of 10 tutorials were given to one or two students, and responsibility for organising the students' work and giving them teaching was normally concentrated in one tutor. (iv) Good teaching by discussion (seminars and tutorials) required antecedent effort from the students and this was evoked by setting written work to be discussed at the next meeting. Teaching by discussion and written work done in students' own time were bound to be inseparable, if each was to have its full value and it was important in Science as well as in Arts. There was varying opinion regarding the size of the seminar group; few universities favoured a seminar group greater than 12, and several put the maximum number at as low as 10. In applied science, a seminar sometimes consisted of 20 students. (v) The medium size of lecture audience was 19, but it was higher in Scotland (32) than elsewhere. As per facilities, it was highest in pure science (33) and lowest in humanities (15). Three lectures out of 10 were given to an audience under 10.

The Committee also surveyed the teachers' opinion about the training of university teachers. It was found that one in 10 of the sample of university teachers said that they had completed courses of training as teachers and opined that such training had been very advantageous to them in performing their job. Nearly 3 out of 5 in the sample, thought that newly

appointed teachers should receive some form of organised instruction or guidance on how to teach.

The Australian Vice-Chancellors' Committee (1964-65) conducted a survey on 'University Teaching Methods.' The Committee found the dominance of the lecture method, the comparative dearth of tutorials and seminars, and a little use of modern audio-visual aids. It was also found that a greater proportion of students preferred tutorials and small group meetings. The Committee recommended that : (i) Training courses for new lecturers should be started, (ii) There should be much emphasis on small group discussion. (iii) Library facilities should be improved. There was a need for follow up studies to assess the impact of courses on students. (Jones, Phillip E., 1974).

The report of the Australian Commission on Advanced Education (1972) emphasised the need to turn away from the lecture approach, and to make greater use of tutorial, seminar, and project approach. (Jones, Phillip E., 1974).

In India, methods of instruction have been discussed at conceptual level and a few surveys have been conducted.

A number of Commissions, particularly the University Education Commission (1948-49); the Indian Education Commission (1964-66); and various Vice-Chancellors' Conferences have recommended the reduction of the number of lectures in the colleges and to adopt a variety of discussion techniques for imparting instruction such as tutorial, seminar, group discussion,

symposium etc. (mainly discussed in Chapter I).

Mehrotra (1975) emphasised the need for teachers to try modern techniques, while conveying upto-date knowledge to students in classroom particularly in the disciplines of science. The main techniques of improved teaching initiated in recent years can be grouped under the following heads : planned demonstration, charts and models, filmstrips, tape recorders either done or in combination with film loops, broad-casting and television, programmed learning system, and computer assisted instruction. He mainly advocated the use of educational technology - software as well as hardware - for classroom instruction.

Filella (1975) has suggested some methods of instruction for better learning - conditioning, habit formation, lecturing, audio-visual aids, seminar, case-studies, simulation games, conscientization etc.

Jacob (1975) has mentioned the various approaches for improvement of teaching-learning process in colleges such as structured lectures, tutorials, guided reading, in-residence programme, community related projects, bibliographical projects, interdisciplinary studies, independent study projects, workshops, discussion sessions and seminars.

Santhanam (1977) reviewed the various methods of teaching based on researches conducted abroad. It was concluded that lecture as a method of teaching despite endless criticism

against it, has survived till the present day. Besides lecture, discussion, team-teaching, independent study, and tutorials were the chief approaches and they have been examined by various researchers and theorists.

Desai (1970) studied the use of lecture tutorials and seminars for the improvement of teaching-learning at the undergraduate and post-graduate levels. Lecture method, no doubt, was an effective method for teaching but it needed strength in content, organisation, delivery and supplementary work. Tutorials also played its own important role in the post-graduate and under-graduate classes. To him, seminar was most advantageous for the post-graduate students. A judicious combination of lecture, tutorial and seminar method will yield fruitful results.

Mehrotra (1972) undertook a survey on 'Application of Non-directive Methods of Teaching in Indian Educational Institutions.' Seven types of institutions were involved in the survey, viz., training colleges, education, and other departments of universities, miscellaneous colleges, institute of technology, public schools and other institutions. The survey revealed that four non-directive techniques were found to be in use, viz., T-group, Team-teaching, group discussion, and working in groups. Among these techniques, group discussions were organised by a large number of institutions formally or informally. In the application of these techniques, more of cognitive objectives seemed to be kept in view rather than affective or psycho-motor

objectives. Most people agreed that these techniques would improve the quality and tone of work in an institution.

