A Historical Case Study of the 45-15 Continuous Year Round School Plan

Allan W. Barnes

Loyola University Chicago

Follow this and additional works at: https://ecommons.luc.edu/luc_diss

Recommended Citation
Barnes, Allan W., "A Historical Case Study of the 45-15 Continuous Year Round School Plan" (1972). Dissertations. 1153.
https://ecommons.luc.edu/luc_diss/1153

This Dissertation is brought to you for free and open access by the Theses and Dissertations at Loyola eCommons. It has been accepted for inclusion in Dissertations by an authorized administrator of Loyola eCommons. For more information, please contact ecommons@luc.edu.

This work is licensed under a Creative Commons Attribution-Noncommercial-No Derivative Works 3.0 License.

Copyright © 1972 Allan W. Barnes
A HISTORICAL CASE STUDY OF THE 45-15
CONTINUOUS YEAR ROUND SCHOOL PLAN

A DISSERTATION
PRESENTED TO
SCHOOL OF EDUCATION
DEPARTMENT OF ADMINISTRATION AND SUPERVISION
LOYOLA UNIVERSITY

IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF EDUCATION

BY
ALLAN W. BARNES
FEBRUARY, 1972
ACKNOWLEDGMENTS

The initial idea for a doctoral dissertation is often lost in the task of reshaping and refining what at first appeared crystal clear. My first contact with the 45-15 plan was at the 1969 ASCD Convention in San Francisco. By chance I was introduced to Mr. Bruce Webster, board president of the Valley View Schools. The longer Mr. Webster and I talked the more I became convinced that a major innovation was in the making in an American public school. My appreciation to Mr. Webster for his encouragement to take a part in the innovation still remains.

I would also like to express my thanks to Dr. Melvin Heller, my advisor at Loyola, for his willingness to listen and react to the development of the study.

I am also grateful to Pauline and my two sons, Kirk and Eric, for their willingness to work and play alone while I set aside time for the study.

Dale Zorn and Jim Erickson must also be mentioned for their encouragement as they struggled through their own graduate work.

Lastly, I would like to offer my profound gratitude to Dr. William Rogge for the patience he displayed as I attempted
to pick his brain for any special feature of the 45-15 plan hidden away or lost in the developers' urgency to institutionalize the year round innovation.
CURRICULUM VITA

Allan Barnes was born in Tacoma, Washington, March 1, 1938, and attended elementary and high school in Tacoma, graduating in 1956.

He entered University of Puget Sound in Tacoma in September, 1956, and received a B.A. in Social Science in 1963.

In September, 1963, he was employed by the Tacoma Public Schools as a special education teacher. From 1963 to 1967 he was employed as a teacher in the Tacoma schools. In June of 1967 he received his M/Ed from Oregon State University, Corvallis, Oregon. From 1967 to 1968 he was a national intern in the Illinois Plan for Educational Leadership Development at the University of Illinois, Champaign, Illinois. In 1968 he served as Director of Gifted Reimbursement Programs for the East Illinois Development and Service Unit, Charleston, Illinois. From 1969 to 1970 he served as Assistant Director for the Center for Upgrading Educational Services, Champaign, Illinois.

Full time study toward the Doctor of Education degree began in 1968 at Loyola University.

In August of 1970 he assumed and currently holds the position of Director of Instruction in the West Chicago Elementary District 33, West Chicago, Illinois.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>LIST OF TABLES</th>
<th>vi</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIST OF ILLUSTRATIONS</td>
<td>vii</td>
</tr>
</tbody>
</table>

## CHAPTER

### I. STATEMENT OF THE PROBLEM

- Introduction
- The Problem
- Significance of the Problem
- Definition of Terms
- Assumptions
- Delimitations of the Study
- Summary and Overview

### II. SELECTED REVIEW OF THE LITERATURE

- Students
- Teachers
- Curriculum
- Costs
- Community
- Administrative Plans

### III. THE 45-15 PLAN

- Overview
- Students
- Teachers
- Curriculum
- Costs
- Community
- Administration

### IV. THE RECONSTRUCTION AND THE ANALYSIS OF THE DATA

- Introduction
- Observer Rating Tasks
- The Problem Solving Model
- Reconstructed Events
- Analysis of the Data
- Applications of the Observers' Ratings to the Problem Solving Model
## Analysis of the Application

### Implications

- The Twenty-eight Events
- The Events and the Literature

## Summary

### V. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS...

- General Summary
- Conclusions
- Recommendations
- Areas for Further Study
- Concluding Statement

## Bibliography

### 154

## Appendices

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>B.</td>
<td>DISTRICT #96 FACT SHEET</td>
</tr>
<tr>
<td>C.</td>
<td>METHOD OF DISTRIBUTING GENERAL STATE AID TO DISTRICTS ON AN APPROVED TWELVE MONTH CALENDAR</td>
</tr>
</tbody>
</table>
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Event Numbers, Observers Raw Scores, Agreement of Three or More Per Event and Problem Model Step</td>
<td>100</td>
</tr>
<tr>
<td>2.</td>
<td>Problem Model Step and Event Number for 5 of 5 Agreement</td>
<td>102</td>
</tr>
<tr>
<td>3.</td>
<td>Problem Model Step and Event Number for 4 of 5 Agreement</td>
<td>102</td>
</tr>
<tr>
<td>4.</td>
<td>Problem Model Step and Event Number for 3 of 5 Agreement</td>
<td>103</td>
</tr>
<tr>
<td>5.</td>
<td>Problem Solving Model Step and Event Number for 3, 4, and 5 Agreement</td>
<td>104</td>
</tr>
<tr>
<td>6.</td>
<td>Total Observers Rating Scores by Problem Model Step</td>
<td>107</td>
</tr>
<tr>
<td>7.</td>
<td>The Twenty-eight Events</td>
<td>122</td>
</tr>
<tr>
<td>8.</td>
<td>Classification of the Fifty-one Events to the Six Areas Reviewed in the Literature</td>
<td>124</td>
</tr>
<tr>
<td>9.</td>
<td>Matrix of Six Areas From the Literature and Three or More Observer Agreement</td>
<td>131</td>
</tr>
</tbody>
</table>
# LIST OF ILLUSTRATIONS

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>The Schedule</td>
<td>56</td>
</tr>
<tr>
<td>2.</td>
<td>The 45-15 Schedule</td>
<td>58</td>
</tr>
<tr>
<td>3.</td>
<td>The Teacher Schedule</td>
<td>66</td>
</tr>
</tbody>
</table>
CHAPTER I

STATEMENT OF THE PROBLEM

Introduction

The public school administrator as well as the student of school administration are faced with a sometimes confounding set of problems to be solved in order to carry out effectively and learn about the job of educating students. Current issues, such as drug education, ecological awareness, student unrest and teacher strikes are relevant administrative concerns. However, the 45-15 "innovation" has surfaced to confront the school administrator with yet another problem, and if successful, may affect school organizational patterns for the next fifty years.¹

The plan, a scheme to reorganize the traditional calendar into a continuous year round school operation for all students has caught the attention of leading educators across the country as well as in other nations.² Brought about by the necessity of a solution to a financial crisis in terms of Illinois state debt limits on school building con-


struction, the plan may map the way for considerable significant change in the public school rather than a mere temporary solution to a budgeting problem. Personnel problems, teacher and student morale, student achievement, community mores and habits as well as a number of other human behaviors may be affected by the 45-15 plan.¹

The purpose of the dissertation is to examine the development of the 45-15 plan from the single idea stage through the final days of deliberation and commitment until the implementation date on June 30, 1970. The interim period from the idea to the implementation date has affected thousands directly and, depending on reader tastes, hundreds of thousands indirectly through the current literature.

Approximately two years of planning were utilized to develop the 45-15 plan. The strategies and effort required were sometimes unique, costly, and lengthy in terms of man hours. The final costs may never be known.

The questions that will be investigated in the dissertation are numerous and important ones in terms of the preparation of the 45-15 plan. The major focus will be to re-establish the issues faced by the board of education and the central administrative staff. To a lesser extent,

the teaching staff, the students, and the community will be considered in the study.

The Problem

The purpose of this study is to trace the development of a unique continuous year round school program in a single school district. The study is prepared in such a manner that a potential administrator and practitioner in the field of school administration can gain increased understanding for the administrator's position and learn from the case study. In accomplishing this purpose, the study attempts to:

1. Provide practitioners and students in the field of public school administration with a significant document relating to an alternative for school districts that have reached the limit of their bonding power for school building construction.

2. Provide practitioners and students in the field of public school administration with a significant document that will reflect the appropriate and inappropriate administrative strategies related to the development of a year round school operation.

3. Provide practitioners and students in the field of public school administration with an analysis of the significant events, strategies and decisions that led to the implementation of a year round school operation in a single district. The analysis will be
reported in terms of an application to a problem solving model.

4. Provide practitioners and students in the field of public school administration with a number of research strategies developed to assess the impact of the 45-15 year round school plan.

5. Suggest additional research that may verify the value of continuous year round school operation.

Significance of the Problem

Year round school programing is not a new concept in the field of public school administration. Nevertheless, wide scale dissemination and acceptance have not accompanied previous attempts to extend the traditional nine month school calendar. However, the current pressures on the financing of public institutions including public schools have drawn considerable interest to the implementation of the 45-15 plan across the nation.¹

Few universities offer a course in year round school programing according to Hoke, program director at the Center for Instructional Research and Curriculum Evaluation, University of Illinois.² Consequently, public school


administrators rely heavily on the successful and unsuccessful experiences of practitioners who have dealt directly with the problem. Unfortunately, the current research contains little in depth study on year round school programing.

The dynamics of implementing a year round school program cannot be viewed as a simplistic venture requiring only a new calendar. The total school system and the total community may be affected by year round school attendance patterns. Vacations and park district programs are just two examples of community type planning that may need changing because of a year round school calendar.

Use of the case study is not new to the field of education. There are numerous values accompanying case method in terms of an important event. In this instance, the development of a major innovation is the focus of the case study. If the innovation is a success the case study may lend itself to the popularization of the innovation as well as provide one more effort to preserve a piece of American educational history.

Secondly, the dissertation is less likely to be an official public relations story of the 45-15 plan, emphasizing only the positive given by the principal characters involved in the development of the innovation. The interviews, reviews of the literature and other phases of the study have been handled in an objective manner. However, considerable difference may exist between the way the innovation actually
was developed as contrasted with the official story offered by the principal characters. It may be viewed in terms of an anecdote shared by school administrators when the recognition team arrives to evaluate the school program. It goes as follows: There is the school program the administration says it has. There is the school program the administration knows it has. Lastly, there is the school program that actually exists, which may be different from the administrator's perception.

Applied to the 45-15 plan, there exist four alternatives in terms of the anecdote. There is the official story distributed by the principal characters. There is the story known to the principal characters but not told. There is the case study reported in the dissertation. Lastly, there is the story of the 45-15 plan that may never be known which is lost in a constant maze of changing and conflicting value systems as well as numerous conferences, countless informal exchanges between the principal characters and in a mountain of paperwork. The case study undertaken in the dissertation will attempt to report the most significant and relevant facts, recognizing that some information may not be available.

According to Sargent and Belisle, in no administrative situation do all of the participants see things in the same

---

The actual case may merely reflect the "differential perceptions of the situation, the actors, and the interpersonal relationships." The authors further support the notion that there are usually different degrees of rapport and empathy among the actors within a given case. It becomes the responsibility of the case researcher to effect a role as one who attempts to reflect the reality of a given event.

Generally, the case method has arisen in response to the ordinary training in administration which tends to deal with and reflect too great an emphasis on learning abstractions and generalization about aspects of educational administration. The study under consideration contains a set of assumptions and recommendations that the scholar, practitioner and student of public school administration may choose to accept. However, the case study method allows for a degree of self-styled interpretation which may be more meaningful to the reader than any single fact reported.

The case study method was selected because the development of the innovation was not carried out by the principal characters in a systematic manner using a basic procedural format. Rather, the developers of the 45-15 plan created a procedural format to meet the uniqueness of Valley View School District #96.

1 Ibid. 2 Ibid., p. 27. 3 Ibid., p. 35.
Secondly, the development of the 45-15 plan was not undertaken as a research effort. The 45-15 plan was an administrative problem that needed immediate and long range solutions with limited precedent to assist in the planning and decision making. The decisions made during the two years of planning, development and implementation stages of the changed calendar can best be reported in a historical reconstruction.

The case study method permits the inclusion of a wide range of information that might not otherwise be reported. The practitioner in public school administration may find the historical reconstruction reported in case study method a useful document in future planning for year round programing.

Definition of Terms

Case study--a procedure which takes into account all pertinent aspects of one thing or situation.¹

Year round school plan--a school calendar that reflects pupil attendance throughout a given twelve month school year as opposed to a traditional nine month, September to June, pupil attendance pattern. For the purpose of the study the term "year round school plan" will mean all students attend school throughout the twelve month year as opposed to nine months and then summer school attendance.

**Extended School Year**--a method of lengthening the school calendar to include more pupil attendance days beyond the traditional nine months. All students would vacation at the same time.

**45-15 Plan**--a school calendar that requires pupils to attend school four, forty-five day periods and vacation four, fifteen day periods throughout a twelve month period. Only three-fourths of the student population is in attendance at any time during the twelve month school year. With exception of Christmas, Easter and a two week summer closing when all students are not in attendance, only one-fourth of the students is vacationing at any time during the twelve month year.

**Cooperative Team Approach**--three teachers have agreed to teach approximately one hundred and twenty students in a given grade level throughout a twelve month school year. The "cooperative team approach" is used by some teachers in the primary grades in the Valley View School District 96 to enable students to identify with three different teachers throughout the twelve months of school attendance.

**Tracks**--a term applied to the neighborhood groups who attend forty-five days of school and vacation for fifteen days at the same time during the twelve months of attendance. Valley View School District 96 has four tracks, A, B, C, and D.

**Census Unit**--small geographical areas within the Valley View School District 96 boundaries so named to determine
student population projections for one of the four tracks in the 45-15 plan. The "census unit" was designed to maximize the neighborhood school concept in terms of pupil attendance patterns.

Problem Solving Model--a process of solving a problem in a systematic manner. The "problem solving model" utilized in the study includes five steps:

1. Identification of a concern: Who is causing it and who is affected by it? What specific goals would need to be attained in order for it to be resolved? What kind of problem is it?

2. Diagnosis of the situation: Once the problem has been clearly stated in terms of goals to be attained, it is necessary to push toward or against a particular goal. As the true forces are identified, goals which were first thought to represent a solution are viewed as incorrect or inadequate. New goals must be stated and new forces identified.

3. Formulating action alternatives: As diagnostic work progresses, a range of action alternatives should emerge. Each should be considered in relation to knowledge of the forces operating in the problem situation. If one or some combination of the alternatives is tried, what will happen to the forces pushing toward or away from a particular goal? How will the forces operate to influence the success or
failure of a trial of a particular action alternative?

4. Feasibility testing of selected alternatives, including training and evaluation: At some point, one or a combination of the action alternatives will be attempted. As the attempt is made, information will be needed to assess whether there is movement toward the goals. Feasibility testing includes discovery of the forces which are changing to understand what is accounting for movement, or the lack of it. Feasibility testing includes an assessment which provides both an evaluation of progress and new diagnostic pictures. The evaluation of progress and the new diagnostic picture clarifies the next action steps which need to be taken. Finally, feasibility testing may identify additional skills which may be needed in order to move ahead.

5. Adaptation and diffusion: Information gained from action experience in dealing with a problem should be shared with others who face similar problems. Information to be diffused should include: a clear, specific problem statement; the forces involved in the problem situation; a description of action taken to change the forces; results of action including failures as well as successes; special problems that were encountered; and special skills that were needed to carry out particular actions. These kinds
of information make it possible for persons in another setting to adapt elements of what was tried to their own diagnosis of their particular problem situation.\(^1\)

**Assumptions**

The development of the study depends on some basic assumptions:

1. School administrators have had insufficient information concerning the development of a year round school plan.

2. The development of a year round school operation may continue to grow and spread throughout the United States.

3. The development of the 45-15 plan has included far more data collection, evaluation strategies and research strategies than previous attempts at year round school planning, therefore making the district a unique setting for a case study dissertation.

4. Material of the case study type is needed so that future administrators have available a real problem which they can discuss, criticize and use as a base for generating ideas.

5. The problem solving model used in the study was selected for its organizational strengths as opposed to any

---

\(^1\)"Research Utilization Problem Solving Model for Educational Change," Northwest Regional Laboratory, paper delivered at Educational Training Consultants Leadership Conference, Bethel, Maine, June, 1968. (Mimeographed.)
certain relationship to the actual development of the 45-15 plan. The problem solving model utilized in the study was selected for its empirical - rational nature. The model assumes that a systematic approach will be chosen to solve a problem as opposed to a number of other approaches including intuitive judgments, the least effort, personal satisfaction or pure empiricism.\(^1\) The value of the model may be in serving administrators with a systematic procedure for implementing a year round school program.

**Delimitations of the Study**

The study is limited to the investigation and analysis of the development of a year round school program in a single district. A single district was selected for study for several reasons. The 45-15 calendar was unique and never tried in any other American school. Secondly, the Valley View School District #96 was the only contemporary Illinois public school attempting to implement a year round school program. Thirdly, Illinois legislation was introduced and passed which would enable other Illinois schools to conduct year round school programs, a direct result of the 45-15 plan study and adoption in the Valley View district. A fourth consideration in selecting the 45-15 plan for a dissertation study was the compulsory nature of the plan which required

\(^1\)Ibid.
all students to attend school year round. Most districts which have attempted year round school programing have pro-
vided a choice to parents. The 45-15 plan affected all of the families throughout the district.

A case study carries obvious research limitations. It should be viewed as a single case. Deriving implications from a case study and subsequent application to the general population may be a questionable course of action. The single case will probably have unique features not generally applicable. An attempt was made to take this limitation into consideration in the development of the study.

The purpose of the problem solving model was limited to the following areas: (1) to determine whether the various decisions reached by the administration with approval from the board of education did in fact follow a sequential problem solving approach; (2) to determine whether five independent observers would rate the decisions in similar categories when given the same information and the same guidelines for rating; (3) to assist future year round school planners in following a more logical developmental plan than the one employed in the development of the 45-15 plan.

The determination of whether a decision or event should be classified as identifying the problem, diagnosing the problem, formulating action alternatives, feasibility testing, or diffusing and adopting is based on the judgments of the independent observers. The rating was limited to a stipulation
that if the decision or event did not meet the specifications described on the rating sheet, a judgment was to be made anyway, with an accompanying notation regarding the lack of clarity in terms of the application of the decision or event to one of the five steps of the problem solving model.

The study is limited by the fact that the focus is on the administration with school board support. Its purpose is to provide a developmental format that may be useful to practitioners and potential administrators. An attempt was made to be as objective and unbiased as possible in the development of the study, however the conditions above are stated as limitations.

Summary and Overview

On June 28th, 1970, Richard Ogilvie, Governor of the state of Illinois, signed into law what may be one of the most significant pieces of legislation for Illinois public schools since compulsory education. The legislation may have also paved the way for nationwide reassessment of school planning, especially school plant utilization. On June 30th, 1970, six thousand elementary school students began a unique venture in public school programing that may have significant ramifications in the boundaries of the Valley View School District #96 for years to come.

