

AN ASSESSMENT OF TEACHERS' ATTITUDES TOWARD
THE 45-15 YEAR-ROUND SCHOOL CONCEPT

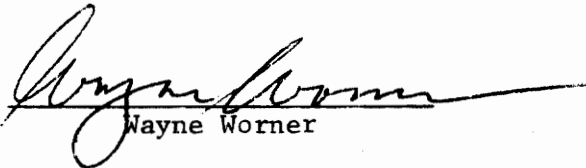
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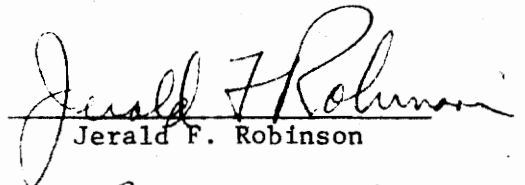
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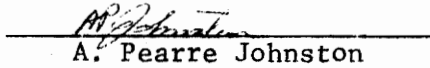
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DEDICATION

This study is dedicated to my wife, Helen, who provided the assistance and encouragement that made the last two years meaningful.

To Pumpkin and Too who spent many long evenings providing companionship and affection to this writer while he pursued his studies.

Finally, to this writer who was responsible for making it all happen.

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Chapter 1

THE PROBLEM

Background

During the last ten years school districts have been exploring various ways of providing quality educational programs and facilities which best serve the needs of students. In this exploration year-round operation of public schools has recently gained in popularity and a number of school districts throughout the United States implemented year-round educational programs. It would be incorrect to assume that year-round operation is the only route to solving educational problems and concerns relating to space, economics, and program or that it is a smooth route for every school in every community. A long and hard look must be taken at every aspect of the plan, warts and all, to see how it might work. This is exactly the charge to any school board, district, administration, or teacher organization in the nation considering a change of any magnitude in the operation of a school, and most will have examined several other options with the same care before concentrating on that solution which has the greatest potential for their students, their community, and their staff.

To assist others in their investigation of year-round operation of schools, this researcher believes that it is of primary importance to have available information which reflects what teachers who have worked in operational year-round programs have found to be the facts relating

to changes caused by year-round educational programs. The researcher also believes it is of prime importance to have available some means of evaluating the attitudes of teachers working in year-round schools. An evaluative instrument could provide local administrators and school boards information on what aspects of year-round programs are functioning best and what aspects of the programs need immediate attention in order that serious problems might be avoided or corrected.

A Brief History of The Year-Round School. The year-round school is not a new concept. Richmond, in a recent study¹, stated:

According to Willard S. Elsbree, the first known indication of the length of the school year was found in the Dorchester, Massachusetts, Town Records of 1645. The language of the document required the schoolmaster to begin teaching at seven o'clock in the morning and dismiss the students at five o'clock in the afternoon for the first seven months of school. During the last five months of the school year (from the eighth month to the end of the twelfth month), the schoolmaster was to begin teaching at eight o'clock in the morning and end at four o'clock in the afternoon.²

During the same period of time, school days in Georgia began at sunrise and ended at five o'clock in the afternoon and the successful schoolmaster taught the entire year.³ The range in the length of the school year across the country extended from two months to nearly the full calendar year.⁴

¹Mossie J. Richmond, Jr., "Current Applications, Implementations, Implications, and Effects of the Extended School Year Contract" (unpublished Doctor's dissertation, Ball State University, Muncie, Indiana, 1973), pp. 33-34.

²Willard S. Elsbree, The American Teacher (New York: American Book Company, 1939), p. 58.

³Haywood S. Bouden, Two Hundred Years of Education (Richmond, Virginia: Dietz Printing Company, 1932), p. 93.

⁴Elsbree, op. cit., p. 60.

During the 1840's cities such as Chicago, Boston, Cleveland, Buffalo, New York, Detroit, and Washington, D. C., held school in sessions from 48-52 weeks.¹ Cities began to shorten their school year about the same time rural districts began to lengthen theirs. The school year has since tended to stabilize at from 160 to 180 days.²

The peak for year-round education during the period from 1900-1950 was probably centered around 1925, when thirteen year-round programs were operational. The primary purpose of implementing year-round programs during this period was to solve pressing financial and space problems. The majority of these programs was discontinued during the Depression when financial resources were scarce and it was realized that the economic objectives were not being met. Other programs were discontinued when space was no longer a problem.³

From the mid 1930's until 1964, little was done with year-round education, other than several districts conducting feasibility studies but not implementing any programs. The year-round concept started its comeback in 1964 and has continued to attract more interest in succeeding years. According to Campbell the number of operational year-round

¹Richmond, op. cit., p. 38.

²George M. Jensen, "The Calendar--Underdeveloped Educational Resource," National School Calendar Study Committee, Horse Shoe, North Carolina, 1971, address at the Third Annual National Seminar on All-Year Education, revised statement, pp. 1-2.

³David J. Parks and Linda G. Leffel, "Needed Research in Year-Round Education" (Blacksburg, Virginia: Virginia Polytechnic Institute and State University, 1973), (Mimeographed), p. 4.

programs has increased from one in 1964 to 42 in April, 1973,¹ to 127 in April, 1974.^{2,3} Campbell has also indicated that at least 82 additional programs were in the pre-implementation stage as of April 1st, 1974.⁴

A report issued in October, 1974, by the California State Department of Education indicated that there were 38 districts involving 126 different schools operating year-round in that state. The report further indicated an additional 61 other districts were investigating year-round operation.⁵

Future Implications for Year-Round Education. At present year-round education advocates are experiencing the pain and pleasure most advocates of an educational program have when the life styles of the communities they serve are affected. Despite some problems, year-round education continues to be accepted by more and more communities. In a

¹Bruce Campbell, Year-Round Activities in the United States (Trenton, New Jersey: Department of Education, April, 1973), pp. 1-28.

²Bruce Campbell, Year-Round Activities in the United States (Trenton, New Jersey: Department of Education, April, 1974), p. 9.

³It is well to note that the term "program" is misleading in that it refers to and includes activities involving a single school building at one extreme and an entire state at the other.

⁴Bruce Campbell, op. cit., p. 9.

⁵Don Glines and Bob Ellers, "Year-Round Education Activities, October, 1974" (Sacramento, California: State Department of Education, October, 1974), p. 1.

case study of the Chula Vista (California) School District's year-round program, Servetter has stated that during the next five to ten year period, year-round schools would probably become the number one message the educational establishment could use to convince citizens that their support was warranted.¹ Servetter claimed further that utilization of facilities, a multitude of vacation options for students and families, and comments by many teachers and parents indicating they believed children were doing better academically were all reasons why the year-round program would continue to grow.²

Wayne White, former president of the National Council on Year-Round Education, has stated:

The stage is now set for mass adoption of year-round education. The period of experimentation and pilot programs is largely past. It is now apparent that year-round schools are feasible, practical and generally acceptable.³

After reviewing other literature Evinger concluded that the schools of the future will be open virtually all the time.⁴ Shane and Nelson have stated:

The organization of United States education and many of its long-familiar policies are due to change sharply

¹Leonard Servetter, Year-Round School Program: A Case Study (Chula Vista, California: People Education and Communication Enterprises, Inc., 1973), p. 147.

²Ibid., pp. 147-149.

³Wayne H. White, "Five Years of Year-Round Education" (Reston, Virginia: Virginia Polytechnic Institute and State University, 1974) (Mimeographed), pp. 3-4.

⁴Jane Evinger, "Education in Hawaii 2000," Futures Conditional, ed. Robert Theobald (New York: The Bobbs-Merrill Company, Inc., 1972), p. 205.

and rapidly if the views of professors, teachers, and administrators are accurate. No later than the mid-eighties, 84% believe our schools will be open for 12 months. . . ."1

Americans, according to Jarvis and Burnes, must realize that they no longer live in an agrarian society. There are no more western frontiers in the nation to conquer and, in concert with rapid technological developments, there is basically no present or future need for unskilled and undereducated people.² Furthermore:

. . . it is unreasonable to turn children out of school . . . in our urban centers where there are few, if any, meaningful pursuits for them to follow. . . . disadvantaged learners . . . cannot afford the attrition in learning that occurs when they go through a three-month vacation period. . . . this nation can ill afford the luxury of closing its schools . . . when new buildings need to be constructed . . . or when there are many unmet educational needs involving such areas as adult, career, and vocational education.

For these and other reasons, it seems evident that year-round schools are mandated.³

Knezevich believes that schools will operate on a 24-hour, 12-month basis to satisfy the different maturity demands of learners and that by 1985 the concept of year-round education will be realized.⁴

¹Harold G. Shane and Owen N. Nelson, "What Will the Schools Become?" Curriculum: Quest for Relevancy, ed. William Van Til (Boston: Houghton-Mifflin Company, 1974), p. 408.

²Oscar T. Jarvis and Richard W. Burns, "The Administrator and the Changing Curriculum," A Systems Approach to Educational Administration, eds. Robert C. Maxson and Walter E. Sistrunk (Dubuque, Iowa: William C. Brown Company Publishers, 1973), p. 135.

³Ibid., p. 135.

⁴Stephen J. Knezevich, "Perspectives on the Educational Program in 1985," Educational Futurism, ed. by The 1985 Committee of The National Conference of Professors of Educational Administration (Berkeley, California: McCutchan Publishing Corporation, 1971), p. 47.

The future of year-round education is yet to be determined, but as indicated earlier Campbell's survey provides evidence of considerable growth and acceptance of the operation of schools on a year-round basis. The researcher was unable to find evidence indicating that growth of year-round schools will not continue. Society is sufficiently diversified such that a considerable number of students, parents, and educators will likely want, if not demand, that school facilities operate on a year-round basis.

Statement of the Problem

The present status of how teachers' attitudes have been affected by changing the school calendar from a traditional nine-month term of operation to year-round operation has been widely debated. The questions continue to be asked, but the research and documentation has been slow to develop. Information on this topic is almost non-existent. The need for such information has been evident by the increasing number of teacher organizations, school boards, and school administrators seeking information from the National Council on Year-Round Education regarding year-round education as it relates to teachers' attitudes.

This study was formulated to provide evidence related to the problem of the study: How can variations in teachers' attitudes toward year-round education be measured and how do selected personal and situational variables relate to those attitudes. There were two major components of the study: first, it was necessary to determine a means of assessing teachers' attitudes toward year-round educational issues. The determining of the teachers' attitudes was accomplished by developing an assessment instrument (inventory) as a part of this study. The second

and primary purpose of this study was to determine which personal and situational variables were related to teachers' attitudes regarding year-round education. Specifically, how do each of the following variables relate to teachers' attitudes toward the 45-15 year-round calendar?

A. School characteristics.

1. Type of school calendar utilized prior to the year-round calendar.
2. Number of students enrolled.
3. Population density of the school-community setting.

B. Respondent characteristics.

1. Sex.
2. Age.
3. Marital Status.
4. Degree of fatigue perceived.
5. Morale perceived.
6. Total teaching experience.
7. Teaching experience in a year-round school.
8. Teaching level.
9. Calendar preference.
10. Student-teacher ratio.
11. Level of professional educational degree.
12. Degree of program development participation.
13. Perceived effect of year-round school on the quality of the educational program.
14. Professional association membership.

15. Options on contract length.
16. Work participation option.
17. Vacation option.
18. Salary adjustment.
19. Amount of available support staff.
20. Benefits.
21. Favorability toward year-round education.

Definitions

For the purpose of this study the following definitions were formulated:

Attitude. An attitude is a personal disposition common to individuals, but possessed to different degrees, which impels them to react to objects, situations, or propositions in ways that can be called favorable or unfavorable.¹ In this study, teachers' attitudes were measured using the "Teacher Attitude Inventory on Year-Round Education" (See Appendix H).

Year-round school. A year-round school was any school which provided a year-round education program utilizing the 45-15 calendar plan as indicated in the 1974 survey of year-round activities in the United States by Bruce Campbell;² a California State Department of Education information bulletin, "Year-Round Education Activities, October, 1974," identifying all operational year-round schools in that

¹J. P. Guilford, Psychometric Methods (New York: McGraw-Hill Book Company, 1954), pp. 456-457.

²Bruce Campbell, op. cit., pp. 10-44.

state as of November 1, 1974;¹ and a dissertation by John Johnston completed in May, 1974, which contained a list of 45-15 year-round schools in the United States.²

Type of school calendar utilized prior to the year-round calendar. Type of calendar prior to year-round calendar was defined as the type of calendar that schools had operated the year prior to implementation of year-round schools. The categories were defined as follows:

- (1) Normal, traditional school year referred to an attendance pattern in which all students attended school on a regular daily schedule, usually consisting of six and one-half hours in length, between September and June.
- (2) Double session, traditional school year referred to an attendance pattern in which the student body was divided into two groups with each group attending a daily session usually consisting of a minimum of four and one-half hours in length, between September and June.
- (3) Other referred to any traditional school year not defined above.

Student enrollment. Student enrollment referred to the number

¹Glines and Ellers, op. cit., pp. 1-14.

²John Johnston, "A Study of Time Spent on Administrative Tasks in Year-Round Schools by Elementary Principals" (unpublished Doctor's dissertation, Virginia Polytechnic Institute and State University, Blacksburg, Virginia, 1974), pp. 112-117.

of students enrolled in a school and was categorized as follows:

- (1) Under 501
- (2) 501 - 1000
- (3) 1001 - 1500
- (4) 1501 - 2000
- (5) Over 2000

Population density of the school-community setting. The population density of the school-community setting was determined by the respondents, as perceived by them, and was categorized as follows:

- (1) urban
- (2) rural or small town
- (3) suburban

Sex. The sex of the respondent was defined as

- (1) female
- (2) male

Age. The current age of the respondent was defined in years according to the following categories:

- (1) Under 26
- (2) 26 - 35
- (3) 36 - 45
- (4) 46 - 55
- (5) Over 55

Marital status. Marital status was defined as:

- (1) single
- (2) married

Degree of fatigue. Degree of fatigue was defined as how tired a teacher feels at the end of a school day in a year-round school as compared to the same factor at the end of a school day in a traditional school before converting to year-round operation. The respondents indicated what they perceived the degree of fatigue to be and expressed their response according to the following categories:

- (1) more
- (2) the same
- (3) less
- (4) I can not compare, I never taught in a traditional program.

Morale perceived. Morale perceived referred to the degree of enthusiasm expressed toward daily work in a year-round school as compared to the same factor in a traditional school before converting to year-round operation as perceived by the respondents. The following categories were used to express morale:

- (1) decreased
- (2) remained the same
- (3) increased

Total teaching experience. Total teaching experience referred to the total number of years a person has worked as a teacher in the profession, including 1974-75, and was categorized as follows:

- (1) 1 year
- (2) 2 - 5

- (3) 6 - 9
- (4) 10 - 13
- (5) Over 13

Teaching experience in year-round schools. Teaching experience in a year-round school referred to the number of years a person has taught in a year-round school, including 1974-75, and was categorized as follows:

- (1) 1
- (2) 2
- (3) 3
- (4) 4
- (5) 5 or more

Teaching level. Teaching level referred to the grade level a person teaches and was categorized as follows:

- (1) Elementary
- (2) Middle or junior high school
- (3) Senior high school

Calendar preference. Calendar preference in this study was defined as that type of calendar a teacher would prefer to work on if the option were available. The options were categorized as follows:

- (1) 45-15 referred to an attendance pattern in which students attended school for 45 days and then had 15 days off and then repeated the cycle.
- (2) Four-quarter plan referred to an attendance pattern in which students attend three of four quarters, each quarter

60 days in length.

- (3) Quinmester plan referred to an attendance pattern in which students attend four of the five time blocks, each time block being 45 days in length.
- (4) Concept 6 referred to an attendance pattern in which students attend school for 86 days and then have 43 days off and then repeat the pattern.
- (5) Other referred to any attendance pattern not defined above.

Student-teacher ratio. In this study, student-teacher ratio was defined as the ratio of teachers to students in the year-round school as compared to the same factor in the traditional school year before converting to year-round operation. The respondents indicated the ratio as they perceived it and their responses were classified into the following categories:

- (1) increased since the implementation of the year-round school program
- (2) remained the same since the implementation of the year-round school program
- (3) decreased since the implementation of the year-round school program

Level of professional educational attainment. The educational attainment in this study was defined as the level of college degree a person has obtained and was identified by the following categories:

- (1) Less than Bachelor's degree referred to a person not holding a Bachelor's degree.

- (2) Bachelor's degree referred to a person who holds a Bachelor's degree.
- (3) Master's degree referred to a person who holds a Master's degree.
- (4) Doctor's degree referred to a person who has obtained a Doctor's degree.

Extent of program development participation. The extent of program development participation referred to the extent teachers believed they were involved in designing and developing the year-round program. The extent of involvement was classified by the following categories:

- (1) none
- (2) very little
- (3) some
- (4) considerable

Perceived effect of year-round school on the quality of the educational program. The perceived effect of year-round school on the quality of the educational program referred to the degree that teachers believed that the educational program had become better for students since moving from a traditional to a year-round educational program. The degree of quality was classified by the following categories:

- (1) regressed
- (2) remained the same
- (3) enhanced

Professional association membership. Professional association membership referred to the national professional associations the respondent was associated with and were classified according to the following categories:

- (1) American Federation of Teachers
- (2) National Education Association
- (3) neither of the above
- (4) both of the above
- (5) other professional teacher organization

Options on contract length. Options on contract length referred to whether teachers had options available on the number of working days in their contract and was classified by the following categories:

- (1) no options exist
- (2) options exist

Work participation option. The work participation option referred to whether teachers had an option to transfer to a traditional school in the event they desired not to teach in a year-round program. The work participation option was classified by the following categories:

- (1) no options exist
- (2) options exist

Vacation option. The vacation option referred to whether teachers had an option as to when they may select their vacation

during the calendar year. The vacation option was classified by the following categories:

- (1) no options exist
- (2) options exist

Salary adjustment. Salary adjustment referred to whether teachers working a shorter or longer contract had their salary adjusted on the basis of per diem. The salary adjustment responses were classified by the following categories:

- (1) salary adjustments were not made on a per diem basis
- (2) salary adjustments were made on a per diem basis

Amount of available support staff. The amount of available support staff referred to whether adequate support staff--clerks, typists, paraprofessionals and the like--were available so teachers could adequately perform their teaching duties. Respondents indicated their perceptions on whether adequate support staff was provided by using the following classification of categories:

- (1) inadequate support staff was available
- (2) adequate support staff was available

Benefits. Benefits referred to whether those items usually indicated as sick leave, professional leave, sabbatical, and the like, were adequately adjusted to reflect the decreasing or increasing length of the contract days teachers might select to work. Respondents indicated what they perceived on the adequacy of benefits provided by using the following classification of categories:

- (1) benefits were not adequately adjusted

- (2) benefits were adequately adjusted

Favorability toward year-round education. Favorability toward year-round education referred to whether teachers considered themselves as being in favor of year-round education. Favorability was classified by the following categories:

- (1) I do not favor year-round education
- (2) I favor year-round education

Need for this Study

During the last ten years, there has been a marked increase in interest in the concept of year-round education. In those school districts where the idea of year-round education has been actively pursued, considerable time, energy, and money has been allocated for investigation and carrying out of feasibility studies. In most of the feasibility studies, attitudes of students, parents, and teachers have been given considerable attention. As is the case with many innovative programs, the post-implementation evaluations have been extremely limited and in many operational programs no evaluations have been carried out.

As stated by Melvin Heller in a speech at the Sixth National Seminar on Year-Round Education:

At this time, conclusive evidence concerning the validity of the Extended School Year concept does not exist. For the present, advocates as well as critics of the concept will have to rely upon professional judgement and emotional biases to promote their cause. Assuming that there is no problem of incompetence on

the leadership level, the key concern is attitude.¹

With Heller's comments in mind, this study was conducted to provide school board members, school administrators, lay people, students, and teachers, with insight into the factors contributing to attitudes on the part of teachers toward year-round schools. It was believed that such information would be of considerable value to the various groups in their assessment of year-round programs either as a predictor or by providing post hoc assistance in the investigation, designing, implementation of their year-round program. The researcher believed strongly that if the factors causing attitudes expressed by teachers presently involved in operational year-round schools were known, others can use such information to strengthen support for programs or prevent the introduction of factors into programs which might be detrimental to their survival.

Delimitations

This study was limited to:

1. School districts operating year-round programs implemented prior to August 1, 1974.
2. Public school districts within the United States.
3. School districts operating under the year-round plan known

¹Melvin P. Heller, "Extended School Year - Evaluation and Pitfalls," Proceedings of the Sixth National Seminar on Year-Round Education Convention, Chicago, Illinois, April 30 - May 3, 1974 (Springfield, Illinois: State Department of Education), p. 20.

as the 45-15 plan.

4. Teachers working in operational 45-15 year-round education programs.

5. No attempt was made to evaluate the concept of year-round education. The study dealt only with those factors present in a year-round program which might affect the attitudes of teachers toward year-round schools.

Overview of the Dissertation

Chapter 1 included the background of the study, the problem, the research questions of the study, definition of terms, the need for the study, and the delimitations of the study.

Chapter 2 includes a review of the related literature.

Chapter 3 includes the population and sample, the procedure and design used in the development of the research instrument, the procedure used for collecting data, and the procedure for analysis of the data.

Chapter 4 includes the analysis of the data.

Chapter 5 includes the summary, conclusions, discussion, and implications for educational practice and research.

Chapter 2

REVIEW OF THE LITERATURE

The review of the evidence related to the present status of teachers' attitudes toward year-round education focused on two aspects. First, why should teacher attitudes be measured? Secondly, what does the current literature indicate as the personal and situational variables affecting teacher attitudes toward year-round education?

Why Attitudes

In reviewing the literature, it was evident that the welfare and attitudes of teachers concerning year-round education were not the primary concerns of administrators prior to 1964. As indicated in the section entitled "history of year-round education," the primary concerns were probably related to solving pressing financial and space problems. Although the literature generally has indicated that year-round programs were abandoned because of discontent by community members and/or the inability of programs to produce hoped for financial savings, the lack of sensitivity toward attitudes of the teachers who worked in year-round programs may have also been a contributing factor to their discontinuance. One of the often overlooked areas affected by educational change is the functioning of the organization itself. This neglected area is one of the first to feel the

impact of change but one of the last to be evaluated.¹

In a study by Manske the factors of prestige and group opinion were judged to be influential in the formulation and changing of attitudes.² It goes without saying that teachers do possess prestige, if for no other reason than the emphasis and value placed on the importance of education in our society. The strength of opinion by teachers is reflected in the increasing importance given to organizations such as the National Education Association (NEA) and the American Federation of Teachers (AFT). It has become more popular for teachers to express a group opinion through one of the preceding organizations than to have individuals express opinions singularly. In turn, students and community groups are apt to give more credence to attitudes expressed by unified groups than by individuals.