Joshi (1979) undertook a project, 'A Survey of University Teaching Methods.' The investigation was conducted in 18 colleges, and three universities of the states of Gujarat, Kerala, Andhra Pradesh, Maharashtra, Rajasthan and Uttar Pradesh. A total of 190 teachers responded to the questionnaire. Out of 190 teachers there were 6 professors, 13 readers, 166 lecturers and 5 teaching assistants from the colleges and universities. The major findings were : (i) The lecture method seemed to be the most popular technique employed by the teachers of colleges and universities in the degree classes. On an average, the major proportion of time (65.71 %) was spent on lectures in colleges at the degree level, but in universities 51.85% of time was spent for the same classes. The responses further revealed that at the post-graduate levels, the time spent on lectures was comparatively less. (ii) The tutorials and the seminars were also not very popular teaching devices at college and university stage. Only 24.7% of the respondents used tutorials and 35.8% of the respondents made use of seminars as their teaching techniques. (iii) In the use of audio-visual aids, 72% of the teachers of the colleges and universities were interested.

Akhtar (1980) studied methods of instruction at the undergraduate and post-graduate levels in relation to the

semester system. She found that besides lecture, other methods such as seminars, discussions, tutorials, assignments, quizzes, project work etc. were also practised in institutions where semester system was adopted. The students also felt satisfied when a variety of techniques were employed in the classroom.

(e) Examination Reform : Evaluation is an integral part of any educational system. It is evolved and designed to assess the achievements of the students in course of study that they pursue and thereby, provides feedback to both teachers and learners with regard to the attainment of objectives. Orientation of teachers for evaluating students' performance through a variety of techniques has been attempted throughout the globe. The various evaluation techniques were adopted such as (i) continuous assessment of students through essay type examination, assignments, quizzes, seminars, tutorials, discussions etc. ; (ii) credit system; (iii) grading system; and (iv) question bank. A few studies on examination reform have been taken into consideration here as related literature.

Krishnaswami (1972) discussed the purpose of education and its relation to the development of the students' knowledge and skills. He mentioned about the teaching-learning and evaluation processes with their effectiveness. He criticised the traditional system of examination and has suggested the internal system of evaluation. He suggested that the students' abilities, knowledge and skills should be assessed through diversified activities such

as through essay type examination, assignments, quizzes, seminars, project work, fieldwork etc.

Bulletin of Higher Education (1975) discussed the internal assessment and the grading system for examination reform in Indian Universities. Through internal assessment the students' ability of writing, capacity to do work in the field, project work, participation in the seminars and discussions become clear. Internal assessment stands not only for discipline but also for the realisation of the effectiveness of teaching-learning processes. The bulletin has suggested for implementation of the grading system in the universities. As per the bulletin, grading system would be able to reduce the element of subjectivity and the irrationality of the marking system.

Three National Seminars on Examination Reform (1975,78,79) were sponsored by the U.G.C. at the Universities of Mysore, Kashmir and Nagpur respectively. The seminars emphasised testing the abilities of the students through diversified activities such as - written examination, their capacity to do field work or laboratory activities, their participation in seminars, tutorials etc.; their grasp of subject, their abilities to write synopsis of articles in learned journals, review reference books and use resource materials etc.

Reddi (1977) studied the attitude of students towards internal assessment. The study covered the attitude of 120 students of a university college where internal assessment

was being tried. It was compared with that of 120 students of another university college, where the system was going to be introduced. Stratified random sampling was adopted. The major findings of the study were that those who had experience with internal assessment had slightly more favourable attitude towards the system than those who did not have any experience with it.

Srivastava and Srivastava (1979) studied the internal assessment in Meerut University and the sample was only the post-graduate students of one college. The findings of the study clearly pointed out that internal assessment was more liberal and enabled the students in obtaining better divisions.

A Plan of Action for Examination Reform (1973, 76) developed by the U.G.C. evolved the concept of question-bank to remove the defects of the examination papers at the university level. In the bank, questions are collected from expert committees after scrutiny and modification; of course 25% of questions can be set from outside the bank. The question bank consists of different types of questions - problem oriented, short answer type, multiple choice, to test varied skills and abilities of the students. Constant review of the questions is suggested to counteract publication of guidebooks, notebooks, and mass copying.

