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A STUDY OF IN-SERVICE EDUCATION IN THE PUBLIC  
SECONDARY SCHOOLS OF TEXAS

DISSERTATION

Presented to the Graduate Council of the  
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By

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The problem of this study was the determination and analysis of perceptions of selected educators in the State of Texas with regard to current in-service education programs in the public secondary schools.

Questionnaires for directors of in-service education programs, secondary school principals, and secondary school teachers were constructed and tested for validity and reliability. Nineteen hundred questionnaires were mailed to a stratified random sample of school district personnel. Seventy-two percent of the questionnaires were returned.

This study was divided into four chapters. Chapter one contains the introduction, chapter two presents a review of related literature, chapter three contains the presentation of data, and chapter four presents the summary, conclusions, and recommendations.

The data indicated a significant relationship between school size and perceptions of secondary school educators concerning the types of in-service programs utilized.

The needs of secondary school teachers for in-service education programs were identified to be in the areas of

motivating students, individualizing instruction, innovations, and career education.

Secondary school principals and secondary school teachers had many different perceptions of local in-service education programs.

There was a discrepancy between what principals and teachers perceived in-service education programs to be and what they thought the programs ought to be.

Secondary school educators indicated that many schools used one or two in-service education days for district-wide meetings, building-level meetings, and subject-area meetings. School visitation and professional meetings were activities which utilized one day each; and two or three days were utilized for teachers to work in their classrooms.

More medium and small school administrators planned in-service education programs than did large school administrators.

The data revealed that administrators in medium- and small-school districts were involved in evaluation of in-service education activities to a much greater extent than administrators in large-school districts.

Conclusions were, (1) differences appear to exist in the perceptions of personnel who represent large-, medium-, and small-school districts, (2) teachers' needs, such as motivation, seem to be good staff improvement topics, (3) there appears to be substantial differences in the

perceptions of administrators and teachers in the organizing and conducting of programs, (4) current programs and ideal programs appear to have differences in such areas as selection of activities, and (5) programs are not as effectively planned and organized as they should be.

Recommendations were, (1) small-school districts should continue working with education service centers, (2) teachers' needs should be given priority when programs are planned, (3) teachers should be encouraged to conduct in-service sessions, (4) teachers should help plan and evaluate programs, (5) guidelines should be developed for more effective program organization, (6) in-service education programs should be organized to help in-service education directors and administrators improve local programs, and (7) most in-service education activities should focus on the classroom aspects of teaching.

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## CHAPTER I

### INTRODUCTION

Teachers need the opportunity to improve every phase of the teaching-learning process, to become aware of changes going on within their profession, and to upgrade their competency. The demands of today's society for quality educational practices emphasize the need for programs of continuous growth for faculty members.

In-service education programs can provide opportunities for continuous teacher growth. Historically, the in-service education program seems to have grown out of the needs of the educational establishment for teachers with greater skills and knowledges in relation to both subject matter and methods. According to Harris (6), dynamic professional growth programs must be provided if anything approximating excellence in education is to become a reality, now or in the future, because times change, pupils change, curricula change, and situations change.

The Sixty-First Texas Legislature recognized the importance of teacher growth and passed House Bill 240, which provided state-level financial support for ten days of in-service education per year (12). The 1970-71 school year

was the first year for this statewide minimum program of in-service education.

Since the enactment of House Bill 240, all Texas public school districts are expected to have submitted to the Texas Education Agency plans for using the ten in-service development days. It follows that an examination of educators' perceptions of the statewide in-service programs becomes a logical step in estimating the effectiveness of in-service education.

#### Statement of the Problem

The problem of this study was the determination and analysis of perceptions of selected educators in the State of Texas with regard to current in-service education programs in the public secondary schools.

#### Purposes of the Study

The purposes of this study were,

1. To determine if any differences exist in the perceptions of secondary school teachers who teach in large, medium, and small school districts regarding in-service education programs.
2. To identify the perceived needs of secondary school teachers for in-service education.
3. To determine if any differences exist in the perceptions of secondary school teachers and secondary school principals regarding local in-service programs.

4. To compare current programs in in-service education with what teachers and principals think ought to be happening in these programs.

5. To report relevant demographic data concerning in-service education programs.

#### Questions to be Answered

In-service education programs in the public secondary schools of the State of Texas were examined by seeking answers to the following questions:

1. How are school districts utilizing the days provided in House Bill 240 for in-service education in the secondary schools?

2. What types of in-service programs are school districts currently providing?

3. Who is involved in the planning of the local in-service education programs?

4. What relationships exist between the size of the school district and the types of in-service education programs utilized?

5. How effective are the in-service programs as perceived by

- a. directors of in-service education programs,
- b. secondary school principals,
- c. secondary school teachers?

6. What methods are used to evaluate the in-service activities in the public secondary schools?

7. What needs do teachers feel should be considered when planning in-service education programs?

8. Is there a difference between secondary school principals and secondary school teachers in their perceptions of the local in-service education programs?

9. What difference is found between current in-service education programs and what teachers and principals think ought to be happening in these programs?

#### Background and Significance of the Study

The value of each effort to improve education will be measured by the quality of the teaching that results, because the basic factor in improved instruction is the teacher. Each member of the teaching profession should add continually to his knowledge, his skill, and his understanding.

The successful development and implementation of new school programs require a positive attitude toward change on the part of all who are involved in the program. New programs require teachers and administrators to assume new and different roles. In addition, implementation of new programs requires that new teaching skills be learned and effectively utilized. Many innovative programs may fail before they get under way because of inadequate preparation of teachers and administrators.

Although much improvement has been made in teacher education, preservice preparation of professional staff members is rarely ideal. Even if preemployment preparation were ideal, these experiences cannot suffice for the growth which can come only from guided study during and after professional experience. In-service education is needed to continue the growth process of beginning teachers. Social and educational changes make many professional practices obsolete or relatively ineffective in a very short period of time. In-service education is needed to inform all teachers of these changes. It is almost impossible to do new things in schools when teachers do not understand the needs for new things, or the bases of the proposals, or the ways in which new ideas can be effectively employed.

Many teachers are eager to become increasingly well prepared to teach at the highest possible level of effectiveness. This seems to have been the basis for beginning in-service education in 1839 when teachers, with little or no preparation, depended upon institutes of two- or three-days duration and short courses in the evening to furnish professional growth opportunities.

During the early part of the twentieth century, waves of new ideas were presented during summer courses in the normal schools which had become the most important agencies for in-service education in America (11, p. 8). Programs were developed for individualizing instruction, examining the

teaching-learning situation, and providing instruction for immigrant children. The above programs stimulated the addition of topics for consideration during in-service education meetings.

From 1928 until 1938, many in-service education programs were aimed not at helping teachers meet new problems but rather at filling gaps in college degree and/or standard certificate requirements (11, p. 10). During the last part of this period, the Great Depression brought new problems to the schools and added new tasks for in-service education. One of the depression problems was the negative motivation toward school achievement. This problem stimulated educational leaders to reexamine the high school curriculum and procedures and to try out new ideas.

The characteristics of in-service staff development during World War II seemed to have come from the concern of developing curricula and education procedures that would better serve youth under the conditions of the day (11, p. 11). Perhaps the results of the Eight-Year Study, which had begun in 1933, influenced the planners of these programs.

For several years following World War II, in-service education largely offered courses aimed at enabling teachers to fill gaps in meeting certification requirements. This seems to be another example of concern with the quantity rather than the quality of education (11, p. 12).

In recent years, national curriculum projects like the physics and biology courses, the problems of school desegregation, and the efforts to improve the education of disadvantaged children have seemed to focus in-service education on the development of understandings and skills required to implement these national efforts. "Career education" seems to be one of the latest challenges for the in-service activities of the public school districts (11, p. 14).

According to Wiles (16, p. 255), good in-service education is necessary to plan for changes, to build new skills, and to produce more effective teachers. Stoops and Rafferty have summed up the attitude of many educators toward in-service programs by stating,

So important is an organized program of such training that its absence over an extended period will eventually negate every other advantage which excellent administration and enthusiastic public support can unite to offer a school system (15, p. 444).

The National Education Association's Research Division has found that nearly one-third of the nation's large-school systems require teachers to show evidence of professional growth at stated intervals (10, p. 5). The large-school systems seem to furnish leadership for many of the innovations in education and perhaps have done so in the area of professional growth.

Several accreditation agencies have approved five years of local in-service activities as equivalent to three

semester hours of college courses (10, p. 8). These agencies apparently recognize the importance of local in-service activity as one method of professional growth.

Although many factors were considered, Finch (3, p. 60) concluded that teachers with the most in-service education are significantly superior to teachers who have had the least in-service education. This relationship does not seem to be universally accepted however.

In 1967, Landers (7) surveyed 365 public school superintendents in Texas and found that approximately twenty percent of the state's public school districts had no professional-growth requirement for certified personnel. This information influenced the recommendation from the study that a statewide-minimum program of professional growth be enacted.

The Governor's Committee on Public School Education was appointed in 1966 to find ways to make Texas a national leader in education. The Governor's Committee made many important recommendations on August 31, 1968, one of which was that beginning in 1970-71 classroom teachers should be paid on a ten-month schedule and that ten days of this added time must be spent in professional in-service education activities (5, p. 46). The anticipated annual additional cost of this recommendation was estimated to be seventy-five million dollars. The Committee reported that to insure the quality of its professional school staff, Texas must support

personnel training programs (5, p. 62). The need for state-wide in-service education and its financial support received important recognition. The Governor's Committee expressed the belief that quality education is necessary at whatever the cost.

The Texas State Teachers Association placed the ten-month salary schedule and the professional growth recommendations into its legislative goals on November 2, 1968 (13, p. 20). Teachers were to provide 180 days of instruction and to participate in ten days of in-service education.

The Sixty-First Texas Legislature convened on January 14, 1969, in Austin. T.S.T.A. President Claude A. Hearn and the legislative committee presented a complete set of T.S.T.A. supported bills to Governor Preston Smith, Lieutenant Governor Ben Barnes, Chairman A. M. Aikin, Jr. of the Senate Education Committee, House Speaker Gus Mutscher, and Chairman George T. Hinson of the House Public Education Committee (14, p. 19).

The legislation which concerned the ten-month salary schedule and in-service education days became Senate Bill 100, sponsored by Senator Aikin, and House Bill 240, sponsored by Representative Hinson. After a public hearing on April 1, 1969, the bills progressed through the legislature until they respectively passed the House of Representatives on May 20, 1969, and the Senate on May 30, 1969 (2, p. 10). The Senate added a number of amendments to the legislation and,

on May 31, 1969, the House of Representatives concurred, sent House Bill 240 to the comptroller for certification, and then forwarded it to Governor Smith for his signature to make it law (1, p. 10). On June 21, 1969, House Bill 240, the Hinson-Aikin Basic Foundation Program Act of 1969, was signed into law by Governor Preston Smith (1, p. 10).

As a result of House Bill 240, in-service education had the opportunity to become an essential and integral part of the total program of teacher education. The obvious next phase appeared to be the development of in-service education programs in the local public school districts to take effective advantage of this significant new resource of time and opportunity.

#### Definition of Terms

For the purposes of this study, the following definitions have been formulated:

In-service education is used to denote efforts made by the school district to promote by appropriate means the professional growth and development of educational personnel.

Professional growth means the continuing development of educators in knowledge, skills, and attitudes necessary for competence in their work.

House Bill 240, Section, Two, provided that, beginning with school year 1970-71, all classroom teaching positions and all other positions previously authorized for less than

ten months shall be paid at an annual rate calculated on the basis of ten-months' compensation for ten-months' service. Such service was stipulated to include a 180 day school term, plus ten days of in-service education and preparation for the beginning and ending of the school term (12, p. 2638).

Secondary school means a school organization which contains grades nine through twelve or grades ten through twelve.

Director of in-service programs is the person who is responsible for coordinating the school district's in-service education activities.

#### Limitations

This study was limited to the analysis of data provided by directors of in-service programs, secondary school principals, and secondary school teachers whose names were submitted by their principals. It was limited to public secondary school educators employed in Texas during the school year 1973-74.

#### Procedures for Collecting Data

1. A review was made of the literature related to the status of in-service education in Texas.

2. A tentative questionnaire for directors of in-service education programs was constructed and submitted to an advisory panel to obtain suggestions for improvement prior to the development of the final draft of the

questionnaire (see Appendix A). The advisory panel, randomly selected from public school districts and approved by the doctoral-advisory committee, consisted of nine directors who represented large, medium, and small public school districts. Seven of the nine-panel members voted in favor of each question which was included in the permanent form of the questionnaire.

3. A tentative questionnaire for secondary school principals and secondary school teachers was constructed and submitted to an advisory panel for criticism prior to the development of the final drafts (see Appendix B). The advisory panel, randomly selected from public school districts and approved by the doctoral-advisory committee, consisted of three secondary school principals and six secondary school teachers who represented large, medium, and small districts. Seven of the nine-panel members voted in favor of each question which was included in the final survey instrument.

4. Permission was obtained from North Texas State University to conduct a pilot study to determine the reliability of each question. The questionnaire was administered to sixteen secondary school principals and thirty-one secondary school teachers. After two weeks, the instrument was administered again. Each question had a Pearson reliability coefficient of at least .86 as determined by the computing center.

5. The final questionnaires and stamped, self-addressed envelopes were mailed to directors of in-service

programs, secondary school principals, and secondary school teachers.

- a. Three categories were used to classify the public school districts in Texas:
  - Group I----10,000 and above ADA
  - Group II--- 1,000--9,000 ADA
  - Group III-- Less than 1,000 ADA
- b. A stratified random sample equal to 40 percent of the public school districts was chosen from each category.
- c. Two secondary school teachers and one secondary school principal from each high school in each selected school district were surveyed. One-half of the principals and teachers from each school district in the study were randomly selected and received a Form 1 questionnaire, which deals with how in-service programs should be functioning. One-half of the principals and teachers from each district received a Form 2 questionnaire, which deals with how in-service programs are functioning.
- d. Follow-up letters were mailed to nonrespondents after a lapse of two weeks. Continued efforts were made until at least two-thirds of each subgroup's questionnaires had been returned.

### Procedures for Analysis of Data

The data were compiled, tabulated, and reported to show frequencies of responses to each item from each group of educators. The data were recorded in frequencies according to school size, professional position of respondent, and status of in-service education programs. Most of the data were tabulated by the Computing Center at North Texas State University. The criterion level of significance was set at the five percent level for the purpose of establishing reliable answers to the questions posed for the study.

Comparisons were made among the various groups of educators by the use of "The Chi-Square Tests of Independence." The formula used was (4, p. 230)

$$\chi^2 = \sum \frac{(O_{ij} - E_{ij})^2}{E_{ij}}$$

in which

$E_{ij}$  = the expected frequency for the cell in row  $i$ ,  
column  $j$

$O_{ij}$  = the observed frequency for the cell in row  $i$ ,  
column  $j$

The expected frequency was calculated by

$$E_{ij} = \frac{R_i C_j}{N}$$

in which

$E_{ij}$  = the expected frequency for the cell in row  $i$ ,  
column  $j$

$R_i$  = the sum of the frequencies in row  $i$

$C_j$  = the sum of the frequencies for all cells

The data compiled, analyzed, and reported provided information concerning the perceptions of public school educators of in-service education programs in the public secondary schools of Texas. This information and a review of the literature on programs of in-service education were used to analyze current conditions and practices in Texas. From these data, conclusions were drawn and recommendations were made.

