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A STUDY OF THE OPTIONAL SEVEN PERIOD DAY AS IT IS
OPERATING AT LOGAN HIGH SCHOOL

by

Boyd L. Applegarth

A thesis submitted in partial fulfillment
of the requirements for the degree

of

MASTER OF SCIENCE

in

School Administration

UTAH STATE UNIVERSITY
Logan, Utah

1960

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Boyd L. Applegarth

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INTRODUCTION

Statement of Problem

Education is laboring under a mantle of criticism. This is neither a new nor a unique situation, but if this caviling approach will elevate the quality of education offered the youth of America it should be welcomed by educators and laymen alike.

The launching of Sputnik I has initiated an abundance of literature pertinent to education in general and the public high school in particular. Opinions and studies are available which offer recommendations for improving and strengthening the high school curriculum and schedule. The significance of the schedule is indicated by Philpot:

No phase of the school program escapes the influence of the schedule. To a considerable extent, the schedule reflects the purpose of the school and the philosophy of the principal and the faculty. In the final analysis it is the instrument which determines whether or not the human and material resources are utilized to the fullest extent in fulfilling the needs of the culture served by the particular school.¹

In a report given at the School Administrators Conference in Salt Lake City, Utah on March 27, 1958, E. Allen Bateman, Utah Superintendent of Public Schools recommended several changes and improvements in the secondary school program. One of which is . . . each school district prepare to place its high schools on a schedule of

¹Frank N. Philpot, "The Schedule - A Barrier or a Boon to a Good Curriculum," Bulletin of the National Association of Secondary School Principals, (Hereafter referred to as BHASSP) XLII (October, 1958), 39-41.

seven periods each day.² The Superintendent of Logan City Schools and the Principal of Logan High School in keeping with the demand for constant vigilance and improvement requested a study of the optional seventh period at Logan High School to aid in determining future alterations and/or expansion. As a teacher at Logan High School and a student of school administration the author volunteered to conduct a study of the scheduling program, as it pertains to the optional seventh period, in an attempt to determine answers to selected questions. This paper is a result of that study.

²E. Allen Bateman, "Adjustment of Education to New Demands" (Utah: Department of Public Instruction, 1958, p. 9. (Micrographed.)

Method of Procedure

It was decided that any consideration for revision of the optional seventh period at Logan High School should be accompanied by responses from the faculty, a representation of the parents, and a segment of the school population. In order to determine answers to selected questions three separate questionnaires were prepared which met the approval of the superintendent and the principal. A copy of each of these is included in the appendix.

The first questionnaire was directed to the faculty. Those instructors teaching an optional seventh period, or eight o'clock class were requested to answer seven questions and the balance of the faculty the final two questions only. Of the 35 faculty members, 33 responded or 94 per cent.

The second questionnaire was offered to the parents of students who registered for the optional seventh period for the school year 1959-60. Of the 200 parents, 132 responded or 66 per cent.

The third questionnaire was made available to all sophomore, junior and senior students participating in the optional seventh period. The author visited each classroom and personally administered the questionnaire. Logan High School has 213 participating students; 181 completed the questionnaire or 85 per cent.

A subsequent portion of this study compares the courses taken and credit earned by participating and non-participating students.

A survey of test results maintained by the Logan City School District revealed the academic top 15 per cent of the 1959-60 senior class. Courses taken by this top 15 per cent are compared with course recommendations of the eminent educator, Dr. James B. Conant, in his recent study of the comprehensive high school.

Delimitation

This study is delimited to the students enrolled at Logan High School for the school year 1959-60, parents of the students and faculty members. Delimitation further includes only those courses offered for the year studied.

Definitions

Optional seventh period. -- The optional seventh period is defined as those classes offered one hour before the normal school day. They are optional in that students may volunteer for enrollment. A formal class atmosphere prevails, attendance is recorded, and credit toward graduation may be earned. For the purpose of this study "optional seventh period" and "eight o'clock class" will be used synonymously.

Student body points. -- Students may earn points for performing a service to the school. An accumulation of a satisfactory number of points while a student at Logan High School qualifies the seniors to participate in an honors banquet. These points have no relation to credit earned for graduation nor to grades received.