The legislation and the school program centering around the 45-15 school calendar required participation by the board
of education in Valley View, the administrative staff, the instructional staff, the student population and the total community residing in the boundaries of the school district.

The growth and development of year round school programs in public education require that those who are practicing administrators and students of administration have available additional materials which deal with the subject. One type of material which is useful for study, discussion and idea development is the case study.

This Chapter has attempted to describe the broader implications of the 45-15 plan.

Chapter II is a review of related research in the field of year round school planning as well as in the extension of the traditional school calendar. Chapter II is organized for the convenience of the reader in assessing the various other attempts at year round school planning.

Chapter III deals with the 45-15 plan in terms of the same six issues discussed in Chapter II. The assumption has been made that the 45-15 plan is more than a schedule. The plan directly affects teachers, students, administrators, school costs, and the community, as well as existing as a unique calendar.

Chapter IV is a reconstruction of the development of the 45-15 plan in terms of the decisions and events. The major strategies, events and decisions that took place during the two year planning period are arranged chrono-
logically. Chapter IV also deals with an analysis of the reconstructed events. The analysis is based upon five independent observer ratings of the reconstruction in terms of their application to the five stages of the problem solving model.

Chapter V is concerned with some of the major findings of all of the preceding chapters as well as a set of recommendations for administrators considering year round school planning. The chapter also considers future dissertation work on the 45-15 plan.
CHAPTER II

SELECTED REVIEW OF THE LITERATURE

Six general areas of the literature were related to the study. The first deals with the effects on the students of extended and/or year round schools. The area was reviewed to assess the impact of a changed school calendar on student behaviors.

A second area is related to the impact on the teacher of a changed school calendar, either extended or year round. A review of the literature dealing with this aspect was undertaken to determine a pattern of teacher performance and attitude.

A third area, essential curriculum modifications and changes related to extended and/or year round school planning, was included. The degree to which a school did or did not change the curriculum appears to have had some import to the successful implementation of an extended and/or year round school program.

A fourth area under review was the various costs reported by schools attempting to implement a lengthened school calendar. The concern for cost seemed of utmost importance as a justification for or against implementing extended and/or year round school calendars.
A fifth area considered in the chapter deals with the impact of extended and/or year round school calendars on the community. The general reaction of parents to the concept of a lengthened school year is a key consideration by many of the planners reported in the literature.

The last area under study has been classified as administrative plans. Three aspects of the administrative plans concerning the development and implementation of an extended and/or year round school operation were under review. First, the administrative organizational plan as it relates to the type of calendar being promoted is reviewed. Secondly, a description of the advantages of the plan is given. Lastly, a review of the disadvantages of the various plans is given.

Students

The 1967 issue of Nations Schools reports that fifty-one foreign countries have student attendance patterns for elementary schools that average two hundred and twenty days or more as compared to an average of one hundred and eighty days in the United States.¹ High school students in the fifty-one countries attended an average of two hundred and four days or more as compared with an average of one hundred and eighty days in the United States.²

²Ibid.
Hack\(^1\) reports that extended and/or year round school attendance patterns reduced retardation and improved performance among students who were retarded. These same comments in regard to retarded students were also suggested by Thomas.\(^2\)

Hartsell,\(^3\) Childress and Philippi,\(^4\) report that year round school attendance patterns, as well as the extended school year, have a positive effect on students who need remedial help. For example, children who regressed emotionally made significant changes after attending summer school. Those who had problems adjusting to the fall academic year had less problems when they attended school during the summer.


Hack, Childress and Philippi, and the 1968 NEA Research Summary indicate that extended and year round school attendance have a positive effect regarding acceleration of students through the school curriculum. For example, students who wish to finish school one or more years early may do so. Students who wish to enter college early may do so in an accelerated school program.

Bullock reports that students need more broadening and more "life education" experiences for adjustment to our complex society. The family should travel together and there should be considerable family interaction and increased peer group experiences to permit proper social growth for students. Extended or year round school attendance would only serve to inhibit students from effective participation in an already threatened family social structure according to Bullock.

1 Hack, loc. cit.
2 Childress and Philippi, loc. cit.
5 Ibid.
Miller, Grieder, and the NEA Research Summary, 1968, indicate that extended and year round school programs provide considerable enrichment opportunities for students. By enrichment the reports refer to more time in class for students, more short make up sessions for students, and evidence of more curriculum revision resulting from enrichment programs. A further point in favor of enrichment and extended school year was made concerning the increasing amount of information available today which may place broader demands on today's youth.

Miller reports there is no research indicating students become more or less fatigued by attending either a year round or extended school year.

Miller also reports that learning achievement or development as related to instructional time does not yield any major significant difference for either traditional or year round school attendance patterns. However, experiments

3 NEA Research Summary, loc. cit.
4 Miller, loc. cit.
5 Grieder, loc. cit.
carried out in Ambridge, Pennsylvania, one of the most widely referred to year round school programs, indicated that students attending school year round achieved more than students attending the regular nine months. In Aliquippa, Pennsylvania, it was reported that after five years of year round attendance, students performed no better than the control attendance pattern of nine months. In Commack, New York, it was reported that an experimental group attained significantly higher scores on the Metropolitan Achievement tests than a control group on a regular nine month calendar. In Syosset, New York, it was reported that completion of a regular academic course of a normal nine month duration in only six weeks in the summer did not reduce the depth of learning of the student. An experiment in Hornell, New York, indicated that students did as well or better on American History, World History and Chemistry examinations as the control group on a regular school calendar. An experiment in Cato Meridian, New York, indicated that the lowest ability group in the experimental group made the greatest gains in achievement by adding time on to the end of the school day.

---

1Bariman, loc. cit.
2Ibid.
3Thomas, op. cit., pp. 11-19.
5Ibid., pp. 32-39.  
6Ibid., pp. 19-25.
The experience at Nova Schools in Florida with year-round schools was discontinued after negative attitudes were expressed by the students. The attitudes were a result of the impact of students enjoying summer vacation from surrounding districts, while Nova students were required to attend school.¹ Nova instituted a voluntary enrichment summer program in lieu of all year school. In 1963, New York state attempted to implement extended school programs on a pilot basis. Parents rejected the state plan because it was discriminatory and tended to set their children apart from other students in surrounding communities.²

Thomas³ reported that teachers and administrators in Green Chimneys, New York, indicated social and behavioral problems were reduced as a result of extending the school calendar. In addition, no social or emotional problems were reported in the Hornell, New York, experience with a summer school program.⁴

Tuberville⁵ claimed year round school attendance would

¹Greider, loc. cit.
³Thomas, op. cit., pp. 45-60.
⁴Ibid., pp. 32-39.
help solve juvenile delinquency problems. McIntosh\(^1\) reports that as early as 1912 in New Jersey and in 1924 in Tennessee, year round school programing was viewed as a preventative measure to delinquent behavior. The rationale was that students would not be free during summer months, rather, they would be in school and off the streets. Students would have homework and their parents would provide more supervision concerning school work during the summer months.

Tuberville\(^2\) and McIntosh\(^3\) report that early completion of school was an important factor contributing to adoption of year round school plans. Allen\(^4\) reports that early completion of school would save taxpayers' money in building construction. Bullock\(^5\) maintained that early completion of school would put too many people in an already overcrowded labor market.

No reports reviewed indicated the chronological comingling of students as having adverse effects.


\(^2\)Tuberville, op. cit., p. 185.

\(^3\)McIntosh, loc. cit.


\(^5\)Bullock, loc. cit.
An experiment in the School of Human Resources indicated that a year round program of attendance helped children with physical handicaps to "gain new levels of self confidence."\(^1\)

The literature indicates that the extended and/or year round school has few, if any, adverse effects on pupil performance. In a number of instances, pupil performance in terms of academic success, increased learning, and social adjustment have improved through a change in the school attendance pattern. The major criticism leveled at a longer school calendar relates directly to student and parent attitudes regarding the consistancy of school attendance patterns of the student's peers. If there is a discriminatory effect against one population in the school or community the changed calendar may come under review concerning its discontinuance.

Some claims have been made that a year round calendar will affect juvenile delinquency by denying students free time to commit delinquent acts. However, there appears to be little or no evidence to support this notion. Additional claims, concerning negative impact on family patterns by extended school attendance of students are not well documented in the literature.

\(^1\) Thomas, op. cit., p. 109.
Teachers

Childress and Philippi\(^1\) report that teacher acceptance of the extended and/or year round school is the key to the successful implementation of a changed school calendar. They also believe that in-service education is necessary to acquaint the teachers with the new concept in school programing.

Pahl\(^2\) reports that sixty percent of the teachers in Glencoe, Illinois, wanted the present traditional program plus a summer session that would be voluntary for some students and mandatory for others. In Germantown, Wisconsin, the staff was polled concerning their opinion of a year round school. Ninety-four percent said they preferred the present program. The survey did not indicate subsequent increase in salaries, planning time, or other concerns regarding a changed school program.\(^3\) Rogge,\(^4\) an external evaluation consultant to the 45-15 plan, believes that the survey was one certain way of dispensing with the notion of year roundedness by neglecting to provide sufficient information.

\(^1\)Childress and Philippi, op. cit., p. 246.

\(^2\)Eleanor Pahl, "Footnote, A Year Round Program," *Childhood Education*, XXIV (October, 1947), 82-84.


Fitzpatrick reports that the teachers in the Nova year round plan were tired during the summer months. O'Dell reports that teacher fatigue is one problem of real concern at the year round school operation in Becky David, Missouri.

Teachers in Green Chimneys, New York, were in favor of a year round school and expressed positive attitudes concerning the changed calendar. However, teachers in the Cato Meridian district in New York expressed negativism toward lengthened school days even after expressing a belief that more time helped some students.

NEA reports that efficiency decreases with some teachers in extended and/or year round school operations. When Aliquippa teachers worked in a changed quarter plan, confusion existed when teachers began to change schedules among themselves. Childress and Philippi report that

3Thomas, op. cit., pp. 45-50.
4Ibid., p. 19.
5NEA Research Summary, op. cit., p. 15.
6Ibid., p. 12.
7Childress and Philippi, loc. cit.
teachers need time for regeneration and rejuvenation, rather than working continuously year round. Thomas\textsuperscript{1} reports that the efficiency of teachers does not decline with year round school programing.

NEA reports that teachers would gain in status by year round school programing.\textsuperscript{2} None of the reports surveyed indicated any decrease in status by having teachers work year round.

McIntosh\textsuperscript{3} reports that a year round school program would help to hold teachers in their jobs as opposed to teachers seeking a profession with higher pay.\textsuperscript{4}

Tuberville\textsuperscript{5} reports that over twenty-five percent increase in pay would occur if teachers were able to work year round. McIntosh\textsuperscript{6} reported that teachers desire more money and year round programing would meet that need. It was reported in School Management that salary increase was an important factor when considering year round school planning.\textsuperscript{6}

Miller\textsuperscript{7} reports that year round schools would provide employment opportunities for the teachers during the summer.

\textsuperscript{1}Thomas, op. cit., p. 11.
\textsuperscript{2}NEA Research Summary, op. cit., p. 6.
\textsuperscript{3}McIntosh, op. cit., p. 394.
\textsuperscript{4}Tuberville, op. cit., p. 185.
\textsuperscript{5}McIntosh, loc. cit.
\textsuperscript{6}Allen, op. cit., p. 149.
\textsuperscript{7}Miller, op. cit., p. 381.
NEA also reports that employment opportunities for the teacher would be increased by year round school programming.¹

Hack² reported that summer activity for teachers was a valid reason for keeping teachers employed year round.

Sternig³ and Pahl⁴ reported that Glencoe was successful at providing teachers with year round employment in 1947.

McIntosh⁵ reported that in 1940 the Decatur, Illinois schools were successful at providing year round employment for teachers which included a variety of curriculum activities. However, the program was discontinued in 1947 when local voters failed to pass a referendum to continue to pay teachers beyond the traditional nine months of teaching.

Hack⁶ reports that teachers seeking college credit will have a problem enrolling in summer courses if they are employed year round.

¹NEA Research Summary, op. cit., p. 9.
²Hack, loc. cit.
⁴Pahl, op. cit., p. 83.
⁵McIntosh, op. cit., p. 393.
Most of the opinions and surveys reported in the literature support a changed calendar for teachers. Status, salary and summer employment are several important reasons why teachers may favor year round employment. Teacher fatigue may be a serious problem; however, substantive research is lacking. Teacher attitude toward year round employment appears to be an important factor when considering changing the calendar.

**Curriculum**

Curriculum has often been called all of the activities a student participates in during his time in school. Some educators might debate extra-curricular, co-curricular and a host of other exceptions to the total experience notion. For the purpose of the review, the total experience concept will serve as a frame of reference regarding curricular changes resulting from extended and/or year round school operation.

NEA reports that enrichment, acceleration, remediation, make up, and recreation are prime reasons for reviewing the curriculum offerings for districts considering year round or extended school year calendars.¹ The trimester plan proposed in New York and reported by the NEA indicates that

¹NEA Research Summary, op. cit., pp. 7-8.
broadening students' experiences is another reason for considering that type of year round calendar.¹

A number of school districts have experimented with the curriculum while implementing a year round or extended school calendar, including Commack, New York;² Green Chimneys, New York;³ Syosset, New York;⁴ Hornell, New York;⁵ Nova Schools, Florida;⁶ and Cato Meridian, New York.⁷

The frequent reference to New York State is the result of state legislative action in 1963. Funds were provided to a number of school districts to initiate several alternative year round school programs with coordination from the state level.⁸

A school district in Florida reported that major curriculum changes were not a consideration in the adoption of a year round school plan in their district.⁹

¹Ibid., p. 25.
²Thomas, op. cit., p. 11.
³Ibid., p. 45. ⁴Ibid., p. 26. ⁵Ibid., p. 36.
⁶Fitzpatrick, loc. cit.
⁷Thomas, op. cit., p. 19.
However, it was reported in Georgia that curriculum improvement was the major reason for adoption of a year round school plan. Allen reports that extended major curriculum changes are required in the adoption of year round school programs. NEA further indicates that new time blocks, new courses, and expansion of existing courses are important considerations in the adoption of year round school programs. Imhoff and Young report that curriculum changes resulting from year round school operation will place heavy demands on the teacher.

A number of school districts, especially those in New York state and funded by special state legislation, have conducted experiments to determine the impact of a changed curriculum resulting from extended and/or year round attendance patterns.

The literature indicates that no school adopted a year round school program that would completely change the students' school experiences. There have been a number of instances where school districts adopted a changed calendar

---

1 Tom Green, "Georgia Schools Plan 12-Month Year," Education News, II (January, 1968), 9.


3 NEA Research Summary, op. cit., pp. 32-33.

to affect some phase of the students' school experience. In some cases it has been reported that curriculum revision was a primary reason for adoption of a year round program but never the only reason.

Costs

The review of the literature indicates that the costs for an extended and/or year round school program play a major role in the decision to change the calendar. A considerable portion of the literature deals with theoretical projections of increased or decreased costs as opposed to actual experiences incurred in the implementation and operation of a lengthened calendar.

It was reported by NEA that the "economy objective has probably been the most prominent reason for interest in year round utilization of the school plant." ¹ Between 1924 and 1931 and again in 1947 to 1953, construction costs rose significantly and served to make the discussion, study and experimentation in year round school programming a useful alternative to school officials faced with a financial crisis.²

In 1936, in Aliquippa, Pennsylvania, one of the most frequently cited districts in the literature concerning year round school programming, it was reported that a capital outlay savings of $282,000 over a seven year period resulted from

¹NEA Research Summary, op. cit., p. 6.
²Ibid.
changing the calendar. The major savings occurred in the debt service of the schools expenditures. The district used a four quarter plan. NEA reported that theoretically a district could save twenty-five percent in capital outlay by using the four quarter plan. A reduction in the teaching force might be as high as twenty-five percent.

In 1963, Allen, then the state superintendent of schools in New York, indicated that saving money was the primary reason for moving toward year round school programming in his state. The intent of the efforts in New York, according to Allen, was to graduate students one year early from the public schools. The program would save money in terms of school construction in that there would be fewer students in attendance in a kindergarten through eleventh grade program, if the student attended year round. This is opposed to the traditional kindergarten through twelfth grade program where a student only attends nine months out of a year.  

Hack reports that serious educators interested in year round school planning should not be too quick to assume that

1 School Management "The Twelve-Month School Year: Will It Solve Your Building Problems?", School Management, I (September, 1957), 84.
2 NEA Research Summary, op. cit., p. 10.
3 Biensenstok, op. cit., p. 422.
4 Hack, loc. cit.
cost savings will occur by changing the calendar. The year-round program in Commack, New York, cost $367,850 during a six-year period from 1963 to 1969. Hornell, New York, reported expenditures of $264,730 for the same six-year period, 1963 to 1969. Cato Meridian, New York, reported $102,469 over the same six years.¹

The Florida Educational Research and Development Council reported a seven week enrichment program would mean a five percent increase in net expenditures in 1966.²

The Florida Department of Education reported in 1957 that a reduction in pupil teacher ratio resulting from a proposed year-round school plan would increase costs.³

A study at Union High School in California indicated an increased cost of nearly eight percent in operation and maintenance and almost twenty percent in fixed charges through the implementation of a proposed year-round school program.⁴

²NEA Research Summary, op. cit., p. 7.
³Florida State Department of Education, The All Year School (Tallahassee: The Department, April, 1957), p. 5.
⁴NEA Research Summary, op. cit., p. 13.
A study in Tuscon, Arizona, indicated a four to five percent increase in costs if the year round school plan under consideration were implemented. ¹

Even though there would be long range savings by not constructing new buildings in New York state, Allen reported that a twelve to thirteen percent increase in yearly expenses would occur from a year round school program under consideration. Nevertheless, there would be some savings on construction eventually. ²

A study in Polk County, Florida, indicated a twenty-five percent increase in net expenditures resulting from year round school programing in 1966.³ Thomas ⁴ suggested a ten percent increase in expenditures resulting from year round school planning.

A study by the Florida State Department of Education estimated a double expenditure for administrative costs if the year round school program under consideration were implemented.⁵ The study in Union High School in California


² Allen, loc. cit.


⁴ Thomas, op. cit., p. 1.

⁵ Florida State Department of Education, op. cit., p. 3.
indicated an eight percent increase in administrative costs. \(^1\)

NEA reports an annual increase of twenty percent in teacher salaries if a year round program were implemented. \(^2\) Union High School estimated a thirty-three percent increase in teacher salaries. \(^3\) Auxiliary services would increase by eight percent in 1960. In Aliquippa, Pennsylvania, the schools reduced teachers' salaries by five percent when the district implemented a year round program in 1931. The district saved $96,880 over a seven year period by reducing the teachers' salaries during the depression years. \(^4\)

In 1960, Union High School reported a twenty-eight percent increase for materials if a year round school program were implemented. In 1968, NEA reported that some studies indicated an increased cost for materials probably would be greater assuming there was more frequent utilization resulting from year round school programing. \(^5\)

Florida reported increased costs for air cooling if year round programing were implemented. \(^6\) NEA reports air cooling costs as a disadvantage of year round school programing. \(^7\)

---

\(^1\)NEA Research Summary, op. cit., p. 13.
\(^2\)Ibid., p. 10.  
\(^3\)Ibid., p. 13.
\(^4\)Ibid., p. 11.  
\(^5\)Ibid., p. 14.
\(^6\)Florida State Department of Education, loc. cit.
\(^7\)NEA Research Summary, op. cit., p. 14.
Florida also reported that an increase in transportation costs would occur if year round school programming were implemented. Union High School reported as much as a fifty percent increase in transportation costs if the plan under consideration were implemented.