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## CHAPTER II

### REVIEW OF RELATED LITERATURE

Although the literature related to in-service education for administrators and teachers is very comprehensive, this study was limited to that literature which described secondary school in-service education programs and reported recent trends in in-service education. This chapter is divided into three sections--Introduction, Scope of In-Service Education, and In-Service Education in Texas. Materials were selected for each category according to the extent of related, comprehensive reporting.

#### Introduction

Ryan (55) has stated that the primary purpose of professional teacher education is to produce teachers who possess those specialized techniques, skills, and dispositions that will facilitate learning in an educational environment. The operative belief here is that good teaching occurs when the teacher has mastered a welter of carefully specified training protocols that foster these basic skills. Since teachers usually vary in scholarship, social understanding, and professional competence, in-service education must take care of any gaps or lags.

Kalmar (32, p. 53) listed some qualifications of secondary school teachers that should be provided by preservice and in-service education. The teacher should know about adolescent psychology, influence and pressures of peers, diagnosis of a learning problem or disability, the whole area of evaluation and test construction, analysis of standardized diagnostic tests and their meaning, the hyperactive child, the dyslexic child, the emotionally disturbed or troubled child, the discipline problem, and procedures for dealing with both bright and limited students in the same class.

Also, the teacher should be prepared for logistical and practical problems in the classroom; know how to head off trouble; be trained to prepare lesson plans with objectives, methods, and follow-up evaluation; be sensitized to the student's side of the learning process; develop his ability to motivate, stimulate, excite; learn to proceed at the appropriate rate of speed; recognize the need to be fair, firm, and yet friendly; and learn to seek and earn student respect through a sound, well-organized, clearly defined program. Workshops, summer courses, and conferences are the in-service methods suggested for obtaining these qualifications, if they are not included as preservice standard equipment (32, p. 53).

In-service education of teachers is not a panacea for all weaknesses in the instruction program. It does recognize, however, that the basic factor in improved

instruction is the teacher and that back of the improved curriculum is the human element (47, p. 3).

Successful in-service education activities are designed to meet the needs of all involved. As Johnson pointed out,

It is frequently assumed that a teacher simply because he is a teacher, understands the nature and needs of all children. It is all too often assumed that a principal, supervisor, or administrator, because of his experience and longer contact with school problems, will be knowledgeable in all matters pertaining to child growth and development (16, p. 111).

In-service education programs should include activities which describe the program and its implementation, the role of involved personnel, and the needs of students who will be involved.

In-service education is of critical importance because of continual employment turnover. "The need for in-service education in teaching methods becomes increasingly urgent as more and more former teachers who left the profession some years ago re-enter the classrooms" (48, p. 25).

Programs of in-service activities are necessary for administrators, teachers, and auxiliary personnel to grow professionally. It is essential that this be a period of well-planned, related activities. It should be sequentially encompassing and flexible to insure its value to all involved. "It is just as logical as the program of instruction for the pupils, it being impossible to conceive of pupil growth without teacher growth" (58, p. 30).

In-service education should be a time for aiding educators in assessing their past programs and formulating guidelines for future employment. "Teaching is learning, and much of it tends to be repeated until it becomes habit" (45, p. 6). Therefore, it is desirable to reinforce the positive, successful habits and alter those deemed less desirable.

#### Scope of In-Service Education

In-service education has long been recognized as a vital part of the education process for classroom teachers and administrators. An examination of the literature, however, reveals that few systematic efforts have been attempted to determine the types of in-service education programs which would be most beneficial to teachers and administrators as they carry out their daily educational duties.

Aside from the Fifty-Sixth Yearbook, entitled In-Service Education (48), there is not much available for the practitioner in his in-service education efforts. Before the second half of the 1960's, research efforts in the field were meager. Reports of practices were sketchy and tended to be reported as local success stories rather than as objective descriptions (26, p. 1).

Carline (9, p. 104) has reexamined the activities involved in in-service education. The effects of training fifty-five experienced teachers in an analysis of verbal behavior patterns had been cited in the 1962 reports of

Flanders' research. He had found perceptions of greater independence and self-direction during the first five weeks of a nine-weeks program among the teachers participating in the in-service education project. Compared to a control group of contrasting treatment, teachers who were exposed to instructors who frequently responded to their ideas and opinions envisioned themselves as becoming more independent and having a greater measure of work output. Carline (9, p. 104) cited a longer in-service education study conducted by Flanders which involved training for interaction analysis.

Carline (9, p. 104) examined other studies relating to his reevaluation of in-service education. An in-service study designed by Hill was to investigate the effects of learning interaction analysis on verbal teaching behavior and to examine what effects training time and mode of feedback had upon verbal behavior. He concluded that there was an association between interaction analysis and verbal behavior. Storlie (19) agreed with Hill's findings.

Also reviewed by Carline (9, p. 104) was a study conducted by Brooks to test the hypothesis that a greater change in classroom behaviour would be demonstrated by teachers who appriased their classroom interaction on video tape than by those who did not. Overall, the group differences were not statistically significant at the .05 level and therefore the hypothesis was rejected. However, he concluded that self-appraisal was probably most promising

as an in-service technique for teachers who desire to modify their classroom behavior.

During the second half of the 1960's, considerable research was conducted in the area of in-service education. During this time, a number of model programs for in-service education were developed and published (26, p. 119). Much was also done to promote the incorporation of techniques for employing educational media into the in-service periods (9).

In Carline (9), one may find a nationwide study of selected in-service programs for secondary school teachers of English. She found that in-service education practices generally followed the criteria suggested in the related literature, mainly in the areas of organization, administration, funding, and evaluation. Some variance occurred, however, in the areas of inception, objectives, personnel roles, content, and follow-up.

In a summary of interview studies of beginning teachers conducted in twelve states, Hermanowicz (28) found a general dissatisfaction with in-service education programs. Most of those interviewed believed that in-service education programs were greatly needed but that existing programs were severely inadequate. Some frequently expressed criticisms were that programs were dull and useless because they were too general, poorly timed, or devoted mainly to administrative records. This study indicated that the time is past

when in-service education periods can be allowed to be general and undirective.

A recent statewide research study (8, p. 522) was conducted in Tennessee to identify the types of in-service education programs currently in use throughout the state and to ascertain teachers' attitudes toward in-service education programs. Of the six hundred and forty-six teachers surveyed, eighty-nine percent expressed the opinion that the teacher should have the opportunity to select the kind of in-service education activities which he feels will strengthen his professional competence. The most acceptable activities were participation in a graduate course, research, travel, professional reading, and professional writing. Perhaps individualized learning is as important to teachers as it is to students. However, it seems that seldom has an understanding of learning been applied to in-service education.

Although the majority of the Tennessee teachers preferred that most of the in-service education activities be conducted in their own school setting, seventy-six percent agreed that attendance at systemwide in-service education activities was desirable and should be required of all teachers (8, p. 523). Building level in-service education programs allows teachers to focus on problems with personal meaning and fosters the development of a team spirit within the school staff.

Eighty-six percent of the respondents believed that teachers should receive some release time for in-service education activities (8, p. 524). About the same number of teachers wanted the opportunity to become acquainted with new teaching practices and innovative programs. The teachers felt that most in-service education activities should focus on the classroom aspects of teaching. The teachers expressed the opinion that programs be implemented that present concepts and develop skills transferable to the problems of daily classroom life and school operations.

The study in Tennessee (8, p. 525) revealed that in-service education planning committees were used, but that the membership of these committees was heavily weighted with superintendents, principals, and supervisors. Perhaps this was one of the reasons that caused the majority of teachers to report that in-service education activities did not have an adequate follow-up system. Many educators agree that the majority of the members of in-service education planning committees should be teachers.

Too many planners of in-service education programs seem to continue to rely on traditional activities, such as faculty meetings, university courses, and conventions at the regional and state level. Supposedly, these activities enable educators to gather data and receive inspiration which will be sufficient for educational reform.

The study in Tennessee (8, p. 525) substantiates the notion that in-service education programs are poorly planned, inadequately executed, and lacking in proper evaluative procedures. However, teachers want and need the opportunity to seek answers to problems and questions which they face on a day-to-day basis. The failure to direct the energy and talents of teachers toward a well-planned program of in-service education, inclusive of formalized objectives, may have detrimental effects on the profession.

McHugh (42, p. 165) stated that resistance, partially caused by teachers' insecurities and lack of interest, is often the case when in-service education programs are dictated by administrators rather than cooperatively planned. In a study by Schild (56), it was revealed that sixty-three percent of the medium-sized public school systems in the United States of America did not have any teachers participating in an advisory planning group for in-service education programs. Schild (56) recommended that teachers and administrators pool their knowledge and resources and seek to make programs of in-service education more responsive to the needs and interests of practicing classroom teachers.

Culligan (17) made an analysis of in-service education programs for secondary school vocational teachers in the state of Tennessee and found that these teachers were not adequately participating in the planning of their in-service

education activities. Also, he revealed that there was not a complete consensus among the teachers with regard to time and place for carrying out the in-service education function.

Pederson (50) found that teachers in Kentucky perceived the greatest proficiency in those areas of responsibility for which they had the greatest involvement in in-service education. This study points out that provisions should be made for individual differences of teachers and that teachers should be involved in planning and evaluating in-service activities.

Involvement seems to be the key to successful in-service education programs. "The shores of in-service education programs are strewn with the wrecks of ships that sailed forth with only the officers on board. The crews were left behind" (26, p. 9). One of the few certainties in the field of human endeavor is the relationship between involvement in an enterprise and commitment to its goals (26, p. 9). It seems that administrators must be willing to allow teachers to have the major voice in deciding what type of in-service is needed and who should conduct it.

Borgealt (5) found that teachers favor teacher-planned activities over administrator-planned in-service education activities. Excellent teachers sometimes respond negatively to in-service education programs when such programs are not suited to their needs and interests (68, p. 56).

In-service education program organization is often neglected because administrators and support personnel consider in-service education to be an added burden to their primary job responsibilities (52, p. 8). Although in-service education is often considered a stepchild of education, the fact is that someone must accept responsibility for arrangements if the program is to be a success.

Tarr (62) investigated in-service education programs in Iowa public schools. He found that the content of the programs was determined jointly by teachers and administrators, but that most of the in-service education activities were not evaluated. There were no written objectives for the in-service education programs in eighty-four percent of the schools which were surveyed. Perhaps the absence of objectives was partially responsible for the lack of evaluation.

Hornblake has stressed the importance of the process of evaluation:

The fundamental concern of any people or nation is the continual evaluation of its educational effort; no other consideration is of equal magnitude since survival and progress depend upon the appropriateness and the effectiveness of the educational effort (29, p. 12).

One important element of a good in-service education program is appraisal and evaluation of the activities and the goals of the program. A growing realization of the problems and importance of the manifold aspects of in-service

education is reflected in recent evaluations of in-service activities (47, p. 13). These activities are evaluated not only to assign credit for work done, but also as a means to bring about a real improvement in the instructional processes.

Kaupe (33) studied in-service education programs in Indiana and found that administrators and teachers did not agree on the evaluation given the programs. He concluded that the least adequate provision of in-service education activities was evaluation and dissemination of evaluation results. Alsaybar (2) found that no provisions were made by schools which he surveyed for the evaluation of their in-service education activities.

Brandt and Perkins (6, p. 219) reported that teachers' participation in child-study programs at the University of Maryland's Institute of Child Study did not affect their pupils' reading and arithmetic achievement. The study did report that as a result of the in-service education, teachers reacted more positively in working with children and utilized more democratic classroom organization.

Jackson (30) found that teachers who participated in an earth-science in-service education program had a more laboratory-oriented approach in their classrooms. Higher achievement was recorded by students of participant teachers than by students of nonparticipants. Macklem (41) made a similar study of the effects upon student learning outcomes

of in-service education in BSCS biology. He concluded that a very significant difference was found in the students' critical thinking gain scores, with the in-service teachers' students showing the greater gain. Pinkall (51) found that students of in-service trained science teachers scored significantly higher at the .05 level than other students on science processes, content, and attitudes toward science and scientists.

One of the most common methods of keeping science teachers up-to-date in content knowledge, teaching strategies, and curriculum development has been the development of in-service education institutes. Spradlin (59) concluded that participation in a science institute altered teachers' classroom activities toward more student-centered behaviors, increased participants' images, and improved teachers' content competencies. A similar study (31) was made of attitude changes among science teachers in the state of Missouri during a statewide ESCP institute program. Results of the investigation showed attitude changes, significant at the .001 level, toward students. Teachers showed a change in attitude, significant at the .05 level, toward educational innovation.

Carr (10) investigated an in-service education program for teachers of secondary school mathematics in Louisiana. He found that there was no significant difference in achievement and attitudes of students of teachers who participated

in the in-service education program and students of teachers who had not participated.

Ciaglia (14) made a study of a thirty-two-week instructional behavior and skills in-service education program. He concluded that teachers who participated in the intensive program exhibited significant positive behavioral modification in the area of general teacher attitudes and in their values concerning disadvantaged students.

Lloyd (39) made a recent study of the effects of a staff development in-service education program on teacher performance and student achievement. She concluded that teachers do learn and apply new behaviors when exposed to opportunities for learning them; however, the change in teacher-performance behavior as a result of some type of in-service education program appeared to have little relationship to student achievement.

Keating (34) found that a problem-solving in-service education program reduced the quality of dogmatism among the participants and they, therefore, became more open with regard to belief-disbelief systems. As a result of this instruction, educators showed a significant increase in their ability to apply problem-solving skills and techniques to resolve simulated problems. There was a significant improvement in educator's attitudes toward the use of action research as a problem-solving strategy as a result of the

in-service education instruction. This change was found to be greater among female educators.

Howell (19) studied the impact of an in-service education program on a group of English teachers in Florida. He concluded that the program effected change in teacher attitudes toward language, significant at the .001 level. The program effected change in the behavior of teachers in teaching language. It was directly responsible for in-service education teachers using seventy-five to one hundred percent of the program in the language guide to a greater degree than the teachers who did not participate in the program.

The newest and most innovative materials for teaching about the non-Western world in the secondary school were described and evaluated in a study by Wilk (67). Research was conducted to determine the effectiveness of some of the major efforts in providing in-service education in non-Western studies. Few of the programs changed the way teachers conducted themselves in their classrooms. A model in-service education program was designed which would provide the means for teachers to improve their teaching of non-Western studies. Wilk (67) recommended that teachers should expand the use of the model, modify according to local needs, vary time sequence, and develop other models along similar lines.

Gallaway reported that in-service education was beneficial to the teacher in diagnosing the strengths and weaknesses of students in their reading skills. In-service education was not beneficial to the teacher in placement of students on appropriate instructional level in instructional materials.

