CHAPTER II
REVIEW OF RELATED LITERATURE

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CHAPTER II

REVIEW OF RELATED LITERATURE

2.1 Introduction

The review of related literature is an important pre-requisite to actual planning and then the execution of any research work. Feeling the importance of this review, Best (1963) wrote, "A familiarity with the literature in any problem area helps the students to discover what is already known, what others have attempted to find out, what methods to attack have been promising and disappointing and what problems remain to be solved." Therefore, Good, Barr and Scates (1941) suggested that the careful student of education, the research worker and investigator should become familiar with the location and use of the sources of educational information.

Best (1978) again reiterated that a brief survey of previous research and the writing of recognized expert provide evidence that the researcher is familiar with what is already known, and what is still unknown and untested. Since effected research must be based upon past knowledge,
this step helps to eliminate the duplication of what has been done, and provides useful hypothesis and helpful suggestions for significant investigation.

In the field of teacher education, especially of in-service education, it was found that only a few researches have been made and those also almost have been done by western workers. Nevertheless, a few researches of in-service education have also been worked by Indians, while in Thailand no such study has been made in this field of education. With regard to the review of the past study of in-service education in India, Srivastava (1966) opined that it has already confirmed through different sources that nothing of significance has been made in India with regard to present problem (in-service education). No particular research has been taken upon teacher education by any universities.

The investigator feels that the study of related literature helps in acquiring informations about the studies done in the field protects against unnecessary duplication, guides in carrying out the investigation successfully and makes him familiar with the steps. The existing works that are directly or indirectly related to present study may be conveniently classified under the four broad categories. Their account is given under the following heads:
(1) Definition, design and need of in-service education;
(2) Status, model and scope of in-service education;
(3) Evaluation of in-service education; and (4) Special area of in-service education.

2.2 Definition, Design and Need of In-service Education

The importance of in-service education for all educational personnel is recognized throughout the literature of the teaching profession; in popular articles, in text books, in special publications and in research works. The present study has been limited to an analysis of selected publications and researches related to the work of the classroom teachers.

Correy (1957) summarised the problems and issues in this field. He emphasised planned programmes in contrast to independent attempts by teachers to improve themselves. He carefully stated, however, that while reading, travelling, attending conventions and professional courses and other activities conducive to professional growth are not meant to be undervalued by such emphasis. He clearly delineated the necessity for planned programme in the in-service education for the improvement of school personnel and expressed the feeling that to depend entirely on pre-service preparation and individual initiative is impracticable. He called for carefully planned, creative programmes. A rapidly changing culture and its implication for curriculum change, continually increasing enrolments, the size of the teaching staff, need
Moffitt (1963) stated that where emphasis is placed on the continuing obsolescence of knowledge and method of teaching, without planned programme for upgrading their work, individuals who have not learnt of the potentialities of and issue regarding team-teaching as well as developing technique will remain isolated on an educational island remote from innovative practice and new knowledge.

Smith et al (1961) emphasised that school district should follow the lead of industry and request certain teachers to take special training. According to Openshaw (1962) supervisors and administrators must reaffirm their commitment to practice that will be recognized and fostered individually in teachers, develop self-understanding, allow self fulfilment and provide for growth in the ability to live and to work harmoniously oneself with others.

The in-service programme which is well conceived will make the learning process the focus of organizational effort, designed to serve the needs and purposes of individual teacher; at the same time it will take advantage of the particular characteristics of the situation in which the school operates.
The greater the participation by the teachers, the better learning is likely to result.

Oviatt (1962) reacted against the fragmentation of the teaching profession and expressed the hope for an acceptance by all levels of teaching - primary to college - of the kinship rather than an isolationship through an in-service education scheme which can bring about such a kinship. The need for this and similar planning is identified by Ogeltree and Emands (1964) that a concept of an aggregate of incidental activities was rejected and a planned programme, based upon three major principles, was proposed. The principles are as follows: (1) In-service teacher education purposes are identified with a matrix of instructional improvement activities and the procedures; (2) In-service teacher education develops and utilizes adequate leadership; and (3) In-service education is a curriculum within itself, conceptualized and treated as a total instructional programme.

Dancan (1964) attempted to identify some of the factors which have proved to be made of their plans for further education. Almost 75 per cent of the group intended to do additional college work. More than 55 per cent planned to complete the Master degree in the future.