The literature indicates some initial increase in costs related to implementation of extended and/or year round school operations. Cost savings related to savings on school construction appear to be the major factor related to interest in a lengthened school calendar. Studies in 1966 at Toledo University, Ohio, Atlanta, Georgia, in 1968, and a special 1968 ERIC study in support of the notion that savings in school construction are a major factor for districts considering year round school programming.

Community

The impact of year round school programming on the community has enabled school officials to implement a changed

---

1Florida State Department of Education, loc. cit.


calendar in a number of instances. Community objections have been the direct cause for failure to start year round school programming in a number of cases. Parental acceptance of a changed calendar is one of the most important factors in the success or failure of year round programming.

Bienenstok maintains that:

Innovations by their very nature, pose a threat to the stability and continuity of an ongoing system. Since the educational establishment has many functional ties with the social fabric of the broader community, a new educational pattern is likely to cause repercussions outside of the school.\(^1\)

James Redmond, superintendent in Syosset, New York in 1963, implemented a limited year round school plan with two hundred students. Redmond said, "whatever happens at least we've found a way to learn about extended school year without upsetting the whole district.\(^2\)

Hanson\(^3\) reported in 1964 that year round schools were a good idea but were a source of controversy in many communities. Childress and Philippi\(^4\) indicated that community support is essential to a successful implementation of a year round school program.

\(^{1}\)Bienenstok, op. cit., p. 421.
\(^{2}\)Allen, op. cit., p. 88.
\(^{3}\)Earl H. Hanson, "Viewpoints: What about the Twelve Month School," Education, LXXXIV (February, 1964), 382.
\(^{4}\)Childress and Philippi, op. cit., p. 431.
Bienenstok reports that in New York state year round school programming was rejected because the "system took a stand on an unknown product and the community acted toward it with a whole set of values, beliefs and contingencies." The parents objected to saving money at their children's expense. They wanted evidence that the quality of education would improve and benefit students. The parents were fearful that early entrance to college or the labor market, resulting from leaving school one year earlier than in the past, would be detrimental to their children and set them apart from their peers.

Ames reported that twenty-nine percent of the community in Germantown, Wisconsin, rejected the notion of a year round school calendar. Consequently, the district did not initiate a program.

Del Campo High School in San Juan, California, terminated a year round school program after four years. One reason given was the lack of parental support.

---

1 Bienenstok, op. cit., p. 423.
2 Ibid., p. 425.
3 Ibid., p. 427.
4 Ames, loc. cit.
5 Ibid.
In Rochester, Minnesota, seventy-eight percent of the parents supported the year round school operation the district had implemented in 1946. The program was continued after the survey was made by school officials.\(^1\)

A report from California indicated that parents objected to students vacationing in the winter.\(^2\) A report from Texas indicated parents rejected a reduction in the length of summer vacation for their children.\(^3\) NEA indicated that many parents disliked the thought of their children taking vacations during unconventional seasons during the year.\(^4\)

NEA reports that community agencies would have to prepare year round programs at an additional expense if a school operated on a year round school calendar.\(^5\) Beckwith\(^6\) reports that a year round school operation can serve to improve the social and economic features of a given community. For example, a park district might offer more than a "typical" summer program to a community.

\(^1\)Robert F. Cory, "Parents Evaluate an Eleven Month Program," *Education*, LXXXVII (November, 1968), 168.


\(^3\)Joe Frost, "Time to Teach," *Texas Outlook*, LI (October, 1967), 34-35.

\(^4\)NEA Research Summary, op. cit., p. 15. \(^5\)Ibid.

The community is an important barometer for school officials contemplating year round school programing. The elected board member must be especially cognizant of his constituents' needs and wishes. The diversity of a given community as well as a general disposition to stability and the status quo versus wide scale change appear to be important underlying factors in the lack of wide scale year round school implementation. The degree to which school boards and school administrators attempt to avoid conflict with the community is not well documented.

Administrative Plans

There have been a number of extended and/or year round school plans promoted and attempted over the last sixty years in American schools. Bluffton, Indiana, is often quoted in the literature as the district which first attempted a year round program in the twentieth century that systematically required students to be in attendance on a different schedule than the emerging nine month calendar (a compromise between the urban and rural school calendars). Bluffton utilized the four quarter plan.¹

The literature does not indicate in any specificity that one changed or lengthened calendar produced significant

benefits as compared with another changed calendar. Cost savings, student achievement, better building utilization, teacher retention and a number of other reasons have been cited as a justification for extending the school year.\(^1\)

The literature does indicate that if inequities are inherent within a given plan, parents will resist its implementation or continuation.\(^2\)

The following eight extended and/or year round school calendar plans are the most commonly referred to in the current literature:

**Plan #1 Two Semester Plus Modified Summer School Plan\(^3\)**

*Description*—Students attend one hundred and eighty days plus thirty-five to forty days during the summer. The plan permits students to accelerate through the secondary school. It can be applied to kindergarten through the twelfth grades.

*Advantages*—It enables the student to accelerate without broad curriculum changes. It is a voluntary plan which is often supported by parents. It may be financed with fees. It provides for both remedial and advanced work.

---


\(^3\)NEA Research Summary, op. cit., p. 18.
disadvantages--It may cost more than a traditional summer school. The voluntary nature of the plan makes it difficult to predict cost savings on capital outlay and debt service.

Plan #2 Continuous School Year Plan

Description--The plan includes two hundred and ten days of school attendance. The student may complete a year of school in one hundred and eighty days and begin working on the next grade during the remaining attendance period. The curriculum is divided into levels for kindergarten through eighth grade students.

Advantages--It may save one or two years of elementary attendance for the student who accelerates through the system. Students have fewer teacher changes assuming the same teacher teaches for two hundred and ten days. Students would have more time to master skills during the additional attendance period.

Disadvantage--The curriculum must be reorganized. It takes time to adopt and implement a continuous progress philosophy.

Plan #3 Four Quarter Plan (Quadtrimester)

Description--The plan divides a school year of two hundred and four to two hundred and twenty days into four

\[1\text{ Ibid.} \quad 2\text{ Ibid., p. 19.}\]
quadrimesters of fifty-one to fifty-five days of attendance. A student can finish three quadrimesters in one hundred and eighty days and take a fourth quadrimester for the purposes of acceleration or remediation. The plan has application for kindergarten through twelfth grades.

Advantages--It may increase the number of available classrooms. The number of teachers necessary to handle the same number of students attending on a traditional nine month calendar may be reduced. Students may finish school one year ahead of schedule. Students can take extra terms for enrichment purposes. It may help to reduce the drop out rate at the high school level.

Disadvantages--It may prove to be costly in that some students may elect to take four quadrimesters. Class periods may need to be lengthened to equalize the time in attendance if a traditional nine month calendar were in use.

Plan #4 Multiple Trails Plan

Description--Students attend school for two hundred and ten days or eleven months. Students are on a modular schedule with non-graded instruction. It applies to a program where students are assigned to various teachers and subjects in time modules. Usually a modular schedule is found in seventh through the twelfth grades.

1Ibid., p. 18.
Advantages--The plan releases classroom space, pupil time and teacher time. It is not necessary to accelerate students to save money.

Disadvantages--Curriculum revisions are necessary to accommodate the multiple time modules. Teachers need to review their teaching procedures. The non-graded instruction concept needs considerable planning and preparation time.

Plan #5 The Trimester Plan

Description--The school year is divided into three terms. A student can finish two semesters work in two trimesters if the school day is lengthened. Students can accelerate in the third trimester. Students can secure additional carnegie units under this plan.

Advantages--It can release classroom space and teachers after one and one-third years. It can save one year of schooling. Students can take enrichment courses. It may reduce the drop out rate.

Disadvantages--The lengthened school day may be met with student and parental resistance.

Plan #6 Staggered Quarter Plan

Description--Students are divided into four equal groups. Each group attends school for nine months and vacations for

\[1\text{Ibid.}, \text{p. 19.}\] \[2\text{Ibid.}, \text{p. 18.}\]
three months. The starting time for each group is different. It has application for kindergarten through the twelfth grades.

Advantages--It saves on classroom space. It is not a difficult program to administer.

Disadvantages--Parents may reject the notion of their child's vacationing during the winter time.

Plan 7 12-4 Plan

Description--Students are divided into four equal groups. Each group attends school for twelve weeks and vacations for four weeks. School is closed for a week at Christmas and Easter and two weeks during the summer. Each group starts school at a different time.

Advantages--Only three-fourths of the classroom space is needed at any one time. Teachers can work forty-eight weeks. It may not require major curriculum changes because all that is being changed is the starting and ending times for students. It does not require more days of student attendance.

Disadvantages--One group will have thirty-four to forty-three days off at Christmas time. One group does not have a four week vacation in the summer.

plan #8 Extended K-12 ¹

Description--It involves two hundred and four to two hundred and twenty-five days of attendance. Kindergarten through sixth grade students may use the extra days to master fundamentals. Seventh through twelfth grade students are on a trimester or quadrimester plan. It has application to kindergarten through twelfth grade students.

Advantages--It may save one year of schooling. It can release teachers after one and one-third or two and one-fourth years of teaching to begin working with a new group of students. It provides elementary students with more time for learning. It keeps all students from kindergarten through the twelfth grade on the same calendar.

Disadvantages--Daily class periods may need to be lengthened. Students may elect to take remedial classes and stay in school longer instead of taking enrichment classes which would permit early completion of high school. A reduction in financial savings would occur because students are staying in school to take more remedial than enrichment classes.

The various plans cited are for the most part designed to meet state minimum attendance requirements and the age old Carnegie unit, if one attempts to find a common thread among

¹Ibid.
The proponents of extended and/or year round school operations have made a number of claims regarding the benefits of a changed school calendar.

Robert Beckwith, manager for the Education Department of the Illinois State Chamber of Commerce has indicated that year round schools may improve learning opportunities, eliminate boredom for students, pupils will have less time to forget, provide much broader vacation and recreational opportunities, reduce vandalism, increase efficiency of internal school operations, provide a reserve of substitute teachers, require fewer and more efficient use of buses, as well as benefit commerce and industry and at the same time reduce taxes.

Ray Wehmhoefer, Assistant Superintendent in Cook County, Illinois, in 1968 indicated that the benefits of extended and/or year round school planning would provide for better building utilization, require fewer teachers, improve teacher status, improve the educational program, reduce the teacher shortage, require fewer textbooks, enable better utilization of equipment, reduce the ratio of guidance counselors to students, enable businessmen to change their traditional summer vacation schedules, and lastly, students could be accelerated or retained with more ease.

1 Beckwith, op. cit., pp. 5-12.
2 The Twelve Month School, op. cit., pp. 15-18.
The NEA Research Summary of 1968 indicates that economy savings would result from a rescheduled school year, teacher status would improve, teacher shortage would be eliminated, enrichment and acceleration could be provided for students, and lastly, it could keep youth busy and off the streets during the summer.¹

There appears to be no universal agreement regarding which plan will insure the best results. It may be that the philosophy and position of the planners of the 45-15 plan best describes the view that interested educators might take when considering a changed calendar. James Bingle, Board President in the Valley View School District 96 has stated "45-15 met a local educational need. It is not our claim that the plan will solve all of our problems or any other districts' needs or problems."² The opinion expressed by Bingle is good advice to districts attempting to implement a changed school calendar. Picking a plan or developing one that meets the local educational needs appears to ensure the greatest success.

¹ NEA Research Summary, op. cit., pp. 6-7.

CHAPTER III

THE 45-15 PLAN

Overview

History

Reviewing the 45-15 plan requires a brief history of district 96. The best word that describes the attendance area served by district 96 is population growth. In 1950, the population of Will County was 134,000. In 1969, the population had grown to 233,000, almost 100,000 more people or an increase of seventy-three percent. District 96 shared in the population surge with approximately 500 students per year after 1960.¹

The boundaries of district 96 are located in the north-eastern part of Will County, Illinois. They include five-sixths of DuPage Township, one-fourth of a section of Wheatland Township and one-third of Lockport Township. In 1953, district 96 included eight one room country schools, first grade through eighth grade. For the most part, district 96 served the community of Romeoville, which had a population of 150 people in 1953. From 1953 to 1957, the population of


52
the district remained relatively constant. In 1957, 600 acres of land known as the Hampton subdivision was annexed to the town of Romeoville.¹

The enrollment in district 96 in 1953 was 89 students. The same superintendent who served in 1953 held his position in June of 1970 when the enrollment in district 96 was 5,526 students. In the month of June, 1970, district 96 implemented the 45-15 plan, a unique year round school calendar.²

School building construction in district 96 kept pace with increasing enrollments. Briefly:

Valley View school was constructed in 1953-1954 as a typical rural school to house 90 students. It was expanded between the years of 1955 to 1959 to include thirty-one classrooms with a capacity for 900 students. It currently houses primary and intermediate students.

Park View school was constructed in 1962-1963 and was expanded in 1963-1964 to house 1200 primary and intermediate students. It has forty-four classrooms.

¹Ibid.

North View school was constructed in 1963-1964 with thirty-one classrooms to house 1000 primary and intermediate students.

West View junior high school was constructed in 1966-1967 with a capacity for 1200 students. It contains thirty-six teaching stations that can be used for large and small group instruction.

Brook View school was constructed in 1968-1969 to house 480 primary and intermediate students in sixteen classrooms.

Ridge View school was constructed in 1969 to house 480 primary and intermediate students in sixteen classrooms.¹

After the successful financing of the Ridge View school, future school building construction was not possible in district 96 because of the State of Illinois School Code concerning construction. The district faced a financial crisis.

The State of Illinois School Code limited the bonded indebtedness to five percent of a school districts assessed valuation. The indebtedness of district 96, after the construction of Ridge View school, was near the five percent on an assessed valuation of $117,341,413. School enrollment projections for the district indicated that 500 to 600 new students could be expected to seek enrollment in district 96

¹"The Valley View 45-15 Continuous School Year Plan, Fact Book for Parents" (Lockport: Research and Development Office, 1970), p. 4. (Mimeographed.)
each year for several years in the future. In addition, the legislature of the State of Illinois had recently passed a law requiring that Illinois school districts make kindergarten a regular part of the school program for parents interested in enrolling their children. Twelve hundred kindergarten students could be expected to enroll in district 96 in the fall of 1970.¹

The district chose all year round school operation as a solution to their problem rather than double shifts or overloaded classrooms of fifty students or more. The 45-15 plan was developed because of a financial crisis. It was designed as an alternative to the apparent threat to quality education.²

The district needed approximately 1200 classroom spaces by September of 1970 to maintain the existing pupil teacher ratio. Year round school operation would enable the district to utilize the existing facilities at an increase of one-fourth more classroom spaces, thereby nearly solving the problem of placement for the new students expected to enroll in the district.

¹Ibid., p. 3.
The Schedule

The plan has been described as a "simple" one by several key personnel involved in its development.\(^1\) The diagram presented in Figure 1 indicates that 45 days of attendance with 15 days of vacation for four different groups is not a particularly complex mathematical arrangement or schedule.\(^2\)

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>45</td>
<td>15</td>
<td>45</td>
<td>15</td>
<td>45</td>
<td>15</td>
<td>45</td>
<td>15</td>
<td>recycle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>45</td>
<td>15</td>
<td>45</td>
<td>15</td>
<td>45</td>
<td>15</td>
<td>45</td>
<td>recycle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>45</td>
<td>15</td>
<td>45</td>
<td>15</td>
<td>45</td>
<td>15</td>
<td>45</td>
<td>recycle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>45</td>
<td>15</td>
<td>45</td>
<td>15</td>
<td>45</td>
<td>15</td>
<td>45</td>
<td>recycle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fig. 1.--The Schedule

One of the assumptions made with the 45-15 plan was that students would receive one hundred and eighty days of instruction, 45 days at a time spread out over the year with four 15 day intermittent vacation periods.

Figure 1 illustrates the basic concept behind the 45-15 plan. The district was divided into four attendance areas or tracks labeled A, B, C, and D. The column on the left in

\(^1\)Opinion expressed by Mr. Ken Hermanson, Superintendent of Valley View District 96, in an interview on December 14, 1970, Romeoville, Illinois.

\(^2\)Page and Gove, op. cit., p. 15.
The figure represents each track. Track A would begin school fifteen days before track B, thirty days before track C and forty-five days before track D. Track A would begin their first vacation period at the same time track D would begin school for the first time on the 45-15 plan. The dashes before track B, C, and D indicate the delayed starting time necessary to gain classroom space under the 45-15 plan. One-fourth of the students represented in track A will leave the school for a vacation period of fifteen days in length, thereby enabling track D to begin school when one-fourth of the students are not in attendance. In essence, one-fourth of the district 96 enrollment would be vacationing at any given time during the operation of the 45-15 plan.1

Figure 2 is the completed calendar which was implemented on June 30, 1970. The horizontal black lines represent days of attendance for all four tracks, A through D. The vertical black lines represent days not in attendance for a given track. Days not in attendance include mandated State of Illinois holidays, vacation days and district closing periods. The basic concept of 45 days of attendance and 15 days of vacation did not divide evenly into a 365 day year so students would attend only the required 180 days of attendance. Consequently, the district was able to provide a December closing for Christmas for all students; an April closing for all students.

1"The Valley View 45-15 Continuous School Year Plan, Fact Book for Parents," Ibid., p. 10.
A graphic presentation of the Valley View 45-15 plan over a period of 14 months. The horizontal strips represent the four tracks of students, when they will be in school, and when they will be out of school. The vertical solid bars represent school closing days, such as weekends, holidays, etc. When all students are out of school.

Fig. 2.--The 45-15 Schedule
for Easter vacation; and a two week summer closing for all students. The all school closings were also beneficial to the maintenance staff who would be denied the usual three month summer period to clean and maintain the school facilities.¹

Following track A on Figure 2 indicates that September 1 to the 22nd is a 15 day vacation period. Tracks B, C and D would enter school July 21, August 11th and September 2, respectively. Figure 2 indicates at first glance that sometime in the month of August at the bottom of the schedule the plan reaches a termination point. Nothing could be further from the truth in terms of the 45-15 plan. The arbitrary cut-off point in August was only a clerical problem rather than any real termination of the schedule. Carried out to a logical conclusion, the 45-15 plan would go on indefinitely, assuming one had the necessary information on mandated holidays. The 45-15 plan is truly a year round school calendar without end in terms of student attendance patterns.