Since 1964 those school districts which have investigated and/or implemented year-round schools have given considerable thought and credence to the attitudes expressed by teachers, as well as parents, students, and school administrators. In a study by Hunt, he concluded:

That attitudes of people rather than any concrete

¹David J. Parks, "The Evaluation of the Impact of YRE on School Organization" (Blacksburg, Virginia: Virginia Polytechnic Institute and State University, 1974) (Mimeographed), p. 1.

²Arthur J. Manske, The Reflection of Teachers' Attitudes In The Attitudes of Their Pupils (New York: Teachers College, Columbia University, 1936), p. 8.

evidence of effects upon the education of students (which is contradictory and not conclusive for year-round schools at this time) will determine the direction a school district will take concerning year-round programs.¹

This remark typifies the beliefs held by various writers on the topic of attitudes. In research conducted by Dawes, it is stated that "This book grew out of three beliefs: (1) that attitudes are important--especially in a technologically advanced society in which the attitudes of particular people or groups can have profound (sometimes devastating) effects;" ²

In another instance, Halloran pointed out, ". . . it is clear from work already carried out that overt action toward an object or person reflects not only the attitudes elicited by that object but also the influence of other social variables."³ Halloran goes on to say, "A survey of the work in this field would appear to reveal three main sources of attitudes and these are: direct experience with the objects and situations, explicit and implicit learning from others

¹Walter J. Hunt, "Characteristics of School Districts Related To Implementation of Year-Round Schools" (unpublished Doctor's dissertation, Virginia Polytechnic Institute and State University, 1973), p. 73.

²Robyn M. Dawes, Fundamentals of Attitude Measurement (New York: John Wiley and Sons, Inc., 1972), p. vii.

³J. D. Halloran, Attitude Formation and Change (Liecester, Great Britain: Blackfriars Press, 1967), p. 24.

and personality development."¹ Remmers expanded on this premise when he stated:

The realization is rapidly growing that attitudes, the way individuals and groups feel about the various aspects of their world, are probably more determinative of behavior than mere cognitive understanding of this world. When this is granted, the importance and value of attitude measurement becomes at once obvious.²

It must be noted that other authors have expressed attitudes which differ from the points of view recorded. Greenwold has expressed the opinion that the identification of attitudes does not always allow one to determine exactly what the behavioral manifestations will be by suggesting that many times evidence indicates that behavior influences attitude rather than the reverse.³ In a work by Fishbein it is pointed out that attitudes and behavior are not necessarily positively correlated in that, ". . . attitude is a hypothetical variable abstracted from the totality of an individual's beliefs, behavioral intentions, and actions toward a given object."

The research is thus inconclusive on whether attitudes beget behavior or vice-versa. There are, however, a number of instances in

¹Ibid., p. 29

²H. H. Remmers, Introduction to Opinion and Attitude Measurement (New York: Harper and Brothers, Publishers, 1954), p. 15.

³A. G. Greenwold, T. C. Brock and T. M. Ostrom (eds.), Psychological Foundations of Attitudes (New York: Academic Press, 1968), p. 207, cited by Alvin M. Pettus, "Measuring Teachers' Attitudes Concerning Certain Environmental Issues, With Implications for Environmental Educators," (unpublished Doctor's dissertation, Virginia Polytechnic Institute and State University, 1974), p. 8.

the development of year-round programs that point to an apparently close correlation or expected correlation between attitudes and the outcome of the program. The following selected examples attempt to illustrate this point.

In July, 1972, the Washoe County School District, Nevada, initiated its first year-round school program in an elementary school. Before the Board of Trustees decided to implement the year-round program, the parents of the school chosen to pilot the program were balloted to obtain their attitudes toward allowing the program to be implemented. Teachers were polled to see who wanted to work in the year-round program and those teachers who expressed negative attitudes toward such a program were allowed to transfer to a traditional calendar school within the district. Teachers with favorable attitudes toward the year-round program were brought in from other schools to replace those that were transferred.²

In May, 1973, approximately one year after the program was initiated, the parents, students, teachers and other staff members were again surveyed to assess their satisfaction of the program and the educational implications. The assessment of teacher attitudes showed that 70% of the teachers believed the year-round program was

¹M. Fishbein (ed.), Readings in Attitude Theory and Measurement (New York: John Wiley and Sons, Inc., 1967), cited by Alvin M. Pettus, op. cit., p. 8.

²"An Analysis of the Year-Round School Program," (A report by the Research and Development Department, Washoe County School District, Reno, Nevada, June, 1973), p. 1.

positive for the students, had positive effects on teacher morale and their vacations, had positive effects on instructional planning, and that student learning retention had improved. The assessment also showed that 30% of the teachers expressed no negative thoughts and of those negative points stated, none received more than 30% consensus by the teachers.¹ As a point in evidence of the effects of teachers' attitudes on success, the program continued and thought has been given to expanding the program to other schools within the district.

In Monroe Township Public Schools, Williamstown, New Jersey, a feasibility study was conducted on the question of whether the district should implement a year-round program. During the investigation, surveys were taken to obtain the attitudes of community, teachers, and students. The results of the surveys clearly indicated overwhelming objection to the proposed program by the community, teachers, and students. The committee investigating the concept recommended that the district seek alternatives other than the year-round school concept. The recommendation was accepted.²

In Pasco County School District, New Port Richey, Florida, the following news item was printed:

Pasco County School Superintendent Raymond B. Steward has released the results of a teacher survey, which he said shows that 88% of the responding teachers expressed 'significant dissatisfaction' with the 45-15 extended school year plan.

¹Washoe County School District, op. cit., pp. 4-10.

²Joy Tregellas, "Extended School Year Feasibility Study Program" (Williamstown, New Jersey: Monroe Township Public Schools, May, 1973), pp. 67, 68, and 81.

The survey suggests that 'major revisions' be made in the controversial program or that it be 'totally abandoned.'

'If Pasco teachers are any judge of the quality of education going on in their classrooms, there are very serious problems with the 45-15 extended school year,' Stewart said.¹

The preceding assumes greater significance when the following news item is considered:

. . . meanwhile Pasco School Superintendent Raymond B. Stewart is running on a re-election platform that opposes 45-15 and proposes a return to the traditional school year.²

Finally, in Milpitas, California, a K-12 year-round program was implemented in July, 1973, over the objection of the majority of teachers in that district. One year later the year-round program was abandoned and the district returned to a traditional school year. At the time the program was abandoned, negative teacher attitude toward the year-round program had grown to 87%.³

The essence of the preceding reports typifies the various actions taken by various communities when considering or being actually involved in a year-round program. Evidence indicates that when attitudes are positive, the program continues and if attitudes are

¹St. Petersburg (Florida) Times, October 13, 1974, p. 3, cols. 1-8.

²St. Petersburg (Florida) Times, October 9, 1974, p. 4, cols. 1-2.

³Based on personal correspondence between J. Pat Page, Region III Administrative Coordinator of the National Council on Year-Round Education; George Jensen, Past President of the National Council on Year-Round Education, and the writer, July 19, 1974.

negative, the program is either not implemented and/or abandoned as the negative attitudes increase.

Thus, attitudes apparently contribute significantly to the decision-making process when one considers a change involving year-round schools. It would appear reasonable, then, that research should be conducted to determine what factors contribute to the attitudes of teachers toward year-round schools. The research might allow others to profit from the findings that indicated the degree certain factors contribute to teachers' attitudes toward the year-round program.

Personal and Situational Variables Relating to Teachers' Attitudes
Toward Year-Round Schools

The interest in year-round education has grown considerably since 1964, but the associated research and evaluation has not kept pace. Only within the last several years has serious consideration been given to the evaluation of operational year-round schools. In a report from the University of California, Boyce states that most operational programs have conducted some type of attitudinal survey of teachers, but for the most part the studies reported have been limited in scope and do not lend themselves to in-depth analysis or offer valid bases for formulating possible implications for other districts.¹ Similarly, a report from the United States Department

¹Elaine M. Boyce, "Report to the Western Association of Year-Round Schools" (Berkeley, California: Field Service Center, Department of Education, University of California, November, 1974) (Mimeographed), pp. 68-69.

of Health, Education, and Welfare on year-round schools suggests that it is very difficult to draw many firm generalizations from year-round materials produced prior to 1969 which might provide worthwhile guidelines for use in school districts today.¹

The evaluation of year-round programs has, then, only recently begun and many areas have received virtually no serious study. One such area which has had limited attention relates to personal and situational variables and their potential and/or real effect on attitudes teachers have toward year-round schools.

The literature on personal and situational variables as they relate to teachers' attitudes toward year-round schools is incomplete and has not been systematically collected.² The evaluations reviewed appeared to be deficient with regard to instrumentation, particularly in terms of their reliability and validity.

With the preceding limitations in mind, information from the literature is noted in the following pages related to personal and situational variables which may affect teachers' attitudes toward year-round schools.

Type of school calendar utilized prior to the year-round calendar. Most schools operated on a traditional September to June, six and

¹United States, Superintendent of Documents (comp.), "Year-Round Schools, The 45-15 Plan" (Washington: Government Printing Office, 1972) p. 7.

²David J. Parks, "Research on Year-Round Education" (paper read at the American Educational Research Association Convention, April, 1974, Chicago, Illinois), pp. 12-13.

one-half hour day, type calendar. Typical of the problems facing most schools considering year-round programs were the options available to Gresham Grade School District, Oregon; namely, either to increase class size to 50 or 60 students or hold double sessions.¹ In the Valley View School District #96, Illinois, rapid growth had caused adoption of a double session day,² a course which many other school districts had also taken. In California, a number of schools were condemned because they did not meet state established standards for earthquake safety and had to be abandoned; such was the case in San Diego City.³ No indication was available or reported that directly related the preceding to teachers' attitudes on year-round education.

Number of students enrolled. The evaluations presently available do not typically indicate specific numbers of students enrolled in a school or school district that changed from a traditional to a year-round program. Most studies simply indicated overcrowding and a rapid student population growth and made no mention of how such growth related to teachers' attitudes.

Population density of the school-community setting. Valley

¹"Gresham Grade Schools, An Introduction" (Gresham, Oregon: Public Information Office, August, 1972), p. 4.

²Valley View School District #96, Lockport, Illinois, "Final Report on Evaluation of the 45-15 Plan, A Year-Round School Operation," July, 1972, p. 1.

³Myra G. Campbell, "Year-Round School: Perceptions of Parents Students, and Staff from Six San Diego Pilot Project Elementary Schools," (San Diego, California: San Diego City Schools, February, 1973), p. 1.

View, Illinois;¹ LaMesa-Spring Valley, California;² Francis Howell, Missouri;³ and Gresham, Oregon,⁴ all indicated they were suburban-type communities experiencing growth as the population shifted from the urban areas they surrounded to the suburban areas they occupied. The San Diego City School indicated it was an urban school district.⁵ None of the preceding established or reported any relationship between teachers' attitudes and school-community setting.

Sex. Male teachers tended to work a greater number of days than did female teachers in the Chula Vista, California, Schools. Of 27 male teachers, 63% chose to work more than 210 days, whereas, of 103 female teachers only 34% chose to work more than 210 days. Fifty-three percent of the female teachers chose to work the regular 184 to 189 days while only 30% of the male teachers selected the regular contract.⁶

In Prince William County, Virginia, 84% of the males preferred the year-round program though 73% of the females also preferred the

¹Valley View School District #96, op. cit., p. 1.

²Paul Radenheimer, "The Second Annual Year-Round School Attitudinal Survey" (LaMesa, California: LaMesa-Spring Valley School District, November, 1973), p. iii.

³Alan O'Dell, "A General Report on the Year-Round School Plan" (St. Charles, Missouri: Francis Howell School District, May, 1972), p. 7.

⁴Gresham Grade School District, op. cit., p. 2.

⁵Myra G. Campbell, op. cit., p. 3.

⁶Henriette M. Lahaderne, "Year-Round Schools: An Assessment of the Program's Initial Year in Four Chula Vista Elementary Schools" (Chula Vista, California: Chula Vista School District, November, 1972), p. 110.

year-round program.¹ Richmond found in his study of year-round education that, "Male teachers and heads of households preferred employment in year-round school programs"² No other information reported any relationship between teachers' attitudes toward year-round education and sex.

Age. In Chula Vista half of the extended contracts written were signed by teachers over 50 years of age, indicating a moderate relationship between age and length of contract.³ It was also found in Chula Vista that teachers forty or older tended to have more positive attitudes than did the under forty.⁴

Marital status. No information available or reported.

Degree of fatigue perceived. In a study of 68 operational year-round schools conducted by Rice on the topic of teacher welfare in year-round schools, 54% of the respondents felt that teachers experienced the same degree or less fatigue than in a traditional school. However, no further evidence of a direct relationship was found between the degree of fatigue and teachers' attitudes toward the year-round program.⁵

¹Ned S. Hubbell and Associates, "Attitudes Toward Year-Round School In Prince William County, Virginia" (Port Huron, Michigan: Ned S. Hubbell and Associates, Inc., September, 1972), p. 55.

²Richmond, Jr., op. cit., p. 492.

³Lahaderne, op. cit., p. 48.

⁴Ibid., p. 91.

⁵Paul D. Rice, "Teachers' Welfare as it Relates to Year-Round Education" (Blacksburg, Virginia: Virginia Polytechnic Institute and State University, 1974), p. 34.

Morale perceived. According to a survey by Rice, 79% of the respondents felt that teachers' morale had increased since the implementation of year-round schools.¹ In Chula Vista there was no difference in teacher morale between the traditional and year-round schools. Apparently, the reported extra demand which the calendar imposed on year-round school teachers did not adversely affect morale.²

In Escondido, California, when teachers were asked the question, "Did teacher morale improve in the year-round program?" 15.2% strongly agreed, 37.9% tended to agree, 19.7% tended to disagree, 12.1% strongly disagreed, and 15.1% had no opinion or did not respond.³ The Pajaro Valley Unified School District, California, evaluation showed that pre-implementation attitudes in favor of the year-round school higher than those expressed at the end of the first year (68% to 58%).⁴ The LaMesa-Spring Valley survey of teachers, students, principals, and classified personnel showed 82% of them agreeing that teacher morale had improved over the 1972 rating of 73% on the same question.⁵

Of the six year-round schools in San Diego, teacher morale was greatly improved in two schools and moderately improved in two others.

¹Ibid., p. 32.

²Lahaderne, op. cit., pp. 89-91.

³Wilhelmine Nielsen, "First Report -- Year-Round School" (Escondido, California: Escondido Union School District, 1973), p. 2.

⁴Pajaro Valley Unified School District, "Year-Round School Evaluation, First Year Report" (Watsonville, California: Pajaro Valley Unified School District, January, 1974), p. 15.

⁵Radenheimer, op. cit., p. 58.

In two other schools there was no change reported in teacher morale.¹

Total teaching experience. No information available or reported.

Teaching experience in year-round school. No information available or reported.

Teaching level. No information available or reported.

Calendar preference. In Pasco County, Florida, a survey of the county's teachers showed 88% of the respondents dissatisfied with the 45-15 extended school year plan. Of those dissatisfied, 20% expressed a desire to return to a traditional program; 30% wanted the program to continue but with major revisions; and 38% wanted to consider some other alternative year-round program.²

In Rice's study, 68% of the respondents indicated that an option had been made available to them as to whether they wished to teach in a traditional or year-round school. However, the choice was not related to teachers' attitudes toward the year-round program.³

In Escondido, 90.9% of the teachers expressed a desire to continue teaching in the 45-15 program and 63.7% wanted to see the program expanded district-wide.⁴ Similarly, 98% of the teachers in

¹Myra G. Campbell, op. cit., p. 49.

²St. Petersburg (Florida) Times, October 13, 1974, p. 3, cols. 1-8.

³Rice, op. cit., p. 18.

⁴Nielson, op. cit., p. 3.

LaMesa-Spring Valley wanted to continue in the program and 77% wanted the program expanded district-wide.¹ Likewise, in Northville, Michigan, all teachers chose to stay in the 45-15 program.² In Prince William County, 75% of the teachers expressed pleasure with the 45-15 calendar while 21% would like it with some changes made.³

Student-teacher ratio. According to a conclusion drawn by Rice, the ratio of teachers to students has generally not increased in year-round programs and has decreased in a significant number of programs. Again, no relationship was established on how the preceding related to teachers' attitudes toward year-round education programs.⁴

Level of professional educational degree attained. The only information relating the level of educational attainment of teachers to attitudes was reported in Chula Vista, where teachers without a master's degree tended to have more positive attitudes toward year-round schools than teachers with a master's degree.⁵

Degree of program development participation. In Rice's study of teachers' welfare, it was found that 92% of the respondents felt that teachers generally played an important role in the development and

¹Radenheimer, op. cit., pp. 67-69

²Northville Public Schools, "Extended School Year - 45-15 Plan" (Northville, Michigan: Northville Public Schools, 1973), p. 6.

³Hubbell, op. cit., p. 1.

⁴Rice, op. cit., p. 46.

⁵Lahaderne, op. cit., p. 91.

implementation of the year-round program, but nothing was indicated as to how that role may have related to the attitudes they had regarding the program.¹

Perceived effect of year-round school on the quality of the educational program. Northville teachers were asked if the year-round program provided a sounder method of educating children and 100% of the respondents indicated that they felt that it did.² In Chula Vista, one of the most recurrent themes was that year-round schools were "good for children." There were a few exceptions, but on the whole primary, intermediate, and special (art, music, speech) teachers agreed. It was also noted that a few teachers said learning increased considerably. Other teachers stated there was no apparent improvement of learning in the year-round school, but the year-round school eventually may yield better results.³

A LaMesa-Spring Valley study indicated that 78% of surveyed teachers, students, parents, and principals agreed that the 45-15 program in that district provided a better quality program and as a result predicted students would learn more.⁴

Teachers in the Becky-David Primary and Intermediate Schools indicated the following when asked, "How do you believe the year-round plan has affected learning?" (a) Hindered - 10.6%; (b) Helped - 44.7%;

¹Rice, op. cit., p. 18.

²Northville Public Schools, op. cit., p. 11.

³Lahaderne, op. cit., pp. 72-73.

⁴Radenheimer, op. cit., p. 2.

(c) No Change - 26.5%; (d) No Answer - 17.1%.¹

The Pajaro Valley Unified School District concluded at the end of its first year that the year-round program was an improved instructional program and students in year-round schools achieved as well as did their counterparts in a traditional instructional program.² Similarly, Escondido found that their data indicated that students in the year-round schools had, in fact, done as well as expected when compared to grade level norms.³

In the six San Diego year-round schools, attitudes of teachers toward educational quality were mixed. In two schools, 50% of the teachers thought the year-round program had decreased quality, one school had 50% of the teachers indicating an increase in quality, and in three schools the largest percentage of teachers was undecided.⁴ Rice concluded in his study that teachers working in a year-round program generally felt that the educational program had been enhanced by the change to year-round education.⁵

Prince William County classroom teachers gave the 45-15 plan a strong endorsement, as it pertains to learning opportunities for students, when a survey of their attitudes toward learning effectiveness

¹O'Dell, op. cit., p. 17.

²Pajaro Valley Unified School District, op. cit., p. 2.

³Nielsen, op. cit., p. 2.

⁴Myra G. Campbell, op. cit., p. 16.

⁵Rice, op. cit., p. 46.

showed that 84% felt that 45-15 makes it possible for students to learn more effectively, 16% felt it made little difference in learning effectiveness, and none felt that it interfered with learning effectiveness.¹

According to Richmond, comparative data has indicated that year-round schools had a positive effect on the health, achievement, and retention of cognitive materials of students.² In Richmond's study, no direct relationship was established between the quality of the educational program and the attitudes teachers had toward the program. Most studies indicated how teachers' felt year-round education related to students, but not to themselves.

Professional association membership. The only information relating professional association membership with teachers in year-round schools was provided in Rice's study. The information indicated a greater membership in the National Education Association than the American Federation of Teachers, but no relationship was established between membership and teachers' attitudes toward year-round education.³

Options on contract length. The length of a teacher's contract can vary considerably with each local school district. In many instances the contract was similar to that in traditional schools, but

¹Prince William County, op. cit., p. 56.

²Richmond, Jr., op. cit., p. 492.

³Rice, op. cit., p. 16.

year-round contracts may allow for teachers to work fewer than the traditional 180-185 days or considerably more, up to 245 days. Rice's study indicated 72% of the respondents did have an option on the number of days they could teach.¹ None of the studies reported any information that directly related contract length to attitudes of teachers.

Work participation option. Chula Vista had ten teachers request transfer from the year-round school to traditional schools and of the ten only six were transferred. The other four later withdrew their request.² In Rice's survey on teachers' welfare, it was indicated by 64% of the respondents that teachers were allowed to request transfers prior to or during the operation of the year-round school. The only stipulation in most school districts was that a job elsewhere in the district be open for which the teacher was qualified.³ Again, the relationship between that option and the attitudes that teachers had toward the year-round program were not reported.

Vacation option. Rice found in his study that most school districts tried to provide teachers with the option of allowing them to select the working calendar which best suited their vacation desires. Since a teacher's first option could not always be honored, arrangements were usually worked out on an individual basis.⁴ No relationship was

¹Rice, op. cit., p. 16.

²Lahaderne, op. cit., pp. 82-83.

³Rice, op. cit., p. 18.

⁴Ibid., p. 25.

reported that linked vacation option to the attitudes teachers had toward year-round education.

Salary adjustment. According to Rice, salary adjustments in most year-round schools were accomplished by paying teachers on a per diem basis.¹ At Valley View, contract flexibility was enhanced when the pay schedule was reduced to a per diem basis, thereby, allowing anyone to calculate their potential salary by the number of days they desired to work.² The literature review did not report any information that related the method of salary adjustment to how teachers felt toward year-round schools.