Rubin (1964) summarised the strategy for curricular change and in-service education; the principle components
included the following: (1) Each teacher must be made to recognize that he has an obligation to assess the short-coming of the existing programme to better it through experimentation and to measure the value of suggestions put forth by the research of others; (2) Each teacher may have to help in losing his sense of complacency and in drawing systematically upon the aggregate resources of the area to improve his programme; (3) Each teacher must have a time and material required for him to be consistently well-informed about what is going on; each must be able to select intelligently from alternative; and each must be challenged consistently about the appropriateness of his own purpose and methods; (4) Each teacher must have recourse to find out technical assistance which he feels he needs. These may take the form of expert consultancy, cooperative planning endeavours, opportunities to gain and to master new skills or provisions for theoretical study; and (5) The leader's task is to set forth what accomplishments are expected from in-service education to provide the realistic wherewithal for their achievement, instrument in the successful operation of programme in selected schools of Alabama. Although each system uses practices and techniques that varied according to local needs, certain recommendations seem to be warranted. The existence and operation of in-service education programme should be governed by the Board of Education. Local administrators and members of instructional staff should identify
their respective roles in an effective programme. The organization of in-service programme should give adequate consideration to such factors as continuity, time of meeting, resources and participation of the professional staff in programme planning, operation, and evaluation. Careful consideration should be given to the relationship of in-service educational efforts to the improvement of instruction.

Childress (1965) emphasised that the dramatic increase in technology and the inability of each individual to keep abreast in his field in any but a modest way combines to create a situation in which many things are thought which are no longer true. Education for children, youth, and adult in the United States can be meaningful only if the teaching staff is knowledgeable and professional competent in modern technological information and research. Continuing education of the individual and of the profession is essential to maintain and to improve educational programme in classroom instruction. Failure to incorporate this concept into the activities of the entire profession will bring chaos and alteration of the prerogative of the teachers. He also emphasised that these terms are virtually synonymous. The in-service programme was looked upon as a natural continuation of professional pre-service education, as an obligation for teachers and as a necessity for educational programme. He
suggested four major areas stated out in discussion:
(1) Creation of the felt obligation on the part of teachers and professionals to undertake a planned and well-designed in-service programme; (2) The development of the set of guideline for the organization or school district which will implement and appropriate an excellent in-service programme; (3) Recognition by community and professional leaders that the rapid expansion of knowledge, both in the professional and in content fields will require full-time study and that this will necessitate revolution of issues of staffing and finance; and (4) The need for school of education and other divisions of universities and colleges to plan programme especially for individuals who will be continuing their education on a part-time or a full-time basis, often on a non-degree basis.

Stank (1968) pointed out that the general purpose of in-service education is the professional growth, specific in-service programme must have more clearly defined objectives. The programme must be planned with an evaluating process available. The planned purpose of the programme must be to keep the teacher up-to-date as to subject matters, teaching method and knowledge of children or changing concept of society. Palsane (1968) also discussed in the same book that the task of promoting in-service growth among teachers is significant and vast to be left to any one single agency.
It requires the concentrated efforts on the part of a large number of improving instructions in school and providing for professional growth of teaching personnel. Such agencies include teacher training institutions, institute of education and university etc.

Buch (1968) opined regarding in-service education. He said the need for in-service education for teacher is based mainly on the need to reconstruct education. It is supposed to be the conviction that the teacher is the pivot and the key point in the process of the educational institution.

In his study of one extension service centre for elementary school, Grover (1970) found its usefulness for teachers in terms of increase in their knowledge about new trends, and techniques in education and for students, as reported by teachers and school inspectors in term of their handwriting, increased consciousness, award cleanliness, more attention to in their schools. The organizers and school inspectors highlight the need for in-service education programme, as reported in their questionnaire response, to bring the teachers in contact with new trends and technical education and to help them improve teaching method; to enhance the administrative and supervisory competence of the headmasters; to help the teachers to construct objective type papers; to help the teachers in preparing and handling teacher's aids; to contact teachers to research work and to encourage the
teachers to put their difficulties in group discussion.

Allen (1971) opined that many in-service programmes lack a conceptual framework. Someone is not programme at all but a series of desperate experiences. Local programmes are too often based on a cafeteria approach. No systematic growth, no discussion, no designed sequence of experiences leading toward specific goals of improved programmes are involved in such programmes. Learning theory and researches are ignored in conceptualizing the design, development and implementation of such programme.