Students

The impact of the 45-15 plan on the student population may have long range implications in terms of achievement, drop-out rates, delinquency, I.Q., as well as a number of other considerations.² However, during the developmental

¹Page and Gove, op. cit., p. 22.
²Beckwith, op. cit., pp. 5-9.
stages of the 45-15 plan, students were consulted least. The immediate concerns of the developers of the 45-15 plan in terms of a successful implementation were parents, businessmen and the community at large. A check list prepared by the outside evaluator of the 45-15 plan indicated that student attitudes toward the 45-15 plan were not a first or second priority among the school board or the administrative staff. Nevertheless, the 45-15 plan does contain a number of important requirements affecting students:

1. Students from the same family would be scheduled in the same track, A, B, C, or D. The rationale for family and neighborhood grouping was to facilitate family vacation planning and enable informal social grouping to be carried into the schools from the various residential areas.

2. Whenever possible, small geographical areas known as "census units" were placed on the same track. "Census units" were used on the assumption that the informal social grouping would be an important student concern.2

1 Hermanson, loc. cit.

2 Note: The student scheduling includes six school buildings, four different schedules, nine grade levels, AM and PM shifts for kindergarten students, 300 census units, and three different boundaries for bus riders. The district research director reported a possible combination of a potential enrollment of 7000 students as 7000 x 6 x 4 x 9 x 2 x 300 x 3 for a total of 2,721,600,000 combinations. The use of electronic data processing facilitated student scheduling to a degree that it is questionable whether the scheduling could have been accomplished without such a technical service.
3. Students whose parents taught in district 96 could expect their parents to teach during the same track as the student attended if the teacher were employed on a 180 day contract. In the event the teacher were on an extended contract beyond 180 days, the track placement for a teacher was irrelevant to the administration.

4. Special education students would be assigned to one classroom. Approximately twenty special education students would be assigned to a given special education teacher. Approximately five students would be on vacation at any given time during the school year.

5. Class sizes would remain about the same size during the 1970-1971 school year as during the 1969-1970 academic year. The plan was not designed to promote larger or smaller class sizes. The administration made an assumption that there would be no great influx of students beyond those already projected, 600 first through eighth grade students and 1200 kindergarten students.1

In December of 1969 the administration had prepared sufficient information concerning pupil attendance patterns to conduct what was called a "dry run" of the schedule which would commence on June 30th, 1970. The administration carried out scheduling procedures by assigning pupils to various

---

1 Page and Gove, op. cit., p. 23.
buildings within the district based on a number of criteria including:

1. Grade level
2. Distance from the school building
3. Time and mileage related to busing
4. Major roadways in Hampton Park and Bolingbrook (Both residential areas contained a heavy concentration of district 96 students.)
5. The physical and psychological barriers created by I-55, a major Illinois throughway separating various concentrations of students attending district 96 schools
6. Projected future housing construction sites
7. Available sidewalk and street crossing guards

The "dry run" proved to be very successful. Parents received the schedule which would become effective in June of 1970. The administration and the instructional staff left on Christmas Vacation of 1969. The administrative staff considered the possibility that considerable ferment might be generated regarding the various mailed schedules. For the first time, parents and students would receive tangible evidence of the requirement concerning school attendance during the long accustomed summer months. Prior to the December action, the community had been informed of the impending schedule through local newspapers, kaffee klatches,

\[1\] Ibid.
PTA presentations, a dial-a-message program as well as through a number of other public relations procedures designed to enable the community to react to the 45-15 plan.¹

The December mailing brought twenty-four inquiries, for the most part directed at clarification of the schedule as opposed to any outright opposition.² The administrative staff tentatively assessed the situation as the result of an excellent information program. Another possibility was considered: six months were left before the actual implementation would occur concerning the 45-15 plan; students and parents perhaps still did not fully comprehend that the traditional three month vacation period in the Valley View district would no longer exist.³

On June 28th, 1970, there were 5,500 students enrolled in district 96. The capacity of the district was assessed at approximately 5,290 students. Overcrowding already existed. On July 1, 1970, the Illinois State law mandating kindergarten programs would take effect. The 600 students new to the district were expecting to enroll in district 96. The implementation of the 45-15 plan increased classroom space

²Page and Gove, op. cit., p. 67.
from 5,290 to 7,053 spaces or an increase of 1,763, more than enough to handle the new students.¹

The district had received a $46,000 research and evaluation grant from the United States Office of Education to determine the effects of the 45-15 plan on a number of populations, including students. The evaluation design included the administration of pre- and post-tests to a stratified sample of students attending the Valley View schools. The initial evaluation work was scheduled to begin in the fall of 1969, however, due to a number of delays from the federal government, the evaluation did not begin until March of 1970. An outside evaluator was employed to direct and administer the activities described in the proposal to the federal government.

In April of 1970, a stratified sample of 736 students was selected to gain base line data to determine variations in achievement of students who were currently enrolled in district 96. In addition, the data would be useful for comparison purposes concerning the effects of the 45-15 plan. The 1959 edition of the Metropolitan Achievement tests were administered to students in grades one through six in the sample population. Students in grade seven in the sample were given the Stanford Achievement test. Eighth grade students were not tested because they would not be enrolled in the 45-15

¹Rogge, op. cit., p. 29.
The initial data found by the outside evaluator in summary form indicated that:

1. No significant difference existed among attendance groups from track A, B, C, or D.

2. In grades one through three, one school was lower in several sub-tests on the Metropolitan Achievement test at the five percent level of confidence.

3. Students from families moving into the district achieved lower than those who lived in the district for two or more years.

4. No significant differences were found among attendance groups at the junior high school.¹

The evaluation design also included a survey of student attitudes concerning the 45-15 plan once it became operational. Questions concerning student performance, peer performance, and teacher performance were planned as a part of the survey to be conducted during the summer of 1970.

The full report of the outside evaluators work will be made available through the federal government which utilizes a number of dissemination efforts as required by federal law.

Teachers

The teachers' role in the 45-15 plan was an administrative problem that needed considerable analysis. If each teacher

followed the same track for 45 days of attendance and vacationed for 15 days the problem would have been solved very quickly. However, the teacher would be changing rooms every 45 days to enable increased classroom utilization, the backbone of the 45-15 plan. Secondly, the loss of summer employment might create a morale problem in the district for teachers accustomed to supplementing incomes during the summer months. Thirdly, the administration recognized that some teachers may have chosen the profession because of the long summer vacations.¹

Figure 3 illustrates some of the potential classroom utilization plans and teacher scheduling problems facing the district 96 administration.²

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
<th>19</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>B</td>
<td>B</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y</td>
<td>B</td>
<td>B</td>
<td>B</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>B</td>
<td>B</td>
<td>B</td>
<td>(A)</td>
<td>(A)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Z</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>B</td>
<td>B</td>
<td>B</td>
<td>A</td>
<td>A</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>(B)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fig. 3.--The Teacher Schedule

The numbers on the top row of Figure 3 indicated 15 day periods of attendance. Classroom X, Y and Z indicate three different classrooms. The letters A, B, C, and D indicate

¹James Bingle, "A Board Member Looks At The Valley View 45-15 Continuous Year Plan" (Lockport: Research and Development Office, 1970), p. 2. (Mimeographed.)

²Page and Gove, op. cit., p. 27.
four different groups of students attending school for forty-five days and vacationing for fifteen days. For example, group A attends school during periods 1, 2 and 3, then vacations during period 4, returning to school during period 5. However, group A began in classroom X; when they return during period 4, they return to classroom Y. Classroom Y was just vacated by group B, which began a 15 day vacation period at the same time group A returned to school.

The switching of students from classroom X, Y and Z is accomplished because at any given time one of the four groups, A, B, C, or D is vacationing. If the teacher were to take the same vacation pattern as group A, for example, then she would expect to teach for two forty-five day periods in classroom X, one forty-five day period in classroom Y and one forty-five day period in classroom Z. However, if the teacher chose to work a traditional nine month period from September to June, which was a possibility arranged by the district administration, the teacher might expect to teach four different groups of children at various times during her contract period. The teacher might expect to be assigned to one classroom during her contract period.¹

The parentheses around group A and group B on the far right in Figure 3 indicate that the groups are beginning to recycle for the second year of attendance under the 45-15 plan.

¹Ibid., p. 28.
The teacher in the primary grades developed a plan of "cooperative teaching." The teaming approach taken at the primary level was developed to reduce the number of different teachers a student would be assigned to during a year. An assumption was made that all teachers would not choose the same attendance and vacation pattern as a given group of students enrolled in the primary grades. The potential harmful effect of a number of different teachers and substitutes on primary students necessitated another type of teacher assignment.

The "cooperative teaching" approach meant that three teachers would be assigned approximately 120 students throughout the school year. It would be the responsibility of the three teachers to make contact with as many of the students during the school year to enable the students to identify with the three teachers as opposed to only one. If one of the teachers were on a fifteen day vacation period, the other two teachers would be perceived by the students as a continuance of the usual teacher supervision, rather than an abrupt disappearance of the one and only teacher. A substitute would be required to fill in for the teacher on vacation.

Another important area related to the successful implementation of the 45-15 plan was the length of contract for teachers. The administrative staff charged with the responsibility of preparing the all year round program chose to meet the many needs of teachers whenever possible as opposed
to affixing a set of conditions on teachers related to length of contract.

A summary of the contract lengths considering 184 days as a traditional school year with 184 days or more as an extended contract to 240 days as a full year, indicates that:

1. Thirty-eight percent of the 240 staff members would work a traditional year or 184 days.

2. Over sixty percent of the primary teachers would work a traditional school year.

3. Only twenty-two percent of the intermediate teachers would work a traditional school year.

4. Eleven percent of the junior high school teachers would work a traditional school year.

5. Six and four-tenths percent of the male staff members would work a traditional school year.

6. Fifty-two percent of the female staff members would work a traditional school year.

7. Approximately thirty-one percent of the district staff or 77 staff members were male. The remaining sixty-nine percent or 164 staff members were female.

8. Fifty-two percent or 86 teachers would work a traditional school year.

9. Over sixteen different contracts would be issued prior to June 23rd, 1970, ranging from 175 to 274 days for the 1970-1971 school year.¹

¹Ibid., p. 32.
Appendix A gives a complete breakdown of the number of days in the various teachers' contracts in addition to a percentage breakdown concerning the number of teachers affected by the length of a contract.

The contract length agreed upon by each individual teacher and the administrative staff was also a result of a successful negotiating session with the teachers' professional association. In addition to agreeing to the various contract lengths, a number of other items affecting the teachers was agreed upon including:

1. Professional growth requirements would be maintained as those prior to June 30, 1970.
2. Guidance and counseling programs would be offered at the same level as the 1969-1970 school year.
3. Positions open in the school district would be made available to the staff as in the past.
4. Two emergency days of leave would be allowed for each teacher in the 45-15 plan.
5. Teacher paychecks would be issued every two weeks.
6. Every effort would be made to give district 96 teachers the opportunity to substitute during their scheduled vacations in the district.

A survey of staff attitudes toward the 45-15 plan was taken in June of 1970 as a part of the federal grant from the Office of Education. The intent of the survey was to determine staff expectations of the 45-15 plan in terms of
teacher performance. The survey was conducted by the contracted evaluator employed through the federal grant. Results of the survey are not available pending federal dissemination efforts; however, in an interview with the evaluator, Dr. William Rogge, the following summary may be given:

1. Most of the staff members had favorable attitudes toward the 45-15 plan.

2. The staff was split on the issue of whether students would learn more as a result of the 45-15 plan.

3. There were mixed reactions by the teachers concerning the ability of a given teacher to provide more individualized instruction as a result of the 45-15 plan.

4. A majority of the staff thought the community would accept the 45-15 plan.

5. The survey indicated that seventy-five percent of the teachers were satisfied with the length of their teaching contract as well as their assignment.¹

The evaluation design allowed for a post-test after the first year operation of the 45-15 plan to determine change in attitude of teachers concerning teacher performance, student behaviors and community acceptance of the plan.

¹Statements by Dr. William Rogge, outside Evaluator for the 45-15 plan, Champaign, Illinois, December 28, 1970.
Curriculum

According to James Gove, Assistant Superintendent in district 96, "no important curriculum changes were planned to accompany the 45-15 plan except one." Gove referred to the "cooperative teacher" notion discussed in section II of this chapter. To some extent the cooperative teaching approach was viewed as a form of team teaching. Three teachers working with 120 students, 90 at a time, offered greater opportunity for communication between teachers concerning individual students. However, the issue was raised because of organizational needs inherent within the 45-15 plan as opposed to a better method of teaching. The concern for the students at the primary level in terms of a need for contact with a familiar face appears to have been an effort to maintain some of the traditional curriculum rather than a divergence from the typical curriculum.

The administration chose:

Deliberately not to emphasize other curriculum changes because the 'message' to be presented to the community would be more easily understood. Regarding curriculum, because no other district had similar enough experiences in introducing a staggered vacation plan, the task of informing the community and professional staff already looked big enough.

Some consideration was given to allow students the right to return to the school during the vacation periods to continue

---

1 Page and Gove, op. cit., p. 118.
2 Ibid.
with school assignments or independent study. However, considering the complexities of scheduling for the first few months of the 45-15 plan, the district chose to test the basic plan without introducing additional instructional and administrative problems.

During the Roctone conference held in April of 1970, the Assistant Superintendent for Curriculum of district 96 speculated that after the program was operationalized and hopefully successful, the district could assess the curriculum in terms of better instructional opportunities during a 45 day attendance period. He considered the possibility of allowing students to be free from the scheduled school year to work at their own rate without any attendance requirements.

Costs

Appendix B indicates that district 96 assessed valuation in terms of available taxable property has been on the increase since 1953. However, in relation to the number of pupils enrolled, the per pupil assessed valuation or available tax worth behind each pupil has seen a steady if not dramatic decline. Appendix B also indicates an increased staff to accompanying student enrollments.

The evaluator for the federal project granted to district 96 has stated that a "detailed fiscal analysis for operation of the district under the 45-15 scheduling system is not available." He further indicated that, "there is insufficient
time to make definitive statements regarding difference in
costs."¹

Some preliminary judgments can be made, however, to
indicate some of the cost increases and savings resulting
from the implementation of the 45-15 plan. The budget for
the 1969-1970 school year was $5,965,901. The projected
budget for the 1970-1971 school year was $6,047,273 or an
increase of $81,372. Considering the increased enrollments
based on the projections as well as the kindergarten enroll­
ments, the figure does not appear to be excessive.

According to a federal report prepared by the district,
the single most important savings to district 96 would be the
postponement of new construction.² A proposed $2,126,502
building under consideration by the board of education would
require payment of retirement bonds at approximately $101,000
a year. Assuming the tax payers would have approved a
referendum, it would have cost approximately $81 for each
pupil new to the district during the 1970-1971 school year.
Spreading the cost out over all of the students enrolled in
the district in June of 1970, the costs would have been
approximately $10 for each student in attendance to construct
the new facility. Initiating the 45-15 plan which enabled
the district to enroll the new students and not construct a

¹Ibid. ²Ibid.
facility (which is a moot point as the district was legally restricted from building under Illinois law) there was approximately a two percent savings in the budget. Granted, it was a paper savings, but it is evidence of the potential financial benefit of the 45-15 plan.

Additional start up costs included $200,000 for air conditioning in several school buildings. Consultant expenses to assist with scheduling totaled $17,900. Lastly, the district spent $3,000 for professional development activities that enabled teachers to prepare for the 45-15 plan.

The district secured nearly $106,000 in regional, state and federal grants to investigate, research and evaluate the 45-15 plan.

One last consideration concerning the financing of the 45-15 plan concerned the Illinois State Aid formula. During the development stages of the 45-15 plan, there was no legislation enabling districts in Illinois to receive state support during the summer months. With the encouragement of the governor's office, the planners of the year round school assumed legislation would be passed by the state legislature before the 45-15 plan was underway.

Appendix C contains a full account of the legislation enabling district 96 to receive financial support year round. Without such support, the 45-15 plan could never have been implemented.
Community

The following recommendation was made and approved by the school board of district 96 at its August, 1968 meeting:

... move that the Board of Education of school district 96 direct the district administrative team to begin, forthwith, detailed investigation procedures on various possibilities of updating our school calendar. That the ultimate primary purpose of these investigations procedures shall be to design a sound educational proposal for the extended use of school facilities and personnel in district 96. Also, that the administrative team make recommendations to the Board of Education of their findings and that these recommendations shall be made with the expressed purpose of updating the district 96 school calendar no later than the 1971-1972 school year.

The motion was approved unanimously. The Beacon, a newspaper serving the residents of district 96 reported the entire motion. The Beacon also printed the administrative staff report concerning the possibility of a twelve month school year in district 96.

The Lockport Herald, another newspaper serving the residents of district 96, reported that the district superintendent could be heard on a forthcoming radio broadcast concerning year round school planning. The Lockport Herald also reported that the district 96 administrative staff members and board members would be attending a two day seminar at

---

1 The Beacon, August 15, 1968, p. 19.

2 The Lockport Herald, August 28, 1968, p. 3.
Northern Illinois University concerning year round school planning.¹

The Joliet Herald news reported that at the district 96 board of education meeting in October, that the "45-15 plan under study in district 96 calls for classes to be run through the summer and students would be divided into four groups." In the month of November articles appeared in the Chicago Daily News and the Chicago Tribune concerning the 45-15 plan.

In a very few months after the board of education made the motion to investigate a year round school plan, the 45-15 plan was news. In addition to the numerous articles appearing in local and regional papers, the administrative staff made a concerted effort to inform the public at every opportunity. A list of the various community organizations operating within the district 96 boundaries was developed with a special notation concerning the leadership in each group. Special invitations were mailed to the organizations concerning the 45-15 plan because the school district needed to communicate the major ideas concerning the plan.

Kaffee Klatches, slide presentations, and special meetings for parents were primary methods of involving the community in the development of the 45-15 plan. A twenty-

¹Ibid.
A four hour dial-a-message program was initiated to answer questions that interested citizens might have concerning the implications of the 45-15 plan.

During the summer of 1969 a district wide census was taken to quantify information about the residents of district 96. The information enabled the school officials to plan schedules, project enrollments, prepare bus routes as well as complete various federal reports concerning the development of a year round school. Several pieces of information concerning the nature of the community were made available to the district as a result of the census. Ten percent of the male parents in the district were truck drivers. Seventy percent of the parents were Catholic. A majority of the male parents were in blue collar occupations.

The district conducted an informal survey of a randomly selected group of parents to determine what their concerns might be regarding a year round school program. A summary of the survey indicated:

1. Ninety-seven percent of the parents interviewed wanted their children to have the same vacation as other siblings.

2. Sixty-five percent said they favored four, fifteen day vacations as opposed to three months of vacation.

3. Fifty-one percent indicated they wanted their children to spend a year with the same teacher.
4. Forty-three percent indicated they wanted their children assigned to the school nearest their home. Forty-four percent of the parents indicated that school assignment should be what was in the best interests of the child, regardless of location of the school.

5. Fifty-six percent wanted their child to enter school at age six.

6. Fifty-four percent indicated they thought the proposed 45-15 plan would reduce problems in parks and recreational facilities in the community.