Amount of available support staff. The evaluation reports revealed that Becky-David was the only school to add secretarial positions to handle the additional administrative tasks.³ The only other report providing information on support staff was found in Rice's study when he asked, "Has the teachers' supportive staff (such as paraprofessionals, clerk-typists, etc.) shown any change since going to the year-round program?" Of those responding to the question, 48% indicated an increase, 3% indicated a decrease, and 45% indicated no change.⁴ The information on support staff was not related to how teachers' felt toward the year-round program.

¹Rice, op. cit., p. 27.

²Valley View School District #96, op. cit., p. 12.

³Parks, op. cit., p. 6.

⁴Rice, op. cit., p. 31.

Benefits. None of the available evaluations concerned themselves with contract benefits and how they related to teachers' attitudes. In Rice's study, he found that benefits such as sabbatical leave, co-curricular assignments, health insurance, medical insurance, life insurance, personal leave, emergency leave, retirement contribution, leave of absence without pay, released time, teacher workload, and tenure requirements either did not have to be adjusted because they were already being given on a yearly basis or no adjustments were negotiated at the time of switching from the traditional to the year-round program. The number of sickdays and inservice days was increased in most districts on a pro-rated basis determined by the number of additional days an individual teacher worked.¹ The attitudes of teachers were not reported as they related to the benefits they received.

Favorability toward year-round education. The evaluation studies generally indicated that the acceptance of year-round schools by teachers increased the longer the year-round programs had been operational.

Summary

The review of the literature showed that some schools operating a year-round program had undertaken some type of evaluative study (usually in the form of a questionnaire) to determine teachers' attitudes toward year-round education. The studies reviewed

¹Rice, op. cit., p. 31.

showed that the personal and situational variables identified in this study had little direct relationship to the attitudes teachers expressed toward year-round programs. In most studies reviewed, the information was simply reported with no conclusions being drawn on specific relationships that might exist. The lack of information on such relationships definitely indicated a need for further research.

Chapter 3

METHODOLOGY

The purpose of this chapter is to present a research design for the study. The chapter includes a description of the population and procedures for selecting a sample, development of the survey instrument, data collection procedure and analysis.

Population and Sample Description

The population of this study included public school teachers of all grade levels (K - 12) working in operational 45-15 year-round schools in the United States.

The schools in which the population worked were identified from three sources: (1) the 1974 survey of year-round activities in the United States by Bruce Campbell, (2) a California State Department of Education information bulletin, "Year-Round Education Activities, October, 1974," identifying all operational year-round schools in that state as of November 1, 1974, and (3) a dissertation by John Johnston completed in May, 1974, which contained a list of 45-15 year-round schools in the United States. Of the schools identified as operating a 45-15 year-round school, only those in operation on or before August 1, 1974, were included in this study. The total population consisted of those teachers working in schools identified in the preceding and in which respective building principals had expressed a willingness to allow their teachers to participate in this study.

A 30% sample of teachers from each of the participating schools was randomly selected for the final population. The teachers selected were from lists of faculty provided by the principal of each school participating in the study.

Instrument

A single self-reporting questionnaire was designed for use by all respondents of this study. A copy of the final instrument is provided in Appendix H.

The questionnaire was designed in two sections. The first section was organized to identify twenty-four personal and situational variables which were presumed to have a relationship to respondents' attitudes toward year-round schools. The second section was designed to obtain the opinions of the respondents toward the following topics as they related to year-round schools: business and finance, school and community relations, student welfare, curriculum and instruction, school administration, staff personnel, and physical facilities.¹

Construction. Before constructing the questionnaire a review of the literature was made to identify those personal and situational variables which may relate to teachers' attitudes toward year-round schools. The review of the literature and experience provided the

¹David J. Parks and Donald E. Parks, "Interest Groups and Year-Round Schools in California, 1973-1974" (Blacksburg, Virginia: Virginia Polytechnic Institute and State University, December, 1974), (Mimeographed), p. 5.

basis for selection of the twenty-four personal and situational variables used in section one of the questionnaire.

The second section of the questionnaire was developed by compiling opinion statements about certain aspects of year-round schools. The topics emphasized were concentrated in the areas of business and finance, school and community relations, student welfare, curriculum and instruction, school administration, staff personnel, and physical facilities as they relate to year-round schools. Some items were selected from attitude scales contained in works by Shaw and Wright.¹ The list of questions obtained were then sorted according to the previously mentioned categories, and duplicate and closely similar questions were either combined or eliminated. Appendix A contains a copy of the preliminary instrument.

The instrument was then distributed to teachers at elementary, middle, and senior high schools in Prince William County, Virginia, that had volunteered to respond to the entire instrument. The responses of the pilot group of teachers were analyzed using the BMD08M², BMD02R³, and an elementary factor analysis.⁴ An analysis of the statistical

¹Marvin E. Shaw and Jack M. Wright, Scales for The Measurement of Attitudes (New York: McGraw-Hill Book Company, 1967).

²BMD Biomedical Computer Programs, W. J. Dixon (ed.), Health Science Computing Facility, Department of Biomathematics, School of Medicine, University of California, (Los Angeles: University of California Press, January 1, 1973), pp. 255-268.

³Ibid., pp. 305-330.

⁴Louis M. McQuitty, "Elementary Factor Analysis," Psychological Reports, (Southern University Press, 1961), Vol. 9, pp. 71-78.

findings determined from the computerized programs and the hand calculated elementary analysis allowed the researcher to finalize the preliminary teacher attitudinal instrument on year-round schools. The questions selected for inclusion on the final instrument were determined by:

1. Including all questions that correlated at the 0.50 level or higher with the seven (7) factors identified in the rotated factor analysis performed by the BMD08M¹ computer program. A listing of the factor loadings are contained in Appendix B.
2. Including those questions that accounted for the greatest variance within each factor identified in item 1 above. The questions selected for inclusion were identified in the stepwise regression performed by the BMD02R² computer program. The regression listings are contained in Appendix C.
3. Including all questions that were directly linked to each other as shown by the elementary factor analysis.³ The questions that were showed to be linked are contained in Appendix D.

The preceding analysis reduced the number of questions in section two of the instrument from 99 to 67. It is to be noted that the procedure

¹Dixon, op. cit., pp. 255-268

²Ibid., pp. 305-330.

³McQuitty, op. cit., pp. 71-78.

used for the analysis of data collected on the preliminary instrument was weak because of the small number of respondents making up the pilot group (67). In using factor analysis it is recommended that the number of respondents be at least five (5) times the number of items contained in the questionnaire. In this study, it was not possible to obtain a pilot group to satisfy that condition. Because of the weakness in using the factor analysis with such a small pilot group, the researcher used the step-wise regression and the elementary factor analysis to confirm and/or add to the questions determined for inclusion in the instrument by the computerized factor analysis. As seen in Appendix B, 42 questions were determined by the computerized factor analysis for inclusion in the final instrument and those questions were confirmed and/or added to by the step-wise regression and elementary factor analysis as indicated in Appendices C and D. The total number of questions finally determined by using the three types of analyses was 67.

Validity. Content validity was obtained by having fifteen of the directors, officers, and administrative coordinators of the National Council on Year-Round Education examine the questionnaire for content. A listing of the panel of experts is provided in Appendix E. The jury was chosen because of individual experience and expertise in planning, investigation, implementation, and operation of year-round schools throughout the United States.

Each panel member was given a copy of the instrument with the instructions, requested to complete the questionnaire, and asked to provide written evaluation regarding the following concerns:

1. Are the instructions for completing the questionnaire complete and clearly stated?

Yes _____ No _____

If your response is no, please indicate how they could be rewritten to be clearer and more concise.

2. Is the wording of all items understandable? If not, please indicate the item number and how it might be rewritten to make it more understandable.

3. Does each of the items relate to factors that might affect teachers' attitudes toward year-round school? If not, please indicate the item(s) that have no such relationship.

4. Are all significant aspects that might relate to teachers' attitudes toward year-round school represented in this questionnaire? If not, please list additional aspects that need to be covered.

5. Is the format of the questionnaire such that it is easily understandable? If not, please specify how it might be improved.

The evaluations of the panel of experts were then assessed and any item(s) of concern receiving more than 50% of the panel reacting to it in a negative sense was revised or removed from the questionnaire. On the basis of the responses provided by the panel of experts, two questions were removed from the final instrument. The questions removed were (1) "My administrators are not overburdened with work"

and (2) "My administrators have allowed adequate faculty voice in designing the instructional program." The questions removed were items 77 and 118 respectively on the preliminary instrument (Appendix A) and items 53 and 94 respectively of the factor analysis on the preliminary instrument (Appendix B). The final instrument at this point contained 66 items. All appropriate recommendations provided by the panel were incorporated into the final form of the questionnaire. The changes that were made were sentence structure, correction of mistakes in spelling, and punctuation. A copy of the letter requesting the assistance of the panel of experts and the instructions provided to them are contained in Appendix F. Appendix G contains a summary of their comments.

In research conducted by Noll, Scannel, and Noll, it was found that construct validity could be estimated by factor analysis.¹ Therefore, an initial construct validity of the questionnaire was determined when the instrument was factor analyzed using the BMD08M² computer program on the data obtained from the responses of the pilot group of teachers. The seven (7) factors that resulted were:

1. School Calendar and Program.
2. Administration.
3. Student Welfare.
4. Teacher Welfare

¹Victor H. Noll, Dale P. Scannel, and Rachel P. Noll, Introductory Readings In Educational Measurement (Boston: Houghton Mifflin Company, 1972), pp. 99-100.

²BMD Biomedical Computer Programs, op. cit., pp. 255-268.

5. School and Community Relations.
6. Business and Finance.
7. Physical Facilities.

It is to be noted that the factors were determined on a small sample group (67) and the researcher expected the change in the number of factors and the change in questions associated with each factor that resulted from an analysis using the total population of this study. The new factors are reported in Chapter 4. The construct validity of the questionnaire was further defined when the considerably larger population was used to determine the new factors.

Reliability. A measure of the internal consistency (a reliability coefficient) was determined for the final instrument from the factor analysis using the BMD08M¹ computer program. The computer program provided a cumulative proportion of total variance and the square root of that value provided an estimate of reliability for the instrument. The reliability was determined to be 0.5173.

Scoring. Under section one of the instrument, scoring involved only the identification of the selected appropriate responses which reflected personal and situational characteristics of the respondents. A Likert-type response scale was selected for the second section of the instrument which allowed the respondents to indicate disagreement or agreement with each of the statements through four degrees of response. The possible responses were: (1) disagree,

¹BMD Biomedical Computer Programs, op. cit., pp. 255-268.

(2) tend to disagree, (3) tend to agree, and (4) agree. The responses for the second section of the questionnaire were weighted as follows: (1) one point for "disagree," (2) two points for "tend to disagree," (3) three points for "tend to agree," and (4) four points for "agree." The responses were made on optical scanning sheets and were electronically transferred to data processing cards. The data cards were then submitted to the computer center for processing, using previously selected computer programs which provided the necessary data analysis for this study.

Procedure for Data Collection

The previously identified operational year-round schools were classified into one of three categories: (1) elementary schools, (2) middle and junior high schools, and (3) senior high schools. The principal of each school identified was sent a letter explaining the purposes of the study and seeking his assistance. The principals were asked to provide the researcher with a list of their faculty members and the name of a teacher who could be used as a contact person for their respective school. A copy of the letter sent to principals requesting their school's participation and assistance is provided in Appendix I. The faculty lists provided were reviewed and each faculty member was identified as being female or male. A 30% sample of teachers from each of the three school categories identified was used as the final population.

The number (N) of teachers to be chosen from each school (rounded off to the next highest whole number) was determined by

using the following formula:

$$\frac{\text{total number of teachers identified in a school category}}{\text{number of schools in category used in above}} \times 30\% = N \text{ for each category}$$

Table 1 indicates the values found for N in each of the three school categories previously identified.

A stratified random sample, using sex as the stratum, was then taken from each participating school used in this study. Fifty percent of the sample from each school was female and 50% was male. It is to be noted that in a few instances the number of females and/or males was less than that allowed in the sample because some schools did not have enough female and/or male teachers to allow the researcher to select the maximum number allowed. In those instances, as many females and/or males were used that had been previously identified. Appendix L indicates the number of females and males in each of the schools used in this study, as well as indicating the number of teachers selected from each school to participate in the study. However, in no instance was more than 50% of the stratified sample from a school female or male.

Sex was used as a stratum to help prevent any bias that may have occurred due to the greater number of female teachers usually employed in elementary schools and male teachers employed in the middle, junior, and senior high schools.

Each contact teacher was sent a letter explaining the purposes of the study and was asked to disseminate and collect the questionnaires

from those teachers in their school included in the study. Included within the information sent to each contact teacher were similar letters of explanation and questionnaires for each respondent. A copy of the letter sent to each contact person and respondent is provided in Appendices J and K respectively. A stamped, self-addressed envelope was provided to the contact teacher for returning the questionnaires.

Table 2 indicates the number of schools and teachers that responded to the request to participate in this study. Table 3 indicates the number of questionnaire responses.

Analysis of Data

After the return of the questionnaires, the data obtained from them were analyzed using the BMD04D¹ computer program to determine a frequency count and the BMD08M² computer program to obtain a factor analysis to provide information for determining the relationships between the personal and situational variables and teachers' attitudes toward year-round schools. The analysis also provided information which indicated the amount of variance in teachers' attitudes accounted for by each of the personal and situational variables. The results of the analysis are reported in Chapter 4.

¹Dixon, op. cit., pp. 91-95.

²Ibid., pp. 255-268.

Table 1

Determination of Number of Teachers to be Selected
from Within Each School Category

School categories	Total number of teachers	30% of total	Total number of schools	N	N to next highest whole number
Elementary	1928	578.4	81	7.14	8
Middle and Junior High	512	153.6	17	9.04	10
Senior High	199	59.7	5	11.94	12

Table 2
Participation by School and Teacher

Response group	Number requested to participate	Responses		Participation by percent
		yes	no	
Schools	211	103	108	48.82
Teachers	800	556 ^a	244	69.50

^aThis number contained eleven (11) individuals that were removed from the study because they improperly filled out the optical scanning reply sheet.

Table 3

Responses to Questionnaire

Number of schools questionnaire sent to	103
Number of schools that returned questionnaires	78 ^a
Percent of schools returning questionnaires	75.73
Number of individual teacher questionnaires sent out	800
Number of individual teacher responses	556 ^b
Number of individual teachers not responding	244
Percent of individual teachers responding	69.50
Number of useable responses	545
Percent of useable responses	68.13

^aAdditional returns were received after the "cut off" date, therefore not reported in this total.

^bEleven (11) of these returns had to be removed from the study because respondents improperly filled in the optical scanning reply sheet.

Summary

The materials and methods described in this chapter were designed to determine what personal and situational variables relate to teachers' attitudes toward year-round schools and to what degree. An instrument was designed to identify the personal and situational characteristics of the respondents and their opinions toward certain statements relating to year-round schools. The respondents consisted of teachers from all grade levels (K-12) of operational public schools in the United States using a 45-15 year-round school calendar. The contact teachers were mailed the survey instrument and asked to return them to the researcher after completion by respondents. The data obtained from the completed instruments were then analyzed to determine how the previously indicated personal and situational variables were related to teachers' attitudes toward year-round schools and to what degree.

Chapter 4

RESULTS

The results of the analyses of data are contained in this chapter. Conclusions are reported and discussed in Chapter 5.

Analysis of Instrument Design

The initial factor analysis, using the BMD08M computer program, on the data relating to section two (65 statements relating to year-round education) of the Teacher Attitude Inventory On Year-Round Education revealed that the instrument was unidimensional, measuring a single construct dealing with year-round education. Inspection of the initial unrotated factor matrix showed that all items (except numbers 38, 46, and 59) had loadings above 0.26 on the first factor. The high number of items loading on this single factor indicated the presence of a common attitudinal relationship among these items. Table 4 contains data for the first unrotated principal component of the original 65 questions.

As a result of using the number of eigenvalues greater than 1.0 as a preliminary indication of the number of subscales that might exist within the 65 questions, eight factors were extracted and orthogonally rotated. Examination of the eight factors as well as a skree plot of the eigenvalues versus factors (Figure 1) led the researcher to believe that four subscales existed within the questionnaire that made up section two of the inventory.

As a result of the above, four principal components were

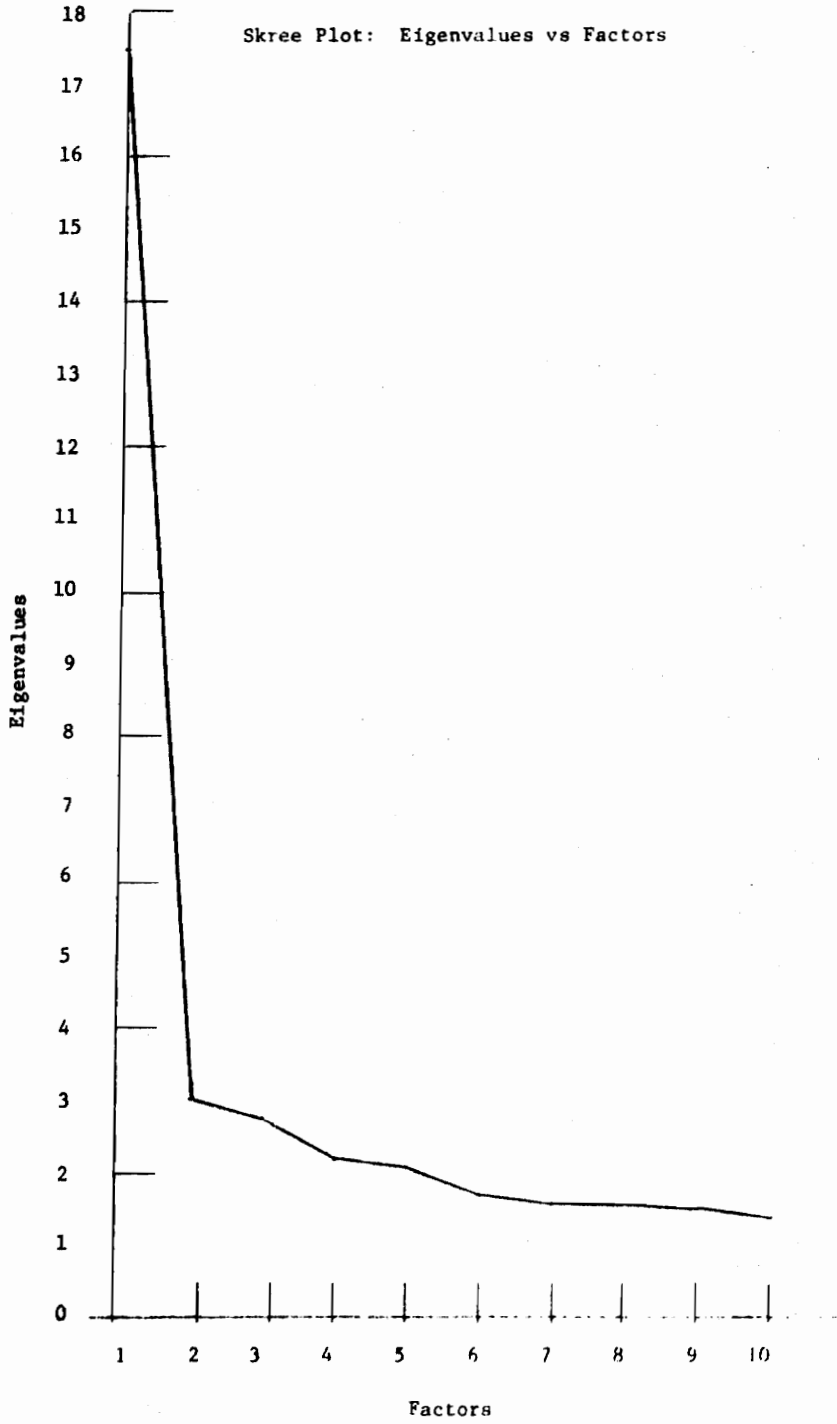
Table 4

First Principal Unrotated Factor Loading
Resulting from Teachers' Responses to
Section Two of the Inventory

Item ^a	Factor loading	Item	Factor loading
1.	0.6060	34.	0.7028
2.	0.6353	35.	0.4888
3.	0.5280	36.	0.3792
4.	0.6572	37.	0.3218
5.	0.4583	38.	-0.1876
6.	0.3838	39.	0.4874
7.	0.2975	40.	0.5675
8.	0.6417	41.	0.5050
9.	0.7050	42.	0.6319
10.	0.2617	43.	0.5726
11.	0.4656	44.	0.3829
12.	0.2724	45.	0.5078
13.	0.2811	46.	0.1972
14.	0.6660	47.	0.4006
15.	0.6520	48.	0.5206
16.	0.6310	49.	0.6004
17.	0.6190	50.	0.4777
18.	0.6435	51.	0.5654
19.	0.3200	52.	0.3270
20.	0.4957	53.	0.4624
21.	0.4294	54.	0.5850
22.	0.5700	55.	0.4922
23.	0.7113	56.	0.5627
24.	0.3315	57.	0.2997
25.	0.6401	58.	0.3770
26.	0.3984	59.	0.0324
27.	0.4114	60.	0.5697
28.	0.7472	61.	0.5101
29.	0.3814	62.	0.5491
30.	0.3982	63.	0.5755
31.	0.6619	64.	0.5451
32.	0.4697	65.	0.7281
33.	0.6930		

^aSee Appendix H for a listing of the statements that these items correspond to on the final instrument.

Figure 1



extracted and orthogonally rotated. The particular items and loadings making up each factor are found in Table 5. Based on factor loadings of 0.3750 and above on the four rotated factors, the year-round attitude items were identified as four subscales containing 14, 15, 16, and 7 items respectively. The four subscales are shown in Table 6. The subscales were identified and labeled according to the interpretations and meanings suggested by the items contained within each. The subscales were identified as follows: Subscale I was labeled "Calendar/Program," Subscale II was labeled "Administration," Subscale III was labeled "Student Welfare," and Subscale IV was labeled "Teacher Welfare."

After examining the orthogonally rotated principal components it was decided that items 6, 7, 12, 13, 24, 36, 38, 44, 45, 46, 47, 57, and 59 should be deleted from the analysis as they did not load significantly on any of the four resulting factors shown in Table 5. The deletion of the preceding items was done in an attempt to strengthen the existing factor structure. The resulting 52 items were factor analysed using the BMD08M¹ computer program. The resulting unrotated principal component is illustrated in Table 7. A comparison of item loading values in Tables 4 and 7 showed that the instrument was in fact strengthened by deleting the previously mentioned items. A comparison of the cumulative variance for the original 65 item instrument and the 52 item instrument on the first four factors showed values of 0.3878 and 0.4541 respectively. The greater cumulative value of the first four factors on the 52 item instrument also indicated a strengthened

¹Dixon, op. cit., pp. 255-268.