Some of the differences that may be important to the effectiveness of in-service education programme, as stated by Dunkin and Biddle (1974), are that the clients are adults, professionally accredited with experiences and that in-service occurs in the socio-political context of a school system. The classroom learning is affected not only by the social dynamics of teachers as a learning group, but also by the political force surrounding the why-what and when of in-service programme.

Howsam, et al (1976) stated the categories and definitions typically used in the literature of educational profession, classified three stages of teacher education: pre-service, in-service and continuing. In their definitions, in-service education was job-imbedded or job-related, while
continuing education was personal or professional development related.

Lortie (1975) stated in his study that the major incentive for further education is advanced degree or meagre salary increase. One of several major issues facing professional education today is 'what priority does in-service education have within the profession and with school boards faced with light budgets and mounting demands and restrictions?' A second issue is specification of the teacher-educators' role within an instructional rather than an administrative structure, delineating the competence required, and providing specific preparation for the role. No educational programme can be better than those who design and deliver it, yet little attention is paid to training the 'trainer' of teachers. Mclaughlin and Marsh (1978) also stated their view that in-service programmes are fashioned without regard to research finding, without an integrated plan including long-range goals, without being articulated with other resources, programmes and community needs and sometimes even without input of those purported to benefit.

Houston and Preiburg (1979) stated the major problem of in-service education is financing. Few resources are budgeted for in-service education. The school with more than one per cent of its budget devoted to improving staff competencies is rare indeed. Not only are resources too
meagre, but straightline solutions involving educational institutions (schools, colleges, government, foundation) in singular efforts are no longer appropriate. A few outstanding models, cross-institutional in-service programmes, and creative and appealing approach helps the learners. The need for sharing and communicating such plans has been never greater.

Regarding the need of in-service education, Ryor (1979) opined that two primary purposes are most compelling. Besides school programme improvement, other major objective is the personal professional development. In both, the teacher must have a major voice, and this is more than a power struggle for who is in the charge of in-service education. It is a practical psychological reality. Teachers learn best and accomplished planning more when they are involved in deciding what and how they learn.

Cruichshank, Lorish and Thomson (1979) reviewed many studies in descriptive trends in the in-service education; they observed four major trends in the in-service education. The first was a movement from a compensatory to a complementary view of in-service education. At first, in-service education served a pre-service function. Today teachers are better schooled when they enter the classroom. In-service education, rather than eradicatery, is seen as complementing and extending professional growth. Secondly, there has been a progression
from a discrete to a continuous view of in-service teacher education; there is no longer a distinct line between pre-service and in-service. The third trend has been a shifting from a relatively simple to a complex in-service teacher education operation. When compared with earlier practices, today's teachers' in-service programme address a wider range of topics and problem and engaged a more diverse and larger clientele. The final trend has been from a narrow control of in-service education programme by school administrators and university professors to collaborative governance, including a client-teachers.

Pankratz (1979) expressed the four areas that need immediate attention: (1) a conceptual framework that related pre-service to in-service education; (2) the unique role of higher education in the in-service programme; (3) the linkages of higher education with other organizations and agencies; and (4) the funding and reward system in higher education for involvement in the in-service education.

2.3 Status, Model and Scope of In-service Education

The study for finding out specific quantities to make the teachers successful in the profession, Adaval (1952) stated the findings as (1) the teachers in general were found to have some general knowledge about the world around them; men trainees had more general knowledge than women; and (2) it
was revealed that love for public service, love for children etc. were the chief motives for undertaking the profession. The investigator has given some suggestions for giving quality of teachers and their teaching.

Dogra (1960) conducted a study about the attitude of secondary school teachers concerned with in-service education and gave the following major conclusions: (1) the idea of in-service education has not so far filtered down to rural teachers; (2) a large number of teachers take to tuition work to supplement their incomes; this leaves very little time with them to undertake activities for their in-service growth; (3) most teachers felt that teaching profession carries too little salary to attract intelligent persons to the profession; (4) teachers with favourable attitude to teaching do engage themselves to develop in their professional ability through in-service education programme; and (5) proper incentive is needed to encourage teachers to undergo in-service training in the form of additional increment and its recognition as additional qualification.

Singer (1963) identified the needs for teachers to remain up to date by raising the question of how the finding of educational research can be communicated to and tested by the practising teachers through the co-operative centres established for nine school districts, two considerations were stressed regarding curriculum research and development:
the budgetary feasibility of educational innovations, and the means of providing teachers with research finding upon which to base their decision. To promote in-service education and to maintain contact with teachers' needs, a core of teachers' communication was organized to serve as liaison persons between research and practice.