7. Seventy percent were more in favor of the 45-15 plan after taking the questionnaire. ¹

The survey indicated that the residents living within the boundaries of district 96 do not have a typical "community" perception of the area in which they reside. Rather, there are a number of smaller communities within the district. The school system was the only institution connecting the various smaller communities. In an interview concerning the survey the research director of district 96 stated that, "there is a real lack of community interest."²

The evaluation of the 45-15 plan supported by federal funds included a sampling of 400 parents, 100 from each track.


Interviewers were to meet with the parents during the summer of 1970 to determine parental attitudes concerning the 45-15 plan, the amount of information a parent had received concerning the 45-15 plan as well as the impact of the year round program on their children and the community. The information will be made available through federal dissemination efforts.

Administration

The administrative planning and decision making required by the local administrative staff were initiated without a formal format. There were few detailed accounts available concerning the development and monitoring of a year round school program. In short, the administration needed to develop not only a viable schedule but a procedural manual. The administrative team was composed of the superintendent, two assistant superintendents, the business manager and the director of research. Eventually an assistant to the curriculum person was added to handle a number of details with the teaching staff concerning the 45-15 plan.

One of the first administrative decisions made to facilitate the development of the 45-15 was a contractual arrangement made with Compumatics, a consulting firm with expertise in the area of computers. The firm was to provide a systems approach to the scheduling problems encountered by the administrative staff. In cooperation with the research
department of district 96, the Compumatics consultant set
the following guidelines in terms of the services the
administration might expect from the contractual agreement:

1. Determining pupil, teacher, and facility variables.
2. To determine outputs required.
3. To determine the necessary responsiveness of data
   processing and retrieval.
4. To define inputs and their sources.
5. To approximate the effective operating life of the
   information and systems.
6. To determine the flexibility that is necessary.

The systems design prepared by the consultant from
Compumatics included a number of considerations:

1. Tasks to be performed and their sequence.
2. Determination of machine functions and human functions.
3. Media for transmitting data.
4. Outside resources for development and operation.
5. Time factors.
6. Cost of development and operation.

A number of areas were also proposed by the Compumatics
consultant to be considered by the district 96 administrative
team that would be a part of the contractual agreement. The
administration could expect:

1. Design of the scheduling system.
2. Program and mechanical operation.
3. Preparation of manuals of operation.
4. Supervision of development activities.
5. Implementation of the scheduling system.¹

The professional consultative services contributed to the successful development of a workable schedule in addition to a number of other useful suggestions concerning implementation. However, the administration needed to generate a number of procedures that would assist them in thinking through and acting upon the many demands required of a dramatic change in school attendance patterns. A survey of the existing materials (though no procedural manual as such was developed) indicated that a number of guidelines were decided upon by the administrative staff during the development of the 45-15 plan. A summary of the guidelines are cited below:

1. The scheduling pattern was to be implemented for the district and not for one building or grade level.

2. The plan was not to be viewed as a pilot or experimental program, rather, it was going to be a "permanent arrangement" in district 96.

3. All of the planning including the schedule, public relations, staff assignment procedures, curriculum modifications and transportation problems were to be developed whenever possible at the local district level.

¹"Compumatics Guidelines 45-15 Plan, Report to the Board" (Lockport: Fall, 1969). (Mimeographed.)
4. Local State Aid formulas could be expected to complement the development of the 45-15 plan.

5. Illinois state and federal legal holidays as well as Christmas, Easter and a summer closing were to become a part of the continuous year round school plan.

6. All families were to receive a school schedule before the end of the 1969 school year to allow for vacation planning for individual families.

7. A master list of pupil attendance patterns and school sites was to be developed as soon as possible during the planning stages of the 45-15 plan.

8. Individual student records were to be made available at each school as soon as feasible.

9. A report on site, grade and attendance cycles would be necessary before determining teacher assignments.

10. A report from each building should be made concerning seat and room utilization. The information would be kept in the district central office.

11. A list was to be made available of all bussed students.

12. Classrooms were to be utilized all year round.

13. No special provisions were to be made for building maintenance other than time available in the adopted schedule.

14. Variance in class sizes throughout the district should be kept at a minimum.
15. Boundaries for a school building should be the same for each grade level in attendance at a given building.

16. Present grade level assignments were to be maintained whenever possible.

17. Transportation costs should be kept at a minimal increase even though a changed school year was under consideration.

18. The building principal could excuse a student for a family trip when in the judgment of the principal the trip was considered of exceptional merit.

19. Parents requesting scheduling changes should submit their request in writing. They should meet with the building principal. If no solution were found, a meeting with the assistant superintendent would be arranged.¹

The administrative staff approached the development and implementation of the changed school year with a certain degree of wisdom when avoiding a lengthy set of rules and regulations. Until the school year actually began, a hard fast set of rules would only serve to restrict the flexibility that would be necessary to make individual student or school adjustments.

¹Opinions expressed in interviews with district 96 Board President, Superintendent, two Assistant Superintendents, Research Director, Evaluator, and Compumatics Consultant, Lockport, April, 1970 to June, 1971; Page and Gove, op. cit., pp. 25, 26, 60, 61, 75, 76.
CHAPTER IV

THE RECONSTRUCTION AND THE ANALYSIS OF THE DATA

Introduction

The following chapter is a reconstruction of the most significant events concerning the two year development of the 45-15 plan. The events are also analyzed in terms of their application to a problem solving model. An assumption was made that practitioners in public school administration operate from a problem solving strategy when faced with major school changes. The developers of the 45-15 plan employed no set of procedures in terms of implementing the changed calendar. However, the success of the innovation in terms of an implementation date on June 30, 1970, indicates that a major school problem was solved. The question that remains is whether the solution was arrived at in terms of a logical course of action rather than through chance. House, in his recent study of the innovative State of Illinois Gifted Program, posed the same question in terms of gifted program development. One problem model considered by House was the Rogers' Model of Collective Adoption of an Innovation including four stages, stimulation, initiation, legitimization and
House used independent observers to rank a number of program activities to assist in the determination of logical problem solving behavior concerning gifted program development.\(^1\)

The reconstruction employed in this chapter will consider the ratings of five independent observers. The observers were selected from five broad areas of the world of work including business management, educational management, vocational education management, political management and technological management. The criteria used in the selection of specific jobs included: (1) upper management position; and (2) evidence of management (problem solving) tasks in the performance of a job. The specific jobs selected under each category included: (1) private businessman, (2) public school superintendent; (3) area vocational director; (4) school board chairman; and (5) manager at the National Accelerator Laboratory. All five observers are located in Northern Illinois.

Observer Rating Tasks

**Task #1** Read the five stages of the Problem Solving Model.

**Task #2** Read the fifty-one events related to the development of the 45-15 plan. In the blank space provided next to each of the fifty-one items place a 1, 2, 3, 4, or 5 indicating

that in your judgment the particular event best represents
the number corresponding to one of the five steps in the
problem solving model.

The Problem Solving Model

Step #1  Identification of a concern: Who is causing it and
who is affected by it? What specific goals would need to be
attained in order for it to be resolved? What kind of a
problem is it?

Step #2  Diagnosis of the situation: Once the problem has
been clearly stated in terms of goals to be attained, it is
necessary to push toward or against a particular goal. As
the true forces are identified, goals which were first thought
to represent a solution are viewed as incorrect or inadequate.
New goals must be stated and new forces identified.

Step #3  Formulation of action alternatives: As diagnostic
work progresses, a range of action alternatives should emerge.
Each should be considered in relation to knowledge of the
forces operating in the problem situation. If one or some
combination of the alternatives is tried what will happen
to the forces pushing toward or away from a particular goal?
How will the forces operate to influence the success or
failure of a trial of a particular action alternative?

Step #4  Feasibility testing of selected alternatives, including
training and evaluation: At some point, one or a combination
of the action alternatives will be attempted. As the attempt
information will be needed to assess whether there is movement toward the goals. Feasibility testing includes discovery of the forces which are changing to understand what is accounting for movement, or the lack of it. Feasibility testing includes an assessment which provides both an evaluation of progress and new diagnostic pictures. The evaluation of progress and the new diagnostic pictures clarify the next action steps which need to be taken. Finally, feasibility testing may identify additional skills which may be needed in order to move ahead.

Step #5 Adaptation and diffusion: Information gained from action experience in dealing with a problem should be shared with others who face similar problems. Information to be diffused should include: a clear, specific problem statement; the forces involved in the problem situation; a description of action taken to change the forces; results of action including failures as well as success; special problems that were encountered; and special skills that were needed to carry out particular actions. These kinds of information make it possible for persons in another setting to adapt elements of what was tried to their own diagnosis of their particular problem situation.

Reconstructed Events

1. June-August 1968 - A recognition by the district Board of Education that enrollments during the next
three years would exceed the ability to finance new facilities to house additional students.

2. August, 1968 - A resolution was proposed and adopted by the Board of Education of district 96 directing the administrative staff to investigate the feasibility of a year round school operation. The resolution included a time line of approximately three years for an investigation that could lead to a possible adoption by the Board of Education.

3. September, 1968 - The administrative staff prepared a rationale for the investigation of a year round school program in district 96. Based on the existing population and projected enrollments for the next three years, two alternatives were available to the administrative staff: (1) fifty or more students per class; or (2) double shifts for students.

4. September, 1968 - Preparation of a detailed fiscal analysis was developed indicating the inability to finance a new school facility to house the projected enrollments within the next three years.

5. September, 1968 - A determination was made by the administrative staff with school board approval to hire a Research Director to begin working on the
development of a year round school program in district 96.

6. September, 1968 - The administrative staff began to study available research information pertaining to past American school experiences with year round school programming.

7. September, 1968 - The administrative staff initiated a full year public relations program aimed at informing the community of the reasons for considering a year round school program.

8. September-October, 1968 - The administrative staff reviewed and rejected the available year round school programs referred to in the current literature. A locally developed schedule was designed to meet district educational needs and the State of Illinois legal requirements.

9. September-October, 1968 - A determination was made by the administrative staff to communicate and inform the local news media, conduct meetings with community organizations, especially the leadership, and meet with Parent Teacher Organizations in the district concerning the schedule.

10. October, 1968 - A prototype of the 45-15 plan was presented to the Board of Education of district 96 for review and criticism. The plan was given
tentative approval by the Board of Education for continued study and development.

11. October, 1968 - Acceptance by the Board of Education and the administrative staff to participate in a Northern Illinois University conference on the Extended School Year for the purpose of sharing major ideas concerning the 45-15 plan as well as securing information from other districts regarding year round school planning.

12. October, 1968 - It was recognized by the Board of Education representatives and administrative staff attending the Northern Illinois University conference that the 45-15 plan was the most viable and serious endeavor at implementing a year round school program presented at the two day meeting.

13. October, 1968 - The administrative staff initiated correspondence with representatives from the Office of the Superintendent of Public Instruction for the State of Illinois concerning amending the State statute regarding financial support for districts initiating year round school programs.
14. October, 1968 - A determination was made that June, 1970, would be a feasible target date for the implementation of the 45-15 plan assuming no major obstacles were in the way.

15. October, 1968 - A determination was made by the administrative staff to take a more direct role in the public information program related to informing the community of the need for year round school programing and the details of the 45-15 plan. The development of a dial-a-message program, an invitation by the administrative staff to attend local neighborhood Kaffee Klatches, and presentations at Parent Teacher Organization meetings were the primary methods used in directing an information program to the public concerning the 45-15 plan.

16. October, 1968 - Survey of staff attitudes was taken concerning teaching in an all year round school program.

17. November, 1968 - A meeting with selected local community leaders was held to explain the need for the 45-15 plan.

18. November, 1968 - The emphasis on a public relations program to inform the community about the 45-15 plan.
19. **December, 1968** - The 45-15 plan was refined to the extent that a slide tape presentation was prepared to be used with individuals and groups interested in the specifics of the 45-15 plan.

20. **December, 1968 - March, 1969** - The public relations efforts concerning informing the local community about the 45-15 plan were continued.

21. **February, 1969 - April, 1969** - An investigation into funding agencies interested in supporting research and evaluation efforts related to the 45-15 plan was conducted.

22. **March, 1969** - A meeting with fifty community leaders to review the public reaction to the 45-15 plan was held.

23. **March, 1969 - May, 1969** - The administrative staff began preparations for a district wide census. The census data were to be collected to facilitate student scheduling as well as secure information on potential enrollment growth areas within the district 96 school boundaries.

24. **April, 1969 - May, 1969** - A determination was made by the administrative staff to utilize computers in the student scheduling phase of the 45-15 plan.
25. May, 1969 - The administrative staff decided to seek the assistance of a consulting firm to manage the computer work necessary to successfully program students' schedules for the 45-15 plan.

26. June, 1969 - A recommendation was presented to the Board of Education by the administrative staff to initiate a contract with Compumatics, a consulting firm with the capability of assisting in the scheduling problems related to the 45-15 plan.

27. June, 1969 - August, 1969 - The census data was collected through a door to door effort throughout the district 96 school boundaries.

28. January, 1969 - August, 1969 - The public relations program directed at informing the community of the details pertaining to the need for the 45-15 plan was continued.

29. January, 1969 - August, 1969 - The administrative staff began to develop a number of administrative procedures to compliment the successful implementation of the 45-15 plan including neighborhood attendance patterns, census units, and attendance patterns for students from the same family.

30. January, 1969 - August, 1969 - Periodic reports were given to the Board of Education of district 96 concerning the status of the feasibility of implement-
ing a year round school program utilizing the 45-15 plan.

31. January, 1969 - August, 1969 - The Board of Education was apprised of necessary building modifications to initiate a year round school program. A determination was made by the administrative staff with approval by the Board to provide air conditioning for a number of classrooms to accommodate for the summer months.

32. June, 1969 - A determination was made by the administrative staff and the Board of Education to hire a coordinator of curriculum to work with teachers on the development of the 45-15 plan.

33. July, 1969 - Approval was given by the Board of Education to hire the recommended person presented by the administrative staff for the position of curriculum coordinator.

34. July, 1969 - August, 1969 - A summer workshop for teachers in district 96 was conducted to investigate teaching alternatives that would assist in the successful implementation of the 45-15 plan.

35. August, 1969 - A request was made by the Board of Education to the administrative staff to initiate a formal appeal for approval from the Office of the Superintendent of Public Instruction to implement the 45-15 plan in June of 1970.
36. September, 1969 - A number of developmental curriculum groups were organized to continue the investigation into teaching strategies and potential curriculum revision appropriate to teaching in a year round school program.

37. September, 1969 - December, 1969 - The administrative staff was involved in the preparation of the first student schedules which were to be mailed to parents at the end of the 1969 school year during Christmas vacation.

38. September, 1969 - December, 1969 - Tentative approval was given by a regional and federal education agency concerning financial support to conduct research and evaluation efforts pertaining to the development and operation of the 45-15 plan.

39. October, 1969 - A formal resolution was passed by the Board of Education of district 96 to adopt the 45-15 plan as the official calendar effective June 30, 1970.

40. November, 1969 - The Compumatics consulting firm verified that the student scheduling problems could be solved with a computer.

41. December, 1969 - The administrative staff initiated negotiations with the teachers with a special emphasis on the implications of the 45-15 plan and teacher salaries.
2. December, 1969 - The administrative staff conducted the first "dry run" of 3000 student schedules which were mailed to parents. The schedules were to take effect on June 30, 1970.


4. January, 1970 - The Board of Education accepted the two federal research grants to evaluate the impact of the 45-15 plan.


6. February, 1970 - The public relations program concerning the 45-15 plan was directed at June 30, 1970.

7. March, 1970 - Two incumbent School Board members ran unopposed. The election was perceived by the Board and the administrative staff as a barometer of the community's feeling concerning the forthcoming 45-15 plan.

8. April, 1970 - The Board of Education and the administrative staff participated in a retreat at Rockton, Illinois, to finalize the last stages of the development of the 45-15 plan.
May, 1970 - The final administrative procedures were prepared concerning regulations pertaining to the 45-15 plan.

June, 1970 - Governor Ogilvie of the State of Illinois signed into law the revised legislation allowing for the financing of school districts operating year round programs in Illinois.

June 30, 1970 - Track A from the Valley View district 96 student body began their first forty-five day attendance period on the 45-15 plan.¹

Analysis of the Data

The analysis of the data includes a review of the observers' ratings in table form. Statistical inference is not a part of the case study; rather, trend in observer ratings is utilized. Three of the five observers are indicative of a trend for the purpose of the study. Additional analysis includes application of the observer rated events with three or more in agreement to a particular problem solving model step. A last section in the analysis includes derived implications pertaining to each event receiving three or more observer agreements.

¹The fifty-one items were mentioned most frequently during interviews with two different board presidents of district 96, the superintendent, three assistant superintendents, the research director, external evaluator, intern assigned to district 96, the Title III director assigned to district 96, the Compumatics consultant and two external evaluation consultants.
Table 1 offers four types of information. The first column, EVENT NO., indicates the fifty-one events which the five observers were asked to rate in terms of the problem solving model. The second column, OBSERVERS RAW SCORE, with five sub-columns indicates the raw score ratings of the five observers. The third column, OBSERVER AGREEMENT, 3, 4 or 5, indicates those events which received the same ratings by three or more observers. If an event received two or less observer agreements a zero was placed in the space to indicate less than three were in agreement. The fourth column, PROBLEM MODEL STEP, indicates which step was agreed upon by three or more observers. If there was less than three observers in agreement on a particular event in column three, then a zero was also placed in the space provided for in the PROBLEM MODEL STEP.

Reading across the first row indicates Event Number 1 received a one as a raw score by all five observers indicating step one of the problem solving model. Reading across row eleven indicates three different ratings by the observer, less than three observers in agreement; therefore a zero is in the OBSERVER AGREEMENT SPACE and a zero is also in the PROBLEM MODEL STEP space.
**TABLE 1**

**EVENT NUMBERS, OBSERVER RAW SCORES, AGREEMENT OF THREE OR MORE PER EVENT, AND PROBLEM MODEL STEP**

<table>
<thead>
<tr>
<th>Event No.</th>
<th>OBSERVER RAW SCORE</th>
<th>OBSERVER AGREEMENT</th>
<th>PROBLEM MODEL STEP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#1</td>
<td>#2</td>
<td>#3</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>3</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9</td>
<td>3</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>10</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>11</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>12</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>13</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>14</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>15</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>16</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>17</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>18</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>19</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>20</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>21</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>22</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>23</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>24</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>25</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>26</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>27</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>28</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>29</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>30</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>31</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>32</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>33</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>34</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>35</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>36</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>37</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>38</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Event No.</td>
<td>#1</td>
<td>#2</td>
<td>#3</td>
</tr>
<tr>
<td>----------</td>
<td>----</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>39</td>
<td>5</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>40</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>41</td>
<td>1</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>42</td>
<td>4</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>43</td>
<td>2</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>44</td>
<td>4</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>45</td>
<td>4</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>46</td>
<td>5</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>47</td>
<td>5</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>48</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>49</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>50</td>
<td>5</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>51</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Problem Model Step</td>
<td>Event Numbers</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>--------------------</td>
<td>---------------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>Step #1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Step #2</td>
<td>N/A</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Step #3</td>
<td>8</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Step #4</td>
<td>N/A</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Step #5</td>
<td>N/A</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Problem Model Step</th>
<th>Event Numbers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step #1</td>
<td>N/A</td>
<td>0</td>
</tr>
<tr>
<td>Step #2</td>
<td>2, 6</td>
<td>2</td>
</tr>
<tr>
<td>Step #3</td>
<td>10, 18</td>
<td>2</td>
</tr>
<tr>
<td>Step #4</td>
<td>9, 34, 42</td>
<td>3</td>
</tr>
<tr>
<td>Step #5</td>
<td>51</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>8</td>
</tr>
</tbody>
</table>
### TABLE 4
PROBLEM SOLVING MODEL STEP AND EVENT NUMBERS FOR 3 OF 5 AGREEMENT

<table>
<thead>
<tr>
<th>Problem Model Step</th>
<th>Event Numbers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step #1</td>
<td>N/A</td>
<td>0</td>
</tr>
<tr>
<td>Step #2</td>
<td>5, 23</td>
<td>2</td>
</tr>
<tr>
<td>Step #3</td>
<td>3, 7, 19, 29</td>
<td>4</td>
</tr>
<tr>
<td>Step #4</td>
<td>12, 36, 37, 46, 47</td>
<td>5</td>
</tr>
<tr>
<td>Step #5</td>
<td>39, 50</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

Tables 2, 3, and 4 indicate that column 1 is the problem solving model step. Column 2 of Table 2, 3, and 4 indicates the events for 5 of 5 agreement, 4 of 5 agreement and 3 of 5 agreement, respectively. Column 3 of Tables 2, 3, and 4 indicates the total number of events for a particular problem solving model step.