Table 5

Rotated Factor Matrix Resulting from
Teachers' Responses to Section
Two of the Inventory

Item ^a	Factor 1	Factor 2	Factor 3	Factor 4
1.	<u>0.6610</u> ^b	0.1773	0.1080	0.2358
2. ^c	<u>0.4281</u>	0.2197	<u>0.4727</u>	0.0802
3.	0.1483	<u>0.6777</u>	<u>0.1264</u>	-0.0297
4.	<u>0.5617</u>	<u>0.2856</u>	0.3196	0.0280
5.	<u>0.2082</u>	0.1858	0.0818	<u>0.6574</u>
6.	0.2221	0.2192	0.0975	<u>0.2797</u>
7.	0.0560	0.2897	0.1150	0.1435
8.	0.3184	0.4183	<u>0.4190</u>	0.0236
9.	<u>0.6035</u>	0.2663	<u>0.3137</u>	0.1572
10.	<u>0.5194</u>	0.0445	-0.0343	-0.1598
11.	<u>0.2385</u>	0.0405	<u>0.6172</u>	-0.0267
12.	0.3571	0.0300	<u>0.0346</u>	0.1087
13.	0.3230	0.1488	0.0417	-0.0398
14.	<u>0.7123</u>	0.1475	0.2418	0.1653
15.	<u>0.7366</u>	0.1692	0.1540	0.1798
16.	0.4597	0.1587	<u>0.5502</u>	-0.0128
17.	0.2196	<u>0.7497</u>	<u>0.1069</u>	0.0343
18.	<u>0.5319</u>	0.1991	0.4410	-0.0023
19.	0.0523	0.0865	0.0743	<u>0.6995</u>
20.	-0.0112	0.4648	0.2276	<u>0.4195</u>
21.	0.1761	<u>0.3932</u>	0.1255	<u>0.1365</u>
22.	0.1739	<u>0.5962</u>	0.0928	0.2835
23.	0.4606	<u>0.4880</u>	0.2853	0.0762
24.	0.3608	<u>0.0830</u>	0.0120	0.2405
25.	0.3627	0.1668	<u>0.6214</u>	0.0715
26.	0.1029	0.0801	<u>0.1718</u>	<u>0.7116</u>
27.	0.1406	<u>0.4069</u>	0.0555	<u>0.2409</u>
28.	<u>0.7468</u>	0.2214	0.2779	0.1681
29.	<u>0.4639</u>	0.1445	-0.0626	0.2164
30.	<u>0.0234</u>	0.1086	<u>0.5946</u>	0.0744
31. ^d	<u>0.4182</u>	0.3197	<u>0.4203</u>	0.0863
32.	0.2501	<u>0.4244</u>	0.1348	0.0506
33.	0.3658	<u>0.6193</u>	0.1541	0.1728
34.	0.3961	<u>0.4180</u>	<u>0.4647</u>	0.0004
35.	-0.0375	0.2678	<u>0.5033</u>	0.3547
36.	0.2074	0.0852	<u>0.3187</u>	0.1705
37.	0.1781	0.1187	0.0101	<u>0.5041</u>
38.	-0.1350	-0.2351	0.0339	<u>0.0256</u>
39.	<u>0.4012</u>	0.3556	0.0082	0.1676
40. ^d	<u>0.4490</u>	0.2572	0.0714	<u>0.4320</u>

Table 5 (continued)

Item	Factor 1	Factor 2	Factor 3	Factor 4
41.	0.0337	0.2068	<u>0.5552</u>	0.2978
42.	0.1711	<u>0.7223</u>	0.1593	0.1379
43.	0.1328	<u>0.5914</u>	0.2364	0.1327
44.	0.2020	0.2566	0.1211	0.2015
45.	0.3604	0.3047	0.1489	0.1737
46.	0.0309	0.1919	0.1007	0.0651
47.	0.1523	0.1938	0.2884	0.1931
48.	0.1706	0.2034	<u>0.5177</u>	0.1514
49.	0.2402	<u>0.6970</u>	0.0845	0.0719
50.	0.1031	<u>0.4148</u>	0.3301	0.0489
51.	0.1465	<u>0.2589</u>	<u>0.5591</u>	0.1719
52.	-0.0465	0.1420	<u>0.5259</u>	0.0224
53.	0.1658	0.1519	<u>0.4067</u>	0.2556
54.	0.2935	0.3432	<u>0.4256</u>	0.0137
55.	0.0858	<u>0.4656</u>	0.2314	0.2058
56.	<u>0.5107</u>	0.2707	0.1162	0.1874
57.	<u>0.2582</u>	0.1138	0.0702	0.1727
58.	0.0208	0.0592	<u>0.6105</u>	0.0762
59.	0.0542	0.1726	-0.2211	0.0499
60.	<u>0.5042</u>	0.1693	0.3992	-0.0702
61.	-0.0045	0.4204	0.2873	<u>0.4387</u>
62.	0.2278	<u>0.4446</u>	0.1785	<u>0.2528</u>
63.	0.3428	<u>0.1800</u>	<u>0.5234</u>	0.0336
64.	0.1445	<u>0.5415</u>	<u>0.2521</u>	0.0854
65.	<u>0.6618</u>	<u>0.2541</u>	0.3464	0.0876

^aSee Appendix H for a listing of the statements that these items correspond to on the final instrument.

^bCoefficients underlined are interpreted to be significant loadings at the 0.3750 level.

^cIn those items where the item loaded significantly on more than one factor, the highest loading was underlined as being more significant.

^dIn these two items the next to the highest loading was used in that the question was more appropriate at the lower value. It is to be noted that the two item loadings became the most significant in the 52 item instrument.

Table 6

Subscales Resulting from
Rotated Factor Analysis

Subscale I: Calendar/Program^a

1. I like the calendar used in my building.
 2. Our educational program provides continuity to my students.
 3. Our school calendar facilitates student achievement.
 4. The value of our program is underestimated by most people.
 5. The program in my school should be expanded to other schools.
 6. I prefer my school's calendar to those of other schools on a traditional calendar.
 7. The learning process for my students is on a continuous basis.
 8. The more I work with the program in my school, the more I like it.
 9. Teachers who work more than the customary 185 days within a twelve-month period do not lose their effectiveness.
 10. Instructional objectives are being met with our present curriculum.
 11. I do not feel isolated from my colleagues because of our calendar.
 12. I have been able to expand my curriculum offerings because of our calendar.
 13. My teaching effectiveness is improving.
 14. I enjoy working with the program in my school.
-

Subscale II: Administration^b

1. A co-operative relationship exists between the teachers and administrators in my school.
2. My administrators provide adequate assistance in solving my problems.
3. Few teachers seek transfer from my school.
4. Our faculty has had an adequate voice in policy making.
5. Our program is based upon sound educational principles.
6. I have no problem in storing materials when going on vacation.
7. I have sufficient opportunity to share ideas with my colleagues.
8. My administrators planned well for our program.
9. My administrators are concerned with my problems.
10. Opportunity to implement newly developed curriculum is possible in my school.
11. The administration and department chairpersons (team leaders, program area leaders) of my school have been very helpful in solving problems created by our program.

Table 6 (continued)

 Subscale II: Administration

12. Opportunities for individualizing instruction exist in my school.
 13. We have an adequate inservice training program in our school.
 14. My students have adequate opportunity for remedial assistance.
 15. Curriculum development in my school is a continuous process.
-

 Subscale III: Student Welfare^c

1. My students feel good about our school.
 2. My school's learning environment facilitates learning.
 3. My students like to attend class.
 4. My students are achieving well.
 5. My students have positive attitudes toward our school.
 6. I am on friendly terms with my student's parents.
 7. The students in my school receive a quality education.
 8. The people in this community have a sincere and wholehearted interest in my school's program.
 9. Our parents show much interest in their children's education.
 10. Students behave well in my school.
 11. I have adequate communication with my students' parents about our program.
 12. My student-teacher relationships have been personally rewarding.
 13. Little vandalism occurs in my building.
 14. I am able to use my special abilities in teaching.
 15. I have no problem in developing rapport with my students.
 16. I feel good about teaching.
-

 Subscale IV: Teacher Welfare^d

1. My school district provides adequate fringe benefits.
 2. I am satisfied with my salary.
 3. I have adequate instructional materials for my classes.
 4. My salary compares favorably with salaries paid in other systems with which I am familiar.
 5. My salary was fairly adjusted when I began teaching in this program.
 6. I like the options available to me on my teaching contract.
 7. I have adequate instructional equipment to do my job.
-

^aItems in this scale were identified loading on Factor 1

in Table 5.

^bItems in this scale were identified loading on Factor 2 in Table 5.

^cItems in this scale were identified loading on Factor 3 in Table 5.

^dItems in this scale were identified loading on Factor 4 in Table 5.

Table 7

First Principal Unrotated Factor Loadings Resulting
from Deleting Items Not Significantly
Loading in the Initial Rotated
Factor Analysis

Item ^a	Factor loading	Item	Factor loading
1.	0.6027	27.	0.4657
2.	0.6394	28.	0.6895
3.	0.5343	29.	0.7074
4.	0.6609	30.	0.4902
5.	0.4569	31.	0.3134
6.	0.6486	32.	0.4809
7.	0.7048	33.	0.5641
8.	0.2612	34.	0.5069
9.	0.4751	35.	0.6358
10.	0.6643	36.	0.5759
11.	0.6488	37.	0.5206
12.	0.6368	38.	0.5962
13.	0.6231	39.	0.4863
14.	0.6464	40.	0.5650
15.	0.3200	41.	0.3382
16.	0.4935	42.	0.4550
17.	0.4227	43.	0.5872
18.	0.5695	44.	0.4952
19.	0.7165	45.	0.5647
20.	0.6444	46.	0.3802
21.	0.3993	47.	0.5693
22.	0.4104	48.	0.5106
23.	0.7495	49.	0.5485
24.	0.3742	50.	0.5822
25.	0.4040	51.	0.5525
26.	0.6644	52.	0.7359

^aSee Appendix H for a listing of the statements that these items correspond to on the final instrument.

instrument. The comparison of unrotated factor loadings on the 65 and 52 item instruments also showed that the latter instrument remained unidimensional on the single construct of year-round education (Table 7).

The reliability of the two instruments also indicated that the 52 item instrument was strengthened when its reliability was determined to be 0.5565 and that of the 65 item instrument was determined to be 0.5173. In both instances, the estimate of the reliability was calculated by taking the square root of the variance accounted for by the first principal unrotated factor.

To determine if the previously established subscales (Table 6) were still identified, the 52 item instrument was orthogonally rotated. The resulting rotated factor matrix indicated that the four subscales on the 65 item instrument remained intact. The resulting rotated factor matrix on the 52 item instrument is illustrated in Table 8.

A factor analysis using the BMD08M¹ computer program was performed on section one of the inventory, which was composed of 24 personal and situational variables. The resulting factors after rotation were such that no specific interpretation or label could be given to the items contained within each factor. Therefore, the 24 items in section one were not divided into subscales and were instead used as 24 single items in all remaining analyses.

¹Dixon, op. cit., pp. 255-268.

Table 8

Rotated Factor Matrix Resulting from
Deleting Items Not Significantly
Loading in the Initial Rotated
Factor Analysis

Item ^a	Factor 1	Factor 2	Factor 3	Factor 4
1.	<u>0.6807</u> ^b	0.1588	0.084	0.2688
2. ^c	<u>0.4452</u>	0.1939	<u>0.4687</u>	0.1082
3.	0.1647	<u>0.6630</u>	<u>0.1311</u>	-0.0087
4.	<u>0.5861</u>	<u>0.2657</u>	0.3037	0.0548
5.	<u>0.2145</u>	0.1622	0.0884	<u>0.6857</u>
6.	0.3474	0.3877	<u>0.4206</u>	<u>0.0421</u>
7.	<u>0.6167</u>	0.2492	<u>0.3083</u>	0.1708
8.	<u>0.5179</u>	0.0785	-0.0738	-0.1544
9.	<u>0.2603</u>	0.0168	<u>0.6214</u>	-0.0198
10.	<u>0.7272</u>	0.1412	<u>0.2187</u>	0.1807
11.	<u>0.7645</u>	0.1570	0.1200	0.1985
12.	<u>0.4845</u>	0.1344	<u>0.5391</u>	0.0096
13.	0.2103	<u>0.7569</u>	<u>0.1216</u>	0.0415
14.	<u>0.5473</u>	<u>0.1833</u>	0.4356	0.0069
15.	<u>0.0681</u>	0.0585	0.0797	<u>0.7213</u>
16.	-0.0124	0.4298	0.2488	<u>0.4545</u>
17.	0.2063	<u>0.3508</u>	0.1277	0.1390
18.	0.1660	<u>0.5868</u>	0.1101	0.3001
19.	0.4728	<u>0.4779</u>	0.2858	0.0921
20.	0.3670	0.1405	<u>0.6338</u>	0.0848
21.	0.1116	0.0765	<u>0.1657</u>	<u>0.7218</u>
22.	0.1397	<u>0.3905</u>	0.0639	<u>0.2678</u>
23.	<u>0.7782</u>	0.2134	0.2452	0.1857
24.	<u>0.4247</u>	0.1830	-0.0575	0.1937
25.	<u>0.0187</u>	0.1131	<u>0.6060</u>	0.0576
26. ^d	<u>0.4282</u>	0.3161	0.4100	0.0947
27.	0.2365	<u>0.4474</u>	0.1284	0.0363
28.	0.3511	<u>0.6316</u>	0.1564	0.1740
29.	0.4079	0.4071	<u>0.4646</u>	0.0080
30.	-0.0370	0.2673	<u>0.5139</u>	0.3341
31.	0.1475	0.1534	<u>0.0071</u>	<u>0.4835</u>
32.	<u>0.3823</u>	0.3807	-0.0004	0.1593
33. ^d	<u>0.4293</u>	0.2804	0.0648	<u>0.4358</u>
34.	0.0352	0.2073	<u>0.5665</u>	0.2700
35.	0.1570	<u>0.7365</u>	<u>0.1745</u>	0.1387
36.	0.1277	<u>0.5957</u>	0.2411	0.1457
37.	0.1896	<u>0.1864</u>	<u>0.5214</u>	0.1288
38.	0.2271	<u>0.7043</u>	<u>0.0940</u>	0.0673
39.	0.1149	<u>0.4108</u>	0.3249	0.0719
40.	0.1471	<u>0.2456</u>	<u>0.5730</u>	0.1598

Table 8 (continued)

Item	Factor 1	Factor 2	Factor 3	Factor 4
41.	-0.0286	0.1329	<u>0.5246</u>	0.0308
42.	0.1839	0.1288	<u>0.4134</u>	0.2197
43.	0.3073	0.3431	<u>0.4177</u>	0.0015
44.	0.0926	<u>0.4612</u>	<u>0.2387</u>	0.2041
45.	<u>0.4999</u>	0.2996	0.1045	0.1859
46.	0.0254	0.0659	<u>0.6062</u>	0.0539
47.	<u>0.4943</u>	0.1873	<u>0.3916</u>	-0.0842
48.	-0.0039	0.3879	0.3071	<u>0.4745</u>
49.	0.2070	<u>0.4533</u>	0.1901	<u>0.2627</u>
50.	0.3537	<u>0.1876</u>	<u>0.5130</u>	0.0254
51.	0.1307	<u>0.5654</u>	<u>0.2639</u>	0.0763
52.	<u>0.6896</u>	0.2507	0.3173	0.1133

^aSee Appendix H for a listing of the statements that these items correspond to on the final instrument.

^bCoefficients underlined are interpreted to be significant loadings at the 0.3750 level.

^cIn those items where the item loaded significantly on more than one factor, the highest loading was underlined as being more significant.

^dIt is to be noted that these two items are now loaded on the highest loading values for the respective items. On the 65 item instrument, the next highest loading had been underlined.

Analysis of Personal and Situational Variables Relating to Teachers' Attitudes on Year-Round Education

The 24 personal and situational variables identified in section one of the inventory were factor analyzed in combination with the 52 items identified in Table 8. The analysis was performed using the BMD08M¹ computer program. Table 9 indicates the resulting orthogonally rotated factor matrix. In this analysis only seven factors were extracted so that factors being composed of only personal and situational variables would not over-ride the four inventory factors previously established on the 52 item instrument and inhibit their formation. As can be seen in Table 9, the four attitude factors remained relatively stable with the addition of the 24 personal and situational variables. As was expected, there was some minor shifting within the factor structure.

Of the 24 personal and situational variables, 18 did not load significantly on any of the four previously identified subscales of the Teacher Attitude Inventory On Year-Round Education. Items 7, 8, 16, and 24 loaded on Subscale I (Calendar/Program) at the following levels respectively; 0.3503, 0.6852, 0.6078, and 0.7333. The high loading of item 24 (favorability toward year-round education) indicated that attitudes either favoring or not favoring the year-round program were reflected by the responses teachers' gave to questions concerning the calendar/program. The high loading also indicated that teachers having high or low favorability toward the calendar/program also have similar attitudes in the same direction concerning their degree of fatigue (item 7), their morale (item 8), and their feelings toward the quality of the educational

¹Dixon, op. cit., pp. 255-268.

Table 9

Rotated Factor Matrix Relating Personal and
Situational Variables to the Teachers'
Attitudes Expressed in the Four Subscales

Item	Factor 1 ^a	Factor 2 ^b	Factor 3 ^c	Factor 4 ^d	Factor 5 ^e	Factor 6 ^f	Factor 7 ^g	Factor 8
1.	-0.0811 ⁱ	-0.0289 ^e	0.0687	-0.1040	0.0009	-0.0687	-0.2096	
2.	-0.0887	-0.0964	-0.1592	-0.3716	-0.2312	0.0161	-0.2736	
3.	-0.1235	-0.0401	0.0918	-0.0649	-0.0157	-0.2568	-0.0703	
4.	0.1253	-0.0091	-0.1277	-0.0722	0.0976	0.1728	-0.4315	
5.	-0.0853	0.0651	-0.0289	-0.0108	0.7731	-0.0502	0.1381	
6.	-0.0741	0.0072	0.0668	-0.1338	0.2199	0.0415	-0.1717	
7.	0.3503	0.0550	0.0328	0.0743	-0.4630	-0.0195	0.0609	
8.	0.6852	0.1781	0.1888	0.2495	-0.0404	-0.0962	0.1093	
9.	-0.0884	0.0411	-0.0175	-0.0892	0.8146	-0.0944	0.1460	
10.	-0.0493	-0.0979	0.0313	-0.5849	0.1816	0.0099	0.2640	
11.	-0.0695	0.0007	-0.2549	-0.1397	-0.0158	-0.1004	-0.6446	
12.	-0.2244	-0.0245	-0.0018	-0.0132	0.0764	0.0236	-0.4121	
13.	0.1659	0.0835	-0.0383	0.0186	0.1012	-0.0500	0.1068	
14.	-0.0170	-0.0226	-0.0694	-0.1119	0.5428	0.0163	-0.2184	
15.	0.1554	0.1681	0.0855	-0.0687	0.5093	-0.0510	-0.1046	
16.	0.6078	0.1924	0.1336	-0.0036	0.0536	-0.0378	0.0997	
17.	-0.0071	0.2033	-0.0077	0.3717	-0.1823	0.0646	0.0962	
18.	0.0338	0.1068	-0.0310	-0.5968	0.0845	-0.1176	-0.2324	
19.	0.3472	0.0938	-0.0495	0.2869	0.1665	-0.1834	-0.0597	
20.	-0.0340	0.1290	-0.0354	-0.5943	0.0089	-0.0679	-0.1989	
21.	-0.0682	-0.0015	-0.0207	-0.6021	0.1426	0.0707	-0.0145	
22.	0.2127	0.4312	-0.0443	-0.0813	-0.0585	-0.1536	0.1820	

Table 9 (continued)

Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
23.	0.2701	0.1949	-0.0590	-0.0847	0.0566	-0.3762	0.2269
24.	0.7333	0.0211	0.0593	0.0891	-0.0450	-0.1254	-0.0140
25. j	0.6733	0.1971	0.1098	0.0512	-0.0389	-0.1948	0.0833
26.	0.3854	0.2373	0.4121	0.0044	0.0322	-0.0578	0.4187
27.	0.1469	0.6709	0.1150	0.1551	0.0826	0.0375	-0.0116
28.	0.5137	0.3195	0.2873	-0.0032	0.0395	0.0309	0.2767
29.	0.2533	0.2196	0.0584	0.0877	0.0088	-0.6644	0.0776
30.	0.2936	0.4396	0.3825	0.0689	0.0690	0.0174	0.1522
31.	0.6017	0.2820	0.3142	0.0672	0.0142	-0.0925	0.1135
32.	0.4708	0.0741	0.0106	-0.1343	-0.0212	0.1984	-0.0402
33.	0.1765	0.0522	0.5960	0.0477	-0.0912	0.0160	0.2442
34.	0.7098	0.1810	0.2354	0.0690	-0.1166	-0.1015	0.1257
35.	0.7789	0.1783	0.1375	0.1258	-0.0361	-0.1115	0.0929
36.	0.4090	0.1825	0.5278	0.0018	-0.0095	0.0525	0.2341
37.	0.1802	0.7676	0.1333	0.0997	0.0497	0.0044	-0.0404
38.	0.4657	0.2228	0.4433	-0.0014	-0.0271	0.0500	0.1999
39.	0.0947	0.1178	0.6390	0.0599	0.0957	-0.6945	0.0520
40.	-0.0299	0.5080	0.1728	-0.1170	-0.1227	-0.4097	0.2555
41.	0.1653	0.3831	0.1049	0.2041	0.0751	-0.0823	0.1489
42.	0.1790	0.5975	0.0935	0.1024	0.1119	-0.2667	0.0693
43.	0.4149	0.5006	0.3043	0.0593	0.0574	-0.0162	0.1510
44.	0.2926	0.1850	0.5820	0.0204	-0.0308	-0.0555	0.3776
45.	0.1711	0.1106	0.1797	0.0613	0.0469	-0.6845	-0.0501
46.	0.1447	0.4083	0.0972	-0.0619	-0.0384	-0.2334	-0.0804
47.	0.7706	0.2407	0.2668	0.1397	-0.0603	-0.1038	0.0952
48.	0.4146	0.2112	-0.0039	-0.1487	-0.0720	-0.1090	0.0098
49.	-0.0112	0.0880	0.6241	-0.0764	0.0123	-0.0732	0.0941