Taylor (1964) found indication that many school systems did have activities incorporated into the work of the teachers that suggest that such programmes were being followed. Unfortunately, small high schools, those with enrolment under 600, were seen as doing less adequate programming than elementary school, both large and small, and also less than larger high schools. The conclusion was reached that an in-service education programme seems to be neglected most often on the small secondary school level.

The positive result was that comparative plannings were stressed and the necessity of in-service education designed by teachers and administrators was noted in several studies. Lawin (1963) ascertained through the sample of 200 educators (deans, representatives of state department of education, city school superintendents) in charge of instruction were looked upon as the instructional leaders of the district, while at the level of the individual school, the principal is regarded as the instructional leader. The basic conclusion was that administrators should accept the responsibility
for providing and organizing the programme whether for orientation or for in-service. Schwalenberg (1965) concluded that the most successful orientation programmes were those which derived their basis and objectives from teachers' needs and which was based on knowledge of the background of teachers.

Schild (1964) stated that there were single in-service coordinators in 60 per cent of districts included in his study. Although only a small number of administrators and new teachers participated, he included the provision of time for in-service education, the use of university consultants and evaluation of the programme among characteristics to be studied in determining the practice in the schools.

Manual (1964) studied conditions required for teaching. The investigation aims at (1) collecting, interpreting and presenting the relevant data on the subject; (2) focusing the attention of the teacher to this very important problem; and (3) encouraging cross-fertilization of ideas so that the best practice discovered to be useful in some schools might be adopted and practised on others. He pointed out that parents preferred a school for the quality of its discipline, standard of teaching, result and facilities. Pupils preferred extra-curricular activities whereas the teachers preferred discipline, material facilities, teaching aids, small classes, satisfactory living conditions increased status of teachers,
academic freedom to headmasters and teachers, free time to teach, parental cooperation as the pre-requisite of quality teaching.

Bina (1965) studied relationship of success of teachers when they were students under training in an institute of education in Delhi and when they were in the service in local secondary schools. He identified the finding as: (1) regarding teacher effectiveness there was a greater agreement between persons who have similar background of educational and professional experiences than between those who differed in this respect; (2) the teachers' role as director of learning appeared to be a more tangible criterion than any other in the determination of teacher effectiveness; and (3) other factors beside classroom teaching seemed to exert powerful influence on the school principal in their assessment of teachers.

Based on his study of two primary extension centres in Rajasthan, Vergia (1966) reported that they organized programme like conference, workshop, seminars, exhibitions and competitions, filmshow, study circle and children's festivals besides production of educational literature and visits to schools by the staff members of training schools. He further pointed out that participants are more inclined to attend course during working days. Among the major difficulty of the extension centre, the report pointed out the
following: (1) the transfer of teachers and headmasters from schools associated with the centre; (2) unwillingness of school officers to spare teachers for in-service programme; and (3) the administrative procedure to get the sanction for holding in-service education programme from school inspectors.

Rawal (1968) studied the opinions of principals on the in-service education of teachers. The programme included in the study was for higher education, undertaking of research projects, writing of books and articles, refresher course and seminars and educational tour. His findings revealed that 97 per cent of the principals were of the opinion that in-service education programme contributed to the uplift of teachers, 37.71 per cent teachers did not receive any education after coming to service. Research studies were conducted only in 10 per cent institution schools which lack very much in library facilities. Majority of these are in favour of refresher course to be organized by teachers' institutions and only a few teachers are interested in books and articles. The investigator suggested that liberal permission should be given to the teachers who want to pursue higher studies, principals should create favourable conditions for teachers, the school library should be better equipped, teachers should be allowed to write articles and extension service department should organize in-service
In a survey made of the in-service training needs of primary teachers of State Institution of Education, Poona, (nd.) the investigation revealed the needs of teachers to improve their subject knowledge, professional skill and academic talents and interest. Teachers responding to the questionnaire express the desire to have better library facilities and training in the use and preparation of audio-visual-aids. They are prepared in holding of in-service education classes from them between 16.00 to 19.00 hour on Saturday. The highest demand for study of academic subjects came for Mathematics followed by those of Marathi and Hindi.