Two self-instructional modules, independent study and auto-instruction, were employed in lieu of more conventional in-service education practices to develop teaching competencies in employing questioning strategies that require students to utilize higher cognitive processes (44). Self-instruction modules produced significant differences at the .0001 level. Merwin (44) reported that this type of activity improved the quality of in-service education programs and ultimately the effectiveness of teaching performance.

Ruffin (54) proposed a model in-service education program for inner-city teachers. The unique features of the program are that the model requires teachers to identify problems, develop guidelines for in-service activities, attend orientation sessions prior to actual training, and select their colleagues as demonstration teachers.

Merryman (43) surveyed principals concerning the effectiveness of an educational media in-service education program. Over ninety-three percent of the principals reported that this program had a lasting effect over an extended period of time.

Kinzer (36) made a study of an in-service education workshop for vocational teachers of Indian students. Although enrollment decreased by twenty-two percent, the number of student dropouts decreased by twenty-four the school year following the in-service education workshop.

Day (18) investigated Title I in-service education programs in North Carolina public schools. Motivation for participation in the in-service education activities was pay and credit toward certification renewal. Fifty percent of the personnel attended in-service education programs and received neither pay nor certification credit. Seventy-three percent of the participants expressed the opinion that the in-service education programs determined the success of the Title I projects.

Venditti, as reported by Ebel (19), found that eighty percent of the teachers who participated in a school integration in-service education program reported that the program revealed fallacies in their previous beliefs about Negroes. It was demonstrated that, when the attempt is made in in-service education programs to present content meaningfully and systematically and to provide maximum opportunities for achieving genuine intergroup and interpersonal rapport, even the most difficult human problems can be made to yield.

Sparsity of research evidence on the effectiveness of in-service procedures and ambiguous educational objectives hinders progress in finding a solution to the problem of

effecting change in teachers' classroom practices (68). Effective in-service education programs are in great demand as the curriculum becomes more involved with new ideas and innovations.

There is no one best method of evaluating in-service education or of giving credit for such activities. Many evaluative techniques are utilized: questionnaires, self-reports, observation. It is important, however, that the idea of credit does not take precedence over the desire for professional improvement (47, p. 16).

Reliable information on various types of in-service procedures is necessary to insure the best results for a minimum expenditure of time and funds.

A review of the literature reveals that fundamental change in education will come only through those charged with the basic educational responsibility, that is, teachers. The right in-service education becomes the means for growth and professional development--the key mechanism for keeping schools responsive to the real world.

#### Forms of In-Service Education

One form of in-service education is the group conference. It provides for questions and discussion of ideas which are presented. A conference usually brings the group up to date on trends and problems in a specific field. Group conferences can take the form of workshops or of work conferences (47, p. 7).

A workshop consists of a moderate-sized group, each member of which may have a problem to solve. The teacher often comes with a problem area in mind, or he may develop his ideas as he works. The problems of each member should be in closely related fields. A skilled consultant works with the group. Through group discussions, conferences of the individual members with the consultant and with each other, and independent work, each member defines and works toward the solution of his problem. Each teacher is able to benefit from the reports of other members at the end of the workshop (47, p. 8).

A 1966 survey (47, p. 13) of in-service education programs in Minnesota found an increasing use of workshops. However, teachers did not rate them highly. But teachers, in a later survey (47, p. 13), indicated that the workshop was their preferred method of in-service education.

The work-conference places emphasis on individual participation in small-group activity. Each group concentrates on one aspect of a question before the conference. Each group reports its findings to the entire conference so that participants may benefit from the work of all groups (47, p. 7).

Classes, courses, and institutes are organized by colleges and universities to provide opportunities for graduate work, additional preparation for teaching, and general professional improvement. These forms of in-service

education are advantageous in that it is fairly easy to assign credit for work done (47, p. 7).

Staff meetings may be no more than a means of acquainting teachers with administrative routines or changes in procedures, or explaining and establishing some policy of the school. Staff committees may work on school problems and report progress at the meetings and invite discussion from other teachers (47, p. 8).

Committee work can be valuable both to the committee members and to the rest of the school staff. School problems that cannot be settled in the staff meeting because they require considerable study may be studied by a committee. Committee work should not be undertaken, however, merely as an exercise in in-service education (47, p. 8).

Some school districts require a specified amount of professional reading as a part of in-service education for awareness and applicability. Informal reading activities are valuable for professional improvement, but evaluating them presents difficulties (47, p. 8).

Individual conferences between the teacher and the supervisor or principal are often considered an effective means of in-service education. A great deal of success may come from conferences in which the discussion centers on the pupils and their problems and what to do for them (47, p. 9).

In-service education includes the skillshop. It is one of the most promising professional growth tools. Mowrer (46, p. 51) reported that the only purpose of the skillshop is to teach designated skills.

Field experiences such as visits, demonstrations, field trips, travel, camping, work experience, and teacher exchanges require the active involvement of the participants. These types of experiences may provide teachers with a fresh outlook on teaching (47, p. 9). Landers (37, p. 92) has stated that educational travel should not be considered a frill nor a luxury, but a universally required in-service education activity.

West (65) made a study of in-service education programs for secondary teachers of mathematics in Alabama. Teachers listed meetings sponsored by mathematics organizations, summer workshops, professional reading, curriculum experimentation, and research as being of significant value. The professional education meetings, conferences between teachers and supervisors, and interclass visitation were also of value. The teachers reported that the most extensively used activities were faculty meetings, department meetings, and professional reading.

Carter (12) asked teachers in Oklahoma to rank the in-service education activities which prompted innovative practices. Summer institutes were ranked first, followed by formal course work, suggestions from supervisors or

administrators, workshops, and extension courses, in that order. Eighty percent of these activities are directed by college or university personnel. Activities which ranked high in participation but low as sources of ideas were faculty meetings, professional education meetings at the local, district, and state levels, reading of professional magazines, local workshops, and reading of professional books.

Wesner (64) surveyed thirty-seven large school systems to study the in-service education programs for secondary school teachers. Curriculum planning, classroom procedures, meeting individual differences, in-service education of probationary teachers, and implementation of new courses were the in-service education activities commonly reported. Curriculum committees, special area workshops, research, teachers' institutes, and college extension courses were the most common types of in-service education programs. The programs covered both specific instructional problems and broad areas of professional interest.

Pane (49) surveyed 453 educators in Nebraska to determine the need for specialized in-service education programs. Activities which were most often experienced were faculty meetings, periodic in-service days, and departmental conferences. The least often experienced activities were team teaching, study groups, and guidance and counseling techniques. Teachers recommended that visits be made to observe

effective teachers, orientation of beginning teachers be improved, and released time for periodic in-service days during the school year be provided.

Fox and Griffin (23, p. 544) studied an in-service education model which consisted of administrators and teachers choosing a problem for a workshop. After spending sixteen hours on the project, participants were given four hours of credit from a university of their choice. Ninety percent of the educators said that there was improvement in their schools or in themselves. Seventy-eight percent of the teams continued working together after the workshop.

Literature on in-service education was, at first, largely opinion and recommendations on forms and problems. The general trend, then, was toward a growing emphasis on teacher needs and toward a growing realization that in-service education could serve many purposes other than subject matter orientation. Recent research illustrates a trend toward actual experimentation and evaluation of in-service education programs (47, p. 17).

#### In-Service Education in Texas

In 1967, Landers (38) surveyed 365 public school superintendents in Texas and found that approximately twenty percent of the state's public school districts had no professional growth requirement for certified personnel. Forty-eight percent of the professional growth activities

were planned by administrators. This information influenced the recommendation from the study that a statewide program of professional growth be enacted.

The Governor's Committee on Public School Education recommended on August 31, 1968, that classroom teachers should be paid on a ten-month schedule beginning in 1970-71 and that ten days of this added time must be spent in professional in-service education (25, p. 46). The need for statewide in-service education and its financial support received important recognition.

The Texas State Teachers Association placed the ten-month salary schedule and the professional growth program into its legislative goals (61, p. 20). Emergency certificates, teaching outside of field of preparation, and the need for an updating of professional education were much in evidence (63, p. 24).

The Sixty-First Texas Legislature recognized the importance of professional growth and passed House Bill 240, which provided state-level financial support for ten days of in-service education per year (13, p. 10). As a result of House Bill 240, in-service education had the opportunity to become an essential and integral part of the total program of teacher education beginning with the 1970-71 school year.

Turner (63, p. 25) suggested the appointment of a central in-service education planning committee, which represents teachers, principals, and supervisory personnel, to

establish objectives and coordinate in-service systemwide. He recommended that a climate be established where teachers and administrators are encouraged to grow professionally on an individual basis, to contribute to planning in-service activities of interest to them, and to participate in appropriate growth experiences. He stressed the need for practical help in classroom management, school procedures, test construction, grading practices, and effective use of audiovisual materials.

In 1966, Silverburg (57) surveyed 230 directors of instruction and 230 high school principals in Texas. The directors were responsible for district-level in-service education programs, and the principals were responsible for building-level activities. He concluded that the approach to organization and administration of certain in-service activities was not democratic.

In 1973, Heeney (27) studied an in-service education program in individualization of instruction as a part of the ten days of in-service education activities required by the State of Texas for all teachers. He thought that it would be useful for educational decision-makers to know if this in-service education program in the individualization of instruction had an effect upon the practices of teachers. He concluded that vocational and special education teachers were individualizing instruction at a significantly higher level than academic teachers.

Castleman (9) made a study of the effect of an in-service education program utilizing Bloom's Taxonomy on teachers' self-concepts. He concluded that Bloom's Taxonomy, as a method to improve teachers' self-concepts, should not be employed in continuing in-service education of experienced teachers because the evidence did not reveal improved self-concepts among the participants.

Bond (4) investigated the effects of feedback on teachers' verbal behavior and attitudes toward in-service education. The Dallas ISD teachers showed a positive shift in expressed attitude toward in-service education. The change was statistically significant at the .001 level. Using interaction analysis as an in-service tool, teachers did become involved in a very personal way with in-service education.

Bennett (3) studied the effects of participation in the Taba in-service education program on teacher self-concept, attitude, and selected personality characteristics. She concluded that participation in the Taba in-service education program produced positive changes in teacher self-concept, produced desirable changes in teacher attitude, positively affected the quality of the teacher's personal relations, and produced positive changes in certain personal qualities of teachers related to teaching effectiveness. The Taba program of in-service education may be considered an effective professional growth activity.

Ellis (20) made a study of the effects of an education service center curriculum study on teacher participants' attitudes. Teachers who participated in the curriculum study, and teachers who did not, showed no significant differences when measured for changes in conservatism-radicalism, anxiety, leadership behavior, and attitude toward a curriculum study. A definite indication, which lacked statistical significance, was that teachers who had participated in a curriculum study had a less favorable attitude toward a curriculum study than teachers who had not participated.

Fite (21) reported on selected Plan A special education in-service programs. She concluded that in-service education programs should include activities which describe the program and its implementation, the role of involved personnel, and the needs of students who will be involved. The initiation of a new program, such as Plan A special education, created a vital function for in-service education which is extensively fulfilled by resource agencies and personnel at subsequent stages of the program.

Cooksey (15) investigated an in-service education program for English teachers. The program consisted of teachers viewing sixteen subject-matter films of thirty minutes each and participating in a thirty-minute discussion following each film. Three visits by the program consultant were made to the teachers' schools. In-service

trained teachers made a significant rate of change in teaching grammar, usage, and mechanics over teachers who did not participate in the program.

Kidd (35) studied the effectiveness of an instructional package for high school geometry teachers who were using the materials in in-service education. She found that teachers are receptive to in-service education programs that provide activities in content and methods which can be used in their classrooms. A thirty-hour in-service education program was found to be more effective than an eighteen-hour program.

Breit (7) compared the effectiveness of an in-service program and a preservice program in developing certain teaching competencies. He found that there was a greater increase for in-service participants in developing knowledge of the processes of science than for preservice participants. It seems difficult to change basic attitudes toward instructional methods of experienced teachers.

Fifer (22) made an analysis of the academic qualifications of earth-science teachers in Texas, relative to school setting and expressed in-service interests. Only fifteen percent of the teachers were found to be academically prepared according to the minimum requirements of the Texas Education Agency. Allen (1) has stated that there is minimal training before the teacher enters the profession and minimal training after he gets into it. If teachers are to reach

their full professional potential, in-service education should be given much more attention.

The Texas Education Agency conducted a statewide survey of administrators and teachers during the 1972-73 school year. Four in-service emphases were ranked in the top ten by both groups: individualization of instruction, career education, developmental reading, and special education Plan A (63, p. 3). From the administrators' point of view, current in-service programs correlate with actual need forty-nine percent of the time while the teachers find this agreement thirty-one percent of the time (63, p. 3).

Of the ten nonteaching days provided by the state, generally six were used for in-service activities, three as work days, and one for professional meetings (63, p. 4). The Fort Worth ISD has a typical schedule by using five in-service education days before the school year begins, two days during the fall, two days during the spring, and one day at the end of the year (40, p. 321).

Group discussions and share periods were two of the most popular techniques used across the state (63, p. 4). However, in-service education sessions usually included some lecture time, especially in the smaller districts (63, p. 4). Small districts frequently set up cooperative workshops with other schools and coordinated with regional-education-service centers and the Texas Small Schools Project.

The analysis of the questionnaires (63, p. 4) reveals that in-service education activities are more likely to benefit more people if teachers are involved in planning; classroom teachers help conduct in-service education programs; and activities include some illustrated lectures, demonstrations, and group discussions. In the Fort Worth ISD, the classroom teachers association is involved in planning in-service education activities and evaluating them (40, p. 321).

Fifty-two percent of the surveyed teachers (63, p. 5) reported that each in-service education session did include some provision for evaluation. Thirty-three percent of the teachers reported that they were not involved in the evaluation process. Sixty-five percent revealed evaluation became a part of future in-service planning when teachers were involved in evaluating the total program.

Fifty-nine percent of the teachers (63, p. 5) said they believe current in-service education activities meet their needs "somewhat," fourteen percent "to a large extent," and twenty-seven percent "not at all." However, fifty-seven percent reported that their school districts offered no additional staff-development activities beyond the required ten days.

Teachers (63, p. 7) not only pinpointed the soft spots in their own in-service education and planning, but they had some definite views on other needs. When asked about

the in-service priorities which should be planned for principals, they put these particular needs in the following order: community relations, updated instructional strategies, innovative organization and staffing patterns, effective use of paraprofessionals, and teacher evaluation.

Administrators (63, p. 8) were asked for suggestions which would bring laws, regulations, or funding patterns then being followed more in line with the actual needs of school districts. The respondents made the following suggestions in order of preference: provide more state funding to support in-service education, particularly during the mandatory ten-day period; eliminate the use of any part of the required in-service staff improvement time as work days; provide more flexible scheduling, that is, let partial days of in-service education count toward the total ten-day requirement; and ask the Texas Education Agency to set up more specific guidelines on how the ten days of in-service activity should be used.