Amin (1977) studied the question bank and found that a question bank is a changing pool of items. New items will be added and less effective questions will be removed. She discussed the terminal behaviour from every type of items. The psychometric

properties of the items should be found out.

Yadav and Menon (1978) stated in their article that the question bank will help in evaluating students' performance in terms of instructional objectives. The devices may not be only in the form of questions but may include assignments, observation schedule, rating scale etc. Question bank will be a package for increasing the effectiveness of the teachers.

Narsian (1978) studied the reactions of university personnel to the suggested changes in examination system - specially internal assessment, grading system and question bank in her doctoral thesis of 'Innovations in Higher Education'. Twelve universities were covered in her study. All the universities in the sample accepted the idea of internal assessment; eight universities accepted the idea of question-bank; and seven universities accepted grading system in principle. The teachers exhibited negative attitude towards implementation of internal assessment due to increased work load, lack of clarity about the plan, lack of leadership, incentive, feedback etc., and positive attitude towards question-bank and grading systems. The students with a wide majority have expressed their liking for internal assessment, question bank and grading system.

Akhtar (1980) in her doctoral study of 'Semester System in Selected Universities of India' studied the evaluation system in terms of internal assessment grade system and question

bank. It was found that 9 universities out of 10 assessed the students through the internal assessment. All the universities followed the continuous internal assessment. Simultaneously with the internal assessment, external, grade and mark system prevailed in the universities to assess the students. The percentage of weightage of internal and external assessment differed from university to university. The different components of internal assessments were texts, assignments, discussions, project work, seminars, quizzes, field work, viva-voce etc. The majority of students favoured internal assessment and grade system. The majority of teachers were not in favour of question bank.

3. Professional Development Programme

One of the major objectives of faculty development is to augment the professional competence of university and college teachers to make them better equipped to initiate and carry out high quality instructional programmes. It provides opportunity to teachers to keep abreast of modern development in their fields of study and research and to exchange ideas with experts in similar or related fields. Professional development programme includes the pre-service and in-service programmes organised for university and college teachers for orienting them in their fields of study and on pedagogical aspects of education. Studies have been conducted in foreign countries as well as in India pertaining to professional development of university and college teachers.

The Committee under the chairmanship of the Lord Robbins (1961-63) emphasised the need for improvement of university teachers through the introduction of pedagogical courses in higher education. The pedagogical courses should include methods of teaching, evaluation and pedagogical problems.

In U.S.A. the Carnegie Commission (1971-72) on higher education created an epoch in the study of professional development of college and university teachers. The Commission emphasised the need for and significance of pedagogical courses for teachers in higher education. With the recommendations of the Commission, departments of higher education have been established in many of the universities.

Calivert (1973) undertook a project, 'Professional Development Programme for Newly Appointed Faculty Members at Selected Private Liberal Arts Colleges.' He identified the areas in which faculty development programme can be organised. It was concluded that : (i) Problems most frequently encountered by new faculty members were related to teaching duties and relationship with students. (ii) The most significant factor in the adjustment of a new teacher to his faculty role was his relationship with other faculty members. It was recommended that colleges should start professional development programmes. New faculty members should be oriented about student characteristics. New faculty should be informed about effective planning and teaching techniques. Faculty should strive to establish a spirit of

cordiality and helpfulness.

Weber (1974) had undertaken a project, 'Inservice training of College Teachers, Aims and Practices for Faculty Development.' The main objective of the study was to determine the similarities and differences as perceived by students and varied educators, regarding the importance of certain desirable characteristics of general college teaching as well as of teaching in specific academic areas. The characteristics of general college teaching and teaching in specific academic areas which were of high importance; 'knowledge of subject', 'Clear explanation', 'Self evaluation, recognition for teaching', and 'faculty participation in curriculum and instructional policy', were judged to be the three most important inservice practices whereas observation and class visitation and video tape facilities were rated lowest. According to the student evaluation, the workshops and seminars promised to provide the maximum in-service opportunities.

Anderson (1974) undertook a project, 'Effects of a Training Programme for Teaching Assistants'. The purpose of the study was to ascertain the effects of selected parts of training programme for teaching assistants and other faculty at the University of Missouri - Columbia by the Centre for Educational Improvement, College of Education during winter semester 1973. It was an experimental study. The treatment group included 14 participants in the training programme offered by the Centre for Educational Improvement. The second group which was

composed of 29 teaching assistants and other faculty members at the University of Missouri, had no treatment. Three research instruments were administered at the beginning and at the end of the research period. They were cognitive IBS questionnaire, an affective attitude instrument and audio tapes which recorded the participants in a teaching situation. Statistical analysis included the 't' test, analysis of covariance, U test and the rank analysis of covariance. The major findings of the study were:

(i) The teaching assistants became more familiar with the writing and use of behavioural objectives and with the use of statistics in testing and evaluation procedures as evidenced by the results of a cognitive questionnaire. The difference between the treatment and no treatment group was significant at the 0.05 level.