Shanker (1969) identified the problem as to the impact of Extension Service Department. He found that 70 per cent of teachers and headmasters thought that the extension service proves useful in making knowledge up to date and increasing efficiency of teachers and changing their attitudes and outlook toward teaching. Extension service work enables the teachers to start experimental projects and also to coordinate the work of different schools. A fair majority felt that the various activities undertaken were organized by keeping the needs of schools in view and thereby helping heads and teachers in making classroom teaching effective. He pointed out further that teachers generally did not use teaching aid available in extension department and were not interested in seminar. So
the extension department failed in the follow-up work as they were unable to chalk out any concrete programme to assess their activities. Heads and teachers felt that the expenditure of the extension work did not yield sufficient return in terms of improvement in schools and with regard to making the department more useful and effective. Heads and teachers should be aware of the facilities available. He stated the last point that there was a greater need for more follow-up programme to assess the implementation of new ideas, methods and techniques.

State Institution of Education, Maharashtra (1971) also studied the needs of headmasters in their academic and administrative work and collected data for preparing programme of in-service training for headmasters. The sample of the study is constituted of headmasters of 103 primary schools controlled by Zilla Parishad, Poona, which was selected on the stratified random basis from 953 fullfledged primary schools. Out of these 103 schools only 80 schools responded within the school time. The tool used was a questionnaire. The investigation found that more than 50 per cent of headmasters need practical knowledge in general science, nearly one-third of them desired to have knowledge in Marathi Grammar and Mathematics. The percentage of teachers desiring to get knowledge of special method in Hindi was higher than that of other subjects. With regard to library facilities, more than 58 per cent thought that circulating library would be very much useful to them, though a considerable percentage of them felt that central library in different
parts of the taluka would do.

Howsam et al (1976) recommended the following with respect to in-service education: (1) area should expect to participate regularly in the planning and to contribute resources when they are relevant and available; and (2) the primary role of college of education, however, should be to prepare public school personnel competent to carry out assessments and research basic to such programme.

Kersh (1978) stated the needs of staff members from the list of AACTE's Development Project Steering Committee as (1) many staff members need to up-to-date their perception about in-service education in the public schools; (2) if they are to become involved in the in-service education many staff members need to prepare for new and different assignments, role and to learn new skills; (3) staff members need to increase their understanding of the work life of school personnel and vice versa through direct experiences, such as team teaching and serving as resource personnel; (4) they need to become aware of the roles and assignments of school-based teacher education, e.g. the resource teacher, clinical supervisor, in-service coordinator and department chair-persons; (5) there is a need for different planning, packing and delivering systems, characterized by collaboration in planning and programming; unique quality standard and control; special financing arrangement; unique course crediting and recording systems; new
approaches to teaching, assessment and evaluation; (6) they wish to be involved in the in-service activities needed to promote administrative organizations and practice that will facilitate such involvement; (7) they need to explore and develop appropriate evaluation models for assessing the effectiveness of faculty development programme; and (8) they need to take responsibility for providing vision for the future so that the effort to respond to immediate school-based needs and expectations, the broader purposes of education are not lost sight of.

Report of UNESCO (1978) indicates some common element in professional growth activities for teacher educators. They are: (1) refresher course for brushing up the knowledge of teacher educators in their areas of specialization; (2) workshops to discuss crucial problems and develop remedial programmes; (3) conferences of teacher educators where attention is focused on a selected theme; (4) training courses for such new areas of knowledge and skill as audio-visual education, guidance and counselling, population education, micro-teaching and simulation, programme learning, development of self-learning kits, administration and planning, educational technology and educational evaluation; (5) summer institutes for updating course content, necessitate by the knowledge explosion; (6) correspondence courses – not leading to a degree or diploma; and (7) internship of teacher educators in selected institutions.
Ryor (1979) opined that in-service education has been ill health for a long time. Too seldom in-service education has been directed at improving school programme and when it has, it is decreed by state mandate, administrator edict or curriculum developers. In-service programme should be a cooperative process of school improvement in which teachers are full partners in decision-making. Teachers need in-service education but that does not mean that programmes merely get plugged in or delivered to teachers. Teachers must be a part, probably the most important part of in-service education and school improvement. Other educators, resource personnel, guidance counsellors and professors should be available with needed knowledge and other support service when teachers need them. Merely adding in-service education to the already crowded schedule of teachers just would not be very productive. The rethinking of teacher's role so that in-service education become integral part of the function of teaching. The new knowledge and skills a teacher finds he needs can be learned in planning and developing curriculum, in advising appropriate strategies for teaching. Teachers learn best in the problem-solving mode. There is no reason why professional teachers should continue to be required to take courses in places and times away from their teaching responsibilities.