The Texas Education Agency (63, p. 9) indicates that, following a careful analysis of the questionnaire results and of the potential impact of the ten-day in-service training period on the education of 2.8 million young Texans, it will encourage districts to structure in-service education activities to meet the needs of all teachers and, through them, the needs of public school students; involve teachers in planning and evaluating in-service education programs;

encourage and assign classroom teachers to conduct in-service sessions when deemed appropriate; and give priority to those areas in which in-service activity is most needed, based on responses from both teachers and administrators. These areas were career education, individualizing of instruction, developmental reading, and integration of handicapped children into the regular classroom.

The Texas Education Agency (63, p. 9) indicates it will also encourage the Texas Small Schools Project and the regional education-service centers to coordinate more closely in planning, developing, and presenting specially designed in-service activities for small schools.

One of the most recent challenges to in-service education is the two-year plan which has been designed to implement mandatory bilingual education in Texas public schools for the first time beginning in September, 1974 (60, p. 19). During 1973, the Texas Education Agency focused its efforts on developing programs, training teachers and other school personnel, and completing a school-by-school count of expected non-English speaking pupils. New bilingual institutes were scheduled to begin training teachers during the spring of 1974.

School administrators and teachers who plan and conduct in-service sessions often face a dual task (63, p. 1). They must develop the most effective method of presenting new information and, at the same time, seek a different

approach to material which may have been on the program before. Their efforts will help to determine the success of the district's academic year.

Each year Texas public school administrators and teachers set aside a number of days to seek, to find, and to perfect ways of doing their jobs better. These ten in-service activity days, varied as the needs of the individual districts and the communities they serve, have much in common. They are both the proving ground and the market place of ideas.

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## CHAPTER III

### PRESENTATION OF DATA

After an examination of applicable literature, tentative forms of in-service education questionnaires (Forms 1, 2, and 3) were constructed. Advisory panels, randomly selected from public school district and approved by the doctoral advisory committee, validated each question. A pilot study was conducted among secondary school teachers and secondary school principals to determine the reliability of the instrument.

Forty percent of the large-, medium, and small-school districts in Texas were randomly selected for the survey. The final questionnaires (see Appendix A and B) and stamped, self-addressed envelopes were mailed to directors of in-service programs, secondary school principals, and secondary school teachers. Each secondary school principal was asked to submit the names of two teachers who could be surveyed. One-half of the principals and teachers from each school district received a Form 1 questionnaire which dealt with how in-service education programs should be functioning. One-half of the principals and teachers from each school district received a Form 2 questionnaire which dealt with how in-service education programs were

functioning. All in-service program directors who were in the survey received a Form 3 questionnaire, which dealt with how in-service education programs were functioning.

Follow-up letters were mailed to nonrespondents after a lapse of two weeks. Continued efforts were made until at least two-thirds of each subgroup's completed questionnaires were returned.

The raw data were processed by the Computing Center at North Texas State University. Frequencies of responses to each topic or question from each group of educators were reported. Comparisons were made among the various groups of educators by the use of the Chi-Square Tests of Independence.

Data in Table I show the numbers of the questionnaires mailed to and returned by selected Texas educators. Percentages of returned questionnaires were calculated for each subgroup and for the entire group of respondents.

It is indicated by Table I data that in-service directors and one group of secondary school principals from large-school districts were the most efficient groups in returning the questionnaires. The least efficient groups appeared to be teachers in small-school districts and one group of secondary school teachers in medium-sized school districts.

Seventy-two percent of the total number of questionnaires which were mailed were returned and tabulated. Not only were the questionnaires returned in sufficient number, but many of the respondents returned them in a relatively prompt time.

TABLE I  
IN-SERVICE EDUCATION QUESTIONNAIRES MAILED  
TO AND RETURNED BY TEXAS EDUCATORS

Educators	Form Mailed	Number Mailed	Number Returned	Percent Returned
Directors in large schools	3	19	17	89
Directors in medium schools	3	129	110	85
Directors in small schools	3	258	204	79
Principals in large schools	2	37	30	81
Principals in medium schools	2	66	53	80
Principals in small schools	2	129	112	87
Principals in large schools	1	37	33	89
Principals in medium schools	1	66	57	86
Principals in small schools	1	129	105	81
Teachers in large schools	2	75	54	72
Teachers in medium schools	2	132	95	72
Teachers in small schools	2	258	178	69
Teachers in large schools	1	75	55	73
Teachers in medium schools	1	132	92	69
Teachers in small schools	1	258	178	69
Total	. .	1900	1373	72

### Utilization of In-Service Days

It is natural for in-service education programs to vary from school district to school district. Each school district in Texas submits a plan for using the ten in-service days to the Texas Education Agency. This flexibility enables each school system to determine its needs for in-service education and make plans which attempt to meet those needs.

Table II shows a summary of the chi-square test between the number of days utilized for various in-service activities as reported by in-service directors who represented large-, medium-, and small-school districts. Relationships between school size and the utilization of the in-service days in the areas of "building-level meetings" and "teachers working in their classrooms" were found to be significant at the .001 level. The relationship between school size and the use of days for "subject area meetings" was significant at the .01 level. A comparison of school size to the use of days for "district-wide meetings" yielded a level of significance of .025.

While the test of independence does not specifically identify the difference between the responses of the groups, an examination of Table II suggests that a large proportion of medium and small schools use one or two days for meetings "district-wide," "building-level," and "subject-area level." It appeared that most of the medium- and

TABLE II  
 NUMBERS OF SCHOOL DISTRICTS WHICH UTILIZED THE  
 TEN IN-SERVICE DAYS FOR VARIOUS ACTIVITIES

Activity	School Size	Number of Days							X <sup>2</sup>	LS*
		0	1	2	3	4	5	6		
District wide meetings	Large	0	4	4	3	2	2	1	24.63	NS**
	Medium	2	47	33	16	5	6	0		
	Small	6	59	57	30	18	25	5		
Building level meetings	Large	3	2	6	3	1	1	1	37.03	.001
	Medium	1	26	52	19	6	4	2		
	Small									
Subject area meetings	Large	4	4	4	4	0	1	0	30.65	.01
	Medium	10	34	39	18	3	5	1		
	Small									
School visitation	Large	15	2	0	0	0	0	0	15.17	NS
	Medium	53	53	4	0	0	0	0		
	Small	119	69	14	2	0	0	0		
Teachers work in rooms	Large	6	0	4	2	4	0	1	38.18	.001
	Medium	8	15	45	20	14	5	3		
	Small	8	14	80	49	26	17	7		
Professional meetings	Large	7	10	0	0	0	0	0	5.41	NS
	Medium	46	56	7	1	0	0	0		
	Small	66	118	13	6	0	0	0		
Other	Large	17	0	0	0	0	0	0	9.72	NS
	Medium	95	5	9	0	1	0	0		
	Small	167	18	11	3	2	2	1		

\*Level of significance.

\*\*Not significant.

small-school districts utilize two in-service days for "teachers to work in their classrooms."

There was no significant difference in the use of in-service days in the areas of "professional organizations,"

"school visitation," and "other activities," as shown in Table II.

The analysis of the data concerning the perceptions of secondary school principals and secondary school teachers as to the percent of time school personnel spend in various in-service activities is shown in Table III.

TABLE III

NUMBERS OF SCHOOL DISTRICTS AND AMOUNT OF TIME SPENT  
IN VARIOUS IN-SERVICE EDUCATION ACTIVITIES

Activity	School Size	Percent of Time					X <sup>2</sup>	LS*
		0-15	16-30	31-45	46-50	51-100		
District wide meetings	Large	55	21	5	1	2	12.27	NS**
	Medium	94	39	5	4	6		
	Small	156	81	22	20	11		
Building level meetings	Large	32	36	9	4	3	10.40	NS
	Medium	61	62	14	6	5		
	Small	152	107	15	9	7		
Subject area meetings	Large	20	44	9	6	5	52.24	.001
	Medium	56	79	10	2	1		
	Small	169	99	11	7	4		
School visitation	Large	82	2	0	0	0	4.40	NS
	Medium	145	3	0	0	0		
	Small	273	17	0	0	0		
Teachers work in rooms	Large	23	27	16	9	9	27.61	.005
	Medium	17	51	23	23	34		
	Small	29	78	63	42	78		

\*Level of significance.

\*\*Not significant.

There was a relationship significant at the .001 level between school size and the percent of in-service time

spent in "subject area meetings." Examination of the chi-square value for the activity of "teachers working in their classroom" reveals that this rating was also significant, but at the .005 level.

It appears, based on the frequencies recorded in Table III, that a larger proportion of small schools spends less in-service time in "subject area meetings" than the other schools. The data indicate that the small schools in one group permit teachers to spend at least fifty percent of their in-service time working in their classrooms. There was no significant difference between school size and time spent in the activities of "district-wide meetings," "building-level meetings," and "school visitation."

The data from Tables II and III indicate that most schools in the survey used one or two days of "district-", "building-", and "subject-area meetings." One day is utilized for "school visitation" and two days for "teachers to work in their classroom."

#### Types of In-Service Programs Provided

The literature revealed several types of professional growth activities which are commonly found in the in-service education programs of school districts. Table IV shows the relationship between school size and the rank of some common professional-growth activities as to their relative value in the opinion of in-service education directors.

TABLE IV

NUMBER OF IN-SERVICE EDUCATION DIRECTORS WHO RANKED  
PROFESSIONAL GROWTH ACTIVITIES AS TO THEIR  
RELATIVE VALUE

Activity	School Size	Rank*					X <sup>2</sup>	LS**
		1	2	3	4	5		
Local work- shop, area of interest	Large	12	4	1	0	0	10.72	NS***
	Medium	74	27	7	2	0		
	Small	105	69	27	2	1		
Building- faculty meetings	Large	1	6	7	3	0	8.10	NS
	Medium	11	34	48	14	2		
	Small	40	58	83	22	1		
College courses for credit	Large	0	1	4	10	2	4.50	NS
	Medium	6	6	14	70	14		
	Small	6	13	23	139	22		
In-Service courses	Large	4	5	5	3	0	3.90	NS
	Medium	25	41	34	9	1		
	Small	51	68	61	18	6		
Other	Large	0	0	0	1	3	6.33	NS
	Medium	1	2	3	8	36		
	Small	6	2	5	12	53		

\*Rank of 1 is most valuable, 5 is least valuable.

\*\*Level of significance.

\*\*\*Not significant.

The statistical treatment of the data for ranking certain professional-growth activities yields no significant differences between school size and the directors' opinions of the value of these activities. The "local workshop that was organized by subject or interest areas" was rated as the most valuable activity. An "in-service course with consultants" was ranked as the second most valuable activity. "Building-faculty meetings," "college courses with credit on

the campus," and "other activities" received lower ratings than the "local workshop" and "in-service courses."

#### Planning the Local In-Service Programs

The results of the chi-square test and the test for significance of the relationship between school size and personnel responsible for planning the local in-service education program are shown in Table V. Analysis of the data relating to school size and planning personnel indicated a

TABLE V

NUMBERS OF IN-SERVICE DIRECTORS WHO INDICATED  
PERSONNEL PRIMARILY RESPONSIBLE FOR  
IN-SERVICE EDUCATION PLANS

School Size	Personnel*					X <sup>2</sup>	LS**
	Aminis- trators	Teach- ers	Adm. and Tch.	Adm. Tch. Con.	Other		
Large	0	0	6	11	0	25.11	.01
Medium	24	1	53	27	5		
Small	73	1	81	44	5		

\*Adm.--administrator, Tch.--teacher, Con.--consultant

\*\*Level of significance.

difference, significant at the .01 level. An examination of the data revealed that a larger number of medium and small schools use "administrators" to make in-service plans than the large schools. These data from in-service directors indicated that the majority of large schools has a group of

"administrators, teachers, and consultants" primarily responsible for in-service plans.

Table VI shows the data concerning school size and the personnel primarily responsible for in-service plans as perceived by secondary school principals and secondary school teachers.

TABLE VI  
NUMBERS OF PRINCIPALS AND TEACHERS WHO INDICATED  
PERSONNEL PRIMARILY RESPONSIBLE FOR  
IN-SERVICE EDUCATION PLANS

School Size	Personnel				X <sup>2</sup>	LS*
	Adminis- trators	Teach- ers	Administrators and Teachers	Other		
Large	26	1	47	10	28.20	.005
Medium	81	3	53	11		
Small	176	6	98	10		

\*Level of significance.

The statistical analysis of the data relating to school size and personnel primarily responsible for in-service plans indicated a difference, significant at the .005 level. The secondary school principals and secondary school teachers in medium and small schools revealed that "administrators" do most of the planning for in-service education programs.

### School Size and In-Service Programs

One of the ways that a school's faculty may use its in-service days is by contracting with consultants outside of the school district to provide an appropriate program. Table VII shows the number of days these consultants have directed in-service education activities, in the opinion of in-service education directors.

TABLE VII

NUMBERS OF SCHOOL DISTRICTS AND THE AMOUNT OF TIME CONSULTANTS OUTSIDE OF DISTRICT ARE USED

School Size	Number of Days										X <sup>2</sup>	LS*
	0	1	2	3	4	5	6	7	8	9		
Large	1	0	6	3	2	4	1	0	0	0	20.56	NS**
Medium	1	4	23	26	20	19	11	2	2	2		
Small	4	15	46	51	34	42	5	5	2	0		

\*Level of significance.

\*\*Not significant.

There was no significant difference between school size and the number of days "outside consultants" were used. Most of the schools appeared to have used these "consultants" for two or three days.

"Consultants" came from a variety of sources. Table VIII indicates the most common sources for consultants, in the opinion of in-service educators.

TABLE VIII

NUMBERS OF SCHOOL DISTRICTS WHICH LISTED THEIR  
MOST COMMON COURSES OF CONSULTANTS

Source	School Size	Rank*							X <sup>2</sup>	LS**
		1	2	3	4	5	6	7		
University of college faculty	Large	5	7	1	1	2	1	0	28.90	.005
	Medium	27	26	22	15	7	5	7		
	Small	17	46	48	40	25	29	9		
Education Service Center	Large	2	2	6	2	2	3	0	85.26	.001
	Medium	56	36	10	3	4	0	1		
	Small	145	42	7	4	3	2	1		
Texas Education Agency	Large	0	2	3	4	6	2	0	17.77	NS***
	Medium	5	11	25	25	15	19	3		
	Small	5	39	45	52	36	18	8		
Professional groups	Large	0	1	0	3	3	8	2	26.04	.025
	Medium	3	4	7	16	35	30	13		
	Small	3	12	31	34	73	45	5		
Publishing companies	Large	1	2	5	4	3	2	0	23.12	.050
	Medium	4	7	12	23	23	32	9		
	Small	1	11	25	26	33	85	21		
Local district personnel	Large	10	3	2	2	0	0	0	22.93	.050
	Medium	26	16	26	20	14	4	4		
	Small	38	48	47	33	17	16	5		
Other	Large	1	0	0	0	0	0	5	9.48	NS
	Medium	1	2	2	2	2	9	37		
	Small	4	2	1	5	3	5	38		

\*Rank of 1 equals most common, rank of 7 least common.

\*\*Level of significance.

\*\*\*Not significant.

There was a difference, significant at the .005 level, between school size and "university or college faculties" as a common source of consultants. An examination of the data suggested that "university or college faculties" were more

common sources of assistance for large schools than they were for the other two groups of schools.