Comparing step #1 of each table indicates that Table 2, 5 of 5 agreement, received the only event for step #1. Tables 3 and 4 indicate that agreement was reached in step #2 for two events. Step #3 indicates Tables 2, 3, and 4 received one event, two events and four events respectively. Step #4
of the model received no events in Table 2, three events in Table 3 and five events in Table 4. Tables 3 and 4 indicate that step #4 of the model received more agreement on events than any other step. Step #5 of the model indicates only three events received agreement for Table 4 and 5.

As might be expected further analysis indicates that the more agreement required, it was less likely events were recorded in like manner. For example, Table 4, 5 of 5 agreement contains the least amount of events, Table 3, 4 of 5 agreement, contains the second highest number of events. Table 2, 3 of 5 agreement, contains the most events.

TABLE 5
PROBLEM SOLVING MODEL STEP AND EVENT NUMBER FOR 3, 4, AND 5 AGREEMENT

<table>
<thead>
<tr>
<th>Problem Model</th>
<th>Event Numbers Agreement, 3, 4, and 5</th>
<th>Total</th>
<th>Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step #1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Step #2</td>
<td>2, 5, 6, 23</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Step #3</td>
<td>3, 7, 8, 10, 18, 19, 29</td>
<td>7</td>
<td>13.4</td>
</tr>
<tr>
<td>Step #4</td>
<td>9, 12, 34, 36, 37, 42, 46, 47</td>
<td>8</td>
<td>32.8</td>
</tr>
<tr>
<td>Step #5</td>
<td>39, 50, 51</td>
<td>3</td>
<td>46.6</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>23</td>
<td></td>
</tr>
</tbody>
</table>
The problem solving model which includes five steps indicates that there is a sequence in descending order. For example, it is implied in the model that step #1, identification of a concern will take place before step #5, adaptation and diffusion. It may also be implied from the model that there may be a recycling back to a given step. For example, step #1 could be initiated, step #2 could be initiated which might surface a new problem, therefore sending the problem solvers back to step #1, identification of a concern. In terms of problem solving behavior, it could be step #1, step #2, step #1.

The model also assumes that good problem solving behavior will include at least one event or decision from each step to carry out the logical problem solving approach to a new solution.

Table 5 indicates that column one contains the five problem model steps. Column two contains all of the events used in the study indicating a trend in problem solving behavior as perceived by the five independent observers. Column three indicates the total number of events in each step. Column four is the mean score for each step.

A quick inspection of column two indicates that only one problem was identified by three or more observers. Step #2, the diagnostic stage, contains relatively few events. The twenty-third event was nearly one year into the planning
Another full year of planning took place after event twenty-three. Step #4, feasibility testing of selected alternatives, contains the most events selected by three or more observers. Event twenty-nine was concerned with the development of administrative procedures. One year and six months were left until the actual implementation date. Step #4, feasibility testing of selected alternatives, indicates that most of these events took place in the last half of the planning stages. The fifth step, adaptation and diffusion, contains three events. The thirty-ninth event is the Board's formal adoption of the calendar. Events fifty and fifty-one were the last two events which included the signing of a bill into law and the first day of attendance on the 45-15 plan.

Reviewing the mean scores in column four of Table 5, there is a tendency to support the notion of a sequential development in terms of the problem solving model. One might expect, as in this case, each step to have a correspondingly higher mean score. One might further expect the first series of events to be those issues solved early in problem solving behavior. Later events with correspondingly higher event numbers might be expected to receive ratings of higher numbers, for example a step #3, step #4, or a step #5.

If one were to equate the raw scores for step #3 and step #4, seven and eight respectively, an assumption might be made that there is similarity in terms of the importance of
the steps. However, a review of the mean scores for each step indicates that step #4 was perceived by the observers as coming at a much later date than step #3 in terms of the fifty-one events.

Comparing step #5 with step #3 indicates that step #3 contains twice as many events but a mean score less than step #5. One might expect step #5 to receive ratings on events later into the development stages as was the case in this study.

**TABLE 6**

TOTAL OBSERVER RATINGS SCORES BY PROBLEM MODEL STEP

<table>
<thead>
<tr>
<th>Problem Model</th>
<th>Step</th>
<th>Business</th>
<th>1</th>
<th>Supt.</th>
<th>2</th>
<th>Board Ed.</th>
<th>3</th>
<th>Tech.</th>
<th>4</th>
<th>Voc.Ed.</th>
<th>5</th>
<th>Total</th>
<th>Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Step #1</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>12</td>
<td>2.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Step #2</td>
<td>17</td>
<td>28</td>
<td>5</td>
<td>8</td>
<td>5</td>
<td>63</td>
<td>12.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Step #3</td>
<td>10</td>
<td>8</td>
<td>8</td>
<td>18</td>
<td>15</td>
<td>59</td>
<td>11.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Step #4</td>
<td>16</td>
<td>12</td>
<td>18</td>
<td>14</td>
<td>20</td>
<td>80</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Step #5</td>
<td>5</td>
<td>2</td>
<td>17</td>
<td>9</td>
<td>8</td>
<td>41</td>
<td>8.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>51</td>
<td>51</td>
<td>51</td>
<td>51</td>
<td>51</td>
<td>255</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean Score</td>
<td>3.0</td>
<td>2.7</td>
<td>3.8</td>
<td>3.3</td>
<td>3.4</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 6 is a matrix of the total ratings offered by the five independent observers. Column one indicates the five problem model steps. Column two, with five sub-columns, indicates the number of times an observer selected a particular problem model step. Column three indicates the total number of times a particular problem model step was selected by the observers. Column four contains mean scores for total step rating.

Reading down sub-column one indicates that observer one rated three of the fifty-one events as step #1; seventeen of the events were rated as step #2; ten of the events were rated as step #3; sixteen of the events were rated as step #4; and five of the events were rated as step #5 for a total of fifty-one ratings.

Beginning with step #4, reading across indicates observer one rated sixteen events on step #4; observer two rated twelve events on step #4; observer three rated eighteen events on step #4; observer four rated fourteen events on step #4; and observer 5 rated twenty events as step #4 for a combined total of eighty ratings for step #4. The mean score in column four of the matrix indicates sixteen.

A survey of observer two's ratings indicates a large number as step #2, twenty-eight events were selected as step #2 by the school superintendent. Observer three, the school board chairman, rated seventeen events as step #5.
The two ratings are the largest discrepancies found in the matrix.

One might assume from the superintendent's score on step #2 that further diagnosis was the intent of the 45-15 planners. The board member appears to have viewed a large number of events in terms of adaptation and diffusion. The board member may be accustomed to interpreting educational events in terms of a finished product rather than further investigation.

Reading across the last row, mean score, indicates that the board of education observer selected higher number problem solving steps than any other observer. The superintendent observer selected scores lower than any other observer.

One of the purposes of the dissertation was to illustrate the application of the problem solving model to the reconstructed events for the public school practitioner. Three separate applications are given for 3 of 5 agreement, 4 of 5 agreement and 5 of 5 agreement. The applications are cited for the convenience of the reader attempting to determine exactly which events are included in the analysis of the observers' ratings.
Application of the Observer Ratings to the Problem Solving Model

I. Application of the 45-15 plan events to the problem solving model using 5 of 5 observer agreement

Step #1 Identification of a concern

Event 1 A recognition by the district 96 Board of Education that enrollments during the next three years would exceed the ability to finance new facilities to house additional students.

Step #2 Diagnosis of the situation

N/A

Step #3 Formulating action alternatives

Event 3 The administrative staff reviewed and rejected the available year round school programs referred to in the current literature. A locally developed schedule was designed to meet district educational needs and the State of Illinois legal requirements.

Step #4 Feasibility testing of selected alternatives

N/A

Step #5 Adaptation and diffusion

N/A

II. Application of the 45-15 plan events to the problem solving model using 4 of 5 observer agreement

Step #1 Identification of a concern

N/A

Step #2 Diagnosis of the situation

Event 2 A resolution was proposed and adopted by the Board of Education of district 96 directing the administrative staff to investigate the feasibility of a year round school operation. The resolution included a time line of approximately three years for an investigation that could lead to a possible adoption by the Board of Education.
Event 6  The administrative staff began to study available research information pertaining to past American school experiences with year round school programming.

Step #3  Formulating action alternatives

Event 10  A prototype of the 45-15 plan was presented to the Board of Education of district 96 for review and criticism. The plan was given tentative approval by the Board of Education for continued study and development.

Event 18  The emphasis on a public relations program to inform the community about the 45-15 plan was continued.

Step #4  Feasibility testing of selected alternatives

Event #9  A determination was made by the administrative staff to communicate and inform the local news media, conduct meetings with community organizations, especially the leadership, and meet with Parent Teacher Organizations in the district concerning the schedule.

Event #34  A summer workshop for teachers in district 96 was conducted to investigate teaching alternatives that would assist in the successful implementation of the 45-15 plan.

Event #42  The administrative staff conducted the first "dry run" of 3000 student schedules which were mailed to parents. The schedules were to take effect on June 30, 1970.

Step #5  Adaptation and diffusion

Event 51  Track A from the Valley View district 96 student body began their first forty-five day attendance period on the 45-15 plan.

III. Application of the 45-15 plan events to the problem solving model using 3 of 5 observer agreement

Step #1  Identification of a concern

N/A
Step #2 Diagnosis of the situation

Event 5 A determination was made by the administrative staff with school board approval to hire a Research Director to begin working on the development of a year round school program in district 96.

Event 23 The administrative staff began preparations for a district wide census. The census data were to be collected to facilitate student scheduling as well as secure information on potential enrollment growth areas within the district 96 school boundaries.

Step #3 Formulating action alternatives

Event 3 The administrative staff prepared a rationale for the investigation of a year round school program in district 96. Based on existing population and projected enrollments for the next three years, two alternatives were available to the administrative staff: (1) fifty-or more students per class; or (2) double shifts for students.

Event 7 The administrative staff initiated a full year public relations program aimed at informing the community of the reasons for considering a year round school program.

Event 19 The 45-15 plan was refined to the extent that a slide tape presentation was prepared to be used with individuals and groups interested in the specifics of the 45-15 plan.

Event 29 The administrative staff began to develop a number of administrative procedures to complement the successful implementation of the 45-15 plan including neighborhood attendance patterns, census units, and attendance patterns for students from the same family.

Step #4 Feasibility testing of selected alternatives

Event 12 It was recognized by the Board of Education representatives and administrative staff attending the Northern Illinois University conference that the 45-15 plan was the most viable and serious endeavor at implementing a year round school program presented at the two day meeting.
Event 36  A number of developmental curriculum groups were organized to continue the investigation into teaching strategies and potential curriculum revision appropriate to teaching in a year round school program.

Event 37  The administrative staff was involved in the preparation of the first student schedules which were to be mailed to parents at the end of the 1969 school year during Christmas vacation.

Event 46  The public relations program concerning the 45-15 plan was directed at June 30, 1970.

Event 47  Two incumbent school board members ran unopposed. The election was perceived by the Board and the administrative staff as a barometer of the community's feeling concerning the forthcoming 45-15 plan.

Step #5  Adaptation and diffusion

Event 39  A formal resolution was passed by the Board of Education of district 96 to adopt the 45-15 plan as the official calendar effective June 30, 1970.

Event 50  Governor Ogilvie of the State of Illinois signed into law the revised legislation allowing for the financing of school districts operating year round programs in Illinois.

Analysis of the Applications

Application I indicates agreement by all five observers on two events, number one and number eight. Number one was rated as step one by all observers as an identification of a concern. The Board of Education recognized that financial ability to handle new enrollments in the very near future would not permit new building construction. Event number eight was a decision by the developers of the 45-15 plan to reject other
year round school plans and develop a schedule that would meet local needs.

Application II indicates agreement by four of the five observers on eight events. Step \#2 of the model, diagnosis of the situation, included events two and six. Event two was concerned with a resolution by the Board directing the administration to initiate a feasibility study. Event six was the investigation by the administrative staff into available literature on the year round school.

Step \#3 included events ten and eighteen. Event ten was the administrative staff submitting a tentative year round plan to the Board. Event eighteen included a continuation of a public relations program.

Step \#4 included events nine, thirty-four, and forty-two. Event nine was concerned with public relations. Event thirty-four was concerned with a summer workshop for teachers. Event forty-two was concerned with a dry run of the 45-15 plan.

Step \#5 included event fifty-one which was the starting day for the 45-15 plan.

Application III indicates agreement by three of the five observers on thirteen events. Step \#2 of the model, diagnosis of the situation, included events five and twenty-three. Event five was concerned with hiring a research director. Event twenty-three dealt with a district wide census.

Step \#3 of the model, formulation of action alternatives, included events three, seven, nineteen and twenty-nine. Event
three was concerned with examining the district's alternatives based on their financial crisis. Event seven was concerned with a public relations program. Event nineteen was concerned with preparation of a slide tape presentation. Event twenty-nine dealt with the development of administrative procedures to facilitate implementing the 45-15 plan.

Step #4 of the model, feasibility testing of action alternatives, included events twelve, thirty-six, thirty-seven, forty-six and forty-seven. Event twelve dealt with the Northern Illinois conference on year round school programing indicating the strength of the 45-15 plan. Event thirty-six dealt with teacher curriculum groups. Event thirty-seven was the preparation of the first 45-15 schedule for students. Event forty-six was a further development of the public relations program. Event forty-seven was concerned with the reelection of two board members.

Step #5, adaptation and diffusion, included events thirty-nine and fifty. Event thirty-nine was concerned with the district 96 adoption of the 45-15 plan as an official calendar. Event fifty was concerned with Governor Ogilvie signing a bill into law permitting the implementation of the 45-15 plan.
Implications

(Implications from the events selected by the observers and cited in the three applications)

I. Implications for 5 of 5 Agreement

Event #1 (Step #1)

Implications: 1. There is no need for school districts considering year round schooling to initiate a program unless there are over-crowded conditions.

Event #8 (Step #3)

Implications: 1. A locally developed year round program meeting local and state needs is a preferred course of action rather than the adoption of past programs on year roundedness.

2. There are not enough models in the literature to develop a practical program on year roundedness.

II. Implications for 4 of 5 Agreement

Event #2 (Step #2)

Implications: 1. The Board of Education adhered to its policy making functions by giving the administrative staff educational decision making.

2. An administrative staff needs ample time to prepare a year round program.

3. The initial planning time for year round programing may be reduced as indicated by the 45-15 development which initially included three years to implement, but only took two years.
Event #6 (Step #2)

Implications: 1. There was information available for study on year round programing.

2. The administrative staff believed they could find answers to the many problems in planning for year round programing in the current literature.

Event #10 (Step #3)

Implications: 1. The administrative staff served as advisor and recommending body to the Board of Education in educational policy-making decisions.

2. The Board of Education fulfilled its function by giving its approval to the plan. The Board had offered a tentative policy on the twelve month school year.

Event #18 (Step #3)

Implications: 1. The administrative staff established the importance of public relations.

Event #9 (Step #4)

Implications: 1. The administrative staff recognized the importance of the power structure when major changes are contemplated.

2. The administrative staff recognized the power of the press in winning support for year round programing.
Event #34 (Step #4)  
**Implications:**  
1. The administrative staff recognized the importance of teacher involvement towards the success of a major educational change.  
2. The administrative staff recognized the importance of special planning times with extra pay to help facilitate a successful year round program.

Event #42 (Step #4)  
**Implications:**  
1. The administrative staff recognized the importance of simulation in preplanning regarding a major educational decision.  
2. The administrative staff recognized the importance of the impact on the community by testing the program.

Event #51 (Step #5)  
**Implications:**  
1. The administrative staff recognized the importance of having a specific start up date.

III. Implications for 3 of 5 Observers  

Event #5 (Step #2)  
**Implications:**  
1. The administrative staff recognized the importance of additional staff to help in a major educational change.  
2. The administrative staff recognized the necessity of research in education concerning a major educational change.
Implications: 1. The administrative staff recognized that certain kinds of student population information is needed before year round programming can begin.

2. The information obtained for year round programming could be used in other school decisions.

Event #3 (Step #3)

Implications: 1. There were other alternatives rejected by the district in preference to local needs.

2. It indicates foresight by the administrative staff in justifying what was needed to solve a problem in the district.

Event #7 (Step #3)

Implications: 1. It established the importance of year round programing.

Event #19 (Step #3)

Implications: 1. Personal contact is necessary to the development of a year round program.

2. Multi-media methods were useful in dissemination efforts.

Event #29 (Step #3)

Implications: 1. Administrative regulations were required in the development of the year round program to carry out the policy of the Board of Education.
2. Untested year round school plans require a new set of procedures for implementation.

Event #12 (Step #4)

Implications: 1. University support adds prestige to an educational program.

2. Positive support from a university is helpful in new educational undertakings.

Event #36 (Step #4)

Implications: 1. The administrative staff recognized that the curriculum needed to be reviewed.

2. The administrative staff recognized the need for staff involvement.

Event #37 (Step #4)

Implications: 1. Year round programing requires similar type administrative tasks as regular school programing.

Event #46 (Step #4)

Implications: 1. The administrative staff recognized the need to focus the public's attention to a starting day which was foreign to traditional school starting dates.

2. The public relations program became more of a re-education of the public rather than an information program.

Event #47 (Step #4)

Implications: 1. A Board election lacking opponents can be construed as support.
2. Board elections without opponents could be a sign of indifference.

**Event #39 (Step #5)**

**Implications:** 1. The Board of Education fulfilled its policy making function.

2. It indicates a job well done by the administrative staff in working within the framework that the Board of Education would accept.