REVIEW OF RELATED LITERATURE

Amendment 10 of the Constitution of the United States indirectly authorizes each state to establish and control public education within its legal boundary. Pursuant to this indirect authority, supervision and control is further delegated to every local school district resulting in a wide variation of educational offering, housing, purpose and organization.

The daily schedule of the American high school is subject to such differences and variation. One can locate in virtually every text on administration specific principles and guides to follow while periodic literature offers techniques and patterns to copy. In the final analysis the schedule is determined by the student's capabilities and achievements; the state and local board policies, and constitutional provisions; and the understanding of college entrance requirements, accreditation standards, human and material resources necessary for the program.

The schedule is the framework about which the school program is moulded. The importance of this is indicated by Casile:

Perhaps no responsibility holds more implication for the effectiveness of the secondary school program than the planning and preparation of the daily schedule. While a good schedule cannot alone insure a good school, a poor schedule can result in chaos.³

³A.M. Alexander, "What Procedures and Techniques Assure Good Schedules for the School and Individual Student," BNASSP, XLI (April, 1957), 107-11.

The practice of arranging the curriculum into a schedule patterned after an hour credit system, with some subjects required beyond which additional units could be chosen more or less freely, emerged as a result of a significant study conducted in 1892.

The National Educational Association appointed a committee of ten noted educators, with President Eliot of Harvard University as chairman, to make a study of what was called "the gap between the elementary schools and colleges." Ely describes the function of the committee as follows:

The committee selected the nine fields of study usually taught in the high schools of the United States, and then induced ten experts in each field to hold a series of conferences and draw up their conclusions as to where, how long, and by what methods each of these nine fields should be taught. "The Committee of Ten" then undertook to correlate these recommendations into a program of reform. This was the first time in American education a group of 100 educators had undertaken to formulate a unified system of instruction for children and youth from six to 18 years of age. The report was one of the most important educational documents ever issued in the United States.⁴

Some of their principles appear unrealistic today. The Committee declared "All subjects are of equal educational value if taught equally well." This manner of thinking led the colleges to adopt the "unit system" for entrance requirements. In order to shorten the time of college preparation, the traditional lock-step, four-year, fixed-course curriculum was abandoned and the hour credit system adopted.

From the recommendations of the Committee of Ten the public high schools began to arrange their courses into definite periods of time. Evolution has given us today's varied schedules.

⁴Frederick Ely, The Development of Modern Education (New York: Prentice-Hall, Inc., 1952), p. 592.

The following description will demonstrate the diverse and general nature of the high school schedule:

The conventional daily schedule:

1. Includes from four to ten periods; average is 6.8.
2. Has periods varying from 35 to 75 minutes in length, average length is about 56 minutes.
3. Has consecutive single periods with passing time interspersed.
4. Usually includes a home room period and a special period for student activities.
5. Includes a lunch period varying from 20 minutes to 80 minutes, average length about 45 minutes.
6. Organizes a school day varying in length from 4 1/2 to 7 1/2 hours; median length is 7 hours including all intermissions and the lunch period.
7. Permits students to enroll in from 4 to 6 separate subjects with a minimum of conflict.
8. Generally provides no unified relation between consecutive periods and subjects studied.

Each district is attempting to accomplish virtually the same end - proper education of their youth. The schedules or pattern within which they operate are as diverse and varied as the administrator's thoughts which construct them. The following few pages will examine various scheduling practices believed effective by their authors.

Jefferson County, Colorado has moved away from the routine by adopting this schedule:

A biology teacher instead of teaching 30 students per class five periods per day, meets all 150 students for one period on Monday during which he introduces students to the work of the week, giving presentations and demonstrations, shows instructional films and does other activities appropriate to large group instruction. On Tuesday he teaches all six periods, meeting on the average 26 students per period with the most gifted being scheduled one period and the most retarded another period. On Wednesday and Thursday he also works all six periods

⁵Will French, Don J. Hill, and B.L. Dodds, American High School Administration (New York: Rinehart and Co., 1957), p. 291.