A significant relationship existed between school size and the "education-service-center's staff" as a common source of assistance, at the .001 level. Ranks assigned by directors indicated that medium and small schools used the "education-service center" as their most common source of assistance.

The data in Table VIII revealed a difference, significant at the .025 level, in the area of "professional organizations" as sources for consultants. This source seemed to be more common to the medium and small schools.

There was a difference, significant at the .05 level, between school size and the use of "publishing company representatives" as consultants for in-service education programs. While the test of independence does not specifically identify the differences among the responses of the three groups, an examination of the responses suggested that medium- and small-school directors ranked this source as one of their least common sources.

A relationship, significant at the .05 level, existed between school size and the use of "local-school-district personnel" as sources of assistance for in-service education programs. The data revealed that "local-district personnel" were the most common source of assistance in the large schools.

There was no significant difference between school size and the use of the "Texas Education Agency staff" or "others" as sources of consultants. However, the "Texas Education Agency" was ranked fourth from the most common source by many schools. "Other sources" of consultants were ranked the least common of all sources listed.

In-service education programs may be organized around the needs of teachers. Secondary school principals and secondary school teachers were asked to give opinions as to the areas in which in-service education programs provided help. Table IX shows these opinions in relation to school size.

In the "discipline area" there was a relationship, significant at the .05 level, between school size and the emphasis placed on this topic. Small schools seemed to place greater emphasis on "discipline" than the other two groups.

There was a relationship, significant at the .005 level, between school size and the emphasis placed on the "use of audiovisual aids." The data indicate that small schools emphasized this area more than medium and large schools.

A statistical treatment of the data revealed that there was a relationship, significant at the .01 level, between school size and the emphasis which was placed on the "use of teachers' aides." Medium and small schools placed less emphasis on this area.

TABLE IX

NUMBERS OF SECONDARY SCHOOL PERSONNEL WHO INDICATED  
AREAS WHERE HELP IS PROVIDED BY IN-SERVICE  
EDUCATION ACTIVITIES

Area	School Size	Amount of Emphasis				X <sup>2</sup>	LS*
		Most	Much	Some	Little		
Discipline	Large	10	19	25	30	13.12	.05
	Medium	26	34	48	48		
	Small	53	97	76	63		
Methods of teaching	Large	30	25	22	7	4.32	NS**
	Medium	52	44	35	17		
	Small	85	89	89	25		
Motivating students	Large	31	31	16	5	4.73	NS
	Medium	63	52	25	8		
	Small	135	106	37	11		
Use of audiovisual aids	Large	24	18	25	20	25.01	.005
	Medium	23	45	53	25		
	Small	76	113	63	37		
Preparation of class tests	Large	7	17	23	36	7.87	NS
	Medium	5	25	59	57		
	Small	24	60	100	103		
Assigning student grades	Large	4	20	21	38	12.58	NS
	Medium	18	36	45	47		
	Small	39	52	102	93		
Use of teacher aides	Large	8	18	31	24	18.07	.01
	Medium	8	18	36	86		
	Small	21	37	82	143		
Innovations	Large	37	23	15	9	16.45	.025
	Medium	46	53	22	27		
	Small	93	71	77	47		
Individualizing instruction	Large	49	15	12	8	4.85	NS
	Medium	77	42	20	9		
	Small	144	75	47	24		
Teacher self-evaluation	Large	21	25	27	11	8.09	NS
	Medium	55	49	28	16		
	Small	92	87	66	43		
Drug education	Large	11	20	30	22	6.94	NS
	Medium	38	27	54	29		
	Small	71	62	94	60		
Career education	Large	13	22	22	26	10.58	NS
	Medium	42	39	38	29		
	Small	69	57	78	86		
Bilingual education	Large	5	10	13	56	10.46	NS
	Medium	9	4	20	114		
	Small	10	19	48	212		

\*Level of significance.

\*\*Not significant.

An analysis of the data in Table IX indicated that there was a relationship, significant at the .025 level, between school size and the emphasis given to the area of "innovations." About fifty percent of the large schools placed the maximum emphasis on this area, while the other two groups placed less emphasis.

No significant relationship was found to exist between school size and the emphasis which was placed on "methods of teaching," "motivating students," "classroom test preparation," "assigning student grades," "individualizing instruction," "teacher self-evaluation," "drug education," "career education," or "bilingual education."

Another possible indication of the relationship between school size and types of in-service education programs was the manner in which personnel rated their ten days of in-service activities. Table X displays this information, as obtained from secondary school personnel.

TABLE X  
NUMBERS OF SECONDARY SCHOOL PERSONNEL WHO RATED  
THEIR IN-SERVICE EDUCATION PROGRAMS

School Size	Ratings				X <sup>2</sup>	LS*
	Excellent	Good	Fair	Poor		
Large	17	94	69	9	12.98	.05
Medium	28	218	132	26		
Small	33	389	311	44		

\*Level of significance.

The chi-square test revealed a relationship, significant at the .05 level, between school size and the ratings given in-service education programs. A larger proportion of the large schools rated their activities as "excellent" and a higher proportion of medium-sized schools rated their activities as "poor." The data revealed that about fifty percent of each school group rated their program as "good."

Evaluation of Texas In-Service  
Education Programs

One of the best evaluations of in-service education programs in Texas was found in the ratings which were supplied by teachers, principals, and directors who work in the public secondary schools. Table XI summarizes this evaluation.

TABLE XI

NUMBERS OF PRINCIPALS, TEACHERS, AND DIRECTORS WHO  
RATED THEIR IN-SERVICE EDUCATION PROGRAMS

Personnel	Ratings				X <sup>2</sup>	LS*
	Excellent	Good	Fair	Poor		
Principals	26	201	139	23	58.71	.001
Teachers	29	284	285	52		
Directors	23	216	88	4		

\*Level of significance.

A very large chi-square was obtained, indicating a relationship, significant beyond the .001 level, between positions of school personnel and their ratings of in-service.

programs. A very small proportion of in-service directors rated their activities as "poor," in comparison to the ratings of principals and teachers. A smaller percent of teachers gave the in-service activities an "excellent" rating than did principals and directors. Although the data revealed that the majority of Texas' educators rated their programs as "fair" or "good," over fifty-one percent rated their activities as "good."

#### Provisions for Local Evaluation of In-Service Education Activities

The methods for evaluating in-service education activities have not been clearly established. Table XII shows how in-service education directors felt about some common methods of evaluating the local in-service program.

TABLE XII

NUMBER OF IN-SERVICE DIRECTORS WHO INDICATED THE  
PERSONNEL PRIMARILY RESPONSIBLE FOR EVALUATION

School Size	Personnel*					X <sup>2</sup>	LS**
	Adm.	Tch.	Adm. and Tch.	No Evaluation	Other		
Large	0	1	15	0	1	15.81	.05
Medium	23	13	68	4	2		
Small	53	10	136	3	2		

\*Adm.--administrators, Tch.--teachers.

\*\*Level of significance.

A statistical analysis of the data indicated a relationship, significant at the .05 level, between school size

and in-service personnel who evaluate their activities. The data suggested that "administrators" from medium and small schools participated in evaluation to a greater extent than did large-school "administrators." In the opinions of the directors, a small percent of medium and small schools have "no form of evaluation." The majority of all school groups used "teams of administrators and teachers" to evaluate their in-service activities.

Secondary school principals and secondary school teachers were asked for their opinions concerning the responsibility for evaluation of in-service activities in their school districts. Table XIII shows a summary of the distribution of these opinions.

TABLE XIII

NUMBERS OF SECONDARY SCHOOL PERSONNEL WHO INDICATED THE PERSONNEL PRIMARILY RESPONSIBLE FOR EVALUATION OF IN-SERVICE EDUCATION ACTIVITIES

School Size	Personnel				X <sup>2</sup>	LS*
	Adminis- trators	Teach- ers	Administrators and Teachers	Other		
Large	12	10	44	18	21.30	.005
Medium	46	9	77	16		
Small	109	19	128	34		

\*Level of significance.

There was a relationship, significant at the .005 level, between school size and personnel responsible for in-service evaluation. School personnel seemed to agree with central

office personnel that medium- and small-school "administrators" seemed to do a larger share of evaluation than large-school "administrators." Secondary school principals and secondary school teachers indicated with their responses that most schools of all sizes used "teams of administrators and teachers" to be responsible for their in-service program evaluation.

#### Consideration of Teacher Needs

The needs of teachers should be taken into consideration when planning in-service education programs. Table XIV contains data concerning areas where teachers need help, in the opinion of secondary school teachers.

A statistical treatment of the data revealed no significant relationship between school size and opinions of teachers as to where in-service education activities should provide help. The data indicated areas and the emphasis which should be placed on each of these areas.

The area requiring the most emphasis during in-service education activities was "motivating students." Sixty-two percent of the teachers indicated that the maximum help was needed in this area. "Individualizing instruction" was the second most emphasized area, with fifty-four percent. Forty-six percent of the teachers selected "innovations" as the third area. The fourth area was "career education," with twenty-eight percent.

TABLE XIV

NUMBERS OF SECONDARY SCHOOL TEACHERS WHO INDICATED  
AREAS WHERE HELP SHOULD BE PROVIDED BY  
IN-SERVICE EDUCATION ACTIVITIES

Area	School Size	Amount of Emphasis				X <sup>2</sup>	LS*
		Most	Much	Some	Little		
Discipline	Large	6	14	22	12	10.02	NS**
	Medium	17	22	35	18		
	Small	44	48	44	42		
Methods of teaching	Large	22	15	10	7	8.20	NS
	Medium	23	31	24	12		
	Small	44	58	58	18		
Motivating students	Large	35	18	2	0	8.24	NS
	Medium	58	29	5	0		
	Small	111	46	14	7		
Use of audiovisual aids	Large	4	15	21	14	2.96	NS
	Medium	14	27	33	17		
	Small	24	46	67	40		
Preparation of class tests	Large	3	8	20	23	1.94	NS
	Medium	4	12	28	46		
	Small	6	28	63	79		
Assigning student grades	Large	4	6	20	24	4.85	NS
	Medium	5	21	31	33		
	Small	17	34	63	63		
Use of teacher aides	Large	3	8	23	20	6.65	NS
	Medium	6	14	22	48		
	Small	13	29	47	87		
Innovations	Large	30	19	3	3	6.05	NS
	Medium	44	28	13	7		
	Small	77	54	27	19		
Individualizing instruction	Large	35	15	3	2	5.80	NS
	Medium	49	31	6	6		
	Small	94	49	21	14		
Teacher self-evaluation	Large	17	21	11	6	1.23	NS
	Medium	28	32	22	10		
	Small	55	68	40	14		
Drug education	Large	6	11	19	18	2.45	NS
	Medium	10	25	32	25		
	Small	15	49	55	58		
Career education	Large	9	16	18	12	7.37	NS
	Medium	31	19	23	19		
	Small	52	52	42	32		
Bilingual education	Large	1	5	12	36	3.49	NS
	Medium	3	6	30	52		
	Small	9	13	50	105		

\*Level of significance.

\*\*Not significant.

In the opinions of the secondary school teachers, much emphasis should be placed on "teacher self-evaluation" and "methods of teaching." "Self-evaluation" received thirty-seven percent and "methods of teaching" thirty-two percent for amount of emphasis.

The areas which should receive some emphasis are "the use of audiovisual aids," "drug education," and "discipline," in that order. The respective percentages were thirty-seven, thirty-two, and thirty-one.

Fifty-nine percent of the teachers believed little help was needed for "bilingual education" during in-service staff-development days. In the opinions of the teachers, little emphasis should be given to "the use of teacher aides," "classroom-test preparation," and "assigning student grades."

#### Perceptions of Principals and Teachers

In-service education programs need the views of the personnel who are directly involved. The comparison of the perceptions of teachers and principals concerning the local in-service education program may produce a better understanding of that program. Table XV shows the comparable ratings given the local program.

There was a relationship, significant at the .025 level, between the position of the respondent and the ratings of the local in-service education program. The data indicated that principals tended to rate the programs higher than did

TABLE XV

NUMBERS OF SECONDARY SCHOOL PRINCIPALS AND TEACHERS  
WHO RATED IN-SERVICE EDUCATION PROGRAMS

Personnel	Ratings				X <sup>2</sup>	LS*
	Excellent	Good	Fair	Poor		
Principals	26	201	139	23	10.98	.025
Teachers	29	284	285	52		

\*Level of significance.

teachers. A larger proportion of teachers rated their local in-service program as "poor" than did principals.

There has been much debate concerning who should plan in-service education programs. The data in Table XVI give the views of principals and teachers on this topic.

TABLE XVI

NUMBERS OF PRINCIPALS AND TEACHERS WHO INDICATED THE  
PERSONNEL WHO SHOULD PLAN IN-SERVICE  
EDUCATION PROGRAMS

Position	Personnel				X <sup>2</sup>	LS*
	Adminis- trators	Teach- ers	Administrators and Teachers	Other		
Principals	15	2	176	2	11.03	.025
Teachers	21	23	272	7		

\*Level of significance.

A relationship, significant at the .025 level, existed between the individual's professional position and his opinion as to who should plan the in-service activities. About seven percent of the teachers felt that only "teachers"

should plan in-service programs, while only one percent of the principals had this opinion. The majority of both groups indicated a preference for a "combination of some administrators and some teachers."

Another area for concern was with regard to who should evaluate the local in-service education activities. Opinions of secondary principals and teachers on this area are given in Table XVII. The Chi-Square Test of Independence was used to compare these opinions.

TABLE XVII

NUMBERS OF PRINCIPALS AND TEACHERS WHO INDICATED THE PERSONNEL WHO SHOULD EVALUATE IN-SERVICE EDUCATION PROGRAMS

Position	Personnel				X <sup>2</sup>	LS*
	Adminis- trators	Teach- ers	Administrators and Teachers	Other		
Principals	5	15	172	3	12.77	.01
Teachers	8	62	252	3		

\*Level of significance.

There was a relationship, significant at the .01 level, between the individual's position and his judgment as to who should evaluate the local in-service activities. More teachers than principals believed that "teachers" should evaluate the local in-service program. Principals and teachers agreed that most of the evaluation should be done by a "team of administrators and teachers."

One of the questions which concerned in-service education programs was the amount of time which should be spent on the various activities. In an effort to determine how much time should be spent in each of several activities which could influence the organization of the ten in-service activity days, opinions from secondary school principals and secondary school teachers were sought. These opinions are presented in Table XVIII. The Chi-Square Test of Independence was used to compare the opinions.

TABLE XVIII

NUMBER OF SECONDARY SCHOOL PERSONNEL WHO INDICATED THE PERCENT OF TIME THAT SHOULD BE SPENT IN ACTIVITIES DURING IN-SERVICE EDUCATION DAYS

Activity	Position	Percent of Time					X <sup>2</sup>	LS*
		0-15	16-30	31-45	46-50	51-100		
District wide meetings	Principals	128	62	2	3	0	24.24	.001
	Teachers	271	48	2	2	2		
Building level meetings	Principals	70	95	18	9	3	30.53	.001
	Teachers	191	115	12	4	3		
Subject area meetings	Principals	34	107	29	20	5	13.48	.01
	Teachers	98	157	28	31	11		
School visitation	Principals	161	34	0	0	0	.09	NS**
	Teachers	273	52	0	0	0		
Teachers work in rooms	Principals	57	78	27	27	6	54.69	.001
	Teachers	39	105	45	61	75		

\*Level of significance.