**Event #50 (Step #5)**

**Implications:** 1. Legislation can be effected by grassroots local community effort.

2. It ended the farming model of nine months of school with a traditional summer vacation for all students in Illinois.

3. The legislature recognized other alternatives to educating students in the State of Illinois.

**The Twenty-eight Events**

The intent of the problem solving model application to the fifty-one events was to illustrate a trend as expressed by five independent observers as well as to indicate the potential logical problem solving behavior employed by the 45-15 plan developers. It would be erroneous to overlook the twenty-eight events receiving less than three observer agreements and regard these events as unimportant to the development
of the changed calendar. All fifty-one events were important to the development.

An analysis of the twenty-eight events by inspection based on information in Chapter II and III of the study indicates that some of the events are more critical to the successful implementation of the 45-15 plan than others. A simple rating system of critical or non-critical events was used to distinguish which events were more important than others among the twenty-eight. A determination could not be made as to why the twenty-eight events received less than three observers' agreement on a particular problem model step. It can only be surmised that individual observer preference and/or semantic interpretation contributed to the lack of agreement.

**TABLE 7**

**THE TWENTY-EIGHT EVENTS**

<table>
<thead>
<tr>
<th>Critical Events</th>
<th>Non-critical Events</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>25</td>
<td>11</td>
</tr>
<tr>
<td>13</td>
<td>26</td>
<td>15</td>
</tr>
<tr>
<td>14</td>
<td>30</td>
<td>16</td>
</tr>
<tr>
<td>22</td>
<td>35</td>
<td>17</td>
</tr>
<tr>
<td>24</td>
<td>40</td>
<td>20</td>
</tr>
<tr>
<td>41</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>11</strong></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>
Table 7 indicates eleven events as critical to the successful implementation of the 45-15 plan. To further amplify the nature of a critical event it can be viewed as questionable whether the development of the 45-15 plan would have continued without a particular event occurrence.

Event four in Table 7 was a detailed financial analysis presented to the Board of Education concerning the 45-15 plan. Event fourteen was the establishment of a target date for the implementation of the plan. Twenty-two was a meeting with fifty community leaders to explain the 45-15 plan. Events twenty-four, twenty-five and twenty-six were concerned with the use of computers to assist in scheduling. Event thirty was periodic reports to the Board of Education concerning the status of the development of the plan. Thirty-five was a request for action to the state concerning the plan. Event forty was a verification of the successful use of computers for scheduling students. Event forty-one was the negotiation session with the teachers.

A final statement concerning the eleven events judged as critical to the development of the 45-15 plan would be as follows: to prove the events' significance to the facilitation of the 45-15 plan would be nearly impossible. At best, it can be said the developmental stages would have been cut back if one of the events were not resolved.
A further review of the data indicates that the fifty-one events can be classified in terms of a relationship to the six areas reviewed in the literature: students, teachers, curriculum, costs, community and administrative plans. Table 8 gives the general breakdown of the fifty-one events irrespective of the trend demonstrated by three or more of the independent observers. Table 9, page 131, offers an analysis of the events selected by three or more observers in terms of a relationship to the six areas reviewed in the literature.

### TABLE 8
CLASSIFICATION OF THE FIFTY-ONE EVENTS TO THE SIX AREAS REVIEWED IN THE LITERATURE

<table>
<thead>
<tr>
<th>Six Areas Reviewed in the Literature</th>
<th>Event Numbers</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Teachers</td>
<td>16, 41</td>
<td>2</td>
</tr>
<tr>
<td>Curriculum</td>
<td>32, 33, 34, 36</td>
<td>4</td>
</tr>
<tr>
<td>Costs</td>
<td>1, 21, 31, 38, 44</td>
<td>5</td>
</tr>
<tr>
<td>Community</td>
<td>7, 9, 15, 17, 18, 19, 20, 22, 28, 46, 47</td>
<td>11</td>
</tr>
<tr>
<td>Administrative Plans (procedure)</td>
<td>2, 3, 5, 6, 8, 10, 11, 12, 13, 14, 23, 24, 25, 26, 27, 29, 30, 35, 37, 39, 40, 42, 43, 45, 48, 49, 50, 51</td>
<td>29</td>
</tr>
</tbody>
</table>
A review of each event relating to one of the six areas reviewed in the literature is given below for the purpose of comparing the development of the 45-15 plan to previous trends and attempts reported in the current literature.

Students

No indication is given concerning the adverse or positive effects of year round programming on students in the major developmental stages of the 45-15 plan. This is consistent with the current literature which lacks a wide scale report on the effect of year round programming on students. A few of the fifty-one events indirectly or eventually involve students; however, the initial impetus for the events fall in one of the other five areas reviewed in the literature.

Teachers

Event sixteen indicates a staff survey of attitudes by the developers of the 45-15 plan. Event forty-one indicates a willingness by the developers to negotiate with the teaching staff concerning the implications of a year round program. The staff survey is consistent with the current research in terms of considering the importance of teacher attitudes. A willingness to negotiate with teachers concurs with the research on teacher fatigue and salary concerns. It appears that the developers treated the teaching staff in a consistent manner suggested by past planners of year round programming.
Curriculum

Event thirty-two and thirty-three are concerned with hiring a coordinator of curriculum. Event thirty-four refers to a summer workshop concerning curriculum modifications. Event thirty-six is concerned with the development of teacher curriculum groups. The developers of the 45-15 plan were consistent with the current literature regarding curriculum. No effort was made to make major changes in the existing curriculum. However, as was the case in past year round programming attempts, curriculum adjustments and modifications were a part of the development of the 45-15 plan.

Costs

Event one and four are concerned with the district's inability to finance new buildings to house students. Events twenty-one, thirty-eight and forty-four are concerned with a search and acceptance of financial support to facilitate the development of the 45-15 plan. Event thirty-one reflects a decision by the Board of Education to spend monies for building modifications.

The cost factors reported in the literature are a primary concern of previous year round program development. In the case of the 45-15 plan, cost is also a major factor. However, the initial concern with the 45-15 plan was not a cost savings. Because monies would not be available, year round programing was accepted in lieu of some other unacceptable alternatives.
The developers of the 45-15 plan recognized the savings to the district once the debt service retirement was adjusted to allow for new construction. A second area concerning costs, which is consistent with the literature, indicates some initial additional start up costs to the district.

Community

Eleven events reported in Table 8 are concerned with some phase of community involvement. The nature and number of events indicate the degree of concern the developers of the 45-15 plan held for community acceptance of a changed school calendar. The current literature indicates that the efforts of the developers were especially consistent with past practices and advice from experts on year round programing. The lack of community support is referred to in a number of studies in New York, California, Illinois as well as other states as an especially important factor in the abandonment of a year round program.

Administrative Plans (Procedure)

The review of the literature conducted in the dissertation was concerned with a variety of administrative plans, including advantages and disadvantages for a number of year round programs. The fifty-one events leading toward the final development of a new year round program called the 45-15 plan indicate that twenty-eight of the events are administrative concerns leading to a final year round plan.
A further analysis of the twenty-eight events indicates that twenty-one of the events can be categorized as administrative procedure. Seven of the events can be categorized as directly related to a refinement and further description of the 45-15 plan.

The administrative procedures including event two, three, six, thirty, and thirty-five are concerned with board and administrative action to investigate a year round program. Event five is concerned with employing a new person to work on the year round program. Event fourteen was concerned with the establishment of a target date. Event twenty-five, twenty-six and forty are concerned with computer assistance. Event twenty-seven is concerned with a census. Event twenty-nine, thirty-seven, forty-two, forty-three, forty-five, forty-nine, and fifty-one are refinement of administrative procedures. Event thirty-nine is a formal adoption of the 45-15 plan. Event forty-eight is a Board of Education and administrative retreat. Event fifty is state action allowing for the implementation of the 45-15 plan.

The events related to a further description of the plan include number six, rejection of other year round plans and an attempt to develop a new plan. Event ten is a prototype of the 45-15 plan. Events eleven and twelve are concerned with sharing ideas about the 45-15 plan with other professionals. Event thirteen is a request to the state to alter laws to
allow for implementation of the 45-15 plan. Event twenty-three deals with collection of census data to assist in scheduling students on the 45-15 plan. Event twenty-four is using computers to schedule the students.

The administrative procedures required to develop the 45-15 plan are unique to School District 96. The current literature does not contain detailed administrative procedural moves other than those which brought about the abandonment of a plan. For example, in New York, the administration chose to have some students vacation during the winter and some during the summer. The decision served to terminate further development of the year round program. In the case of the 45-15 procedural development, one can only assume that no significant wrong moves were made because the plan was successfully started.

The events that offered more description to the 45-15 plan as a unique calendar can be reviewed in terms of a relationship to reports in the current literature.

The 45-15 plan does provide for more and better classroom utilization. Cost savings is a definite advantage of the plan through delayed construction. The plan does not discriminate against one student group. The plan has backing from the State of Illinois via legislation introduced and made into law providing state aid to districts on year round programing. The latter information can be viewed as advantages of the
plan in terms of a comparison with the current literature.

Disadvantages of the plan can be viewed as the possible need for computers to solve a number of scheduling problems.

Synthesis

A quick review of the fifty-one events indicates a disproportionate number of events concerned with administrative procedure and the plan itself. The second ranking category is community. Eleven events were concerned with the public relations program directed at informing and involving the public. The third area of concern, costs, appears to have been resolved to the satisfaction of the planners in that only six events are listed. Curriculum contains four events and the teacher category, only two events, indicating the degree of concern for these areas in the initial development of the plan. Students received no event relationship.

If one were to derive any implications from the fifty-one events in terms of the development of the 45-15 plan as well as another year round plan, it would be to concentrate on administrative procedure and the description of the plan, community involvement, costs, curriculum, teachers and students in that order. One can expect that cost savings would be a primary interest of boards of education and administrators; however the amount of time and energy devoted to cost factors in terms of the developmental stages for year round programing is not over demanding. It would be safe to say that the policy
making and decision making related to changing the calendar are very demanding. Assuming no dramatic curriculum changes are a part of a year round program, students and teachers can be expected to have about the same type of pupil-teacher relationship except at different time intervals. The elementary student may expect to see more than one teacher in a given year.

**TABLE 9**

**MATRIX OF SIX AREAS FROM THE LITERATURE AND THREE OR MORE OBSERVER EVENT AGREEMENT**

<table>
<thead>
<tr>
<th>Six Areas</th>
<th>Problem Solving Model Steps</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#1</td>
<td>#2</td>
</tr>
<tr>
<td>Students</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teachers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curriculum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Costs</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Community</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administrative Plan</td>
<td>2,5,6,3,8,10</td>
<td>12,37,42</td>
</tr>
<tr>
<td>23, 29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>
Table 9 offers a matrix of the six areas reviewed in the literature and the five steps of the problem solving model. The events reported in the matrix indicate those which received three or more observer's agreement on a particular problem solving model step.

Analysis of Table 9 indicates that fourteen of the events receiving three or more agreements by the observers can be classified as administrative in nature. Four different steps on the problem solving model contain events classified as administrative. Six events are related to community in the problem model stages three and four. Only one event is classified as relating to costs, in the first step of the model. Curriculum contains two events at step four of the model. Teachers and students received no events that are classified in any problem solving model step.

Reviewing the data on Table 9 from the standpoint of the problem solving model indicates that step one, identification of a concern, contains only one event, in this case a cost factor. Step two, diagnosis of the situation, contains three events dealing with the administrative plan and procedures. Step three of the model, formulation of action alternatives, indicates seven events, three dealing with community involvement and four with the administrative plan and procedures. Step four, formulating action alternatives, indicates that two events from curriculum were selected, three from community
involvement and three from the administrative plan and procedures. Step five of the model, adaptation and diffusion, indicates that three events, all in the administrative plan and procedure, were selected by the observers.

Summary

The notion of a problem solving model applied to year round programing affording a more systematic approach to the developmental stages can be justified based on the observers' ratings. The data indicate that curriculum costs, community and the administrative plan and procedure are definite considerations during the planning stages for year round programing. Based on the total numbers selected by the five observers it is safe to say that attention to administrative matters and community involvement are first and second priorities during the developmental stages. Data on student and teacher involvement based on the observer ratings appear to be inconclusive. To imply that no consideration should be given to teachers or students during the developmental stages would be erroneous. Rather, it is a question of priorities. The current literature also indicates that in most cases the abandonment of a particular program was predicated on a discriminatory administrative plan or poor public relations. Indirect reasons were cited on behalf of students and teachers in terms of abandonment.
A final statement can be made concerning the development of the 45-15 plan in terms of the data and past practices reported in the literature. There is an indication that nearly half of the events can be classified in terms of the problem solving model outlined in the dissertation. Secondly, it appears that a system of priorities was used by the developers, primarily in administrative concerns and community involvement. Whether the priorities were selected systematically or out of an inherent concern of boards of education and administrators is unclear. Regardless, the energy expended in the two areas is congruent with other year round program efforts. Lastly, the 45-15 plan did get off the ground, so to speak, and results are often what count in terms of public school change for the decision makers. The immediate and especially the long range future of public schools as we know them today will determine whether the 45-15 plan can survive, not only in Valley View but in other districts considering adopting this innovation.

Review of the analysis indicate the following:

Table 1 offers the raw score results based upon the ratings of five independent observers, school superintendent, businessman, board member, technologist and vocational educator. The Table indicates that twenty-three of the fifty-one events were selected by three or more observers as being related to the same problem model step. Three or more were presumed
to indicate a trend by the raters for the purpose of the dissertation. No indications were given concerning an acceptable rating pattern offered by the observers. In short, the analysis would deal directly with the results regardless of the number of observer agreement. What was needed was a trend, in this case, three or more with which to generalize to the problem solving model.

Table 2 is a breakdown of those events which were selected by all five observers as being the same problem model step from the five available. Table 2 indicated that two events received a unanimous choice. For the purpose of interpretation, assuming utilization of the problem solving model as a systematic method to develop a year round program were employed by the 45-15 planners, events one and eight would have been a fundamental part of the development of the year round program.

Table 3 indicates those events agreed upon by four or more observers pertaining to a particular problem model step. For the purpose of interpretation, assuming again the 45-15 planners were developing the program using the model, eight events are definite concerns in their respective places in the model for the development of the changed calendar.

Table 4 indicates that thirteen events were selected by three or more observers as pertaining to a particular step of the problem solving model. For the purposes of interpretation, the thirteen events, assuming the model had been used in the
development, would probably be considered as a part of the systematic development of the 45-15 plan.

Table 5 gives a composite of all twenty-three events receiving three or more agreements by the five observers pertaining to one of the five problem model steps. For the purpose of interpretation it is suggested that future developers of year round programming carefully consider all twenty-three events in the developmental stages of a changed calendar using the problem solving model cited in the dissertation.

Table 6 offers a further analysis of the total rating patterns by all five observers. For the purpose of interpretation one can observe the particular tendency of individual observers in terms of relating the events to the five problem model steps. It would be difficult to generalize from any one observer's rating pattern to other members of the observer's particular occupation. It would be more advisable to regard the total rating patterns of the problem solvers and regard the twenty-three events as satisfactory evidence of a trend in terms of important events in the development of a year round program. Only two observers illustrated relatively extreme ratings for a particular problem model step. It would be advisable to regard the extreme scores as a result of multi-interpretations of the model or possible self-perception of role performance in the development of a year round program. The latter assumption would be difficult to prove based on the
type of data available in the study. Semantics is a problem
in any study using the printed word.

The section in the analysis of the data pertaining to
the application of the problem solving model to the events
is a narrative report of twenty-three events selected as a
trend by the observers for the purpose of review by the
interested student and practitioner of public school administra-
tion.

The section on implications resulting from the application
of the events, in this case three, four or more, and all five,
a method has been provided for additional insight into the
far reaching effects of the trend presented by the observers.
There may be many other implications that can be derived from
the various events selected as a trend. The implications are
a useful tool for the student and practitioner of public school
administration to further regard the events as significant
beyond the mere selection by five observers. In one sense,
the implications may provide more important meaning and
perspective to the interested reader. Whether the implications
were of concern to the developers of the 45-15 plan is not
a concern of this study. Rather, it is a concern of the
study to analyze the data provided by the observers in a more
meaningful way than reporting the results in table form with
appropriate analysis. One may choose to compare the implica-
tions in terms of other local school districts' concerns
regarding year round programing. Each event is treated separately and exclusively. If any general statement can be made regarding the implication section it is that there is a capacity to derive implications from almost any event in the preparation of a year round program. It is important information for decision makers to determine a more in depth understanding of their actions.

Table 7 is an analysis of the twenty-eight events receiving less than three observer rating agreements. The events were divided into critical and non-critical events. Eleven events are reported as being critical to the successful implementation of the 45-15 plan, at least to the extent the eleven events might have terminated or slowed the development of the 45-15 plan. The lack of observer agreements concerning the events does not diminish their essential value for the decision makers developing the innovation. What can be inferred from the critical events is that significant issues not immediately classifiable in terms of a logical problem solving model may remain important just the same. If they are attended to randomly they can still contribute to a successful implementation of a year round program.

The section dealing with classifying the events to the six areas of the review of the literature and the problem solving model offers two kinds of information. First, Table 8 indicates that the fifty-one events important to the development of the
45-15 plan are not removed from past practices in the development of year round programing. An over all interpretation can be given to the fifty-one events indicating that consistency with past practices existed at Valley View. Administrative concerns and community involvement were high priorities.

Table 9 is an attempt to analyze the twenty-three events perceived as a trend for the purpose of the study in relationship to the six areas of the current literature. A review of Table 9 illustrates the same trend in terms of priorities as indicated for all fifty-one events. Administrative concerns and community involvement were selected, unknowingly, by the observers more often than any other category reviewed including students, teachers, curriculum and costs.

A broad interpretation of the problem solving model indicates that administrative concerns were a part of step two through five. Community concerns were a part of step three and four. It is further evidence of the possibility of using a logical problem solving model approach to the development of a year round program.

The 45-15 plan was not developed using the problem solving model nor by classifying the development in terms of the six categories of the review of the related research found in the study. Nevertheless, the observers selected a number of events that fall into categories that give the appearance of logical
problem solving behavior and at the same time remain consistent and congruent with current research in six selected areas.

No one can say that following or manufacturing each event in another district would produce the same results as in Valley View. It can be inferred that attention to the six areas of the review of the related research and categorizing the developmental work in terms of the five problem model steps found in the study would very likely produce similar results, if not better results, than random planning for year round programing.

The intent of the historical reconstruction was to enhance the case study method. The utilization of the problem solving model was to demonstrate an application to the reconstructed events. The application may be useful to the practitioner who attempts to utilize the same five steps in terms of developing a year round program.

The fact that each observer was able to classify the fifty-one events in terms of an application to the problem solving model indicates that in the judgment of the observers there was a logical sequence of events leading toward a solution to a problem. The fact that the observer reached a consensus only twice indicates several possibilities including (1) multi-interpretations by the observers of the meaning of the various steps in the problem solving model; (2) multiple interpretations by the observers of the various events leading
to the implementation of the 45-15 plan; (3) the observers needed more information and clarification to make better judgments. A fourth possibility exists that the fifty-one events might have occurred at random without any problem solving sequence. However, the data are insufficient to make such an assumption.