with each of the Tuesday groups scheduled for a double lab period on either Wednesday or Thursday. On Friday he meets one half of the group each of two periods for purposes of bringing together the work of the week, answering any questions that remain and doing evaluation. Instead of being in physical confrontation with students 25 periods per week this teacher has gained four periods for professional activities.⁶

A Professor of education at the University of Massachusetts would recommend students attend half-day sessions for an eleven month school year. A good education for students, a full year's salary for teachers and a bargain in school construction for taxpayers are the reasons for such a program. The schedule is further supported by these arguments:

Teachers would be fresher due to the shorter class contact day. More a voice, vigor, and patience will wear better through a four than a five hour stretch of one of the most difficult jobs known.

Students will require much less annual fall review to make up for the long summer forgetting period. Teachers would be better prepared with materials and ideas for a shorter class day due to the increased preparation time now available per class hour. Preparations right in the school with everything to work with and professional assistance available could make a tremendous improvement.⁷

In some areas overpopulated schools have forced administrators to adopt schedules not normally employed. In other schools a nine-period day is used with the student body divided into three shifts.

One shift is composed of a group of students living near enough to the school to walk to school and to go home to lunch. This shift attends the first three periods, goes

⁶J. Lloyd Trapp, "New Directions in Scheduling and Use of Staff in High Schools," California Journal of Secondary Education, XXX (October, 1950), 35-32.

⁷Raymond Hyman, "Full Employment of Teachers and Schools," American School Board Journal, CXXV (July, 1957), 25-6.

home for the middle three periods, and returns for the last three. A second shift starts early and attends the first six periods. A third shift starts late and attends the last six periods. Thus only two thirds of the student body is in the building at any one time.⁸

A modification of this type prevents schools from going on to half day sessions and also breaks from the somewhat traditional short school day. Ideas similar to this are becoming popular because utilization of the school plant is extended.

The director of Special Services in the public schools of Columbia, South Carolina offers what may be called an unusual, if not facetious, plan for coping with the local crowded conditions. The schedule would call for students to attend classes three days a week for eleven months. One group of students attend Monday, Wednesday and Friday and the second set on Tuesday, Thursday and Saturday. This would grant the administration greater flexibility in scheduling; encourage those who could only devote part time to teaching; allow teachers near a university to attend on alternate days; permit students to secure employment; and lessen student strain and rigors of hot weather.⁹ There are undoubtedly many opponents to radical schedules such as this whose arguments would be extensive if not direct.

North Bend, Washington, High School has temporarily abandoned the school bells and clocks and allowed the students to follow naturally their own projects, with proper guidance, on Monday and Wednesday. Tuesdays and Thursdays find the students on a scheduled program, in

⁸Will French, Dan J. Hall, and B.L. Dodds, op. cit., p. 300.

⁹Ignat R. Halmbach, "The Alternate Day School," The Clearing House, XXXII (April, 1957), 495-96.

groups, accountable to teachers. Friday is devoted to individual and group reports and demonstrations before the classes. One period of the day is devoted to an all-school achievement assembly.¹⁰ It should be noted that North Bend High School is a four year school with 125 students and 7 teachers and a similar situation in a larger school would be difficult to employ.

Montgomery has demonstrated in the Phi Delta Kappan the feeling of the progressive educators in that he cannot accept the segmented school day of 40-60 minutes because in the progressive system it becomes necessary to duplicate as closely as possible life's situations in the classroom; and class periods from ninety minutes to three hours are necessary to offer time to teach and time to learn.

We want the student to feel the character of the problem, to analyze its components, and to be prepared seriously to propose rationally defensible solutions. We are either asking too much of the student which our meager experience with the method already denies, or we need to reorient the time schedules to provide full opportunity for thorough digestion of facts and adequate growth of understanding to occur.¹¹

There are apparently two trends with respect to organization of the school day and one is about as prominent as the other. A 1956 survey of 370 junior high schools across the nation states that the majority of the schools function with six periods of approximately 53 to 55 minutes net, with a short daily homeroom of 10 or 15 minutes;

¹⁰Harold Spears, The Emerging High School Curriculum And Its Direction, (New York: American Book Co., 1940), pp. 146-47.