(ii) The participants of the training programme had changes of attitude towards teaching skills, behavioural objectives, verbal interaction analysis, testing and microteaching during the course of the programme as measured by an affective attitude instrument.

(iii) Actual classroom behaviour may be changed as a result of the training programme. Treatment group classes demonstrated significantly more student response, teacher questions, positive reinforcement and silence with less teacher lecture than the no treatment group. No significant difference between groups was found for the categories of using student ideas, directing students, negative reinforcement and conclusion.

Mistry (1978) had undertaken a project, 'Improving College Teaching : Model Faculty Development Programme for An Indian

Unitary University'. The purpose of the study was to determine:

(i) specific topics that constitute an orientation programme;
(ii) different formats of planning and conducting inservice faculty development programme; (iii) specific topics that are utilised in the faculty development programmes, (iv) different alternatives adopted by the colleges in United States to improve college teaching, and (v) formulation of a model faculty development programme for an Indian Unitary University.

The data were collected through mailed questionnaires from 238 institutions. The major findings were : (i) About 65% of the responding institutions indicated that they were conducting orientation programme; small and medium size institutions reported greater frequency in conducting such programmes. The most emphasised topics for the orientation programme were identified as role of a faculty member, information about promotion and tenure, information about campus facilities and fringe benefits. It was evident that the orientation programme dealt more with the mechanics rather than with indepth discussions on pedagogy. (ii) About 50% of the institutions reported conducting inservice faculty development programme. (iii) About 30% of the respondents reported that attendance at the programme was mandatory for all new faculty members. All the institutions reported, were utilising three formats: a short term programme, an ongoing programme, and a combination of both. The respondents indicated that they had placed maximum emphasis on topics such

as : course planning, alternate teaching techniques and evaluation of students' work for the programme. The majority of the institutions reported rewarding good teaching by either salary increase, or promotion or both. It was recommended that inservice faculty development programme should be of an ongoing nature, utilising the evaluation procedure to provide feedback information for modifying the programme according to the needs of the faculty members; emphasising discussion on pedagogy rather than the mechanics of the campus. Team building, establishment of a centre for teaching and creation of posts of teacher counsellor should be encouraged. Taking into consideration the results of the study in U.S.A. and the needs of an Indian faculty member, a model programme was developed. The model programme consisted of two parts, Part one comprised two days' orientation programme both at the university and departmental level. Incorporation of such supporting programmes as teaching evaluation, course evaluation, and rewarding for teaching excellence was envisaged within one year of the start of the programme. Part two of the programme dealt with the establishment of higher education departments, centres for teaching and centres for research in higher education.

In India, the idea of training for university/college teachers was advocated by the Education Commission (1964-66) for professional preparation of teachers in higher education.

According to the U.G.C. report, orientation courses in pedagogy for university teachers were started from 1969 onwards

and they are still continuing in the form of summer institutes.

Buch (1976) has mentioned in his report on 'Inservice Education Programme in Methodology of Teaching for Fresh and Newly Appointed Lecturers of M.S. University of Baroda,' that such programmes should be made compulsory for newly appointed lecturers of the university.

Anand (1977) in his article on 'Professional Training of College Teachers Through M.C.T. (Master of College Teaching) Degree Course' described the conceptual framework of the total programme of M.C.T. Degree course.

Joshi and Singh (1978) undertook a project, 'Orientation Courses for University Lecturers'. The data were collected from 80 universities through mailed questionnaires. The analysis of data revealed that 18 universities out of 80 have already sponsored such pre-service and in-service programmes.