\*\*Not significant.

There was a relationship, significant at the .001 level, between the individual's position and his opinion regarding the percentage of time that should be spent in "district-wide meetings." The teachers favored spending less time in this activity than did principals.

A relationship, significant at the .001 level, existed between the individual's position and his opinion concerning the percentage of total staff-development time that should be spent in "building-level meetings." Principals favored spending more time in the activity than did teachers.

The data indicated that a relationship, significant at the .01 level, existed between the individual's position and his opinion regarding the percentage of time that should be spent in "subject-area meetings." Teachers favored spending a smaller percentage of total staff-development time in "subject-area meetings" than did principals.

There was no significant relationship between the position held and the opinion regarding the amount of time that should be spent in "visitation of schools." Both groups indicated that the minimum amount of time should be spent in this area.

A relationship, significant at the .001 level, was found between the individual's position and his opinion regarding the percentage of time that should be used for "teachers to work in their classrooms." Teachers favored spending more time in this activity than did principals.

Table XIX gives the opinions of principals and teachers regarding the present use of time in common in-service education activities.

TABLE XIX

NUMBERS OF SECONDARY PRINCIPALS AND TEACHERS WHO INDICATED THE TIME SPENT IN VARIOUS IN-SERVICE EDUCATION ACTIVITIES

Activity	Position	Percent of Time					$\chi^2$	LS*
		0-15	16-30	31-45	46-50	51-100		
District wide meetings	Principals	107	61	10	11	6	4.02	NS**
	Teachers	198	80	22	14	13		
Building level meetings	Principals	88	86	12	4	5	4.86	NS
	Teachers	157	119	26	15	10		
Subject area meetings	Principals	76	93	14	6	6	9.50	.05
	Teachers	169	129	16	9	4		
School visitation	Principals	184	10	1	0	0	1.05	NS
	Teachers	316	10	1	0	0		
Teachers work in rooms	Principals	28	76	33	22	36	14.83	.01
	Teachers	41	80	69	52	85		

\*Level of significance.

\*\*Not significant.

There was a relationship, significant at the .01 level, between the professional position held and the opinion regarding the percentage of time "teachers spent in their classrooms." Teachers indicated that they spent more in-service time in their rooms than principals indicated that

they did. The majority of teachers revealed that they spent over thirty percent of their in-service time "working in their rooms."

A relationship, significant at the .05 level, existed between the professional position held and the opinion regarding the percentage of time spent in "subject-area meetings." Principals had the opinion that more time was spent in "subject-area meetings" than teachers realized. The majority of principals indicated that over fifteen percent of the in-service time was spent in this area.

There were no significant relationships between positions held and opinions regarding the time spent in the areas of "district-wide meetings," "building-level meetings," and "school visitation." Both groups indicated that the minimum amount of time was spent in these activities.

Principals and teachers must be presumed to be in the best position to name likely areas where in-service help should be provided. Table XX contains their opinions on this topic.

The statistical treatment of the data revealed a relationship, significant at the .001 level, between the professional position held and the opinion regarding the emphasis which should be placed on "methods of teaching." A larger proportion of principals than teachers believed that "methods of teaching" should receive the maximum emphasis during in-service education activities.

TABLE XX

NUMBERS OF PRINCIPALS AND TEACHERS WHO INDICATED  
THE AREAS WHERE HELP SHOULD BE PROVIDED BY  
IN-SERVICE EDUCATION ACTIVITIES

Area	Position	Amount of Emphasis				X <sup>2</sup>	LS*
		Most	Much	Some	Little		
Discipline	Principals Teachers	34 67	58 84	62 101	39 72	1.59	NS**
Methods of teaching	Principals Teachers	85 89	75 104	31 92	4 37	32.34	.001
Motivating students	Principals Teachers	143 204	42 93	7 21	3 7	6.49	NS
Use of audiovisual aids	Principals Teachers	15 42	64 68	71 121	42 71	4.44	NS
Preparation of class tests	Principals Teachers	11 13	59 48	63 111	58 148	22.74	.001
Assigning student grades	Principals Teachers	12 26	37 61	62 114	84 120	2.11	NS
Use of teacher aides	Principals Teachers	10 22	36 51	77 92	69 155	10.66	.025
Innovations	Principals Teachers	54 151	64 101	51 43	26 29	24.48	.001
Individualizing instruction	Principals Teachers	88 100	55 121	37 73	15 30	10.90	.025
Teacher self-evaluation	Principals Teachers	114 178	35 95	32 30	14 22	11.79	.01
Drug education	Principals Teachers	10 31	30 85	71 106	84 101	14.81	.005
Career education	Principals Teachers	35 92	59 87	56 83	45 63	7.14	NS
Bilingual education	Principals Teachers	4 13	9 24	43 92	139 193	7.40	NS

\*Level of significance.

\*\*Not significant.

A relationship, significant at the .001 level, existed between the professional position held and the help which should be provided in the "preparation of class tests." A large percentage of principals gave more emphasis to "test preparation" than teachers did.

There was a relationship, significant at the .001 level, between the professional position held and the opinion regarding emphasis which should be given to the study of "innovations." A larger percentage of teachers than principals believed that the maximum should be provided by in-service education activities in this area.

The data indicated a relationship, significant at the .005 level, between the professional position held and the opinion regarding the help which should be provided for "drug education." A larger percentage of teachers than principals suggested that more emphasis be given in this during in-service time.

A relationship, significant at the .01 level, existed between the professional position held and the opinion regarding the emphasis which should be given to the "individualization of instruction." The majority of teachers believed more help should be given in this area than did principals.

There was a relationship, significant at the .025 level, between the professional position held and the opinion regarding the emphasis which should be given

"teacher self-evaluation." A larger percentage of principals than teachers believed that the maximum emphasis should be provided by the in-service education activities in this area.

There were no significant differences between principals and teachers in opinions held regarding the relative importance of the areas of "discipline," "motivating students," "using audiovisual aids," "assigning student grades," "career education," and "bilingual education." Both groups agreed that "motivating students" should receive the highest priority in the in-service education activities.

Table XXI presents opinions of secondary school teachers and secondary school principals concerning in-service education areas where the most emphases are placed at the present time. A comparison of these opinions also revealed areas where the least emphases are placed.

A relationship, significant at the .001 level, existed between the professional position held and the opinion regarding the emphasis now placed on "methods of teaching." A larger percentage of principals than teachers felt that maximum emphasis was provided for this area.

There was a relationship, significant at the .001 level, between the professional position held and the opinion regarding the amount of help which was provided for "using teacher aides." A larger percentage of teachers than principals believed that the least amount of help was provided by in-service education activities in this area.

TABLE XXI  
 NUMBERS OF PRINCIPALS AND TEACHERS WHO INDICATED  
 AREAS WHERE HELP IS PROVIDED BY  
 IN-SERVICE EDUCATION ACTIVITIES

Area	Position	Amount of Emphasis				X <sup>2</sup>	LS**
		Most	Much	Some	Little		
Discipline	Principals Teachers	25	66	65	39	12.01	.01
		64	84	84	93		
Methods of teaching	Principals Teachers	77	72	39	7	28.18	.001
		90	86	107	42		
Motivating students	Principals Teachers	93	71	22	8	3.99	NS**
		136	118	56	16		
Use of audiovisual aids	Principals Teachers	36	74	56	28	6.06	NS
		87	102	82	54		
Preparation of class tests	Principals Teachers	15	42	76	60	5.95	NS
		21	61	106	136		
Assigning student grades	Principals Teachers	17	43	60	71	3.29	NS
		44	65	108	107		
Use of teacher aides	Principals Teachers	25	33	69	65	36.10	.001
		12	40	80	188		
Innovations	Principals Teachers	73	37	48	36	12.99	.005
		103	110	66	47		
Individual- izing instruction	Principals Teachers	104	37	28	26	17.08	.001
		166	95	51	15		
Teacher self- evaluation	Principals Teachers	64	55	46	29	1.26	NS
		104	106	75	41		
Drug education	Principals Teachers	36	33	69	56	13.37	.005
		84	76	109	55		
Career education	Principals Teachers	35	35	63	61	13.57	.005
		89	83	75	80		
Bilingual education	Principal Teachers	9	14	19	152	8.02	.05
		15	19	62	230		

\*Level of significance.

\*\*Not significant.

The data revealed a relationship, significant at the .001 level, between the professional position held and the opinion regarding the emphasis which was placed on "individualizing instruction." A larger percentage of teachers than principals believed that the maximum emphasis was placed in this area.

There was a relationship, significant at the .005 level, between the professional position held and the opinion regarding the emphasis which was placed on "drug education." Twenty-eight percent of the principals believed little emphasis was placed in this area, while only seventeen percent of the teachers shared this opinion.

A relationship, significant at the .005 level, existed between the professional position of the respondent and his opinion regarding the help which was provided for "innovations." A larger percentage of teachers than principals indicated that much emphasis was given to this area.

The data indicated a relationship, significant at the .005 level, between the professional position held and the opinion regarding the help which was given "career education." A larger percentage of teachers than principals believed that the maximum help was provided by in-service education activities in this area.

There was a relationship, significant at the .01 level, between the professional position of the respondent and the opinion regarding the emphasis which was thought to be

provided in the area of "discipline." Thirty percent of the teachers had the opinion that little emphasis was placed in this area while only eighteen percent of the principals shared this opinion.

A relationship, significant at the .05 level, existed between the position of the respondent and the amount of help which was thought to be provided for "bilingual education." The data revealed that nineteen percent of the teachers placed this area in the "some emphasis" category, while only nine percent of the principals had this opinion.

There were no significant relationships between the position of the respondents and the emphasis which was believed to be placed on the areas of "motivating students," "using audiovisual aids," "preparing classroom tests," "assigning student grades," and "teacher self-evaluation." "Motivating students" was the area named by both groups as receiving the maximum emphasis.

The best time for conducting in-service education activities has not been clearly established. Table XXII presents the opinions of secondary school principals and secondary school teachers as to when in-service education programs should be conducted.

A statistical treatment of the data indicated that there was a relationship, significant at the .001 level, between the professional position of the respondent and his judgment regarding the desirability of conducting various

TABLE XXII

NUMBERS OF PRINCIPALS AND TEACHERS WHO INDICATED  
WHEN IN-SERVICE EDUCATION ACTIVITIES SHOULD  
BE CONDUCTED

Time	Position	Rank*						X <sup>2</sup>	LS**
		1	2	3	4	5	6		
Before school year	Principals Teachers	121	58	9	3	2	2	20.11	.001
		147	113	45	8	2	9		
End of school year	Principals Teachers	5	21	52	40	23	54	1.02	NS***
		8	32	94	74	34	83		
After school day	Principals Teachers	1	6	21	31	56	80	3.77	NS
		2	8	24	55	114	122		
Before school day	Principals Teachers	4	4	19	36	64	68	4.83	NS
		2	2	29	65	115	112		
Faculty Retreat	Principals Teachers	8	24	47	50	21	45	6.94	NS
		23	58	82	74	24	64		
Days during year	Principals Teachers	81	69	28	10	3	4	10.00	NS
		179	88	41	9	4	4		

\*Rank of 1 is most desirable, 6 is least desirable.

\*\*Level of significance.

\*\*\*Not significant.

in-service education activities "before the opening of the school year." An examination of the tabulated frequencies revealed that sixty-one percent of the principals ranked this time as most desirable, while only forty-eight percent of the teachers had this opinion.

There were no significant relationships between the position of the respondent and the rank assigned the times of the "end of the school year," "after the school day," "before the school day," "faculty retreats," and "days during the year." The majority of teachers listed "days during the year" as the most desirable time for in-service activities, but principals listed this time as their second choice.

Secondary school principals and secondary school teachers were asked to list the most common times for their in-service activities. Table XXIII shows these opinions.

TABLE XXIII

NUMBERS OF PRINCIPALS AND TEACHERS WHO INDICATED TIMES WHEN IN-SERVICE EDUCATION ACTIVITIES ARE CONDUCTED

Time	Position	Rank*						X <sup>2</sup>	LS**
		1	2	3	4	5	6		
Before school year	Principals	159	26	7	1	2	0	11.01	NS***
	Teachers	234	76	10	3	1	3		
End of school year	Principals	24	47	71	17	20	16	21.81	.001
	Teachers	29	57	179	23	12	27		
After school day	Principals	4	9	22	57	33	68	15.03	.025
	Teachers	5	10	21	142	62	83		
Before school day	Principals	3	3	14	31	67	76	12.29	.05
	Teachers	1	5	13	50	155	100		
Faculty retreat	Principals	3	4	12	22	14	139	28.62	.001
	Teachers	1	0	5	20	11	285		
Days during year	Principals	57	76	31	13	8	10	8.17	NS
	Teachers	119	139	35	12	9	13		

\*Rank of 1 is most common, 6 is least common time.

\*\*Level of significance.

\*\*\*Not significant.

There was a relationship, significant at the .001 level, between the position of the respondent and his perception of the "end of the year" as a time for in-service activities. An examination of the data revealed that fifty-eight percent of the teachers gave this time a rank of three, while only thirty-five percent of the principals had this opinion.

A relationship, significant at the .001 level, existed between the position of the respondent and his perception of "faculty retreats" as a time for in-service education activities. An analysis of the data indicated that ninety-four percent of the teachers felt that this time was the least common time for in-service education programs, while only sixty-nine percent of the principals expressed this opinion.

A statistical treatment of the data indicated a relationship, significant at the .025 level, between the professional position held and the opinion regarding the rank assigned "after the school day" as a usual time for in-service education activities. The data suggested that forty-three percent of the teachers gave this time a rank of four, while only twenty-eight percent of the principals agreed with them.

There was a relationship, significant at the .05 level, between the position of the respondent and his opinion of "before the school day" as a time for in-service education activities. Fifty percent of the teachers ranked this time as five, while only thirty-three percent of the principals did.

There were no significant differences between the principals and teachers in terms of ranks they gave "before the school year" and the entire "days during the year" as times for in-service education programs. "Before the school year" was ranked the usual time and the entire "days during the year" was ranked second.

Secondary school principals and secondary school teachers were asked who was primarily responsible for the local in-service plans in their school districts. Table XXIV displays this information.

TABLE XXIV

NUMBERS OF PRINCIPALS AND TEACHERS WHO INDICATED PERSONNEL PRIMARILY RESPONSIBLE FOR IN-SERVICE EDUCATION PLANS

Position	Personnel				X <sup>2</sup>	LS*
	Adminis- trators	Teach- ers	Administrators and Teachers	Other		
Principals	100	4	73	18	6.22	NS**
Teachers	183	6	125	13		

\*Level of significance.

\*\*Not significant.

There was no significant relationship between the position of the respondent and his perception as to who planned in-service activities. Both groups indicated that "administrators" were primarily responsible for producing in-service plans.