The real value of the reconstructed events lies in their mention by the principal characters responsible for the development of the 45-15 plan. The events, arranged chronologically, give the reader and especially the practitioner in public school administration an indication of some of the steps, events and decisions necessary for the successful development of a year round school program. In addition, the public school administrator may choose to select one or all of the problem solving applications for further direction when considering the development of a year round program.
CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

General Summary

The purpose of this dissertation was to conduct a case study that would consider an historical reconstruction of the major educational events surrounding the development of a unique continuous year round school plan in a single district. It was intended to provide a study which dealt with the development of a particular year round program during a two year planning period.

A further consideration in the study dealt with the application of a problem solving model to the reconstructed events as rated by five independent observers.

A survey of the literature was carried out relating to six areas of public school operation. The impact of year round school programing on students revealed that pupil performance was seldom affected. A second area reviewed was the affects of year round programing on teachers. The literature indicated that an extended calendar for teachers was a positive move in terms of money and morale. Substantive research on teacher fatigue was lacking. A third area reviewed was the school curriculum. The literature indicated that few
if any schools initiated year round school programing for curricular reasons alone. Rather, curriculum change was usually a secondary feature after costs or better building utilization. A fourth area reviewed was the costs of year round school programing. There appear to be initial additional costs related to a changed calendar. In some instances, costs may be brought into line through paper savings resulting from delayed building construction. A fifth area under consideration was the impact of year round programing on the community. The review indicated that the degree of flexibility that exists within a given community in terms of attitudes toward the schools may affect the successful implementation of a year round school operation. The last area reviewed in the literature dealt with administrative plans. There are numerous plans that an administrator can utilize to implement year round school programing. There is evidence which suggests that initiating a program that meets the various local needs is the best course of action.

An additional phase of the case study considered the same six general areas in terms of the development of the 45-15 plan in a single district. The 45-15 plan is essentially a method of dividing the school year into four, forty-five day attendance periods and four, fifteen-day vacation periods as contrasted with one hundred and eighty days of attendance and three months of summer vacation. The school also divides
the student population into four tracks and staggering the attendance and vacation patterns so at any given time at least one-fourth of the student population is on a fifteen day vacation period.

The development of the 45-15 plan in terms of students was considered in the case study. A number of criteria were developed to assist in pupil placement. The initial evaluations indicated that no significant difference existed between the four attendance groups.

The case study considered the role of the teacher in the development of the 45-15 plan. The teaching staff in some instances developed cooperative teams to work with the same students during a given school year. Teacher contracts were by necessity varied in length because of the changed calendar. Some teachers worked less than one hundred and eighty days while some worked more than two hundred and forty. The initial evaluation of the teachers' attitudes concerning the 45-15 plan indicated there was general favor toward year round schooling.

The case study also considered the impact of the development of the 45-15 plan on the curriculum. The administrative staff chose not to make curriculum changes during the developmental stages. It was the judgment of the planners that enough change was taking place in the school program without altering the students' learning activities.
The costs of the 45-15 plan were also considered in the case study. The initial increase in costs was evidenced in salaries and air conditioning. However, the district saved approximately ten dollars per pupil enrolled by delaying construction because of year round school programming. The district also secured a number of state and federal grants to study and evaluate the 45-15 plan.

The community was continuously apprised of developments concerning the 45-15 plan. Newspaper articles, television coverage, and special meetings with civic and business organizations in the community were part of the intensive public relations program organized by the planners of the 45-15 plan. The program was successful in convincing parents and the community of the wisdom of year round programming.

The administrative procedures developed to assist in the implementation of the 45-15 plan were also included in the case study. The 45-15 plan was facilitated by the use of an outside consultant firm. A set procedural guide was not developed, rather as circumstances arose a guideline would be established to meet a specific problem.

The problem solving model application to the two years of events indicate some agreement between the observers in terms of specific categories related to the five steps outlined in the model. Generally, the model could be used by districts considering year round school programming.
The analysis of the data included a rating by five observers using five steps of a problem solving model in relation to fifty-one reconstructed events pertaining to the two year development of the 45-15 plan. The data indicated that twenty-three events received three or more observer agreements signifying a trend in terms of an application of a problem solving step to individual events.

As might be expected, identical ratings by all observers revealed less than four of five observer agreements. Four of five observer agreements received less than three of five observer agreements.

Evidence exists that the twenty-three events were selected in a sequential order in terms of early events applying to early problem model steps and later events to later steps in the model.

The superintendent and board member demonstrated the two most extreme scores in terms of their total rating patterns. One interpretation of the superintendent's score may be his need to diagnose an educational event. The board chairmen may perceive educational situations in terms of final solutions, thus, step #5, adaptation and diffusion.

Step #4 of the model was definitely a trend in terms of the observer's ratings. It might be concluded that future planners of year round programing concentrate more effort on feasibility testing of selected alternatives including training.
A restatement of the twenty-three selected events is offered to illustrate their relationship to the five stages of the problem solving model.

Implications are given for each of the twenty-three events selected as a trend in observer ratings. The implications may be useful to the practitioner seeking a rationale for developmental actions necessary in planning for a year round school.

An attempt was made to analyze the twenty-eight events receiving less than three observer agreements. Eleven of the twenty-eight events were judged critical in terms of the development of the 45-15 plan. The lack of observer agreement on a problem solving model step could not be considered as evidence of the lack of importance of the events. The possibility that critical events may not be classifiable in relation to a problem model exists.

The analysis also considered the relationship of all fifty-one events to the six areas reviewed in the related literature. There was a definite indication that the 45-15 plan development was consistent with past practices concerning year round programing.

A rather large number of the fifty-one events appear in administrative plan and procedure. The second largest area was community involvement.

A last area under study was the application of the twenty-three events to the six areas reviewed in the related
literature as well as an indication of the affects of the problem solving model on the twenty-three events. The classification of the twenty-three events to the six areas reviewed in the literature was consistent with the classification of all fifty-one events. Administrative concern and community involvement received the most event relationship to the six areas reviewed in the literature.

Conclusions

1. The decision to initiate year round school programing in the district was the result of a financial crisis. The administrative staff chose year round school programing rather than double shifts or excessively high class sizes.

2. The administrative staff who were responsible for the development of the year round program received unanimous support from the school board to initiate a year round program. The Board of Education were the elected representatives of the people thereby giving the administrative staff an early assessment of the community's attitudes toward a changed calendar.

3. The administrative staff initiated and conducted an effective public relations program. Various pressure groups including business leaders, civic leaders, park district personnel and parents were advised of the rationale for and planning involved in the development of the 45-15 plan. Few, if any, major decisions were made without the involvement of some part of the community affected by the 45-15 plan. The
community involvement secured trust and support for the plan.

4. The administrative staff with full support from the Board of Education made the decision to initiate the year round program without a vote from the total staff or the total community. The decision became a management policy rather than a mandate based on staff attitudes or a majority rule of the community. The teachers' association did not attempt to disrupt the development of the 45-15 plan. No active community group attempted to stop the development of the 45-15 plan.

5. A consulting firm was employed to help with the scheduling through the use of computers. The administrative staff initiated a "dry run" of the total plan six months prior to the actual start up date. Without the consulting help it is unlikely that the schedule could have been developed and implemented in the two year planning period.

6. Initiating a year round school program in Valley View school district did increase costs initially in salaries and air conditioning. However, some paper savings occurred in delayed school building construction.

7. The developers of the 45-15 continuous year round school plan allowed for planning time to carry out the task of implementing a changed calendar. Initially, three years were set aside for planning. However, once the development began successfully, a full year was dropped from the planning time.
8. Based upon the observer rating, some indications exist that a problem solving approach was taken by the developers of the 45-15 plan. Further research is needed to verify the value of a problem solving model in the development of a year round program.

9. Feasibility testing of selected alternatives should play an important role in the development of year round programing.

10. The 45-15 plan was developed in a manner consistent with current literature on year round programing.

11. Administrative concerns and community involvement were first and second priorities respectively for the development of the 45-15 continuous year round school plan.

Recommendations

1. School districts considering year round school programing should not become involved to be fashionable. A sound rationale should be decided upon such as better building utilization, learning rates or curriculum modification before beginning a year round program.

2. School administrators should secure the full support of the Board of Education before initiating the development of a year round program.

3. School districts contemplating year round programing can expect to increase expenditures in most cases. A review of the increased costs as well as the delayed construction
costs should become a part of a public relations program.

4. School administrators developing a year round program should attempt to develop a program that will not discriminate against one part of a student population.

5. One person in a school district should be appointed to direct the development of a year round program. A problem solving model, PERT, or some type of master plan should be developed to facilitate planning and decision making for year round programing.

6. School administrators should develop a comprehensive public relations program including newspaper coverage, television, and community meetings to carry the message concerning the development of a year round program. The local civic and business leadership should be kept informed of the development of a plan at all times.

7. School administrators should allow for enough time to plan and prepare for year round programing. A minimum of two years should be taken to develop appropriate strategies for implementation of a changed calendar.

Areas for Further Study

This study was not intended as one from which statistical inference could be drawn. It was a reconstruction of a particular case and the application of a problem solving model to the events within that case. The value of the study may lie with the questions that it raises as well as in the
material presented. In line with this thought, the following suggestions are offered for further study:

1. More sophisticated study and research should be conducted in relation to pupils' progress concerning attendance in year round schools.

2. Further study should be conducted concerning the effects on school costs resulting from year round school programing.

3. A third area needing further study and research is teacher attitudes concerning year round school programing.

4. More sophisticated study and research should be conducted concerning successful problem solving approaches utilized in the development of year round school programing.

5. More study and research is needed to determine the impact of year round school programing on various community organizations such as churches and park districts as well as the effects on the business community.

6. More study and research should be initiated concerning why some school districts have abandoned year round school programing. The study should include districts which began to plan for year round programing but terminated their effort sometime during the planning stages.

7. If a study similar to this one were conducted again, the fifty-one events should be given to board members, administrators, teachers and students of Valley View to
determine whether consensus could be reached on a number of the events in terms of an application to the problem solving model.

Concluding Statement

One of the purposes in preparing this dissertation was to preserve a piece of American educational history utilizing the case study method. The value of the 45-15 plan as well as other attempts at year round programing will continue to be debated in school board meetings across the country. Hopefully, for the public school administrator called upon to justify a particular point of view, the study may serve as useful resource material.
BIBLIOGRAPHY

Books


Periodicals


Reports


Florida State Department of Education, The All Year School, Tallahassee, The Department, 1957.


Scott, Bauman. The Flexible System - An Economic Analysis of Advantages of the Quarterly Calendar In Public Schools. Ohio: College of Business Administration, Ohio State University, March, 1966.

Thomas, George I. Setting the Stage for Lengthened School Year Program. State Education Department, Albany: State University of New York, March, 1968.


Unpublished Materials


Newspapers


Other Sources


Lockport, Ill. Personal Interview with Mr. Kenneth Hermanson, Superintendent, Valley View Schools, December 14, 1970.


. Personal Interview with Mr. James Bingle, School Board President, Valley View Schools, May 14, 1970.

Lockport, Ill. Personal Interviews with Mr. Kenneth Hermanson, Superintendent; Mr. James Gove, Assistant Superintendent; Mr. John Lucansik, Assistant Superintendent; Mr. Patrick Page, Research Director; Dr. William Rogge, Evaluation Consultant; Mr. Robert Norfleet, Compumatics Consultant, December, 1970 to June, 1971.

Urbana, Ill. Personal Interview with Dr. Gordon Hoke, Program Specialist, CIRCE., April 15, 1970.
## APPENDIX A


<table>
<thead>
<tr>
<th>Number of days of contract year</th>
<th>Days</th>
<th>Teachers</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>175</td>
<td>1</td>
<td>.4%</td>
</tr>
<tr>
<td>2</td>
<td>184</td>
<td>91.5</td>
<td>37.7%</td>
</tr>
<tr>
<td>3</td>
<td>192</td>
<td>1</td>
<td>.4%</td>
</tr>
<tr>
<td>4</td>
<td>199</td>
<td>15</td>
<td>6.2%</td>
</tr>
<tr>
<td>5</td>
<td>204</td>
<td>3</td>
<td>1.2%</td>
</tr>
<tr>
<td>6</td>
<td>206</td>
<td>1</td>
<td>.4%</td>
</tr>
<tr>
<td>7</td>
<td>210</td>
<td>1</td>
<td>.4%</td>
</tr>
<tr>
<td>8</td>
<td>214</td>
<td>9</td>
<td>3.7%</td>
</tr>
<tr>
<td>9</td>
<td>224</td>
<td>1</td>
<td>.4%</td>
</tr>
<tr>
<td>10</td>
<td>225</td>
<td>1</td>
<td>.4%</td>
</tr>
<tr>
<td>11</td>
<td>226</td>
<td>1</td>
<td>.4%</td>
</tr>
<tr>
<td>12</td>
<td>229</td>
<td>33</td>
<td>13.6%</td>
</tr>
<tr>
<td>13</td>
<td>234</td>
<td>1</td>
<td>.4%</td>
</tr>
<tr>
<td>14</td>
<td>244</td>
<td>64</td>
<td>26.4%</td>
</tr>
<tr>
<td>15</td>
<td>259</td>
<td>1</td>
<td>.4%</td>
</tr>
<tr>
<td>16</td>
<td>274</td>
<td>18</td>
<td>7.4%</td>
</tr>
</tbody>
</table>
### APPENDIX B

**DISTRICT # 96 FACT SHEET**

<table>
<thead>
<tr>
<th>YEAR</th>
<th>ASSESSED VALUATION (COLLECTIBLE THE NEXT YEAR)</th>
<th>TOTAL DISTRICT ENROLLMENT</th>
<th>ASSESSED VALUATION PER PUPIL</th>
<th>CERTIFIED STAFF MEMBERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1953-1954</td>
<td>$14,426,747</td>
<td>89</td>
<td>$162,098</td>
<td>5</td>
</tr>
<tr>
<td>1954-1955</td>
<td>16,943,827</td>
<td>143</td>
<td>118,486</td>
<td>6</td>
</tr>
<tr>
<td>1955-1956</td>
<td>30,248,256</td>
<td>164</td>
<td>184,441</td>
<td>7</td>
</tr>
<tr>
<td>1956-1957</td>
<td>36,375,813</td>
<td>200</td>
<td>181,879</td>
<td>9</td>
</tr>
<tr>
<td>1957-1958</td>
<td>52,817,880</td>
<td>202</td>
<td>261,475</td>
<td>11</td>
</tr>
<tr>
<td>1958-1959</td>
<td>55,703,725</td>
<td>219</td>
<td>254,359</td>
<td>14</td>
</tr>
<tr>
<td>1959-1960</td>
<td>59,218,245</td>
<td>542</td>
<td>109,259</td>
<td>22</td>
</tr>
<tr>
<td>1960-1961</td>
<td>63,974,810</td>
<td>900</td>
<td>71,083</td>
<td>33</td>
</tr>
<tr>
<td>1961-1962</td>
<td>65,619,359</td>
<td>1400</td>
<td>46,871</td>
<td>39</td>
</tr>
<tr>
<td>1962-1963</td>
<td>69,495,162</td>
<td>1875</td>
<td>37,064</td>
<td>62</td>
</tr>
<tr>
<td>1963-1964</td>
<td>87,315,323</td>
<td>2400</td>
<td>36,381</td>
<td>99</td>
</tr>
<tr>
<td>1964-1965</td>
<td>91,671,252</td>
<td>2913</td>
<td>31,470</td>
<td>135</td>
</tr>
<tr>
<td>1965-1966</td>
<td>95,064,591</td>
<td>3318</td>
<td>28,651</td>
<td>152</td>
</tr>
<tr>
<td>1966-1967</td>
<td>97,747,511</td>
<td>3768</td>
<td>25,941</td>
<td>188</td>
</tr>
<tr>
<td>1967-1968</td>
<td>112,647,949</td>
<td>4345</td>
<td>25,926</td>
<td>210</td>
</tr>
<tr>
<td>1968-1969</td>
<td>116,715,891</td>
<td>4942</td>
<td>23,617</td>
<td>208</td>
</tr>
<tr>
<td>1969-1970</td>
<td>117,341,413</td>
<td>5590</td>
<td>20,991</td>
<td>262</td>
</tr>
<tr>
<td>1970-1971</td>
<td>127,000,000*</td>
<td>7235*</td>
<td>17,553*</td>
<td>275*</td>
</tr>
<tr>
<td>1971-1972</td>
<td>140,000,000*</td>
<td>8140*</td>
<td>17,200*</td>
<td>290*</td>
</tr>
</tbody>
</table>

*Projected*
APPENDIX C

State of Illinois
Office of the Superintendent of Public Instruction
302 State Office Building
Springfield, Illinois 62706

October 7, 1969

Ray Page
Superintendent

Method of Distributing General State Aid to Districts on an Approved Twelve Month Calendar

House Bill 1525 was passed by the Seventy-Sixth General Assembly and was signed into law by the Governor on August 18, 1969. The law authorizes the Superintendent of Public Instruction to determine the General State Aid apportionment to districts that operate on an approved twelve month calendar in accordance with Section 18.8 of The School Code of Illinois as near as may be applicable. The following procedure will be followed in a school district which operates on an approved twelve month calendar during 1970-1971.

I. General State Aid payments in 1970-1971 will be computed on the following basis:

1. The best six months' average daily attendance for the 1969-1970 school year

2. The 1968 assessed valuation of the school district

II. For the 1970-1971 school year, attendance shall be maintained for each tract. In order to compute the average daily attendance for a month, the total days of attendance shall be divided by the number of days school was in session for that month. The average daily attendance for the best six months of the fiscal year will be the initial basis for the 1970-1971 State Aid computation. Inasmuch as approximately seventy-five percent of the pupils are enrolled at any time, the best six months' average daily attendance will be multiplied by four and divided by three to determine the district's weighted best six months of average daily attendance. The average daily
attendance for pupils in grades 9-12 will be multiplied by 1.25 in the State Aid calculation.

III. General State Aid will be distributed to approved school districts in the following manner:

1. The first General State Aid payment may be vouched to the State Auditor immediately following the final approval of the Common School Fund appropriation in an amount equal to approximately one-sixth of the district's General State Aid Claim entitlement for 1970-1971.

2. Beginning September 1970, payments will be made to approved districts in the same manner as General State Aid payments are made to all districts in the State of Illinois; these payments shall reflect any prior reimbursement.

A bill was introduced on April 22, 1970, into the Illinois State Senate by Senator Bilbert to amend Chapter 122, Paragraphs 10-19.1 and 10-20.12 of the school code to allow for a full school year for one or more schools in a district. It was signed into law by Governor Ogilvie on June 29, 1970, the day before the school began the 45-15 Plan. The legislation read:

Any school district may, by resolution of its board, operate one or more schools within the district on a full year school plan approved by the Superintendent of Public Instruction. Any board which operates under this Section shall devise a plan so that a student's required attendance in school shall be for a minimum term of 180 days of actual attendance, including not more than four institute days, during a twelve-month period, but shall not exceed 185 days. Under such plan, no teacher shall be required to teach more than 185 days. A calendar of 180 days may be established with the approval of the Superintendent of Public Instruction.
APPROVAL SHEET

The dissertation submitted by Allan W. Barnes has been read and approved by members of the Department of Educational Administration.

The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Education.

January 21, 1972

Date

Signature of Advisor