Singh (1980) undertook a project, 'A Critical Study of the Pre-service and In-service Education of Teachers of Higher Education in India'. The objectives of the study were :

(i) to find out the need for and aims of such programmes, and
(ii) to seek university teacher's opinions towards such programmes. The sample consisted of prospective teachers, untrained teachers and trained teachers. The major findings were : (i) Both the pre-service and in-service groups felt that this programme was helpful to them. (ii) The untrained group felt that this programme might be helpful to the university/college teachers. (iii) The objectives of the course were

formulated and listed such as : systematic and effective teaching; awareness of new techniques of evaluation; proper guidance to the students in 'teaching-learning process', curriculum development in higher education etc. The respondents showed favourable attitude towards the programme. The investigator has also developed the syllabus for pre-service and in-service training programme for university teachers.

4. Regional COSIP and COHSSIP Conferences in India

The University Grants Commission organised COSIP-ULP and COHSSIP conferences in 1977-78 for ; evaluating the progress made by the colleges under the programmes; exploring possibilities for further diversifying their activities by beginning a meaningful dialogue between COSIP and COHSSIP colleges; and for preparing guidelines for the operation of the schemes in the coming years. For convenience sake, first the regional conferences pertaining to COSIP-ULP are discussed, followed by COHSSIP conference.

(a) Regional COSIP-ULP Conferences : The UGC organised four regional COSIP-ULP conferences in the summer of 1977 to discuss the achievements of the programme so far and to chalkout the future activities. The conferences were held at the Department of Physics, Mysore University (Southern region, 6 - 9 June), Ahmednagar College, Ahmednagar (Western Region, 15-18 June); Department of Chemistry, North-Eastern Hill University, Shillong (Eastern region, 1-4 July) and Ewing

Christian College, Allahabad (Northern region, 11-13 July).

In general the achievements of COSIP were classified under the following heads :

(i) Methods of Instruction : Lecturing continued to be the principal method of instruction at undergraduate level but the teachers experimented and supplemented it with other techniques such as assignments, seminars, group discussions, symposia, quizzes, demonstration, problem-solving, projects etc.

(ii) Development of Instructional Materials : Most of the teachers developed the synopsis and abstract of the lecture to be delivered in advance, got them cyclostyled and distributed among the students. These materials have been found to be much effective for developing independent study habits among the students. The students and teachers also prepared charts, models, filmstrips, slides, audio-tapes etc. for supporting instructional process.

(iii) Establishment of Workshops : Some of the colleges have established the workshops and glass blowing units and provided opportunities to students for assembling equipments and setting new apparatuses. It also provided opportunities to the students to learn servicing and maintaining laboratory apparatuses.

(iv) Experimental Projects : A number of experimental projects particularly in Chemistry, Physics, Zoology, Botany, Geology,

Microbiology were carried out by the students. Survey types of projects were carried out by the Statistics departments.

(v) Revision of Syllabus : Some of the departments revised ^{of the college} the syllabus in consultation with the staff members/and with the members of the ULP. The syllabus has been enriched, modernised and updated.

(vi) Enrichment of Library : It was reported that in all the colleges, every department spent a lot of money for purchasing advanced books and subscribing to the leading journals. Extra periods have been allotted to students for library consultation under the guidance of the staff members.

(vii) Adoption of New Methods of Evaluation : Some of the departments have started developing question banks containing objective type, short answer type, and essay type questions. The colleges in which internal assessment was prevalent, adopted varied techniques of assessing students such as : their participation in tutorials, group discussions, seminars, quizzes, completion of assignments, assembling equipments for new apparatus and through various other creative activities. A few colleges instituted certificate for indicating students' participation in various activities apart from the university degree.

(viii) Provision of Guest Lectures : Most of the colleges invited learned speakers for delivering lectures so as to make clear the concepts in a discipline and for inter-relating it with other disciplines.

(ix) Organisation of Educational Excursions : Educational excursions have been organised by some of the departments.

A few of the COSIP colleges started remedial courses for academically weaker students and special programmes for gifted students. Job-oriented courses on a small scale have been started. A few of the colleges have started publishing news bulletins.

The achievements of ULP in COSIP in various disciplines are summarised as follows :

- (i) Most of the University departments revised the syllabi at undergraduate level in consultation with experts, and through organisation of seminars of teachers from affiliated colleges.
- (ii) Laboratory apparatuses have been fabricated by the university departments. Training was given to the teachers from affiliated colleges in handling and making similar apparatus.
- (iii) Instructional materials such as charts, models, films, filmstrips, audio-tapes were prepared by the university departments and were distributed to the COSIP colleges.
- (iv) The list of equipments for setting up workshops and glass blowing units were provided to the colleges.
- (v) Question-banks were developed by some of the university departments in most of the disciplines and the teachers were trained in constructing objective type, short answer type and essay type questions.
- (vi) The University departments organised short term institutes for orienting teachers from affiliated colleges in developing skills for handling new methods of instruction.