Sandefur (1979) stated that rethinking is needed for in-service education. Several factors are: (1) shrinking
school enrolments and the present supply of teachers make it more difficult to obtain teaching position; (2) teachers' mobility has been reduced and teachers are more stable in their positions; (3) increasing teacher professionalization the developing strengths of their professional organizations have an impact on in-service education; (4) colleges and universities are becoming concerned about adult education; (5) current formula for funding teacher education do not take into account new demand for in-service activities; (6) many colleges' and universities' graduate programmes are changing as a result of in-service activities for teachers; (7) colleges and universities, in their efforts to respond to teacher's needs, are opening their governance structures to practitioners who now serve on teaching education, personnel search and other formation committees; and (8) other forces influence in-service education including federal mandates arising from registration.

Weaver (1979) stated the obstacles to collaboration that colleges and universities have structures different from school districts and government agencies. Knowing who is authorized to do what on the college campus is not always apparent. School district can more easily identify who approves particular plans, even if getting approval is difficult. Schools and colleges must develop policies which enable their representative to know what educational services are offered.
In institutions where faculty and administrators do not control the content, design and delivery system for educational services, collaboration will be difficult. The give and take of shared decision-making about what kind of instruction workshop or consultancy can be offered required rapid and flexible responses for approval and implementation on the home campus.

2.4 Evaluation of In-service Education Programme

Bedi (1960) evaluated one secondary extension centre and suggested that its programme should also bring into focus the problem of teachers like their low salary scales, attitude of school administrators and their problems of handling large classroom. He also pointed out the need for increased education of elementary school teachers and opined that primary schools should also be brought under the jurisdiction of the extension service department. Undoubtedly, secondary school is very important in the education ladder, but primary education should not be neglected at any cost from the range of the extension service department. The investigator also suggested that training college staff should undertake small research projects related to extension service programme and in order to generate interest among teachers, their participation in the in-service education programme should be utilized for adding to their professional qualification.
Boyd (1961) attempted to evaluate several different methods of in-service education. He discussed the relative effectiveness of television, face to face lecture discussion, television supplemented by classroom consultant services, and face to face lecture discussion supplemented by classroom consultant services, as method of in-service education for elementary school teachers of Arithmetic. He concluded that there was no difference in effectiveness between television and face to face lecture discussion method of presentation. A difference was identified, however, in the tent to which the effectiveness of television and face to face lecture discussion method was influenced by the type of consulting help offered.

Karbal (1963) undertook an evaluation of the workshop and its effects on a process in the in-service education of teachers by apprising the way by which programme and school were effected. Data were gathered from practising teachers in one of the nine administrative districts of the Detroit public schools. Thirtyseven key teachers from 30 elementary schools made up the workshop. Their accomplishments were measured in several ways. Great gain was seen in the help given to experienced teachers, in human relation activities and in participation in school organization, as well as in classroom management. Principals gave their evaluation outcomes of the workshop through questionnaire and interview.
After a year, 21 of 25 principals were well satisfied with their key teachers. They believed that positive behavioural change in the teachers had made them more competent. These individuals were more active and vocal in school communities and were better than they had been to view the school as a totality. Many positive outcomes were identified in other phase of the study. Evaluation by co-worker indicated that the key teachers had grown as professional colleagues and had gained much from the experience; their colleagues also indicated that they were now able to exert a positive influence on the rest of their faculty.

Devita (1963) formalized a procedure which would allow teachers in giving schools to observe other teachers. No judgement, no written report, no name and no signed observation forms were used. Each teacher was required to participate. Although sceptical at the outset, many of the more experienced teachers were surprised and delighted to see many practices being followed by their colleagues. New teachers found the experience extremely stimulating and helpful. Harmonious reaction from the professional staff gave encouragement to further action research.

Srivastava (1966) identified the growth and organization of in-service education programme in India as aimed at:
(1) to study the historical development of the programme of in-service education in India uptodate with special reference
to the agencies involved and organizational pattern worked out; (2) to review the variety of activities undertaken by different agencies providing in-service education to secondary school teachers; (3) to assess the achievement of this programme with special reference to observable and other types of change brought about the schools; (4) to study the factors contributing to strength and weakness of different extension departments; (5) to find out the impact of this programme on teachers' attitude towards teaching profession; and (6) to study some major issues in the field of in-service education in India. The study has shown that there is a significant change in attitude with increasing number of activities attended. It has also revealed that an attitude of teachers towards the profession as well as towards the extension programme established after attending four extension programmes. The improvement is rapid after participation in the first activities and it goes on improving up to the stage of participation after the fourth extension activities are fulfilled. It indicates only a plateau period. On the basis of the case study of the extension centres, generalization has been made. The following factors contributed to a great extent to strengthen the in-service education programme - standing of college, quality of training college staff, quality of the extension staff, practical utility of the programme, cooperation of state department of education and the inspectorial staff. Salam
(1970) also studied in-service teachers related to the nature of in-service programme, its impact and effectiveness. The one month in-service programme giving special importance to objective based teaching and testing was more effective than other types of such programme.