Principals and teachers were asked to name personnel who formally evaluated their in-service education activities. Table XXV summarized these opinions.

TABLE XXV

NUMBERS OF PRINCIPALS AND TEACHERS WHO INDICATED  
THE PERSONNEL PRIMARILY RESPONSIBLE  
FOR IN-SERVICE EDUCATION

Position	Personnel				X <sup>2</sup>	LS*
	Adminis- trators	Teach- ers	Administrators and Teachers	Other		
Principals	52	12	101	30	5.72	NS**
Teachers	115	26	148	38		

\*Level of significance.

\*\*Not significant.

There was no significant relationship between the position of the respondent and his perception of who formally evaluated the in-service activities. Fifty-three percent of the principals and forty-eight percent of the teachers agreed that "administrators and teachers" evaluated the in-service education program. Thirty-seven percent of the teachers and twenty-six percent of the principals had the opinion that "administrators" only evaluated the in-service activities. Only six percent of each group believed that "teachers" only formally evaluated the program.

Evaluation is a necessary part of in-service education. The data in Table XXV suggest that many school districts should evaluate their evaluation procedures.

#### Opinions Regarding Activities that Should Be Happening During In-Service Programs

Five hundred and twenty secondary school principals and secondary school teachers were asked to reply to questions which concerned what was happening during in-service

education programs. An additional group of 522 principals and teachers were asked to reply to questions which concerned what should be happening during in-service programs. It is assumed that the two groups were from the same sample although they were different groups. Table XXVI contains the comparison of opinions of the two groups on planning the in-service program.

TABLE XXVI

NUMBERS OF SECONDARY SCHOOL PERSONNEL WHO INDICATED THE PERSONNEL RESPONSIBLE FOR IN-SERVICE EDUCATION PLANS

Personnel	Should Be Responsible	Is Responsible	$\chi^2$	LS*
Administrators	36	284	306.51	.001
Teachers	25	10		
Administrators and Teachers	448	198		
Other	9	31		

\*Level of significance.

A very large chi-square was obtained and indicated a relationship, significant beyond the .001 level, between perceptions of who should be and who was responsible for in-service plans. The majority of principals and teachers in the survey believed that in-service plans need to be made by a cooperative effort of "administrators and teachers." The data indicated this type of effort was used in fewer than forty percent of the in-service education programs.

Another area which the two groups examined was formal evaluation of in-service education activities. Table XXVII shows the compared opinions.

TABLE XXVII  
NUMBERS OF SECONDARY SCHOOL PERSONNEL WHO INDICATED  
THE PERSONNEL RESPONSIBLE FOR IN-SERVICE  
EDUCATION EVALUATION

Personnel	Should Be Responsible	Is Responsible	X <sup>2</sup>	LS**
Administrators	13	167	242.42	.001
Teachers	25	10		
Administrators and Teachers	424	249		

\*Level of significance.

The large chi-square obtained indicated a relationship, significant at the .001 level, between perceptions of who was and of who should be responsible for in-service evaluation. An analysis of the data revealed that about ninety percent of the principals and teachers believed that evaluation should be a joint effort by "administrators and teachers," but fewer than fifty percent of secondary school personnel believed this method of evaluation was being used. About thirty percent of the group reported that "administrators" alone evaluated in-service education programs.

One of the main areas of concern was that in-service staff-development time be spent in the most profitable way. Table XXVIII contains the compared opinions of secondary

school principals and secondary school teachers concerning activities on which valuable in-service staff-development time was spent.

TABLE XXVIII

NUMBERS OF SECONDARY SCHOOL PERSONNEL WHO INDICATED THE TIME SPENT IN VARIOUS ACTIVITIES

Activity	Use of Time	Percent of Time					X <sup>2</sup>	LS*
		0-15	16-30	31-45	46-50	51-100		
District wide meetings	Should be Is	399 305	110 141	4 32	5 25	2 19	65.24	.001
Building level meetings	Should be Is	261 245	210 205	30 38	13 19	6 15	6.48	NS**
Subject area meetings	Should be Is	132 245	264 222	57 30	51 15	16 10	66.89	.001
School visitation	Should be Is	434 500	77 20	7 2	2 0	0 0	42.60	.001
Teachers work in rooms	Should be Is	96 69	183 156	72 102	88 74	81 121	20.86	.001

\*Level of significance.

\*\*Not significant.

There was a difference, significant at the .001 level, between perceptions of how in-service staff-development time should be used and of how it was used in the area of "district-wide meetings." An examination of the data suggested that less time should be used in this activity than was being used.

A difference, significant at the .001 level, existed between perceptions of the actual and the desirable use of time in the area of "subject-area meetings." The opinions expressed indicated more time should be used in this area than was being used.

An analysis of the data revealed a difference, significant at the .001 level, between how time should be used and how time was used (actual and desirable use of time) in the area of "school visitation." The data seemed to indicate that more time should be spent in this activity than was being spent.

There was a difference, significant at the .001 level, in the actual and recommended use of time devoted to "teachers' working in their classrooms." Opinions suggested that less time should be spent in this activity.

There was no significant difference in the actual and recommended time devoted to "building-level meetings." The minimum amount of time was indicated in this activity.

The secondary school groups were asked to rank several most commonly used times for conducting in-service education activities. Table XXIX presents the distribution of opinions regarding the times that in-service education programs should be conducted and the times that they were conducted.

A difference, significant at the .001 level, existed between the recommended time for in-service education

activities and the actual time of "before the school year." The majority of educators ranked this time as least desirable, but one of the most commonly used times.

An analysis of the data indicated a difference, significant at the .001 level, between the actual and recommended time of "after the school day." The opinion of the majority

TABLE XXIX  
NUMBERS OF SECONDARY SCHOOL PERSONNEL WHO  
INDICATED TIMES FOR CONDUCTING IN-SERVICE  
EDUCATION ACTIVITIES

Time	Groups	Rank*						X <sup>2</sup>	LS**
		1	2	3	4	5	6		
Before school year	Should be Is	269 393	171 102	54 17	11 4	4 3	11 3	68.33	.001
End of school year	Should be Is	13 53	53 104	146 250	114 40	57 32	137 43	159.78	.001
After school day	Should be Is	3 9	14 19	45 43	86 199	170 95	202 151	77.18	.001
Before school day	Should be Is	6 4	6 8	48 27	101 81	179 222	180 176	13.41	.025
Faculty retreat	Should be Is	31 4	82 4	129 17	124 42	45 25	109 424	409.86	.001
Days during year	Should be Is	260 176	157 215	69 66	19 25	7 17	8 23	37.53	.001

\*Rank of 1 is most desirable, 6 is least desirable.

\*\*Level of significance.

of the secondary school personnel ranked this time as one of the least desirable times, but ranked it fourth in general use.

A difference, significant at the .025 level, existed between the actual and recommended time of "before the school day." A larger proportion of secondary school personnel ranked this time fifty in actual use than ranked it fifth as a desirable time for in-service education activities.

A very large chi-square indicated a difference, significant at the .001 level, between the actual and recommended times of "faculty retreats." The data revealed that this was the least commonly used time for in-service education activities, but it was recommended that faculty retreats be used more often.

There was a difference, significant at the .001 level, between the actual and recommended times of "days distributed during the year." This time was rated as one of the most desirable times but was rated in actual use.

The secondary school groups were asked to rate the amount of help which was given and the amount of help that should be given by in-service education activities. Table XXX shows the distribution of these opinions.

A difference, significant at the .001 level, existed in the area of "motivating students." An examination of the

TABLE XXX

NUMBERS OF SECONDARY SCHOOL PERSONNEL WHO INDICATED  
THE AMOUNT OF HELP PROVIDED BY IN-SERVICE  
EDUCATION ACTIVITIES

Area	Groups	Amount of Emphasis				$\chi^2$	LS*
		Most	Much	Some	Little		
Discipline	Should be Is	101 89	142 150	163 149	111 132	4.31	NS**
Methods of teaching	Should be Is	174 167	179 158	123 146	41 49	4.12	NS
Motivating students	Should be Is	347 229	135 189	28 78	10 24	62.52	.001
Use of audiovisual aids	Should be Is	57 123	152 176	192 138	113 82	39.69	.001
Preparation of class tests	Should be Is	24 36	107 102	174 182	206 196	2.92	NS
Assigning student grades	Should be Is	38 61	98 108	176 168	204 178	7.78	NS
Use of teacher aides	Should be Is	32 37	87 73	169 149	224 253	4.60	NS
Innovations	Should be Is	205 176	165 147	94 114	55 83	10.84	.025
Individual- izing instruction	Should be Is	292 270	130 132	62 79	36 41	3.24	NS
Teacher self- evaluation	Should be Is	188 168	176 161	110 121	45 70	7.74	NS
Drug education	Should be Is	41 120	115 109	177 178	185 111	57.42	.001
Career education	Should be Is	127 124	146 118	139 138	108 141	7.38	NS
Bilingual education	Should be Is	17 24	33 33	135 81	332 382	18.18	.001

\*Level of significance.

\*\*Not significant.

data suggested that more help should be provided in this area than was being provided.

There was a difference, significant at the .001 level, between the actual and recommended amount of help in the area of "using audiovisual aids." In the opinions of the educators, more emphasis was given this area than should have been given.

In the area of "innovations," the data indicated a difference, significant at the .025 level. An analysis of the data revealed that more emphasis should be placed on this area than was being placed.

There was a difference, significant at the .001 level, between the actual and recommended amount of help provided in the area of "drug education." The data seemed to indicate that more emphasis was being placed on this area than was recommended.

An examination of the data revealed a difference, significant at the .001 level, between the actual and recommended amount of emphasis provided in the area of "bilingual education." In the opinions of the secondary school personnel, this area was receiving less emphasis than it should.

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## CHAPTER IV

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

#### Summary

In-service education in the public secondary schools of Texas was examined by the determination and analysis of perceptions of selected educators. One of the purposes of this study was to determine if any differences existed in the perceptions of secondary school teachers who teach in large-, medium-, and small-school districts regarding in-service education programs. The data indicated a significant relationship between school size and perceptions of secondary school educators concerning the types of in-service programs utilized. Large-school districts tend to emphasize innovations, while small-school districts tend to emphasize traditional activities, such as discipline and the use of audiovisual aids. In-service education programs of large-school districts received higher ratings from secondary school educators than programs of many smaller-school districts.

The needs of secondary school teachers for in-service education programs were identified to be in the areas of motivating students, individualizing instruction, innovations, and career education. Teachers felt that they were not involved in the planning of in-service education activities to a large extent.

Secondary school principals and secondary school teachers had many different perceptions of local in-service education programs. Principals tend to rate in-service education programs higher than teachers. Principals and teachers disagreed on who primarily evaluated in-service education programs, the amount of time spent in various in-service education activities, the emphasis placed on certain in-service education topics, and the particular time of the school year for conducting in-service education activities.

There was a discrepancy between what principals and teachers perceived in-service education programs to be and what they thought the programs ought to be. In the opinion of teachers and principals, the organization of many current in-service education programs needs revising in the areas of meeting times during the school year, designating staff-improvement topics, and assigning time priorities for in-service education days.

Another purpose of this study was to determine other pertinent information about in-service education programs. Secondary school educators indicated that many schools used one or two in-service education days for "district-wide meetings," while the same amount of time was utilized for "building-level meetings" and "subject-area meetings." "School visitation" and "professional meetings" were activities which utilized one day each; and two or three days were utilized for "teachers to work in their classrooms."

The local workshop that was organized by subject or interest areas was rated the most valuable type of in-service education activity, while in-service education courses with consultants was ranked as the second most valuable activity.

More medium- and small-school administrators planned in-service education programs than did large-school administrators. The majority of the in-service education plans of large-school districts were produced by a group which was composed of administrators, teachers, and consultants.

The data revealed that administrators in medium- and small-school districts were involved in evaluation of in-service education activities to a much greater extent than administrators in large-school districts. Secondary school educators reported that a team of administrators and teachers was primarily responsible for evaluation of in-service education activities.

Secondary school teachers, secondary school principals, and in-service education directors in the public secondary schools revealed a great concern for the lack of effectiveness of in-service education programs provided by House Bill 240.

In-service education is an important task and may be improved by providing the best possible organization of in-service education activities and encouraging teachers to have a positive attitude toward in-service education programs.

### Conclusions

As a result of the findings of this study, the following conclusions appear warranted in regard to in-service education programs in the public secondary schools of Texas:

1. Substantial differences appear to exist in the perceptions of secondary school personnel who represent large-, medium-, and small-school districts regarding in-service education programs.
2. Teachers' needs in the areas of motivation, individualization, innovations, and career education seem to be staff-improvement topics which should increase future learning opportunities for students.
3. There appears to be substantial differences in the perceptions of administrators and teachers in the organizing and conducting of in-service education programs.
4. Current in-service education programs and ideal programs appear to have differences in the areas of meeting times, selection of in-service education activities, and allocation of time for each activity.
5. In-service education programs in the public secondary schools of Texas are not as effectively planned and organized as they should be.

### Recommendations

1. Small-school districts should continue working with regional-education-service centers for in-service education

assistance and large-school districts might explore the possibility of increasing their use of the centers.

2. School districts' directors of in-service education programs should give priority to teachers' needs when the programs are planned.

3. Classroom teachers should be encouraged to conduct in-service education sessions, when appropriate.

4. More teachers should be involved in the planning and evaluating phases of in-service education programs.

5. School districts' personnel should attempt to develop guidelines for in-service education programs and organize the programs more effectively.

6. In-service education programs should be organized to help in-service education directors and administrators improve local programs.

7. More in-service education activities should focus on the classroom aspects of teaching.

#### Recommendations for Further Study

1. Research is needed for other levels of in-service education programs in the public schools.

2. A periodic statewide survey of in-service education programs in the public schools might be valuable.

3. Research is needed to determine the effect of in-service education activities on curriculum improvement.

4. Research is needed to determine what kinds of in-service programs are worthy and acceptable to teachers.

APPENDIX A

North Texas State University

Denton, Texas

76203

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DEPARTMENT OF EDUCATION

February 4, 1974

Please give us a few minutes of your time in order to help answer some important questions concerning in-service teacher education programs in the State of Texas. Since the Texas Legislature passed House Bill 240, which provided state-level financial support for ten days of in-service education per year, there has been little or no follow-up on the program.

This study is funded by a Faculty Research Grant at North Texas State University and we solicit your participation with the assurance that your responses will be strictly confidential. Neither you nor your school will be identified in the study.

As professional educators we will be careful to handle these data in a professional manner, but we need your participation in order to complete this job. Thank you very much for your assistance. It is only through your cooperation that this sort of study becomes meaningful.

Please read the survey instrument carefully and respond to each item. We have included a postage free, self-addressed envelope for returning the survey instrument. An early response would be greatly appreciated.

Sincerely yours,

*Walter Sandefur*  
Walter Sandefur  
Professor

*George Anderson*  
George Anderson  
Research Associate

## QUESTIONNAIRE FOR IN-SERVICE DIRECTORS

(1)

Name \_\_\_\_\_

School District \_\_\_\_\_

Circle the correct number in items 1 and 2.