Natrajan (1978) made a few observations regarding the progress made by ULP-Centres and COSIP colleges. It was stated that ever since the initiation of programmes in 1971, the ULP Centres and COSIP colleges have produced a good quality of resource materials for bringing improvement in teaching-learning and evaluation processes in Science subjects at the first degree level such as reference books, projected and non-projected aids like films, filmstrips, slides, audio-cassette, transparencies, charts, models etc. He further stated that some of the colleges have developed a pool of objective type, short answer type and essay type questions.

(b) Report of All India and Regional COHSSIP Conferences :

The All India COHSSIP conference was held at the St.Xavier's Villa, Khandla, from 20-22 January 1977 sponsored by the UGC. The colleges were requested to send the detailed reports of the activities organised under the programme. Out of 105 COHSSIP Colleges, 77 were represented at Khandla, and 54 colleges had sent reports in detail.

Jayakar (1977) compiled the reports of 54 COHSSIP Colleges and published them in COHSSIP Newsletter sponsored by the UGC. It was mentioned that the COHSSIP facilitated interesting deviations from the norms of the conventional lecture method; it helped to make seminars, group discussions, panel discussions, dialogues, tutorials, surveys and study tours almost regular feature of the study courses at different

colleges. The libraries were improved. Audio Visual aid facilities were expanded. Interdisciplinary lectures were organised. Colleges organised remedial teaching in varied disciplines. Attempts were made for revision of syllabus in consultation with the experts and academic council of the universities.

Factors causing hinderance to the effective implementation of COHSSIP were also discussed at Khandla Conference. The major recommendations of Khandla Conference were : (i) The COHSSIP should cover all students and form an integral part of the normal study programmes in all colleges. Although for purposes of better organisation, the COHSSIP may initially be implemented as a separate and independent programme, care should be taken to ensure that its gains and approaches are absorbed into the normal pattern of teaching learning and assessment processes adopted. (ii) Teachers at COHSSIP should adopt modern methods of teaching-learning and evaluation processes. (iii) No financial incentives should be given to teachers for executing COHSSIP assignments. (iv) Grants sanctioned for non-recurring items and not exhausted during the specified academic year may be carried over to the subsequent academic year. (v) Satisfactory implementation of COHSSIP will lead to autonomy for colleges.

Acting upon their recommendations of the Khandla Conference, the U.G.C. sponsored a series of five regional COHSSIP Conferences during the period from December, 1977 to March,

1978. Representatives from 110 COHSSIP colleges participated in the conference i.e. more than 87% of the 126 eligible colleges. The colleges presented their reports on improved methods of teaching and better results; better use of books and libraries ; audio-visual aids; part-time teaching assistants; production and distribution of reading material; remedial teaching; field work, guest lecture evaluation on procedure, autonomy etc.

Implications drawn from Previous Literature for the Present

Study

The review of researches and related literature, in the area of quality improvement in general and faculty development in particular, specifically in terms of their components such as special programmes organised by various agencies for improving undergraduate education, remedial teaching programme for academically weaker students, special programmes for academically high achievers, methods of instruction, evaluation procedure, programmes initiated for augmenting professional competence of university and college teachers and regional COSIP and COHSSIP Conferences have far reaching implications for the present study. The literature develops insights into the organisation of various activities under a programme. Chauhan (1975) and Parikh (1976) discussed the various academic inputs for improving the quality of higher education. The faculty and instructional development office at SanJose University of

California (1974) high-lighted the various types of instructional materials. Centra (1978), and Kozma (1978) arrived at the findings that high involvement and awareness of the faculty about the innovations are essential for faculty development.

The studies conducted by Talley (1974), Howard (1975), Schantz (1976), Caren (1974), Lawrence (1978) high-lighted the various instructional developmental programmes started at the undergraduate level. The major instructional developmental activities were : use of audio-visual aids, individualised instruction, small group discussions, guided projects, independent study projects, lecture-laboratory activities, multi-media techniques, off-campus activities, more flexibility in option of courses etc. Jabker and Halinski (1978) reported about the development of varied instructional materials. The study conducted by Abramowitz (1974) discussed the components for examining instructional development programmes. These studies form a conceptual basis for the various instructional developmental activities discussed in the present study.