Grover (1970) found that seminars, workshops, conferences, demonstration lessons and others were conducted to orient teachers regarding curriculum practices and next trend in education, to help them prepare audio-visual aids, to improve participating in this programme. Yashoda (1970) undertook to study the impact of such programme on six different aspects. It was concluded that the percentage of teachers who understood the principles regarding reading, writing work and poetry was 86.75 to 85 and 88 respectively. 85 per cent had understood the principles of instructional methodology while 83 per cent had followed principles of grammar.

Chilana (1973) identified the comparative study of in-service programme for elementary school teachers in India and Phillipines and found that for improving the in-service programme for elementary school teachers in both countries, the programme should be directed towards the followings: (1) to create more conducive climate; (2) to involve the fundamental policy; (3) to provide the variety of organizational pattern; (4) to improve operational procedures; (5) to develop expertise among teacher educators; (6) to motivate
teachers for effective participation; (7) to induce more agencies for involvement and collaboration; (8) to have an adequate cooperative and effective leader; and (9) to secure objective evaluation.

Houston and Freiberg (1979) found the issue of validity of in-service education programme. They suggested that the validity of the programme can be considered as follows: (1) in-service education should stress teachers' practices which lead most effectively to pupil learning; (2) validity may be judged simply by the extent to which participants use ideas from the in-service programme; (3) validity may be drawn from the substance of the discipline being taught; (4) validity is also judged by user satisfaction, referred to by some as the 'happiness coefficient'. If the participants like the in-service programme the programme is judged valid; (5) validity is also based on attendance when an expert speaks to the faculty; (6) validity may be judged from the number of occupied seats; and (7) some programmes are judged valid or not valid by credibility of the individual delivering the in-service. If a teacher delivers the programme to teachers the effort declared to increase participants' knowledge is judged by comparing post-test with pre-test achievement scores.

Report of Advance Level Workshop, UNESCO (1976) stated that the evaluation of an in-service education programme has
usually two purposes viz., classification and certification. The evaluation of an advanced level workshop can be of two types at two times points — immediate evaluation of the programme and the ultimate evaluation in terms of the expected behaviour of the participants. Regarding the evaluation of in-service education report of Advance Level Workshop, UNESCO (1978) identified that it can be done informally as well as formally. In the former case, a part of the programme can be devoted to reflection on the highlight of the programme among the participants. In the later case, an evolution form can be developed by the organizers to be administered to the participants at the end of the workshop.

2.5 Special Areas of In-service Education

Studies have been made in skill area such as Mathematics, Science and English as well as in the more general areas of guidance and pupil adjustment. Childress (1969) reviewed the work of Weaver (1962), Reed (1964), Dossett (1964), Stent (1965), Cooksey (1965) and Hamond (1966). He concluded that Stent (1965) attempted to identify ways of helping beginning teachers in day care centre to improve their guidance of children through in-service course. The focus of study was on importance of teaching skill helping beginning teachers meet the unique problem of teaching in day care centre and attempting to make them alert to new developments and educational practices. Teachers who participated in
programme improved their skills and were able to solve immediate problems more realistically.

Weaver (1962) analysed the effects on pupil of an in-service programme for teachers. The teachers were involved in an extensive study of John C. Flangar's personal and special development programme. The students who were in the classes under the teachers made significantly greater gains in adjustment than the students of teachers in the control group did. The experimental teachers seemed to have been stimulated by the in-service meeting to read more professional literatures which related directly to their ultimate involvement with the individual students.

Several studies have been undertaken to determine the impact of various types of in-service education on teachers and teaching of Mathematics. Dossett (1964) found that workshops held under NJEA in Missouri contributed to the development of Mathematical understanding and to a change in attitude towards Arithmetic. All workshop participants made statistically significant gains between pre-test and post-test on the Mathematical understanding and on the Arithmetic attitude inventory with the exception of one group of primary teachers.