Table 9 (continued)

Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
50.	<u>0.3599</u>	0.3413	<u>0.4323</u>	-0.0047	-0.0471	-0.0524	0.1428
51.	<u>0.2181</u>	0.4378	0.1752	-0.0524	-0.0185	0.0152	-0.0077
52.	0.3137	<u>0.6661</u>	0.1442	0.0313	0.0016	-0.0875	0.1623
53.	0.3377	<u>0.4391</u>	<u>0.4610</u>	0.0669	0.0455	0.0609	0.1602
54.	0.0116	<u>0.2542</u>	<u>0.4926</u>	0.2024	0.1466	-0.3372	-0.0316
55.	0.1967	0.1628	0.0572	-0.2239	0.0442	-0.4426	-0.0617
56.	<u>0.3812</u>	<u>0.3660</u>	0.0776	-0.1700	0.0146	<u>-0.0861</u>	-0.0151
57.	<u>0.4801</u>	<u>0.2882</u>	0.1238	-0.2686	-0.0064	-0.3822	-0.0448
58.	0.0802	0.1878	0.5502	0.2248	0.1149	<u>-0.2855</u>	-0.0222
59.	0.1667	<u>0.7203</u>	<u>0.2026</u>	0.1180	0.0688	-0.0988	-0.1141
60.	0.1466	<u>0.5443</u>	0.2964	-0.0267	0.0715	-0.1384	-0.0905
61.	0.1941	0.1999	0.5214	0.0607	0.0694	-0.1024	-0.0361
62.	0.2049	0.7047	<u>0.1160</u>	-0.0079	0.0440	-0.0144	-0.0010
63.	0.1368	<u>0.3531</u>	0.3727	-0.1123	0.0547	-0.0788	-0.0414
64.	0.1324	<u>0.2349</u>	<u>0.5365</u>	0.0249	0.0865	-0.1509	0.2840
65.	0.0083	0.1093	<u>0.5335</u>	-0.0072	-0.0536	-0.0871	-0.1092
66.	0.1844	0.1708	<u>0.3758</u>	0.2103	0.0179	-0.1883	0.0431
67.	0.2636	0.3414	<u>0.4752</u>	-0.0045	-0.0454	0.0126	-0.0743
68.	0.0956	0.4700	<u>0.1952</u>	0.0577	0.0394	-0.1639	0.1995
69.	0.5085	<u>0.3174</u>	0.1593	-0.0410	-0.0920	-0.1161	-0.0616
70.	<u>0.0025</u>	0.0492	0.6243	-0.0707	-0.0107	-0.0812	0.0367
71.	0.4552	0.1805	<u>0.4778</u>	0.0277	-0.1972	0.0962	-0.1452
72.	<u>0.0027</u>	<u>0.4504</u>	<u>0.2415</u>	-0.1116	-0.1456	<u>-0.4340</u>	0.2199

Table 9 (continued)

Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
73.	0.1828	<u>0.4878</u>	0.2019	-0.2104	-0.0454	-0.1883	0.1337
74.	0.3305	<u>0.1899</u>	0.5859	-0.0376	-0.0737	0.0024	-0.1549
75.	0.1171	<u>0.5185</u>	<u>0.3521</u>	-0.1175	0.0229	-0.0677	-0.1274
76.	<u>0.6768</u>	<u>0.2635</u>	<u>0.3510</u>	0.1076	-0.0145	-0.0357	0.0549

^aRelates to Subscale I.

^bRelates to Subscale II.

^cRelates to Subscale III.

^dUninterpretable factor resulting from the addition of the personal and situational variables.

^eUninterpretable factor resulting from the addition of the personal and situational variables.

^fRelates to Subscale IV.

^gUninterpretable factor resulting from the addition of the personal and situational variables.

^hItems 1-24 are the personal and situational variables from section one of the inventory.

See Appendix H for a listing of the statements that these items correspond to on the final instrument.

ⁱAll factor loadings of 0.3500 or higher are underlined.

^jItems 25-76 are the 52 statements of section two of the inventory after deletion, see Appendix H for a listing of the statements that these items correspond to on the final instrument.

program (item 16). Items 22 and 23 loaded as one might have expected. Item 22 (providing adequate support staff) loaded on Subscale II (Administration) at a level of 0.4312. Item 23 (adequate fringe benefits) loaded on Subscale IV (Teacher Welfare) at a level of -0.3762.

The following 18 items did not load significantly on any of the four subscales reflecting teachers' attitudes toward year-round education.

1. Type of school calendar utilized prior to the year-round calendar.
2. Number of students enrolled.
3. Population density of the school-community setting.
4. Sex.
5. Age.
6. Marital Status.
9. Total teaching experience.
10. Teaching experience in a year-round school.
11. Teaching level.
12. Calendar preference.
13. Student-teacher ratio.
14. Level of professional educational degree.
15. Degree of program development participation.
17. Professional association membership.
18. Options on contract length.
19. Work participation option.

20. Vacation option.

21. Salary adjustment.

Summary

The results of the analyses of data received from approximately sixty-eight percent of the total population were reported in this chapter. Factor analysis of the data showed that the survey instrument was unidimensional and measured a single construct relating to year-round education. Four subscale constructs were identified that measured teachers' attitudes in four specific areas: Calendar/Program, Administration, Student Welfare, and Teacher Welfare. The reliability of the survey instrument was determined to be 0.5565.

The analysis of the personal and situational variables contained in section one of the inventory showed that only six of the 24 variables had any significant relationship with attitudes expressed by teachers on the topic of year-round education. Teacher favorability toward year-round education, morale, fatigue, and quality of the educational program related to the subconstruct on Calendar/Program. Providing adequate support staff was related to the subconstruct on Administration and fringe benefits was determined to relate to the subconstruct on Teacher Welfare.

Chapter 5

SUMMARY, CONCLUSIONS, DISCUSSION, AND IMPLICATIONS

This study provided information about the attitudes of teachers toward the 45-15 concept of year-round education. From this information, a determination was made of how personal and situational characteristics of teachers working in year-round schools related to their expressed attitudes. As a part of this study an assessment instrument (inventory) was developed to obtain the data necessary for conducting the research. This chapter includes a summary of the study, conclusions, discussion, and implications of the results.

Summary

A number of year-round education programs have been implemented in the last five years, but the evaluation of those programs have been practically non-existent. This study was conducted to partially fill that void and provide educators, school board members, and the general public with information from which they might make meaningful decisions regarding the future implementation and/or operation of year-round educational programs.

This study focused upon teachers working in operational year-round schools using the 45-15 plan. A review of the literature provided data that allowed the researcher to identify those personal and situational variables that were considered to be contributing to the success of operational year-round programs. The literature review also allowed

the researcher to construct a preliminary assessment instrument containing 123 items of which 24 were personal and situational variables and 99 were statements designed to obtain opinions of teachers toward year-round education. The preliminary instrument was field tested in an operational K-12 year-round school district. The data obtained from the field testing along with input on the instrument from a panel of experts on year-round education resulted in a final instrument containing 89 items. Twenty-four of the items were personal and situational variables and 65 items were designed to obtain teachers' attitudes toward year-round education.

The sample used consisted of 103 operational year-round schools in the United States. From a list of faculty members provided by the principals of the participating schools, a stratified random sample was made selecting the participants for the study. The researcher used sex as a stratum in selecting the sample to reduce any bias which may have resulted from a selection of a greater number of female teachers from elementary grade level year-round programs and male teachers from middle and senior high school year-round programs. The sample consisted of approximately 30% of all teachers identified on the lists provided by the principals.

Data collection was handled by mail. Each school involved in the study had designated a contact person who received, distributed, collected, and returned the completed inventories. Returns were received from 75.73% of the schools and 69.50% of the teachers.

Responses by teachers were recorded on optical scanner forms that were transferred to punched computer cards and then analyzed using the BMD04D (frequency count) and the BMD08M (factor analysis) computer programs. The analyses were made on the IBM System/370 Model 158 computer system located in the computer center at Virginia Polytechnic Institute and State University.

Conclusions

On the basis of the data presented and the subsequent analyses, the following conclusions were drawn:

1. The survey instrument was found to be unidimensional, measuring a single major attitudinal construct related to year-round education.
2. Four subconstructs relating to year-round education were determined that reflected teachers' attitudes toward:
 - a. Calendar/Program.
 - b. Administration.
 - c. Student Welfare.
 - d. Teacher Welfare.
3. The reliability of the survey instrument was determined to be 0.5565.
4. The following personal and situational variables were determined not to have any significant relationship to attitudes expressed by teachers toward year-round education:
 - a. Type of school calendar utilized prior to the year-round calendar.
 - b. Number of students enrolled.

- c. Population density of the school-community setting.
- d. Sex.
- e. Age.
- f. Marital status.
- g. Total teaching experience.
- h. Teaching experience in year-round school.
- i. Teaching level.
- j. Calendar preference.
- k. Student-teacher ratio.
- l. Level of professional education.
- m. Degree of program development participation.
- n. Professional association membership.
- o. Options on contract length.
- p. Work participation option.
- q. Vacation option.
- r. Salary adjustment.

5. The following personal and situational variables were determined to have a significant relationship to attitudes expressed by teachers toward year-round education:

- a. Teachers who favor year-round education have favorable attitudes toward the year-round calendar and program.
- b. Teachers working in a year-round program that have high morale have favorable attitudes toward the year-round calendar and program.
- c. Teachers that do not believe they are fatigued have favorable attitudes toward the year-round calendar

and program.

- d. Teachers who felt that the quality of the educational program had been enhanced have favorable attitudes toward the year-round calendar and program.
- e. Teachers who felt that adequate support staff had been provided have favorable attitudes toward the administration of the year-round program.
- f. Teachers who felt that adequate fringe benefits had been provided have favorable attitudes toward the teacher welfare in the year-round program.
- g. Teachers who do not favor year-round education have unfavorable attitudes toward the year-round calendar and program.
- h. Teachers working in a year-round program that felt they were more fatigued have unfavorable attitudes toward the year-round calendar and program.
- i. Teachers that felt their morale had decreased have unfavorable attitudes toward the year-round calendar and program.
- j. Teachers who felt that the quality of the educational program had regressed have unfavorable attitudes toward the year-round calendar and program.

- k. Teachers who felt that the support staff was inadequate have unfavorable attitudes toward the administration of the year-round program.
- l. Teachers who felt that the fringe benefits provided were inadequate have unfavorable attitudes toward the welfare of teachers in the year-round program.

6. None of the personal and situational variables related to the subconstruct measuring attitudes of teachers toward student welfare in year-round schools.

Discussion

Designing of Inventory. One of the purposes of this study was to develop an assessment instrument (inventory) that would measure the attitudes of teachers working in operational 45-15 year-round schools. The analyses of the data showed that an inventory was developed that in fact was unidimensional, measuring a single construct relating to year-round education. It was also found that the inventory measured four subconstructs indicating teachers' attitudes toward Calendar/Program, Administration, Student Welfare, and Teacher Welfare. The reliability of the instrument (0.5565) indicated that the attitudes measured tended to be representative of the respondents' feelings toward year-round education and tended to measure the attitudes consistently.

It was also found that the 65 item section of the inventory could be reduced by 13 items and still measure teachers' attitudes toward the major and subconstructs identified in the inventory. The items deleted were primarily related to buliding utilization, maintenance,

community recreation facilities, and economic problems of the district. The deletion of these items had no negative affects upon the established subconstructs of the inventory. The reliability of the instrument was increased because of the deletion of the 13 items previously discussed.

Relationship of Personal and Situational Variables to Teachers'

Attitudes Toward Year-Round Education. In a study by Winsdon N. M. Pound (completed in April, 1975) concerning teacher job satisfaction and type of school calendar, he concluded that teacher traits such as sex, age, marital status, and the like, were not related to either teacher job satisfaction or type of school calendar.¹ As indicated in conclusion four of this study, it was found that similar teacher traits did not significantly relate to teachers' attitudes toward year-round education. The findings of the two studies are supportive of each other and clearly show that previously stated personal and situational variables are not reflective of one's attitude toward year-round education. The results of the two studies lend credence to the point that school districts should not concern themselves with surveying teachers to obtain data on personal and situational variables identified in conclusion four of this study.

The personal and situational variables that should be investigated are those which teachers' indicated had a significant relationship toward their attitudes on year-round education. Variables indicated

¹Winsdon N. M. Pound, "The Relationship Between School Calendar and Teacher Job Satisfaction" (unpublished Doctor's dissertation, Virginia Polytechnic Institute and State University, 1975), p. 83.

as being significant were favorability toward year-round education, morale, fringe benefits, and those other variables stated in conclusion five of this study. This study provided information which suggested that those teachers who favor year-round education also have high morale, experience little fatigue, and believe the quality of the educational program is enhanced. Vice versa, those teachers who disfavor year-round education experience low morale, greater fatigue, and believe the educational program is not enhanced. The preceding statements strongly suggest to this researcher that the degree of success or potential success of a year-round program might best be predicted or determined by asking teachers one question, "Do you favor year-round education?" The response to the preceding question and the findings of this study would indicate a "bias" factor on the part of teachers working in a year-round program. Teachers who favor year-round education are biased and find most everything associated with the program to be good. On the other hand, those teachers who do not favor year-round education are biased in the opposite direction and find most everything associated with the program not to their liking. A similar bias factor was determined in the study by Pound. He found that teachers in traditional calendar schools were positive about their program and negative about the year-round program. Teachers in the year-round calendar schools were biased and found their program to be good and felt the traditional calendar programs were unacceptable.¹

¹Ibid., p. 84.

It appeared to this researcher that the study by Pound and this study are supportive of each other on the existence of a teacher "bias" factor and that teachers will favor the program they work in and are apt to disfavor those programs they do not work in.

The other considerations that probably should be taken into account once the favorability is determined is whether adequate support staff is being made available to assist teachers in the operational year-round program and if the contractual fringe benefits teachers receive have been adequately adjusted. Both of the latter items were considered to be significantly related to attitudes teachers held on the administration and teacher welfare issues measured in this study.

Based upon the results and conclusions of this study, school districts should give primary consideration to teachers' attitudes toward the acceptability of the concept of year-round education, make provisions for adequate support staff, and make adequate adjustments to the fringe benefits affected by a year-round program. The considerations by the school district(s) should not take place only during the investigation and/or implementation of the year-round program, but should be reviewed on a recurring basis once the program becomes operational.

Implications

Additional research is needed in the development of an assessment instrument to measure teachers' attitudes toward year-round education. The future research should determine an instrument that is more highly reliable and should also provide reliability coefficients for any

subconstructs that may be determined. Within such an instrument, only personal and situational variables should be included that are significantly related to expressed attitudes as indicated in conclusion five of this study. The instrument should also be designed to measure attitudes on any type of year-round concept. In addition to the preceding, the instrument should contain as few items as possible to encourage respondents to return the instrument.

Although this study identified specific personal and situational variables that were related to teachers' attitudes on year-round education, additional research should be conducted in the following areas:

1. What variables contribute to acceptance or rejection of the year-round educational concept?
2. What supportive staff do teachers feel necessary to assist them in an operational year-round school?
3. What fringe benefits do teachers feel need adjusting when converting into or starting a year-round program?

Finally, research should be conducted on types of year-round education programs other than the 45-15 concept. Possible plans to investigate are the four-quarter, concept-6, quinmester, and flexible all-year programs.

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APPENDIXES

APPENDIX A

PRELIMINARY TEACHER ATTITUDE INVENTORY
ON YEAR-ROUND EDUCATION

Dear Educator:

In order to obtain information on how teachers feel toward the year-round educational program in our school district, the attached teacher attitude inventory has been developed to obtain your feelings toward the year-round program in your school building. The inventory is designed to obtain your feelings on questions relating to administration, curriculum and instruction, school/community relations, students, economics, physical facilities, and faculty issues.

The inventory is divided into two sections. The first section is designed to obtain personal and situational information and the second section to obtain your opinions on the educational program in your school.

An answer sheet is provided for you to record your answers to the items in this inventory. Please use a number 2 pencil to mark the numbers on the answer sheet that corresponds to the appropriate number on the inventory. Please do not staple, clip, or fold the answer sheet. Do not fill in any information on the top part of the answer sheet.

Section 1: Personal and Situational Information.

Please choose the one most appropriate answer for each item below and mark the corresponding number on the answer sheet provided. Use answer spaces 1 - 24 for this section of the inventory.

Example:

If the first two questions were as follows:

1. Your sex: (1) female, (2) male

2. The age range in which your age belongs:

(1) under 26, (2) 26-35, (3) 36-45, (4) 46-55, (5) over 55

and you responded in the following way, your answers would be interpreted as follows:

	(1)	(2)	(3)	(4)	(5)	
1	:::	<input checked="" type="checkbox"/>	:::	:::	:::	indicates you are a male.
2	:::	:::	:::	<input checked="" type="checkbox"/>	:::	indicates your age is between 46-55.

Please respond to all items, beginning with item number 1 on the next page.

1. Prior to the year-round program your school operated on a:
 - (1) normal, traditional school year
 - (2) double session, traditional school year
 - (3) extended day, traditional school year
 - (4) other
2. The total student enrollment in your school building for 1974-75 is:
 - (1) under 501
 - (2) 501 - 1000
 - (3) 1001 - 1500
 - (4) 1501 - 2000
 - (5) over 2000
3. Type of community your school serves:
 - (1) urban
 - (2) rural or small town
 - (3) suburban
4. Your sex: (1) female, (2) male
5. Your age: (1) under 26, (2) 26-35, (3) 36-45, (4) 46-55, (5) over 55
6. Your marital status: (1) single, (2) married
7. Compared to when you taught in a traditional program, your degree of fatigue at the end of each school day is:
 - (1) less
 - (2) the same
 - (3) more
 - (4) I can not compare, I never taught in a traditional program
8. Your morale has:
 - (1) increased, (2) remained the same, (3) decreased
9. Your total teaching experience, including 1974-75:
 - (1) 1 year
 - (2) 2 - 5 years
 - (3) 6 - 9 years
 - (4) 10 - 13 years
 - (5) over 13 years
10. Your total teaching experience in a year-round program, including 1974-75:
 - (1) 1, (2) 2, (3) 3, (4) 4, (5) 5 or more years
11. Type of school in which you teach:
 - (1) elementary, (2) middle or junior high, (3) senior high
12. If given the option, which type of year-round program would you prefer to work in:
 - (1) 45-15
 - (2) four quarter plan
 - (3) quintester plan
 - (4) concept 6 plan
 - (5) other type of year-round plan
13. Your student-teacher ratio has:
 - (1) increased, (2) remained the same, (3) decreased

14. Your education is:
- (1) less than a Bachelor's degree
 - (2) a Bachelor's degree
 - (3) a Master's degree
 - (4) a Doctor's degree
15. To what extent were you involved in the development of your year-round program:
- (1) none, (2) very little, (3) some, (4) considerable
16. The quality of the educational program in your school has:
- (1) regressed, (2) remained the same, (3) been enhanced
17. You are professional associated with the:
- (1) American Federation of Teachers
 - (2) National Education Association
 - (3) neither of the above
 - (4) both of the above
18. Do you have an option on the number of days your contract allows you to teach?: (1) no, (2) yes
19. Do you have the option to transfer to a traditional school program if you so desire?: (1) no, (2) yes
20. Do you have an option on when you may take your vacation(s)?:
- (1) no, (2) yes
21. Is your salary determined on a per diem basis?: (1) no, (2) yes
22. The support staff provided you is: (1) inadequate, (2) adequate
23. Your fringe benefits for working in your year-round program were adequately adjusted: (1) no, (2) yes
24. I consider myself in favor of year-round education: (1) no, (2) yes

Section 2: Opinions on the educational program in your school.

There is probably a wide range of opinion concerning many of the items on this section of the inventory. Please read each item carefully and determine your position on each statement. Please mark your answers according to the following:

1 = disagree, 2 = tend to disagree, 3 = tend to agree, 4 = agree

Example:

If the questions were as follows:

- (1) Teachers' salaries should be based upon their effectiveness as judged by their principal.
- (2) The per pupil cost in my school has decreased.

and you responded in the following way, your answers would be interpreted as follows:

	(1)	(2)	(3)	(4)	
1	■	...	indicates you tend to agree
2	■	indicates you disagree

Use answer spaces 25 - 123 for this section of the inventory.

Please respond to all items.

1 = disagree, 2 = tend to disagree, 3 = tend to agree, 4 = agree

25. My principal understands the operation of our program.
26. I have adequate instructional equipment to do my job.
27. My opportunity for year-round employment has reduced the criticism that teaching is a part-time profession.
28. My students feel good about our school.
29. My school district provides adequate fringe benefits.
30. Classrooms in my school are not overcrowded.
31. Our program helps teachers develop independence.
32. I like the calendar used in my building.
33. My school does not need air conditioning.
34. My students are achieving well.
35. Our public relations activities are adequate.
36. I spend little time on review of materials with my students.
37. I have been able to expand my curriculum offerings.
38. Our program can adjust to changing conditions.
39. The administration and department chairpersons (team leaders, program area leaders) of my school have been very helpful in solving problems created by our program.
40. Our curriculum takes advantage of the summer season (geology, summer sports, environmental studies, etc.).
41. The value of our program is underestimated by most people.
42. My students have positive attitudes toward our school.
43. I am satisfied with my salary.
44. I am able to use my special abilities in teaching.
45. The more I work with the program in my school, the more I like it.
46. My student-teacher ratio facilitates learning.
47. Our program provides continuity to my students.
48. I am on friendly terms with my students' parents.
49. Students behave well in my school.
50. Our faculty has had an adequate voice in policy making.
51. My administrators planned well for our program.
52. The students in my school receive a quality education.
53. I frequently talk to members of the community about our program.
54. My student-teacher relationship has been personally rewarding.
55. Public money for our school program is well spent.
56. I feel good about teaching.