¹¹Ray Montgomery, "Time for Learning," Phi Delta Kappan, LXXIII (April, 1952), 382-84.

or a day of seven periods of approximately 47 to 48 minutes net. The seven period day consistently occupies one class period with activities, homerooms, or assemblies.¹²

A questionnaire distributed in November of 1947 to superintendents of schools in cities over 2500 population brought replies from approximately 1600 school systems. This study revealed that the majority of the schools had not changed the school day during the decade 1937-38 to 1947-48 and in the systems where some changes had occurred the results almost cancel themselves out. Almost as many systems lengthened the school day as had shortened. It was indicated that by 1947-48 the trend was toward longer class periods and fewer offerings, with 70 per cent of the reporting schools utilizing a minimum 50 minute period.¹³

A 1957 report in the Bulletin of the National Association of Secondary School Principals exhibits the growing trend to lengthen the class periods. In 1936 less than 40% of the schools accredited by the North Central Association had class periods of 55 minutes or longer. By 1942 slightly over 48% were using periods of 50 minutes or longer; and by 1950 one entire state (Indiana) had lengthened the class period for first class commissioned high schools to "55 minutes exclusive of all time used exchanging classes or teachers."¹⁴

¹²Harl R. Douglas, "Trends in Organization and Administration of Junior High Schools," BHASSP, XI (October, 1956), 104-06.

¹³National Education Association, Research Division, "Trends in City School Organization 1938-1948," Research Bulletin, XXVII (February, 1949), 18.

¹⁴O. I. Foster, "What is the Most Effective Way of Arranging the Length and Use of the Class Period?" BHASSP, XLI (April, 1957), 111-15.

Fenk and Varnar are generally cautious about changes for the sake of change. When evaluating the modification of the school day by either lengthening the day and maintaining the present period length, or retaining the present length of the day and shortening each class period one should consider these factors:

1. Effect on classroom learning. Research has substantiated greater accomplishments with longer classes.
2. Effect on total curriculum. A longer day may seriously hamper extracurricular activities. Is it wise to have students spend 7 1/2 hours in class and expect them to remain 1 or 2 hours longer for athletics or music or drama or etc.?
3. Cost of instruction. Consider necessity of new teachers because of greater class offerings or to teach similar classes which have increased in number.¹⁵

Opposition to a demanding schedule is suggested by the thought that class periods should be fewer in number and longer in length. A history class for example of 85-90 minutes in length for a semester rather than a 55-60 minute class for the entire school year would provide opportunity for the introduction of a variety of learning experiences not permitted by the short period. Field trips made during the class's own period and without interference with the rest of the school program would be possible.¹⁶

The longer periods crowd more classes offered into each hour and require that a larger number of classrooms be available each period. The longer classes have the advantage of permitting more emphasis on supervised study.¹⁷

¹⁵G.L. Fenk and Glenn F. Varnar, "Let's Look Before We Leap," American School Board Journal, CXXXIX (October, 1959), 21-22.

¹⁶Barton W. Goman, "The High School Schedule," The American School Board Journal, CXXVI (March, 1953), 49-51.

¹⁷J.B. Edmonson, et al., The Administration of the Modern Secondary School, (New York: Macmillan Company, 1948), .

There is opposition and some evidence that shorter classes are not the answer. That students will achieve more with the longer period is demonstrated by Koss in his study of 32 Iowa schools. This study showed consistent differences in achievement on objective tests in favor of longer periods. In this study 16 schools with a period of 55 to 60 minutes were paired with 16 schools having periods of 40 to 45 minutes. The students were then tested in nine subjects and in all nine, the students attending the longer periods made higher averages. It was also reported that the results were statistically significant in six out of the nine tests.¹⁸

There is also a possibility of advantages with longer periods from the point of view of administration. Jacobson, Reavis and Logsdon report a study which indicated that a schedule with 55 to 60 minute periods and no double periods has 50 per cent fewer conflicts than a schedule with 40 to 45 minute periods using the double period.¹⁹

In order to broaden the experiences of their students East Lansing, Michigan recommends 70 minute periods meeting four times a week. Each student carries six subjects through a five period day. Employing longer periods is an attempt to enrich the program and meet the needs of youth.²⁰

¹⁸Leonard V. Koss, et al., Administering the Secondary School, (New York: American Book Company, 1940), pp. 299-300.