Dutton and Hamond (1966) also analysed the workshop approach. They varied their activities between two comparable
districts by using a formal workshop with college teachers of Mathematics as an instruction in one and a district planned in-service workshop using the district staff in the other. Although both school districts found that the in-service programme helped elementary school teachers make significant improvements in their understanding of mathematical concepts, the gains in the unstructured district staff workshop were greater than in the more structured grouping. The district workshop provided many opportunities for individual teacher to work on the specific difficulties rather than to repeat the work that had been studied before.

Cooksey (1965) attempted to evaluate the effectiveness of an in-service education programme for English teachers. The project of teaching of English consisted of 16 half-hour 16 m.m. films combined with discussion and consultant visits. The change in learning of students was a significant change in English achievement for all students when considered as one combined group. Classroom practices of the experimental groups of teachers in teaching grammar, using the mechanics, had a significantly greater rate of change than the classroom practice of the control group did while in some areas there was no gain. Overall result of the analysis showed that the difference of change between the experimental group of students and the control group of students was not significant. Positive result, similar to those in Mathematics and other
skill areas, were noted in the in-service courses for teachers responsible for art and instruction. For this types of study Reed (1964) found that beginning teachers need specific help in meeting problems identified as urgent - provision for the talent student evaluation and classroom control or discipline. Beginning teachers made little provision for the talented students and seemed to have difficulty within the classroom because of an air of friction. The experienced teachers were observed to have developed procedures that made for effective teaching.

Nicholson et al (1976) studied the most comprehensive so far reviewed approximately 2000 books, periodicals and unpublished papers written on the subject after 1957. It was concluded that only a handful were of a higher order of generality and only a few dealt with a review of literature or research. The criteria for inclusion were: first, that it should be research on any college or school based programme for improving the professional competencies of employed teachers; and second, that it should have an experimental, quasi-experimental, or low-control design that ensure some validity.

Florida Department of Education (1974) cited by Nicholson (1976) reviewed the researches and introduced some of its conclusions and shortcomings as the following: (1) the school-based and college-based in-service programmes were
equally successful in improving teachers' knowledge, but school-based programmes were slightly more; (2) teachers' attitudes were improved more often in school-based than college-based programmes; (3) Mini-course, emphasizing the development and application of teaching skills, has a high rate of success in the both college and school settings; (4) no method of instruction (lecture, discussion, reading material, observation system) was clearly supervised, however, the following specific objectives were successfully though by the methods: classroom management skills by using video and audio-tapes or classroom verbal behaviour by using an observation system; (5) school-based programmes in which teachers participated as helpers and planner of in-service activities tended to be more frequently successful than programmes planned and conducted without teacher's assistance. When personnel other than teachers planned and concluded school-based in-service programmes, school administrator's programmes were more frequently successful than those planned and conducted by college or other outside agencies; (6) all programmes in which teachers engaged in self-instruction by using prepared materials, objectives and planned guidance were successful; (7) programme with conceptual or informational objectives were frequently successful in meeting those objectives which were less frequently successful. Programmes with effective objectives were least successful; (8) programmes that attempted to change teacher behaviour only were
frequently successful than programmes that attempted to change teacher behaviour and consequently pupil behaviour; (9) in-service programmes that had different or individualized training experiences for different teachers were more frequently successful than programme that had common activities for all subjects; (10) in-service programmes that required the teacher to construct and generate ideas, materials and behaviours were more frequently successful than programme in which teachers accepted ideas and behaviour from the instructional agent; (11) programmes that emphasized demonstration, supervised traits and feedback were more frequently successful than programmes which teachers were expected to make unsupervised applications at some future time; (12) programmes in which teachers shared ideas and provided material assistance to each other were more frequently successfully than programmes in which teachers did not; (13) teachers were more likely to benefit from in-service programmes that were a part of a long term systematic staff development plan than they were from 'single-shot' short term programme; (14) teachers were more likely to benefit from programmes in which they chose their own goals and activities were pre-planned; and (15) teacher staff initiated and self-directed activities were seldom used in the in-service education programme; but when used they were very successful in accomplishing objectives.
This clearly suggests that in-service education is quite a big area and there is enough scope for the researches as there are number of problems. But, for Thailand it is rather a new field and people of research scholars have not yet started cultivating this field. However, in-service education programmes are taken up by various agencies. It becomes, therefore, necessary to have a pioneer research in the form of a survey to have a picture of in-service education programme at a glance for Thailand. With this view point the present research work has been taken up.
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