1 = disagree, 2 = tend to disagree, 3 = tend to agree, 4 = agree

57. I have adequate time at school for lesson planning.
58. My teaching effectiveness is improving.
59. My school district makes full use of existing facilities.
60. Little vandalism occurs in my building.
61. Curriculum development in our school is a continuous process.
62. My community's attitude is positive toward my school.
63. My students like to attend class.
64. We have few students who drop out of school.
65. There is little teacher turnover in our school.
66. Adequate support staff (teacher aides, clerk-typists, and the like) is available to assist me.
67. The learning process for my students is on a continuous basis.
68. Our school calendar facilitates student achievement.
69. Other community agencies and programs, such as park and recreation, church, and summer camp, have quickly adjusted with little complaint to our program.
70. Teachers in my school have high morale.
71. I do not feel isolated from my colleagues.
72. My workload has not increased.
73. I understand most things about our program.
74. I have no problem in developing rapport with my students.
75. Maintenance in my school has been satisfactory.
76. Our program helps teachers develop a sense of responsibility.
77. My administrators are not overburdened with work.
78. My school's climate facilitates learning.
79. Our curriculum provides enrichment opportunities to students.
80. Our program is based upon sound educational principles.
81. I have adequate instructional materials for my classes.
82. Taxpayers without children feel good about our program.
83. My students have adequate opportunity to make up work.
84. Few teachers seek transfers from my school.
85. I have sufficient opportunity to share ideas with my colleagues.
86. I enjoy working with the program in my school.
87. My classroom appears more used this year.
88. There is no need for construction of additional facilities in our school district.
89. We have a good faculty-student relationship in my school.
90. I have adequate communication with my students' parents about our program.

1 = disagree, 2 = tend to disagree, 3 = tend to agree, 4 = agree

91. Instructional objectives are being met with our present curriculum.
92. Our district support services are good during the summer months (June - August).
93. I have frequent opportunities for evaluating my teaching effectiveness.
94. Students could be grouped by ability or achievement in our program.
95. The people in this community have a sincere and wholehearted interest in my school's program.
96. My students have adequate opportunity for remedial assistance.
97. My students have sufficient opportunities to participate in our school's extracurricular activities.
98. My salary compares favorably with salaries paid in other systems with which I am familiar.
99. I have no problem in storing materials when going on vacation.
100. I have sufficient opportunity for personal contact with my students.
101. I do not feel isolated from students in other attendance patterns.
102. The program in my school should be expanded to other schools.
103. Opportunity to implement newly developed curriculum is possible in our school.
104. We have a good instructional program in this school.
105. Additional community recreation resources are not necessary to accommodate our students on vacations.
106. My administrators are concerned with my problems.
107. Our calendar requires little time for opening and closing school.
108. Our program compares favorably to the programs of other schools.
109. Opportunities for individualizing instruction exist in my school.
110. My salary was fairly adjusted when I began teaching in this program.
111. Our program helps solve economic problems of the school district.
112. Our program maximizes the use of existing facilities.
113. I prefer my school's calendar to those of other schools in the district.
114. My teaching schedule permits me to take advanced courses toward a graduate degree or certification renewal.
115. A co-operative atmosphere exists between teachers and administrators in my school.
116. My administrators provide adequate assistance in solving my problems.
117. Teacher record keeping procedures consume little time in our school.
118. My administrators have allowed adequate faculty voice in designing the instructional program.
119. We have an adequate inservice training program in our school.
120. My personal life has not been affected by my teaching schedule.
121. Teachers who work more than the customary 185 days within a twelve-month period do not lose their effectiveness.
122. I like the options available to me on my teaching contract.
123. Our parents show much interest in their children's education.

APPENDIX B

ROTATED FACTOR MATRIX RESULTING FROM
TEACHERS' RESPONSES TO SECTION TWO
OF THE PRELIMINARY INVENTORY

Table 10

Rotated Factor Matrix Resulting from
Teachers' Responses to Section Two
of the Preliminary Inventory

Item	Factor 1 ^a	Factor 2 ^b	Factor 3 ^c	Factor 4 ^d	Factor 5 ^e	Factor 6 ^f	Factor 7 ^g	Factor 8
(25) ^h	1	-18 ⁱ	09	01	-03	08	20	20
(26)	2	07	23	-11	08	08	61 ^j	04
(27)	3	09	07	42	10	20	19	19
(28)	4	39	54	13	01	02	-11	08
(29)	5	-01	24	-07	17	-65	22	20
(30)	6	17	10	-01	-03	02	-37	31
(31)	7	-03	02	41	-04	-17	02	-05
(32)	8	63	07	00	10	07	-01	-10
(33)	9	20	-05	-17	06	02	-07	-42
(34)	10	04	64	19	-04	07	41	05
(35)	11	13	37	-20	-14	-07	07	07
(36)	12	30	-02	12	27	38	-10	-10
(37)	13	19	-07	39	08	-04	-42	41
(38)	14	30	02	36	08	-17	05	05
(39)	15	03	-14	21	18	-16	07	07
(40)	16	06	19	12	-17	04	37	37
(41)	17	30	-13	-01	-39	28	-02	-02
(42)	18	33	61	12	-16	08	10	10
(43)	19	-07	-02	-01	30	-53	-03	-03
(44)	20	-10	-05	45	-11	-15	29	29
(45)	21	35	10	38	-24	06	04	04
(46)	22	21	15	01	03	-07	-29	-29
(47)	23	19	22	60	04	07	-17	-17

Table 10 (continued)

Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
(48)	24	-00	58	06	-08	-14	01
(49)	25	12	<u>45</u>	26	-08	21	-07
(50)	26	10	20	05	03	16	-04
(51)	27	-25	32	-06	27	18	04
(52)	28	-07	<u>51</u>	29	35	15	-11
(53)	29	39	-13	06	04	-20	-24
(54)	30	21	39	25	-28	-24	-19
(55)	31	08	31	24	11	-21	-01
(56)	32	08	41	29	-05	-32	-20
(57)	33	12	-03	-19	-29	-09	30
(58)	34	11	18	39	-24	03	23
(59)	35	-14	22	22	-30	-26	06
(60)	36	22	10	10	23	13	50
(61)	37	18	-12	52	-20	00	<u>-13</u>
(62)	38	04	41	-11	14	45	06
(63)	39	30	57	09	14	06	31
(64)	40	-02	<u>23</u>	-03	-03	13	<u>56</u>
(65)	41	13	-04	-05	<u>62</u>	-25	<u>06</u>
(66)	42	46	13	-06	09	-05	17
(67)	43	-19	11	<u>53</u>	-02	-11	12
(68)	44	08	24	29	07	-04	28
(69)	45	-06	25	-01	-06	18	12
(70)	46	32	-06	13	21	-19	28
(71)	47	-18	-17	-11	-03	-23	<u>52</u>
(72)	48	25	-07	-21	-17	-08	<u>24</u>
(73)	49	12	17	22	23	-11	21

Table 10 (continued)

Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
(74)	10	04	41	11	-30	-27	18
(75)	18	40	18	-03	09	-18	54
(76)	08	29	02	33	07	-19	11
(77)	16	10	09	18	19	27	60
(78)	11	07	45	37	28	17	24
(79)	-03	-16	28	45	-14	-03	-09
(80)	-09	00	29	47	10	-04	-07
(81)	01	-03	04	09	04	-05	66
(82)	-11	19	04	30	38	33	18
(83)	19	09	15	48	-00	-27	-09
(84)	26	10	12	03	60	-07	03
(85)	30	34	-05	-01	-19	-52	41
(86)	28	02	32	38	-15	-23	-07
(87)	15	-03	21	32	39	04	-05
(88)	09	10	02	-21	50	-06	20
(89)	34	14	22	13	45	-06	17
(90)	18	-01	58	-04	13	-18	25
(91)	-08	15	07	52	11	-07	12
(92)	-04	11	47	25	10	02	16
(93)	11	16	44	25	08	-13	04
(94)	02	02	-13	10	-01	-27	07
(95)	-04	-02	60	-18	17	03	03
(96)	02	10	11	06	04	-34	02
(97)	-00	46	-09	46	-19	02	01
(98)	-19	-13	12	24	23	-25	07
(99)	-07	29	12	31	06	04	47
(100)	08	30	24	05	-44	-20	15

Table 10 (continued)

Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
(101)	10	42	-18	20	-09	09	-04
(102)	73	09	38	17	12	04	-01
(103)	40	09	-03	49	09	06	11
(104)	13	16	48	29	29	-08	-03
(105)	10	-20	39	-38	04	-04	-09
(106)	26	68	05	-10	-04	-30	-15
(107)	42	34	-02	-07	09	04	06
(108)	24	34	29	11	24	-06	-13
(109)	34	26	01	25	-00	07	-07
(110)	-01	05	06	-00	-02	-76	-10
(111)	60	32	07	05	02	21	07
(112)	29	56	-02	23	-06	-03	-01
(113)	80	-05	05	11	06	03	13
(114)	42	04	27	31	-37	-18	-10
(115)	02	75	-14	10	03	-29	03
(116)	06	69	-05	-18	08	-37	-02
(117)	02	27	17	11	12	-06	-04
(118)	12	61	-03	22	12	18	13
(119)	03	19	30	-03	-11	-39	40
(120)	49	01	31	13	-12	04	23
(121)	63	13	14	06	08	00	-10
(122)	50	-25	38	08	05	-43	02
(123)	02	-03	70	-03	-09	-04	13

^aRelates to School Calendar and Program

Table 10 (continued)

^bRelates to Administration.

^cRelates to Student Welfare.

^dRelates to Teacher Welfare.

^eRelates to School and Community Relations.

^fRelates to Business and Finance.

^gRelates to Physical Facilities.

^hNumber in () indicates the corresponding items in section two of the preliminary inventory, Appendix A.

ⁱAll values were reduced to two significant places with the decimal point removed.

^jAll values 0.50 or greater were considered to be significant and were underlined.

APPENDIX C

STEPWISE REGRESSIONS ON THE FACTORS
IDENTIFIED IN SECTION TWO OF
THE PRELIMINARY INVENTORY

Table 11
 Stepwise Regression on Factor 1^a
 of the Preliminary Inventory^b

Step Number	Variable		Multiple	
	Entered	Removed	R	RSQ
1	(68) ^c	9	36 ^d	13
2	(80)	11	47	22
3	(52)	6	52	27
4	(103)	14	55	30
5	(109)	17	60	36
6	(37)	4	63	40
7	(26)	2	65	42
8	(61)	7	67	45
9	(91)	13	68	46
10	(40)	5	69	47
11	(81)	12	69	48
12	(67)	8	69	48
13	(36)	3	70	48
14	(79)	10	70	48
15	(104)	15	70	48
16	(108)	16	70	49

^aRelates to School Calendar and Program.

^bThe regression was made against the response teachers gave on favorability toward year-round education, which was item 24 on the Preliminary Inventory, Appendix A.

^cThe number in () indicates the corresponding statement used in the Preliminary Inventory, Appendix A.

^dAll values were reduced to two significant places with the decimal point removed.

^eAll items above this point were included in the Final Inventory, Appendix H.

Table 12
 Stepwise Regression on Factor 2^a
 of the Preliminary Inventory^b

Step Number	Variable		Multiple	
	Entered	Removed	R	RSQ
1	(78) ^c	10	34 ^d	12
2	(51)	6	47	22
3	(50)	5	50	25
4	(106)	12	52	27
5	(39)	4	54	29
6	(119)	18	55	30
7	(38)	3	56	32
8	(25)	2	57	33
9	(77)	9	58	33
10	(116)	15	59	34
11	(65)	7	59	35
12	(115)	14	59	35
13	(92)	11	59	35
14	(107)	13	59	35
15	(117)	16	59	35
16	(118)	17	59	35

^aRelates to Administration.

^bThe regression was made against the response teachers gave on favorability toward year-round education, which was item 24 on the Preliminary Inventory, Appendix A.

^cThe number in () indicates the corresponding statement used in the Preliminary Inventory, Appendix A.

^dAll values were reduced to two significant places with the decimal point removed.

^eAll items above this point were included in the Final Inventory, Appendix H.

Table 13
 Stepwise Regression on Factor 3^a
 of the Preliminary Inventory^b

Step Number	Variable		Multiple	
	Entered	Removed	R	RSQ
1	(63) ^c	8	38 ^d	14
2	(42)	4	40	16
3	(64)	9	43	19
4	(97)	14	45	21
5	(54)	7	47	23
6	(74)	10	49	24
7	(96)	13	51	26
8	(83)	11	52	27
9	(34)	3	52	27
10	(49)	6	53	28
11	(89)	12	53	28
12	(28)	2	53	28
13	(47)	5	53	28

^aRelates to Student Welfare.

^bThe regression was made against the response teachers gave on favorability toward year-round education, which was item 24 on the Preliminary Inventory, Appendix A.

^cThe number in () indicates the corresponding statement used in the Preliminary Inventory, Appendix A.

^dAll values were reduced to two significant places with the decimal point removed.

^eAll items above this point were included in the Final Inventory, Appendix H.

Table 14
 Stepwise Regression on Factor 4^a
 of the Preliminary Inventory^b

Step Number	Variable		Multiple	
	Entered	Removed	R	RSQ
1	(102) ^c	21	49 ^d	24
2	(45)	5	54	29
3	(71)	11	56	31
4	(73)	13	58	34
5	(44)	4	60	36
6	(58)	9	62	39
7	(56)	7	63	40
8	(86)	17	65	42
9	(101)	20	66	44
10	(70)	10	67	45
11	(32)	3	68	46
12	(93)	18	69	47
13	(72)	12	69	48
14	(122)	26	70	48
15	(46)	6	70	49
16	(85)	16	70	49
17	(31)	2	70	49
18	(120)	24	70	50
19	(57)	8	71	50
20	(114)	23	71	50
21	(113)	22	71	50

^aRelates to Teacher Welfare.

^bThe regression was made against the response teachers gave on favorability toward year-round education, which was item 24 on the Preliminary Inventory, Appendix A.

^cThe number in () indicates the corresponding statement used in the Preliminary Inventory, Appendix A.

^dAll values were reduced to two significant places with the decimal point removed.

^eAll items above this point were included in the Final Inventory, Appendix H.

Table 15

Stepwise Regression on Factor 5^a
of the Preliminary Inventory^b

Step Number	Variable		Multiple	
	Entered	Removed	R	RSQ
1	(41) ^c	4	24 ^d	06
2	(27)	2	32	10
3	(95)	12	36	13
4	(69)	8	38	15
5	(90)	10	39	15
6	(105)	13	40	16
7	(48)	5	41	17
8	(82)	9	41	17
9	(53)	6	42	17
10	(94)	11	42	18
11	(62)	7	42	18
12	(35)	3	42	18
13	(123)	14	42	18

^aRelates to School and Community Relations.

^bThe regression was made against the response teachers gave on favorability toward year-round education, which was item 24 on the Preliminary Inventory, Appendix A.

^cThe number in () indicates the corresponding statement used in the Preliminary Inventory, Appendix A.

^dAll values were reduced to two significant places with the decimal point removed.

^eAll items above this point were included in the Final Inventory, Appendix H.

Table 16
 Stepwise Regression on Factor 6^a
 of the Preliminary Inventory^b

Step Number	Variable		Multiple	
	Entered	Removed	R	RSQ
1	(111) ^c	10	27 ^d	07
2	(98)	8	32	10
3	(110)	9	38	14
4	(88)	7	41	17
5	(60)	6	45	20
6	(33)	3	47	22
7	(55)	5	48	23
8	(43)	4	49	24

^aRelates to Business and Finance.

^bThe regression was made against the response teachers gave on favorability toward year-round education, which was item 24 on the Preliminary Inventory, Appendix A.

^cThe number in () indicates the corresponding statement used in the Preliminary Inventory, Appendix A.

^dAll values were reduced to two significant places with the decimal point removed.

^eAll items above this point were included in the Final Inventory, Appendix H.

Table 17

Stepwise Regression on Factor 7^a
of the Preliminary Inventory^b

Step Number	Variable		Multiple	
	Entered	Removed	R	RSQ
1	(112) ^c	7	20 ^d	04
2	(99)	6	24	06
3	(87)	5	26	07
4	(75)	4	27	07
5	(59)	3	27	07

^aRelates to Physical Facilities.

^bThe regression was made against the response teachers gave on favorability toward year-round education, which was item 24 on the Preliminary Inventory, Appendix A.

^cThe number in () indicates the corresponding statement used in the Preliminary Inventory, Appendix A.

^dAll values were reduced to two significant places with the decimal point removed.

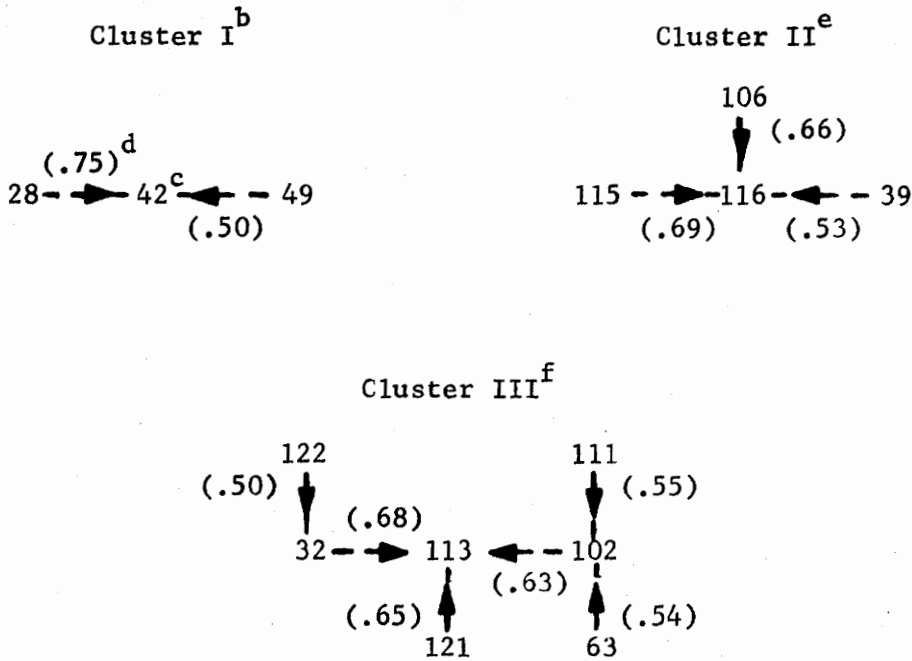
^eAll items above this point were included in the Final Inventory, Appendix H.

APPENDIX D

ELEMENTARY FACTOR ANALYSIS INDICATING
FACTOR CLUSTERS ON SECTION TWO
OF THE PRELIMINARY INVENTORY

Figure 2

Elementary Factor Analysis Indicating Factor
Clusters on the Preliminary Inventory^a



^aUsing a correlation matrix on all 123 items in the preliminary inventory, all items correlating at 0.50 were identified as being significant. When three or more items correlated with one another they established a cluster and it was then identified as relating to one of the seven factors indicated on page 49.

^bIdentified as relating to Factor 3, Student Welfare.

^cThis number corresponds to the similarly numbered item on the preliminary inventory contained in Appendix A.

^dCorrelation value for the two items connected by the arrows.

^eIdentified as relating to Factor 2, Administration.

^fIdentified as relating to Factor 1, School Calendar/Program.

APPENDIX E

PANEL OF EXPERTS WHO EVALUATED QUESTIONNAIRE

PANEL OF EXPERTS WHO EVALUATED QUESTIONNAIRE

The following individuals are officers, directors, and regional coordinators of the National Council on Year-Round Education.

Dr. Don Glines, President Elect
California Dept. of Education
Sacramento, CA 95680

Dr. John D. McLain, Sec./Treas.
Clarion State College
Clarion, PA 16214

Mr. James Bingle, Director
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Ms. Geneva Brown, Director
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Dr. Franklin Edwards, Director
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Dr. Gene Henderson, Director
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Dr. Ernest Mueller, Director
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Region III
Valley View Public Schools
Romeoville, IL 60441

Dr. E. Curtis Henson, Coordinator
Region V
Atlanta Public Schools
Atlanta, GA 30300

APPENDIX F
CORRESPONDENCE WITH THE
PANEL OF EXPERTS



COLLEGE OF EDUCATION
 VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Blacksburg, Virginia 24061

DIVISION OF ADMINISTRATIVE AND EDUCATIONAL SERVICES

Dear

As you are probably aware, Dave Parks and I are in the process of developing an instrument to evaluate the attitudes of teachers working in operational year-round schools. The work we are doing is explained in detail on the attached information sheet.

The expertise you have on year-round education can be of considerable assistance to us at this time if you would consent to evaluate the enclosed preliminary inventory before it is field tested with a pilot group of teachers. Your input will help us to further refine the inventory.

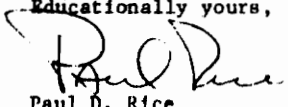
If you would be so kind to assist us, we would appreciate your responding to the inventory as indicated on the instructions. Because of your expertise, we have included several tasks that will not be asked of the pilot group. Special instructions are provided and those instructions will not appear on the inventory in its final form. We have also divided the items into categories to assist you in your evaluation. Again, the final instrument will not have such categories and all items will be inter-mixed. We have encircled in RED all information that will not be on the final inventory.

We are very anxious to have the final instrument available for distribution at the Seventh Seminar and are therefore working on a rather tight time line. We still have to test the instrument with our pilot group and then with our national sample. You can assist us by returning your evaluation as soon as possible and hopefully prior to January 31, 1975. We have also enclosed a stamped, self-addressed envelope for returning the materials.

If you have any questions regarding the tasks asked of you, please feel free to call me collect at (703) 951-5642.

We appreciate your taking time out of your busy schedule to assist us and are hopeful that the final instrument will be of assistance to you in evaluating your own program. We will certainly see that you obtain a copy of the final instrument and the results related to it.

Educationally yours,


 Paul D. Rice
 Director

PDR:cf

PRELIMINARY INVENTORY

Instructions:

1. There is probably a wide range of opinion concerning many of the items on this inventory. Please read each item carefully and determine your position on each statement. An answer sheet is provided for you to record your answers to the items in this inventory. Please use a number 2 pencil to mark the numbers on the answer sheet that corresponds to the appropriate number on the inventory. Please do not staple, clip, or fold the answer sheet. Do not fill in any information on the top part of the answer sheet.

2. Put an "X" in front of each item that, in your opinion, will not contribute information about teacher attitudes toward working in a year-round school. Use one of the spaces preceding the item on the inventory to place your "X" if you wish the item not to be used.