The studies conducted by Manikas (1974), Fair (1973), Gaston (1977), William (1973) highlighted the remedial programmes started by the under-graduate colleges for academically weaker students. The major activities started for academically weaker students were : individual counselling, group counselling, individual tutoring, group tutoring, orientation sessions, preparatory programmes, various teaching methods to accompany

different learning styles, audio-tutorial minicourses etc. The study of Dudley (1959) reported about the credit system and advanced placement programmes for gifted students.

The experimental studies conducted by Lambert, et.al.(1964), Brinkmann (1966), Eppers (1967), Leonard (1973), Hammack(1974), Marcy (1974), Roe (1975), Smith (1976), Colling wood and Hughes (1978), discussed the comparative effectiveness of various methods of instruction. The methods of instruction which were studied experimentally were : team-teaching, programmed learning, written scripts, audio-tapes, lecture-laboratory instruction, traditional lecture discussion with instructional material and without instructional material, discovery approach etc. A few survey studies about methods of instruction were conducted by : Hale (1964), Australian Vice-Chancellor's Committee (1964-65), Australian Commission on Advanced Education (1972), Desai (1970), Mehrotra (1972), Joshi (1979) etc. Akhtar (1980) studied methods of instruction in relation to the semester system. The various methods of instruction being practised as reported by survey studies were : structured lecture, assignment, tutorial, seminar, group discussion, symposium, independent study project, programmed learning, field work, practical work, quizzes etc.

The National Seminar Reports on Examination Reform (1975, 78, 79) held at the universities of Mysore, Patna and Nagpur highlighted the components of evaluation system. Akhtar (1980)

studied the components of evaluation system in relation to semester system while Narsian (1978) studied the U.G.C. plan of Action (1973) on examination reform under the caption of 'Innovations in Higher Education'. Narsian (1978) and Reddi (1977) studied students' attitude towards internal assessment separately and they found positive attitudes. Narsian's study revealed that teachers showed negative attitude towards internal assessment.

The University Education Commission (1948-49), Indian Education Commission (1964-66), Robbin's Report (1961-63), U.K., Carnegie Commission (1971-72), U.S.A. etc. have emphasised and strongly recommended the introduction of pedagogical courses for university and college teachers for their professional development. The main components of the courses recommended were : methods of teaching and pedagogical problems. Calivert (1973) discussed the professional development programme for newly appointed faculty members while Weber (1974) studied the aims and practices for faculty development for inservice training of college teachers. Anderson (1974) studied the effects of training programme on teaching assistants, while Mistry (1978) gave a model faculty development programme. All the aforesaid studies arrived at the conclusion that faculty members should be oriented to course planning, alternate teaching techniques, and evaluation of students' work. The faculty members can be oriented in these various techniques

through the organisation of short term and long term programmes. Joshi and Singh (1978) found through survey that 18 universities out of 80 have started inservice and pre-service programmes for college and university teachers. Singh (1980) conducted his doctoral study aimed to find out the needs, objectives and opinions of participants about the pre-service and inservice education of teachers of higher education. All these studies re-inforced the necessity for organising short-term and long programmes for university teachers.

The reports of 4 regional COSIP-ULP Conferences (1977), An All India COHSSIP Conference (1977) and 4 regional COHSSIP Conferences (Dec. 1977 - March 1978) discussed about the various components of the programmes and highlighted the progress made by the various selected colleges. During the conferences, the main concentration was laid on : methods of instruction, development of instructional materials, enrichment of library facilities, enrichment of laboratory facilities, establishment of workshops, revision of syllabi, provision of guest lectures, organisation of educational excursions, remedial teaching programme for weaker students, special programmes for gifted students, publication of journals/books, job-oriented courses, adoption of modern techniques of evaluation etc.

Bannello (1974) identified that lack of adequate finances and facilities necessary for new curricular programmes are the factors responsible for the non-implementation of the programme effectively. Rauer (1974) discussed the distinguishing

characteristics of effective developmental programmes.

The above studies conducted in foreign countries and India have highlighted a variety of activities which can be organised under a faculty development programme. A number of faculty development programmes have been started by the University Grants Commission with adequate financial support to the selected colleges. Hence, a need was felt to choose a faculty development programme encompassing a variety of activities sponsored by the U.G.C. and to conduct a field study. Thus, the present study of COSIP and COHSSIP sponsored by the U.G.C. in selected colleges of India was undertaken to review the programmes' effectiveness and acceptance.