¹⁹Paul B. Jacobson, William C. Reavis, and James D. Logsdon, The Effective School Principal, (New York: Prentice-Hall, Inc., 1954), p. 73.

²⁰Lee F. Kinsey, "What is the Most Effective Way of Arranging the Length and Use of the Class Period," DIASSP, XLII (April, 1958), 254-58.

With greater emphasis on mastery of subject matter and an increased demand to improve education it is believed in some quarters that it is no longer wise to permit students to elect some courses and to avoid others. The challenge of modern living calls for considerable training in all the major fields - social studies, English, science, mathematics, art and crafts, and health and physical education. Adaptations to variations among high school students should be made within courses in these subjects rather than providing many elective courses.²¹

Those administrators favoring fewer and longer class periods have stated that our schools are wasting much time that could be effectively used for study and learning. Mr. Query recommends longer periods and no study halls because students apparently did not know how to study and were not utilizing their time efficiently. A minimum of 50 minutes per period is necessary for:

1. More teacher-pupil time.
2. Supervised study.
3. Adequate time for science and gym classes.
4. Adequate time for lunch schedules.²²

The West Deer Township High School District, Cheswick, Pennsylvania has eliminated their study halls because they were believed to be wasting classroom space, time of the students and time and training of the instructor. A six period day of 50 minutes is practiced under the new plan in lieu of a day with more frequent but shorter classes.²³

²¹Harl R. Douglas, "The Modern High School Curriculum," The School Review, LXXIII (January, 1955), 16-24.

²²Edward R. Query, "Longer Periods - No Study Halls," ENASSP, XLII (September, 1958), 135-37.

²³Bruno A. Casile, "Study Halls Are A Waste of Valuable Classroom Space," Nation's Schools, LIX (June, 1957), 84.

As the principal of Williamsport High School in Pennsylvania pointed out:

Working under the direction of teachers . . . is superior to having pupils work in study halls under the direction of teachers not at all familiar with the lessons the pupils are studying, . . . or trying to work at home under no direction or misdirection.²⁴

Those who advocate the fewer but longer periods do so to develop solutions to their particular situation and because they believe the following conditions to exist: (1) greater student achievement with longer class periods, (2) improve student participation in extra-curricular activities, (3) introduction of a wide variety of learning experiences, (4) less opportunity to waste time in a study hall, (5) fewer administrative conflicts due to scheduling.

While cognizant of the above many school administrators and local boards of education are giving thought to a transition from a six to a seven or eight period school day because of the increased requirements for graduation, for remedial opportunities and for college entrance. The seven period day is not intended to be a panacea for these educational ills; however, this and other scheduling programs are gaining favor.

Robinson indicates the primary purpose of the seven period day is to provide remedial, enrichment, or intensified opportunity in established or related subject areas rather than to provide an added activity period. The school should not try to "manufacture" new elective subjects just to fill out a seven period day.²⁵

²⁴ Foster, XII, 111-15.

²⁵ Willard F. Robinson, "Organization of the Seven Period Day," California Journal of Secondary Education, XXXV (January, 1960), 17-20.

Eight counties in New York reported the eight period day as being most common in eighty high schools, with the seven period day being the next most used type.²⁶

School administrators in Hartford, Connecticut have been taking a close look at the 7th period in recent months and offer these reasons for its adoption:

1. Creates fewer course conflicts.
2. Offers students more study time during the day.
3. Enables the school to offer a broader selection of courses.
4. Gives the teacher a shorter class period.
5. Provides slow students more freedom in planning while offering a greater academic challenge for bright students through a heavier course load.

The disadvantages should be noted:

1. Encourages students to spread themselves too thin in academic subjects.
2. Makes school harder for slow students who have enough difficulty with six subjects.
3. Offers too many study halls and disciplinary problems.
4. Teachers complain about shorter periods or longer day.