3. Put an "O" in front of each item that, in your opinion, is not clearly stated or concise enough to allow you to obtain the meaning of the statement. If you choose to use an "O", place it in one of the spaces preceding the item in question.

Example:

1 = disagree, 2 = tend to disagree, 3 = tend to agree, 4 = agree

- X ___ 1. Teachers' salaries should be based upon their effectiveness as judged by their principal.
- ___ O 2. The per pupil cost in my school has decreased.

The "X" for item 1 indicates you do not feel the item should be included in the inventory. The "O" in item 2 indicates you are not sure of the meaning of the statement. If you had left each space blank and responded to the questions on the answer sheet your answers would be interpreted as follows:

	(1)	(2)	(3)	(4)	
1	Indicates you tend to agree.
2	Indicates you disagree.

Use answer spaces 1 - 100 for this section of the inventory.

Please respond to all items.

X = Do not include on inventory.

O = Unclear item.

1 = disagree, 2 = tend to disagree, 3 = tend to agree, 4 = agree

Attitudes on administrative issues.

- ___ ___ 1. My principal understands the operation of our program.
- ___ ___ 2. The administration and department chairpersons (team leaders, program area leaders) of my school have been very helpful in solving problems created by our program.
- ___ ___ 3. My administrators are not overburdened with work.
- ___ ___ 4. My school's climate facilitates learning.
- ___ ___ 5. A co-operative atmosphere exists in my school.
- ___ ___ 6. I have frequent opportunities for evaluating my teaching effectiveness.
- ___ ___ 7. My administrators are concerned with my problems.
- ___ ___ 8. My administrators provide adequate assistance in solving my problems.
- ___ ___ 9. My administrators planned well for our program.
- ___ ___ 10. Our calendar requires little time for opening and closing school.
- ___ ___ 11. Teacher record keeping procedures consume little time in our school.
- ___ ___ 12. There is little teacher turnover in our school.
- ___ ___ 13. My administrators have allowed adequate faculty voice in designing the instructional program.
- ___ ___ 14. We have an adequate inservice training program in our school.
- ___ ___ 15. Our faculty has had an adequate voice in policy making.
- ___ ___ 16. Our program can adjust to changing conditions.
- ___ ___ 17. Our district support services are not as good during the summer months (June-August).
- ___ ___ 18. Adequate support staff (teacher aides, clerk-typists, and the like) is available to assist me.

Attitudes on curriculum and instruction issues.

- ___ ___ 19. I have sufficient instructional supplies and equipment to do my job.
- ___ ___ 20. Our curriculum takes advantage of the summer season (geology, environmental studies, summer sports, etc.).
- ___ ___ 21. The students in my school receive a quality education.
- ___ ___ 22. The learning process for my students is on a continuous basis.
- ___ ___ 23. Our curriculum provides enrichment opportunities to students.
- ___ ___ 24. I have been able to expand my curriculum offerings.
- ___ ___ 25. Our program compares favorably to the programs of other schools.
- ___ ___ 26. Opportunities for individualizing instruction exist in my school.
- ___ ___ 27. Our school calendar facilitates student achievement.
- ___ ___ 28. Our program is based upon sound educational principles.
- ___ ___ 29. Instructional objectives are being met with our present curriculum.

X = Do not include on inventory.

0 = Unclear item.

1 = disagree, 2 = tend to disagree, 3 = tend to agree, 4 = agree

- ___ 30. Opportunity to implement newly developed curricular is possible in our school.
- ___ 31. Curriculum development in our school is a continuous process.
- ___ 32. I have adequate instructional materials for my classes.
- ___ 33. Children could be grouped by ability or achievement in our program.
- ___ 34. We have a good instructional program in this school.
- ___ 35. I spend little time on review of materials with my students.

Attitudes on school/community relation issues.

- ___ 36. My opportunity for year-round employment has reduced the criticism that teaching is a part-time profession.
- ___ 37. The value of our program is underestimated by most people.
- ___ 38. I am on friendly terms with my students' parents.
- ___ 39. Other community agencies and programs, such as park and recreation, church, and summer camp, have quickly adjusted with little complaint to our program.
- ___ 40. The people in this community have a sincere and wholehearted interest in my school's program.
- ___ 41. I frequently talk to members of the community about our program.
- ___ 42. Taxpayers without children feel good about our program.
- ___ 43. Additional community recreation resources are not necessary to accommodate our students on vacations.
- ___ 44. I have adequate communication with my student's parents about our program.
- ___ 45. Our public relations activities are adequate.
- ___ 46. My community's attitude is positive toward my school.
- ___ 47. Our parents show much interest in their childrens' education.

Attitudes on student related issues.

- ___ 48. My students feel good about our school.
- ___ 49. My students have positive attitudes toward our school.
- ___ 50. My student-teacher relationship has been personally rewarding.
- ___ 51. My students have adequate opportunity for remedial assistance.
- ___ 52. Students behave well in my school.
- ___ 53. We have few students who drop out of our school.
- ___ 54. My students have adequate opportunity to make up work.
- ___ 55. My students like to attend class.
- ___ 56. My students have sufficient opportunities to participate in our school's extracurricular activities.
- ___ 57. We have good faculty-student relation in my school.
- ___ 58. My students are achieving well.

X = Do not include on inventory. 0 = Unclear item.

1 = disagree, 2 = tend to disagree, 3 = tend to agree, 4 = agree

- ___ 59. Our program provides continuity to my students.
 ___ 60. I have no problem in developing rapport with my students.

Attitudes on economic issues.

- ___ 61. My school district provides adequate fringe benefits.
 ___ 62. I am satisfied with my salary.
 ___ 63. Public money for our school program is well spent.
 ___ 64. My salary compares favorably with salaries paid in other systems with which I am familiar.
 ___ 65. Little vandalism occurs in our building.
 ___ 66. My salary was fairly adjusted when I began teaching in this program.
 ___ 67. Our program helps solve economic problems of the school district.
 ___ 68. My school does not need air conditioning.
 ___ 69. There is no need for construction of additional facilities in our school district.

Attitudes on physical facilities.

- ___ 70. Classrooms in my school are not overcrowded.
 ___ 71. I have no problems in storing materials when going on vacation.
 ___ 72. Our program maximises the use of existing facilities.
 ___ 73. Maintenance in my school has been satisfactory.
 ___ 74. My classroom appears more used this year.
 ___ 75. My school district makes full use of existing facilities.

Attitudes on faculty related issues.

- ___ 76. Our program helps teachers develop independence.
 ___ 77. I am able to use my special abilities in teaching.
 ___ 78. I feel good about teaching.
 ___ 79. I do not feel isolated from my colleagues.
 ___ 80. Our program helps teachers develop a sense of responsibility.
 ___ 81. Teachers in my school have high morale.
 ___ 82. Few teachers seek transfers from my school.
 ___ 83. I have sufficient opportunity for personal contact with my students.
 ___ 84. My workload has not increased.
 ___ 85. My student-teacher ratio facilitates learning.
 ___ 86. I do not feel isolated from students in other attendance patterns.
 ___ 87. I prefer my school's calendar to those of other schools in the district.
 ___ 88. I have sufficient opportunity to share ideas with my colleagues.
 ___ 89. My teaching schedule permits me to take advanced courses toward a graduate degree or certification renewal.
 ___ 90. I like the calendar used in my building.

X = Do not include on inventory. 0 = Unclear item.

1 = disagree, 2 = tend to disagree, 3 = tend to agree, 4 = agree

- ___ 91. Teachers who work more than the customary 185 days within a twelve-month period do not lose their effectiveness.
- ___ 92. I like the options available to me on my teaching contract.
- ___ 93. I understand most things about our program.
- ___ 94. I enjoy working with the program in my school.
- ___ 95. The more I work with the program in my school, the more I like it.
- ___ 96. I have sufficient options available to me on my teaching schedule.
- ___ 97. My teaching effectiveness is improving.
- ___ 98. My personal life has not been affected by my teaching schedule.
- ___ 99. I have adequate time at school for lesson planning.
- ___ 100. The program in my school should be expanded to other schools.

Personal and Situational Information.

Please choose the one most appropriate answer for each item below and mark the corresponding number on the answer sheet provided. Use answer spaces 101 - 124 for this section of the inventory.

Example:

(1) (2) (3) (4) (5)

- 1 ::: ::: ::: ::: indicates you are a male.
- 2 ::: ::: ::: ::: indicates your age is between 46-55.

1. Your sex: (1) female, (2) male
2. The age range in which your age belongs:
 - (1) under 26, (2) 26-35, (3) 36-45, (4) 46-55, (5) over 55

- ___ 101. Prior to the year-round program your school operated on a:
- (1) normal, traditional school year
 - (2) double session, traditional school year
 - (3) extended day, traditional school year
 - (4) other
- ___ 102. Total student enrollment in your school for 1974-75 is:
- (1) under 501
 - (2) 501 - 1000
 - (3) 1001 - 1500
 - (4) 1501 - 2000
 - (5) over 2000
- ___ 103. Type of community your school serves:
- (1) urban
 - (2) rural or small town
 - (3) suburban

- ___ 104. Your sex: (1) female, (2) male
- ___ 105. Your age: (1) under 26, (2) 26-35, (3) 36-45, (4) 46-55, (5) over 55
- ___ 106. Your marital status: (1) single, (2) married
- ___ 107. Compared to when I taught in a traditional program, my degree of fatigue at the end of each school day is:
- (1) less
 - (2) the same
 - (3) more
 - (4) I can not compare, I never taught in a traditional program
- ___ 108. Your morale has:
- (1) increased, (2) decreased, (3) remained the same
- ___ 109. Your total teaching experience, including 1974-75:
- (1) 1
 - (2) 2 - 5
 - (3) 6 - 9
 - (4) 10 - 13
 - (5) over 13
- ___ 110. Your total teaching experience in a year-round program, including 1974-75:
- (1) 1, (2) 2, (3) 3, (4) 4, (5) 5 or more
- ___ 111. Type of school in which you teach:
- (1) elementary, (2) middle or junior high, (3) senior high
- ___ 112. If given the option, which type of year-round program would you prefer to work in:
- (1) 45-15
 - (2) four quarter plan
 - (3) quinmester plan
 - (4) concept 6 plan
 - (5) other
- ___ 113. Your student-teacher ratio has:
- (1) increased, (2) decreased, (3) remained the same
- ___ 114. Your education is:
- (1) less than a Bachelor's degree
 - (2) a Bachelor's degree
 - (3) a Master's degree
 - (4) a Doctor's degree
- ___ 115. To what extent were you involved in the development of your year-round program:
- (1) none, (2) very little, (3) some, (4) considerable
- ___ 116. The quality of the educational program in your school has:
- (1) regressed, (2) remained the same, (3) been enhanced
- ___ 117. You are professional associated with the:
- (1) American Federation of Teachers
 - (2) National Education Association
 - (3) neither of the above
 - (4) both of the above

- ___ ___ 118. Do you have an option on the number of days your contract allows you to teach?: (1) no, (2) yes
- ___ ___ 119. Do you have the option to transfer to a traditional school program if you desire?: (1) no, (2) yes
- ___ ___ 120. Do you have an option on when you may take your vacation(s):
(1) no, (2) yes
- ___ ___ 121. Is your salary determined on a per diem basis?: (1) no, (2) yes
- ___ ___ 122. The support staff provided you is: (1) adequate, (2) inadequate
- ___ ___ 123. Your fringe benefits for working in your year-round program were adequately adjusted: (1) no, (2) yes
- ___ ___ 124. I consider myself in favor of year-round education: (1) no, (2) yes
-

Are the instructions for completing the inventory complete and clearly stated? YES _____ NO _____

If your answer is no, please indicate how they could be rewritten to be clearer and more concise.

Was the format of the inventory such that it is easily understandable?

YES _____ NO _____

If your answer is no, please indicate how it might be improved.

If you have any other suggestions and/or comments on how this inventory might be improved, please do so in the following space.

APPENDIX G
SUMMARY OF COMMENTS MADE BY
THE PANEL OF EXPERTS

APPENDIX G

Summary of Comments made by
the Panel of Experts

The following is a summary of the comments made by the panel of experts on their review of the Preliminary Inventory.

1. Question: "Are the instructions for completing the questionnaire complete and clearly stated?" The following comments were made. Eleven jurors found the instructions complete and clearly stated and one juror found them to be otherwise. The juror who indicated that the instructions were not clear and complete did not make any recommendations for rewriting them. Three of the jurors did not respond to this question.

The researcher did not make any changes in the instructions for completing the inventory.

2. Question: "Is the wording of all items understandable?" Most jurors used this question to convey all corrections they felt were needed on the following categories: (1) misspelling, nine corrections were indicated; (2) sentence structure, fourteen corrections were indicated; (3) punctuation, seven corrections were indicated, and (4) combining of statements, six recommendations were made indicating statements that should be combined.

The researcher made appropriate corrections on the inventory using the recommendations made by the panel of experts as a guide.

3. Question: "Does each of the items relate to factors that might affect teachers' attitudes toward year-round school?" Seventy seven comments were made suggesting the elimination of certain items.

One juror made fifty-five of the seventy-seven comments. Jurors made ninety-six comments indicating that certain items needed clarification and/or rephrasing. Many of the comments regarding the clarity and elimination of items referred to the same item, with the comments being made by different jurors. On the basis of the comments made by the jurors and a review of the items concerned, the researcher eliminated two items from the Preliminary Inventory. The items were numbered 77 and 118 in the Preliminary Inventory provided to the panel of experts. A copy of that inventory is contained in Appendix F. A third item, number 96, should have been removed prior to the inventory being sent to the panel of experts, but was inadvertently left in. The item was removed earlier because it was considered to be a duplication of other statements contained within the inventory. The researcher also rephrased and structured statements when appropriate clarification was needed.

4. Question: "Are all significant aspects that might relate to teachers' attitudes toward year-round school represented in this questionnaire?" The comments to this question were few and those made follow.

a. Include questions relevant to budget, costs, comparative cost analysis and the like.

b. If this instrument is to be valid over the years, it should relate to experiences in year-round education and not traditional nine-months.

c. Some questions need to be included about priorities:
(1) year-round start-up costs versus static calendar, (2) year-round

start-up costs versus increased teacher salaries, (3) year-round program initiation versus other curriculum reform, (4) teacher involvement in selection of calendar, (5) teacher involvement in development of tracks (if applicable), and (6) type of program/ calendar selected related to weather, climate, community, working hours and the like.

After evaluating the preceding comments the researcher decided that no additional statements would be added to the inventory.

5. Question: "Is the format of the questionnaire such that it is easily understandable?" Ten jurors indicated the format was understandable, one indicated that it was not, and four jurors did not respond to this question. The juror that responded in the negative suggested that the number of statements be reduced and that the "check" questions contained in section one of the inventory were too similar to the statements in section two of the inventory. The researcher did not change the format of the inventory.

APPENDIX H
FINAL TEACHER ATTITUDE INVENTORY
ON YEAR-ROUND EDUCATION

TEACHER ATTITUDE INVENTORY ON
YEAR-ROUND EDUCATION

Dear Educator:

In order to obtain information on how teachers feel toward the year-round educational program in your school district, the following teacher attitude inventory has been developed to obtain your feelings toward the year-round program in your school building. The inventory is designed to obtain your feelings on questions relating to administration, curriculum and instruction, school/community relations, students, economics, physical facilities, and faculty issues.

The inventory is divided into two sections. The first section is designed to obtain personal and situational information and the second section to obtain your opinions on the educational program in your school.

An answer sheet is provided for you to record your answers to the items. Please use a number 2 pencil. Mark the numbers on the answer sheet that corresponds to the appropriate number on the inventory. Please do not staple, clip, or fold the answer sheet. Do not fill in any information on the top part of the answer sheet.

Section 1: Personal and Situational Information.

Please choose the one most appropriate answer for each item below and mark the corresponding number on the answer sheet provided. Use answer spaces 1 - 24 for this section of the inventory.

Example:

If the first two questions were as follows:

1. Sex: (1) female, (2) male
2. The age range in which my age belongs is:
(1) under 26, (2) 26-35, (3) 36-45, (4) 46-55, (5) over 55

and you responded in the following way, your answer would be interpreted as follows:

- | | (1) | (2) | (3) | (4) | (5) | |
|---|-----|-----|-----|-----|-----|--------------------------------------|
| 1 | ::: | ■ | ::: | ::: | ::: | indicates you are a male. |
| 2 | ::: | ::: | ::: | ■ | ::: | indicates your age is between 46-55. |

Please respond to all items, beginning with item number 1 on the next page.

1. Prior to the year-round program my school building operated on a:
 - (1) normal, traditional school year
 - (2) double session, traditional school year
 - (3) extended day, traditional school year
 - (4) other
2. The total student enrollment in my school building for 1974-75 is:
 - (1) under 501
 - (2) 501 - 1000
 - (3) 1001 - 1500
 - (4) 1501 - 2000
 - (5) over 2000
3. The type of community my school serves is:
 - (1) urban
 - (2) rural or small town
 - (3) suburban
4. Sex: (1) female, (2) male
5. Age: (1) under 26, (2) 26-35, (3) 36-45, (4) 46-55, (5) over 55
6. Marital status: (1) single, (2) married
7. Compared to when I taught in a traditional program, my degree of fatigue at the end of each school day is:
 - (1) more
 - (2) the same
 - (3) less
 - (4) I can not compare, I never taught in a traditional program
8. Since working in the year-round program my moral has:
 - (1) decreased, (2) remained the same, (3) increased
9. My total teaching experience, including the current school year, is:
 - (1) 1 year
 - (2) 2 - 5 years
 - (3) 6 - 9 years
 - (4) 10 - 13 years
 - (5) over 13 years
10. My total teaching experience in a year-round program, including the current school year, is:
 - (1) 1, (2) 2, (3) 3, (4) 4, (5) 5 or more years
11. I teach in the following type of school:
 - (1) elementary, (2) middle or junior high, (3) senior high
12. If given the option, in which type of year-round program would you prefer to work?:
 - (1) 45 - 15
 - (2) four quarter plan
 - (3) quinmester plan
 - (4) concept 6 plan
 - (5) other type of year-round plan
13. My student-teacher ratio has:
 - (1) increased, (2) remained the same, (3) decreased

14. My highest degree level attained is:
- (1) less than a Bachelor's degree
 - (2) a Bachelor's degree
 - (3) a Master's degree
 - (4) a Doctor's degree
15. To what extent were you involved in the development of your year-round program?:
- (1) none, (2) very little, (3) some, (4) considerable
16. Since the implementation of the year-round program, the quality of the educational program in my school has:
- (1) regressed, (2) remained the same, (3) been enhanced
17. I am professional associated with the:
- (1) American Federation of Teachers
 - (2) National Education Association
 - (3) neither of the above
 - (4) both of the above
 - (5) other professional teacher organization
18. Do you have an option on the number of days you teach?:
- (1) no, (2) yes
19. Do you have the option to transfer to a traditional school program if you so desire?: (1) no, (2) yes
20. Do you have an option on when you may take your vacation(s)?:
- (1) no, (2) yes
21. Is your salary determined on a per diem basis?: (1) no, (2) yes
22. The support staff provided me is: (1) inadequate, (2) adequate
23. Were the fringe benefits for working in your year-round program adequately adjusted?: (1) no, (2) yes
24. I am in favor of year-round education: (1) no, (2) yes

Section 2: Opinions on the educational program in your school.

Please read each item carefully and determine your position on each statement. Please mark your answers according to the following:

1 = disagree, 2 = tend to disagree, 3 = tend to agree, 4 = agree

Example:

If the questions were as follows:

1. Teachers' salaries should be based upon their effectiveness as judged by their principal.
2. The per pupil cost in my school has decreased.

and you responded in the following way, your answers would be interpreted as follows:

	(1)	(2)	(3)	(4)	(5)	
1	:::	:::	■	:::	:::	indicates you tend to agree.
2	■	:::	:::	:::	:::	indicates you disagree.

Use answer spaces 25 - 89 for this section of the inventory.

Please respond to all items.

1 = disagree, 2 = tend to disagree, 3 = tend to agree, 4 = agree

- (1)^a (1)^b 25. I like the calendar used in my building.
- (2) (2) 26. My students feel good about our school.
- (3) (3) 27. A co-operative relationship exists between the teachers and administrators in my school.
- (4) (4) 28. Our educational program provides continuity to my students.
- (5) (5) 29. My school district provides adequate fringe benefits.
- (6) 30. Maintenance in my school has been satisfactory.
- (7) 31. There is little teacher turnover in my school.
- (6) (8) 32. My school's learning environment facilitates learning.
- (7) (9) 33. Our school calendar facilitates student achievement.
- (8) (10) 34. The value of our program is underestimated by most people.
- (9) (11) 35. My students like to attend class.
- (12) 36. Our program helps solve economic problems of my school district.
- (13) 37. Our program maximizes the use of existing facilities.
- (10) (14) 38. The program in my school should be expanded to other schools.
- (11) (15) 39. I prefer my school's calendar to those of other schools on a traditional calendar.
- (12) (16) 40. My students are achieving well.
- (13) (17) 41. My administrators provide adequate assistance in solving my problems.
- (14) (18) 42. The learning process for my students is on a continuous basis.
- (15) (19) 43. I am satisfied with my salary.
- (16) (20) 44. I have adequate instructional materials for my classes.
- (17) (21) 45. Few teachers seek transfers from my school.
- (18) (22) 46. Our faculty has had an adequate voice in policy making.
- (19) (23) 47. Our program is based upon sound educational principles.
- (24) 48. My opportunity for year-round employment has reduced the criticism that teaching is a part-time profession.
- (20) (25) 49. My students have positive attitudes toward our school.
- (21) (26) 50. My salary compares favorably with salaries paid in other systems with which I am familiar.
- (22) (27) 51. I have no problem in storing materials when going on vacation.
- (23) (28) 52. The more I work with the program in my school, the more I like it.
- (24) (29) 53. Teachers who work more than the customary 185 days within a twelve-month period do not lose their effectiveness.
- (25) (30) 54. I am on friendly terms with my students' parents.
- (26) (31) 55. Instructional objectives are being met with our present curriculum.
- (27) (32) 56. I have sufficient opportunity to share ideas with my colleagues.
- (28) (33) 57. My administrators planned well for our program.