1. What is the size of your school district? (circle one) (2)

1. 10,000 and above ADA
2. 1,000 - 9,999 ADA
3. Less than 1,000 ADA

2. Who is primarily responsible for planning your ten days of in-service activities? (circle one) (3)

1. Administrators
2. Teachers
3. Administrators and Teachers
4. Administrators, Teachers and Consultants
5. Other (please indicate) \_\_\_\_\_

3. Approximately how many days each school year does your district use consultants outside of the district in the ten days of in-service activities provided by the state? \_\_\_\_\_ days. (4)

4. Please rank your most common sources of assistance for your in-service programs. A rank of 1 indicates the most common source and 7 indicates the least common source. (Fill in each blank) (5-11)

- a. University and College Faculty \_\_\_\_\_
- b. Education Service Center Staff \_\_\_\_\_
- c. Texas Education Agency Consultants \_\_\_\_\_
- d. Professional Organization Leaders \_\_\_\_\_
- e. Publishing Company Representatives \_\_\_\_\_
- f. Local School District Personnel \_\_\_\_\_
- g. Other (please indicate) \_\_\_\_\_

(over)

5. Approximately how many of the ten days of in-service education provided by the state does your district utilize for each of the following activities? (12-18)  
(Fill in each blank)

- a. District wide meetings \_\_\_\_\_ days
- b. Building level meetings \_\_\_\_\_ days
- c. Subject area meetings \_\_\_\_\_ days
- d. School visitation \_\_\_\_\_ days
- e. Teachers work in their classrooms \_\_\_\_\_ days
- f. Professional organizations \_\_\_\_\_ days
- g. Other (please indicate) \_\_\_\_\_ days

6. Who is primarily responsible for evaluating the in-service activities in your school district? (circle one) (19)

1. Administrators
2. Teachers
3. Administrators and Teachers cooperatively
4. No evaluation
5. Other (please indicate) \_\_\_\_\_

7. How would you rate the overall effectiveness of the in-service education program in your school district? (circle one) (20)

1. Excellent
2. Good
3. Fair
4. Poor

8. Rank the following growth activities in order of your preference so that a rank of 1 indicates the most valuable activity and 5 indicates the least valuable activity. (Fill in each blank) (21-25)

- a. Local workshops organized by subject or interest areas \_\_\_\_\_
- b. Faculty meetings in each building (school) \_\_\_\_\_
- c. College courses with credit on college campuses \_\_\_\_\_
- d. In-service courses with consultants \_\_\_\_\_
- e. Other (please indicate) \_\_\_\_\_

## QUESTIONNAIRE FOR SECONDARY SCHOOL PRINCIPALS

(1)

Name \_\_\_\_\_ School \_\_\_\_\_

Please list the names of any two teachers in your school to whom we could send a questionnaire in order to get information concerning in-service education programs.

(1) \_\_\_\_\_ (2) \_\_\_\_\_

Circle the correct number in items 1 through 4.

1. What is the size of your school district? (circle one) (2)
1. 10,000 and above ADA
  2. 1,000 - 9,999 ADA
  3. Less than 1,000 ADA
2. How would you rate the ten days of in-service activities in your school? (3)
- (circle one)
1. Excellent
  2. Good
  3. Fair
  4. Poor
3. Who do you feel should be primarily responsible for the in-service plans in your school district? (circle one) (4)
1. Administrators
  2. Teachers
  3. Administrators and Teachers cooperatively
  4. Other (please indicate) \_\_\_\_\_
4. Who do you feel should formally evaluate in-service activities in your school district? (circle one) (5)
1. Administrators
  2. Teachers
  3. Administrators and Teachers
  4. Other (please indicate) \_\_\_\_\_
5. Approximately what per cent of your staff's in-service time do you feel should be spent in each of the following activities in your school district? (fill in each blank) (6-15)
- |                                      |                |
|--------------------------------------|----------------|
| a. District wide meetings            | _____ per cent |
| b. Building level meetings           | _____ per cent |
| c. Subject area meetings             | _____ per cent |
| d. School visitation                 | _____ per cent |
| e. Teachers work in their classrooms | _____ per cent |

(over)

6. Circle at least three numbers in each column to indicate areas where you feel that help should be provided by in-service activities in your school district.

(16-28)

	AMOUNT OF EMPHASIS			
	Most (circle 3)	Much (circle 3)	Some (circle 3)	Little (circle 3)
a. Discipline	1	2	3	4
b. Methods of teaching	1	2	3	4
c. Motivating students	1	2	3	4
d. Use of audio-visual aids	1	2	3	4
e. Classroom test preparation	1	2	3	4
f. Assigning student grades	1	2	3	4
g. Use of teacher aides	1	2	3	4
h. Innovations (e.g. teaming, flexible scheduling, etc.)	1	2	3	4
i. Individualizing instruction, continuous progress, etc.	1	2	3	4
j. Teacher self-evaluation for self-improvement	1	2	3	4
k. Drug education	1	2	3	4
l. Career education	1	2	3	4
m. Bilingual education	1	2	3	4

7. Please rank the following according to when you think in-service activities (29-34) should be conducted in your school district. A rank of 1 indicates the most desirable time and 6 the least desirable time. (Fill in each blank)

- a. Before the opening of the school year. \_\_\_\_\_
- b. At the end of the school year. \_\_\_\_\_
- c. After the school day. \_\_\_\_\_
- d. Before school in the morning. \_\_\_\_\_
- e. Faculty retreats. \_\_\_\_\_
- f. Entire day distributed throughout the year. \_\_\_\_\_

## QUESTIONNAIRE FOR SECONDARY SCHOOL PRINCIPALS

(1)

Name \_\_\_\_\_ School \_\_\_\_\_

Please list the names of any two teachers in your school to whom we could send a questionnaire in order to get information concerning in-service education programs.

(1) \_\_\_\_\_ (2) \_\_\_\_\_

Circle the correct number in items 1 through 4.

1. What is the size of your school district? (circle one) (2)
  1. 10,000 and above ADA
  2. 1,000 - 9,999 ADA
  3. Less than 1,000 ADA
  
2. How would you rate the ten days of inservice activities in your school? (3)
 

(circle one)

  1. Excellent
  2. Good
  3. Fair
  4. Poor
  
3. Who is primarily responsible for the in-service plans in your school district? (circle one) (4)
  1. Administrators
  2. Teachers
  3. Administrators and Teachers
  4. Other (please indicate) \_\_\_\_\_
  
4. Who formally evaluates the in-service activities in your school district? (5)
 

(circle one)

  1. Administrators
  2. Teachers
  3. Administrators and Teachers
  4. Other (please indicate) \_\_\_\_\_
  
5. Approximately what per cent of your staff's time is spent in each of the following in-service activities in your school district? (fill in each blank) (6-15)
  - a. District wide meetings \_\_\_\_\_ per cent
  - b. Building level meetings \_\_\_\_\_ per cent
  - c. Subject area meetings \_\_\_\_\_ per cent
  - d. School visitation \_\_\_\_\_ per cent
  - e. Teachers work in their classroom \_\_\_\_\_ per cent

(over)

6. Circle at least three numbers in each column to indicate areas where help is (16-28) provided by in-service activities in your school district.

	Amount of emphasis			
	Most (circle 3)	Much (circle 3)	Some (circle 3)	Little (circle 3)
a. Discipline	1	2	3	4
b. Methods of teaching	1	2	3	4
c. Motivating students	1	2	3	4
d. Use of audio-visual aids	1	2	3	4
e. Classroom test preparation	1	2	3	4
f. Assigning student grades	1	2	3	4
g. Use of teacher aides	1	2	3	4
h. Innovations (e.g. teaming, flexible scheduling, etc.)	1	2	3	4
i. Individualizing instruction, continuous progress, etc.	1	2	3	4
j. Teacher self-evaluation for self-improvement	1	2	3	4
k. Drug education	1	2	3	4
l. Career education	1	2	3	4
m. Bilingual education	1	2	3	4

7. Please rank the following according to when in-service activities are usually (29-34) conducted in your school district. A rank of 1 indicates the most common time and 6 the least common. (fill in each blank)

- a. Before the opening of the school year. \_\_\_\_\_
- b. At the end of the school year. \_\_\_\_\_
- c. After the school day. \_\_\_\_\_
- d. Before school in the morning. \_\_\_\_\_
- e. Faculty retreats. \_\_\_\_\_
- f. Entire day distributed throughout the school year. \_\_\_\_\_

APPENDIX B

North Texas State University

120

Denton, Texas

76203

DEPARTMENT OF EDUCATION

March 1, 1974

Dear Teacher:

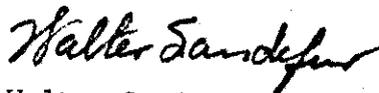
Your school principal submitted your name as one who could assist us in gathering some important data. Please give us a few minutes of your time in order to help answer some important questions concerning in-service teacher education programs in the State of Texas. Since the Texas Legislature passed House Bill 240, which provided state-level financial support for ten days of in-service education per year, there has been little or no follow-up on the program.

This study is funded by a Faculty Research Grant at North Texas State University and we solicit your participation with the assurance that your responses will be strictly confidential. Neither you nor your school will be identified in the study.

As professional educators we will be careful to handle these data in a professional manner, but we need your participation in order to complete this job. Thank you very much for your assistance. It is only through your cooperation that this sort of study becomes meaningful.

Please read the survey instrument carefully and respond to each item. We have included a postage free, self-addressed envelope for returning the survey instrument. An early response would be greatly appreciated.

Sincerely yours,



Walter Sandefur  
Professor



George Anderson  
Research Associate

## QUESTIONNAIRE FOR SECONDARY SCHOOL TEACHERS

(1)

Name \_\_\_\_\_ School \_\_\_\_\_

School Address \_\_\_\_\_ City \_\_\_\_\_

Circle the correct number in items 1 through 4.

1. What is the size of your school district? (circle one) (2)
1. 10,000 and above ADA
  2. 1,000 - 9,999 ADA
  3. Less than 1,000 ADA
2. How would you rate the ten days of inservice activities in your school? (3)  
(circle one)
1. Excellent
  2. Good
  3. Fair
  4. Poor
3. Who is primarily responsible for the in-service plans in your school district? (circle one) (4)
1. Administrators
  2. Teachers
  3. Administrators and Teachers
  4. Other (please indicate) \_\_\_\_\_
4. Who formally evaluates the in-service activities in your school district? (5)  
(circle one)
1. Administrators
  2. Teachers
  3. Administrators and Teachers
  4. Other (please indicate) \_\_\_\_\_
5. Approximately what per cent of your staff's time is spent in each of the following in-service activities in your school district?  
(fill in each blank)
- |                                     |                |
|-------------------------------------|----------------|
| a. District wide meetings           | _____ per cent |
| b. Building level meetings          | _____ per cent |
| c. Subject area meetings            | _____ per cent |
| d. School visitation                | _____ per cent |
| e. Teachers work in their classroom | _____ per cent |

(over)

6. Circle at least three numbers in each column to indicate areas where help is (16-28) provided by in-service activities in your school district.

	Amount of emphasis			
	Most (circle 3)	Much (circle 3)	Some (circle 3)	Little (circle 3)
a. Discipline	1	2	3	4
b. Methods of teaching	1	2	3	4
c. Motivating students	1	2	3	4
d. Use of audio-visual aids	1	2	3	4
e. Classroom test preparation	1	2	3	4
f. Assigning student grades	1	2	3	4
g. Use of teacher aides	1	2	3	4
h. Innovations (e.g. teaming, flexible scheduling, etc.)	1	2	3	4
i. Individualizing instruction, continuous progress, etc.	1	2	3	4
j. Teacher self-evaluation for self-improvement	1	2	3	4
k. Drug education	1	2	3	4
l. Career education	1	2	3	4
m. Bilingual education	1	2	3	4

7. Please rank the following according to when in-service activities are usually (29-34) conducted in your school district. A rank of 1 indicates the most common time and 6 the least common. (fill in each blank)

- a. Before the opening of the school year. \_\_\_\_\_
- b. At the end of the school year. \_\_\_\_\_
- c. After the school day. \_\_\_\_\_
- d. Before school in the morning. \_\_\_\_\_
- e. Faculty retreats. \_\_\_\_\_
- f. Entire day distributed throughout the school year. \_\_\_\_\_

## QUESTIONNAIRE FOR SECONDARY SCHOOL TEACHERS

(1)

Name \_\_\_\_\_ School \_\_\_\_\_

School Address \_\_\_\_\_ City \_\_\_\_\_

Circle the correct number in items 1 through 4.

1. What is the size of your school district? (circle one) (2)
1. 10,000 and above ADA
  2. 1,000 - 9,999 ADA
  3. Less than 1,000 ADA
2. How would you rate the ten days of in-service activities in your school? (3)  
(circle one)
1. Excellent
  2. Good
  3. Fair
  4. Poor
3. Who do you feel should be primarily responsible for the in-service plans (4)  
in your school district? (circle one)
1. Administrators
  2. Teachers
  3. Administrators and Teachers cooperatively
  4. Other (please indicate) \_\_\_\_\_
4. Who do you feel should formally evaluate in-service activities in your (5)  
school district? (circle one)
1. Administrators
  2. Teachers
  3. Administrators and Teachers
  4. Other (please indicate) \_\_\_\_\_
5. Approximately what per cent of your staff's in-service time do you (6-15)  
feel should be spent in each of the following activities in your  
school district? (fill in each blank)
- |                                      |       |          |
|--------------------------------------|-------|----------|
| a. District wide meetings            | _____ | per cent |
| b. Building level meetings           | _____ | per cent |
| c. Subject area meetings             | _____ | per cent |
| d. School visitation                 | _____ | per cent |
| e. Teachers work in their classrooms | _____ | per cent |

(over)

6. Circle at least three numbers in each column to indicate areas where you feel that help should be provided by in-service activities in your school district. (16-28)

	AMOUNT OF EMPHASIS			
	Most (circle 3) 1	Much (circle 3) 2	Some (circle 3) 3	Little (circle 3) 4
a. Discipline	1	2	3	4
b. Methods of teaching	1	2	3	4
c. Motivating students	1	2	3	4
d. Use of audio-visual aids	1	2	3	4
e. Classroom test preparation	1	2	3	4
f. Assigning student grades	1	2	3	4
g. Use of teacher aides	1	2	3	4
h. Innovations (e.g. teaming, flexible scheduling, etc.)	1	2	3	4
i. Individualizing instruction, continuous progress, etc.	1	2	3	4
j. Teacher self-evaluation for self-improvement	1	2	3	4
k. Drug education	1	2	3	4
l. Career education	1	2	3	4
m. Bilingual education	1	2	3	4

7. Please rank the following according to when you think in-service activities (29-34) should be conducted in your school district. A rank of 1 indicates the most desirable time and 6 the least desirable time. (Fill in each blank)

- a. Before the opening of the school year. \_\_\_\_\_
- b. At the end of the school year. \_\_\_\_\_
- c. After the school day. \_\_\_\_\_
- d. Before school in the morning. \_\_\_\_\_
- e. Faculty retreats. \_\_\_\_\_
- f. Entire day distributed throughout the year. \_\_\_\_\_

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