1 = disagree, 2 = tend to disagree, 3 = tend to agree, 4 = agree

- (29) (34) 58. The students in my school receive a quality education.
- (30) (35) 59. The people in this community have a sincere and wholehearted interest in my school's program.
- (36) 60. We have few students who drop out of school.
- (31) (37) 61. My salary was fairly adjusted when I began teaching in this program.
- (38) 62. My classroom appears more used (wear-wise) this year.
- (32) (39) 63. I do not feel isolated from my colleagues because of our calendar.
- (33) (40) 64. I like the options available to me on my teaching contract.
- (34) (41) 65. Our parents show much interest in their children's education.
- (35) (42) 66. My administrators are concerned with my problems.
- (36) (43) 67. Opportunity to implement newly developed curriculum is possible in my school.
- (44) 68. Other community agencies and programs, such as park and recreation, church, and summer camp, have quickly adjusted with little complaint to our program.
- (45) 69. My students have sufficient opportunities to participate in our school's extracurricular activities.
- (46) 70. There is no need for construction of additional facilities in our school district at the present time.
- (47) 71. I understand most things about our program.
- (37) (48) 72. Students behave well in my school.
- (38) (49) 73. The administration and department chairpersons (team leaders, program area leaders) of my school have been very helpful in solving problems created by our program.
- (39) (50) 74. Opportunities for individualizing instruction exist in my school.
- (40) (51) 75. I have adequate communication with my students' parents about our program.
- (41) (52) 76. My student-teacher relationships have been personally rewarding.
- (42) (53) 77. Little vandalism occurs in my building.
- (43) (54) 78. I am able to use my special abilities in teaching.
- (44) (55) 79. We have an adequate inservice training program in our school.
- (45) (56) 80. I have been able to expand my curriculum offerings because of our calendar.
- (57) 81. Additional community recreation resources are not necessary to accommodate our students on vacations.
- (46) (58) 82. I have no problem in developing rapport with my students.
- (59) 83. My school does not need air conditioning.
- (47) (60) 84. My teaching effectiveness is improving.
- (48) (61) 85. I have adequate instructional equipment to do my job.
- (49) (62) 86. My students have adequate opportunity for remedial assistance.
- (50) (63) 87. I feel good about teaching.
- (51) (64) 88. Curriculum development in my school is a continuous process.
- (52) (65) 89. I enjoy working with the program in my school.

^aThe number in () indicates the corresponding items used in the statistical analyses of the 52 questions contained in section two of the inventory.

^bThe number in () indicates the corresponding items used in the statistical analyses of the 65 questions contained in section two of the inventory.

APPENDIX I
CORRESPONDENCE WITH PRINCIPALS



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Cherry Creek School Dist. #5
Denver, Colorado 80222

I am doing a study to develop an instrument to determine the attitudes of teachers working in operational year-round schools. In my work with the National Council on Year-Round Education, I have found that many school districts have assessed the attitudes of teachers prior to the implementation of a year-round school program and some districts have done follow-up attitudinal surveys once the program has become operational.

However, in my research I have not found any district that has developed an attitudinal instrument that measures teacher's attitudes as they relate specifically to: economic factors, educational programs, community relations, and the like. The purpose of this study will be to develop such an instrument.

In order to develop the final instrument and determine its reliability and validity, I must field test it in currently operating year-round schools. You could be of considerable assistance in this project by allowing your school to be included in the study. If you were to do so, I would need to obtain a list of your faculty members and a contact teacher to assist in the distribution and collection of the survey instrument. By identifying a contact teacher, I will hopefully remove any additional administrative work on your part. If you choose to participate, would you please complete the enclosed sheet indicating your permission to use your school, the name of the contact teacher, and a list of your faculty (see attached).

I might add that only a random sample of your faculty will be asked to participate. The number will be a minimum of five from each school or at least 10% of the faculty.

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Region V

Dr. E. Curtis Hansen
Alameda Public Sch.
Alameda, Calif. 94501
(415) 857-1081

To further assist you in making your decision on whether or not to participate, I have enclosed a more detailed explanation of the objectives and goals of this study (see attached).

Upon receiving the information requested, I will send each contact teacher the necessary information and materials to carry out the field testing in your school. The information obtained will in no way be used in any manner that will identify your school, school district, or respondents used in the survey. All information obtained will be used as a single sample and reported as such.

The final instrument will be available in May 1975, and will be free of cost to any school and/or school district that participates in the field testing of the instrument.

If you choose to participate in this research project, I will need the information requested no later than January 20, 1975. To assist you in your providing me with the necessary information, I have included a form to type the requested information on and a stamped, self-addressed return envelope.

Thank you for your assistance in the study.

Educationally yours,

Paul D. Rice,
Director

PDR/cf

Enclosures 2

SCHOOL NAME _____

1. I give Paul D. Rice of Virginia Polytechnic Institute and State University, Blacksburg, Virginia, permission to use a randomly selected group of our faculty in a study to develop a teacher attitude instrument relating to year-round education. Permission is given on the basis that the data received from our school will in no way identify the respondents, the school, or the school district. All data obtained will be used with additional data from other participating schools throughout the United States and reported as part of the total sample involved in the study. The data collected from our school will be held in strict confidence and used only in this study.

Principal's signature

2. The following teacher has agreed to serve as your contact person on this project.

3. The following (or attached) is a listing of our faculty involved with our year-round educational program.

YRE ATTITUDE SCALES BEING DEVELOPED AT VPI&SU

Year-round education is purported to achieve a number of objectives; however, there is little factual evidence that year-round education will achieve any of them. Before educators, school board members, and the public can make decisions regarding year-round educational programs, data from operational programs should be analyzed to assist them in their decision-making process. The data should also be analyzed to provide operational programs insight into what aspects of their program is most successful and what parts are causing problems and/or concerns.

The absence of literature on the evaluation of operational year-round schools emphasizes the need for meaningful research to obtain much needed data. Under the directorship of David Parks, NCYRE Administrative Coordinator, and Paul Rice, NCYRE Director, an attitudinal scale designed for use in year-round schools is being prepared to measure teachers' attitudes toward year-round schools. It is obvious that in the development and implementation of any educational program, the attitudes of the teachers who are responsible for the implementation and daily operation will greatly determine the degree of success of the program. It follows then that the attitudes of teachers toward year-round education should be given more attention. The measuring of those attitudes should provide insight into those factors associated with the formation of favorable, as well as unfavorable, year-round educational attitudes.

The instrument will be field tested in operational year-round schools and the data obtained will provide for the establishment of instrument reliability and validity. The instrument is being designed to get at factors relating to economics, teacher welfare, student welfare, curriculum and instruction, administration, school-community relations, and the like. The data obtained from the field testing will be factor analyzed to determine what factors were actually measured and to what degree.

Finally, a step-wise regression will be performed to determine what independent variables (personal and situational characteristics of the respondents) have the greatest influence on the attitudes of teachers toward year-round education.

The final instrument should be extremely useful in determining what independent variable(s) have the most influence on teachers' attitudes toward year-round education and will therefore identify factors that should be given primary consideration in developing and carrying out year-round programs. The instrument could also be used in a pre-implementation manner to establish what are the areas of greatest concern to teachers.

The field testing will involve a national sample of approximately 1,500 respondents from approximately 200 operational year-round schools at all grade levels (K-12). It is hopeful that the final instrument will be of assistance to schools (school districts) in evaluating part of their program(s) and save them time, energies, and monies involved in developing individual, local attitudinal scales.

Parks and Rice plan on having the final instrument available for use and distribution in the late Spring, 1975.

In conjunction with the above, additional attitudinal instruments are being designed and/or planned specifically for students, community people, administrators, and school board members in year-round schools (school districts).

APPENDIX J
CORRESPONDENCE WITH
CONTACT TEACHERS



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Chula Vista, Calif. 92010

Verne F. Shelley

Cherry Creek School Dist. #5
Denver, Colorado 80222

I have been informed by
agreed to be my contact person for the research project I am doing
on teacher attitudes toward year-round education. The enclosed
information sheet entitled "YRE Attitude Scales Being Developed At
VPI & SU," will give you an overview of what the research project
is all about.

I am most appreciative of your willingness to assist me and will
need that assistance during the latter part of February or the first
part of March. At that time, I will forward pre-packaged materials
for distribution to randomly selected members of your faculty. Each
package will be identified as to whom it goes to and your assistance
will be needed in the distribution and collection of the materials.
Complete details on procedure will be sent to you with the pre-
packaged materials.

Once again, thank you for your assistance.

Educationally yours,

Paul D. Rice
Director

PDR:cf

Enclosures (1)

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YRE ATTITUDE SCALES BEING DEVELOPED AT VPI&SU

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Thank you for giving your valuable time to assist in conducting my study on teacher attitudes toward year-round education. Your assistance is crucial to the successful completion of the study and is gratefully appreciated.

Enclosed are the research materials for your school. Please give a manila envelope to each teacher designated as a participant as indicated on the attached distribution list.

The participating teachers have been asked to return their completed answer sheets to you within one week of receiving the questionnaire. Most teachers probably will comply with this request, however, some may need a gentle reminder from you.

When the teachers who plan to complete the questionnaire have done so (about one week), please mail the sealed envelopes in your care to me. A self-addressed, stamped return envelope is enclosed for your convenience.

The questionnaire returns will not be analyzed by school, but mixed with all other returns to provide a total sample response. All information will be held in strict confidence.

A copy of the findings of this study will be provided to you and your school.

I want to thank you again for assisting with this study. I cannot emphasize enough the importance of your role to its successful completion.

Educationally yours,

Paul Rice, Director

ADMINISTRATIVE COORDINATORS

Region I
Mrs. Adelia Nichols
10111 Birchwood Drive
Huntington Beach, Calif. 92646
(714) 918-7744

Region II
Dr. William D. White
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Lakewood, Colo. 80215
(303) 772-6971

Region III
J. Pat Page
Valley View Pub. Sch.
104 McKee Ave.
Reno, NV, 89441
(815) 886-2550

National Headquarters
Region IV
Dr. Wayne M. Warner
V.P.I. & State Univ.
Blacksburg, Va. 24061
(703) 953-5641

Region V
Dr. J. Curtis Hanson
Columbia Public Schools
6500 S. Orange Ave.
Miami, Fla. 33143
(305) 629-1389

TEACHER PARTICIPANTS

The following teachers were randomly selected to participate in this study from a faculty list provided to this writer by the school's principal. This form is provided to assist you in keeping track of who questionnaires were distributed to and who has returned them to you. Please destroy this list once you are finished with it.

NAMEDATE DISTRIBUTEDCHECK WHEN RETURNED

APPENDIX K
CORRESPONDENCE WITH RESPONDENTS



National Council on Year-Round Education



James R. Gove
President
Valley View Public Schools
Romeoville, Ill. 60441
Tel: (815) 886-3747

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V.P. & Pres. Elect
Calif. Dept. of Education
Sacramento, Calif. 95680
Tel: (916) 445-4688

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Clarion, Pa. 16214
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BOARD MEMBERS

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Blacksburg, Virginia 24061

Leonard Seutter
Chula Vista School Dist.
Chula Vista, Calif. 92010

Verne F. Shelley
Cherry Creek School Dist. #5
Denver, Colorado 80222

Dear Educator:

The attitudes of teachers are a significant indicator of the success of educational programs. Among factors which affect teacher attitudes is the school calendar. Consequently, with the increasing popularity of year-round education research has begun to focus upon the relationships between teacher attitudes and the year-round educational program.

Your principal has agreed to allow your school and the professional staff associated with it to participate in a study to develop a teacher attitude inventory specifically relating to operational year-round schools.

Since you are one of several teachers selected at random to describe your attitude toward your year-round program, your cooperation is essential. If you are willing to help, please

1. read the instructions on the attached questionnaire,
2. complete the questionnaire according to the instructions,
3. seal only the answer sheet (unfolded) in the envelope these materials came in, and
4. return the envelope to the contact person within the next week.

Your responses will be held in complete confidence. Neither your school nor you will be identified in the report of the study. A copy of the findings of the study will be provided to your school and contact person.

Your cooperation is sincerely appreciated.

Educationally yours,

Paul D. Rice
Director

ADMINISTRATIVE COORDINATORS

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Region V
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Atlanta Public Schools
Atlanta, Georgia 30308
(404) 525-1381

YRE ATTITUDE SCALES BEING DEVELOPED AT VPI&SU

Year-round education is purported to achieve a number of objectives; however, there is little factual evidence that year-round education will achieve any of them. Before educators, school board members, and the public can make decisions regarding year-round educational programs, data from operational programs should be analyzed to assist them in their decision-making process. The data should also be analyzed to provide operational programs insight into what aspects of their program is most successful and what parts are causing problems and/or concerns.

The absence of literature on the evaluation of operational year-round schools emphasizes the need for meaningful research to obtain much needed data. Under the directorship of David Parks, NCYRE Administrative Coordinator, and Paul Rice, NCYRE Director, an attitudinal scale designed for use in year-round schools is being prepared to measure teachers' attitudes toward year-round schools. It is obvious that in the development and implementation of any educational program, the attitudes of the teachers who are responsible for the implementation and daily operation will greatly determine the degree of success of the program. It follows then that the attitudes of teachers toward year-round education should be given more attention. The measuring of those attitudes should provide insight into those factors associated with the formation of favorable, as well as unfavorable, year-round educational attitudes.

The instrument will be field tested in operational year-round schools and the data obtained will provide for the establishment of instrument reliability and validity. The instrument is being designed to get at factors relating to economics, teacher welfare, student welfare, curriculum and instruction, administration, school-community relations, and the like. The data obtained from the field testing will be factor analyzed to determine what factors were actually measured and to what degree.

Finally, a step-wise regression will be performed to determine what independent variables (personal and situational characteristics of the respondents) have the greatest influence on the attitudes of teachers toward year-round education.

The final instrument should be extremely useful in determining what independent variable(s) have the most influence on teachers' attitudes toward year-round education and will therefore identify factors that should be given primary consideration in developing and carrying out year-round programs. The instrument could also be used in a pre-implementation manner to establish what are the areas of greatest concern to teachers.

The field testing will involve a national sample of approximately 1,500 respondents from approximately 200 operational year-round schools at all grade levels (K-12). It is hopeful that the final instrument will be of assistance to schools (school districts) in evaluating part of their program(s) and save them time, energies, and monies involved in developing individual, local attitudinal scales.

Parks and Rice plan on having the final instrument available for use and distribution in the late Spring, 1975.

In conjunction with the above, additional attitudinal instruments are being designed and/or planned specifically for students, community people, administrators, and school board members in year-round schools (school districts).

APPENDIX L

TEACHER PARTICIPATION BY SCHOOL

Table 18
Teacher Participation by School

School	Number of teachers			Requested to participate		Number of useable returns	
	Female	Male	Total	Female	Male	Total	Total
1.	3	0	3	3	0	3	3
2.	40	8	48	4	4	8	8
3.	41	19	60	4	4	8	8
4.	8	4	12	4	4	8	8
5.	6	4	10	4	4	8	4
6.	2	2	4	2	2	4	4
7.	25	3	28	4	3	7	7
8.	16	5	21	4	4	8	8
9.	3	2	5	3	2	5	5
10.	32	6	38	4	4	8	8
11.	25	7	32	4	4	8	8
12.	22	7	29	4	4	8	8
13.	23	5	28	4	4	8	7
14.	10	1	11	4	1	5	5
15.	25	8	33	4	4	8	6
16.	4	2	6	4	2	6	6
17.	15	3	18	4	3	7	7
18.	6	3	9	4	3	7	6
19.	4	1	5	4	1	5	5
20.	6	0	6	4	0	4	4
21.	15	5	20	4	4	8	8
22.	33	14	47	4	4	8	8

Table 18 (continued)

School	Number of teachers			Requested to participate			Number of useable returns		
	Female	Male	Total	Female	Male	Total	Female	Male	Total
23.	10	1	11	4	1	5			5
24.	24	5	29	4	4	8			6
25.	10	1	11	4	1	5			3
26.	5	4	9	4	4	8			7
27.	5	4	9	4	4	8			8
28.	30	6	36	4	4	8			8
29.	12	1	13	4	1	5			5
30.	16	11	27	4	4	8			8
31.	26	9	35	4	4	8			6
32.	8	0	8	4	0	4			4
33.	6	5	11	4	4	8			8
34.	16	7	23	4	4	8			8
35.	5	2	7	4	2	6			6
36.	17	5	22	4	4	8			8
37.	24	8	32	4	4	8			7
38.	12	6	18	4	4	8			8
39.	30	2	32	4	2	6			6
40.	20	7	27	4	4	8			7
41.	27	8	35	4	4	8			8
42.	30	8	38	4	4	8			8
43.	28	13	41	4	4	8			8
44.	4	2	6	4	2	6			5
45.	28	5	33	4	4	8			7
46.	37	5	42	4	4	8			7

Table 18 (continued)

School	Number of teachers			Requested to participate			Number of useable returns		
	Female	Male	Total	Female	Male	Total	Female	Male	Total
47.	27	7	34	4	4	8	4	4	8
48.	15	3	18	4	3	7	3	3	5
49.	48	11	59	4	4	8	4	4	8
50.	19	4	23	4	4	8	4	4	8
51.	39	14	53	4	4	8	4	4	6
52.	4	3	7	4	3	7	3	3	7
53.	37	5	42	4	4	8	4	4	8
54.	36	9	45	4	4	8	4	4	8
55.	49	7	56	4	4	8	4	4	8
56.	34	4	38	4	4	8	4	4	8
57.	40	9	49	4	4	8	4	4	8
58.	23	5	28	4	4	8	4	4	8
59.	14	1	15	4	1	5	4	1	5
60.	9	4	13	4	4	8	4	4	8
61.	32	4	36	4	4	8	4	4	8
62.	18	26	44	5	5	10	5	5	9
63.	24	21	45	5	5	10	5	5	8
64.	13	13	26	5	5	10	5	5	10
65.	18	27	45	5	5	10	5	5	8
66.	5	7	12	5	5	10	5	5	10
67.	24	8	32	5	5	10	5	5	8
68.	13	20	33	5	5	10	5	5	9
69.	19	22	41	5	5	10	5	5	10
70.	24	20	44	5	5	10	5	5	9

Table 18 (continued)

School	Number of teachers			Requested to participate			Number of useable returns			
	Female	Male	Total	Female	Male	Total	Female	Male	Total	
	71.	6	4	10	5	4	9			9
72.	7	4	11	5	3	8			7	
73.	1	3	4	1	3	4			4	
74.	24	26	50	5	5	10			8	
75.	4	7	11	4	6	10			9	
76.	22	46	68	6	6	12			10	
77.	28	53	81	6	6	12			5	
78.	9	19	28	6	6	12			10	
										Total 556 ^a

^aEleven returns were unusable because of respondents improperly filling optical scanning reply forms, therefore the actual number of returns used were 545.

VITA

The author was born in Groveton, New Hampshire, June 1, 1942. He was graduated from Groveton High School in June, 1960. He entered Plymouth State College of The University of New Hampshire in January, 1962, and was awarded the Bachelor of Education Degree in Mathematics in 1965 and was awarded the Master of Education Degree in Secondary School Administration in 1968. He entered Virginia Polytechnic Institute and State University in June, 1973.

The author has had nine years of teaching and administrative experience at the high school and college levels of instruction.

The author is married to Helen M. R. Rice. The author is a member of Phi Delta Kappa, Kappa Delta Phi, National Association of Secondary School Principals, National Council of Teachers of Mathematics, and a Director of the National Council on Year-Round Education.

A handwritten signature in cursive script, appearing to read "Paul D. Rice". The signature is written in dark ink and is positioned to the right of the main text block.

AN ASSESSMENT OF TEACHERS' ATTITUDES TOWARD
THE 45-15 YEAR-ROUND SCHOOL CONCEPT

by

Paul Douglas Rice

(ABSTRACT)

The interest in year-round education has grown considerably since 1964, but the associated research and evaluation has not kept pace. The present status of how teachers' attitudes have been affected by changing the school calendar from a traditional nine-month term of operation to year-round operation has been widely debated. Prior information on this topic is almost non-existent. The need for such information has been evident by the increasing number of teacher organizations, school boards, lay persons, and school administrators seeking information from the National Council on Year-Round Education regarding year-round education as it relates to teachers' attitudes. This study was formulated to provide evidence related to: How selected personal and situational variables relate to teachers' attitudes toward year-round education and how can variations in those attitudes be measured.

An assessment instrument, the Teacher Attitude Inventory On Year-Round Education, was designed to determine the relationship between teachers' attitudes on year-round schools and selected personal and situational variables. Principals of participating schools provided faculty lists which made up the total population

of the study and also indicated a contact teacher in the school that would receive, distribute, collect, and return the completed inventories to the researcher. Of these lists, 30% or 800 teachers were included in the sample. The teachers were from 103 operational 45-15 year-round schools in the United States. Returns were received from 75.73% of the schools and 69.50% of the teachers who agreed to participate.

Data was electronically transferred to cards and analyzed using the following computer programs: (1) BMD04D, Frequency Count; (2) BMD02R, Step-Wise Regression; and (3) BMD08M, Factor Analysis. The analyses were performed on the IBM 370/158 computer at Virginia Polytechnic Institute and State University.

The assessment instrument designed for this study was found to be unidimensional, measuring a single major attitudinal construct relating to year-round education. Four subconstructs relating to year-round education were determined that reflected teachers' attitudes toward: (1) Calendar/Program, (2) Administration, (3) Student Welfare, and (4) Teacher Welfare. The internal consistency of the instrument was determined to be 0.5565.

A significant relationship was found between the following personal and situational variables and teachers' attitudes toward year-round education: (1) favorability toward year-round schools, (2) morale, (3) fatigue, and (4) quality of the educational program related to the subconstruct on Calendar/Program; (5) providing adequate support staff related to the subconstruct on Administration, and (6) fringe benefits related to the subconstruct on Teacher Welfare. None

of the personal and situational variables related to the subconstruct on Student Welfare. The following personal and situational variables were determined not to have any significant relationship to attitudes expressed by teachers toward year-round education: (1) type of school calendar utilized prior to the year-round calendar, (2) number of students enrolled, (3) population density of the school-community setting, (4) sex, (5) age, (6) marital status, (7) total teaching experience, (8) teaching experience in year-round school, (9) teaching level, (10) calendar preference, (11) student-teacher ratio, (12) level of professional attainment, (13) degree of program development participation, (14) professional association membership, (15) options on contract length, (16) work participation option, (17) vacation option, and (18) salary adjustment.