Kenneth L. Hainke, Hartford's Director of Secondary Education reports problems will be compounded by the need for more texts, more space and equipment, course outlines for new classes taught, and more work for the counselors.²⁷

The movement to a shorter segmented day is rapidly becoming popular. Canton, Illinois reports a change from six hour-long periods to seven 55-minute periods in their high school; Pasadena, California secondary schools will have an optional seventh period to give

²⁶Darvil H. Olen, "Length of the High School Day," BHASSP, XI (October, 1956), 63-6.

²⁷"Educator's Dispatch," The Letter for Administrators, January 12, 1960.

students increased opportunity for study; Yankton, South Dakota chopped 30 minutes from its lunch period and dropped the band from the regular school day in order to achieve periods.²⁸

After Dr. James Conant visited a number of schools during his study of the comprehensive high school he prepared a tentative list of criteria which would enable him to pass judgment on whether a given school was performing satisfactorily the functions of a comprehensive high school. Included in this check list was a recommendation that the school day be organized into seven or more instructional periods.²⁹ He further suggests that if a school is organized with a sufficient number of periods in a day, there is no difficulty in having the programs of the academically talented include as many as four years of art, music, and other electives as well as five subjects with homework in each of the four years.³⁰ One would recognize that Dr. Conant is primarily concerned with the academically talented students when he encourages:

. . . school day should be so organized that there are at least six periods in addition to the required physical education and driver education which in many states occupy at least a period each day. A seven or eight-period day may be organized with periods as short as forty-five minutes. . . . With a six period day . . . The academically talented student cannot elect the wide academic program. . . and at the same time elect art, music, and practical courses.³¹

²⁸ _____, "Educator's Dispatch," Letter for Administrators, June 27, 1959.

²⁹ James B. Conant, The American High School Today, (New York: McGraw-Hill Book Company, Inc., 1959) p. 19.

³⁰ Ibid., 26. (Dr. Conant's definition of "academically talented" students - about 15 per cent of our high school population with certain kinds of ability to successfully complete twenty or more years of formal schooling.)

³¹ Ibid., 65.

This same national educator believes that there must be elective courses in the senior comprehensive high school which will occupy about half the student's time.³² Other educators respond to the problem of restricted offerings and the "too-few" period day with caution. Robinson believes that the seven period day should not be required of all pupils within the school.

. . . The establishment of individualized programs of study should encompass not only the choice of subjects but also the number of classes in which a pupil enrolls. The requirement that all pupils take the same number of classes each day is not consistent with the increasing emphasis on the individualized program of study. Only pupils who have need and desire for enrichment or remedial work in a given area should be afforded the opportunity for this experience.³³

McLaughlin is doubtful of the benefits gained from the addition of class periods.

A little more or less appears to be the outcome of fragmenting of school time by that miracle 'the seventh period' This policy should please all who gaze backwards and seldom bother to read research results.³⁴

A fellow contributor to periodic literature, Farrer, states the seven period day program is not entirely new to Utah and his association with such a schedule has been satisfactory. The Granite School District instituted this program in its secondary schools in the 1940's and has operated it successfully since that time. According to the assistant superintendent for the district, it was accepted more than a decade ago as a forward-looking plan that would contribute

³²James B. Conant, "Some Problems of the American High School," Ihi Delta Kappan, XI (November, 1958), 50-55.

³³Robinson, XXXV, 17-20.

³⁴Sam McLaughlin, "Are Seven Periods Better?" Utah Educational Review, LII (May, 1959), 21.

toward an improved educational program.³⁵

Until recently a seven-period day would not meet approval of the Northwest Accrediting Association for high schools. Utah's representatives in this Association have now paved the way for a change in the attitude of the Association. The Superintendent of Public Instruction in Utah lists the following as partial justification for acceptance of a seven period day in this state:

. . . for girls who desire to specialize in clerical work in high school or for boys who desire to specialize in vocational agriculture or industrial arts, they often desire to take five to seven units in the specialized field. There are school and community pressures to have this pupil take a unit of music each year if the student has ability with an instrument or has a good voice. If this student is also required by parents to take time out for religious classes, it is impossible to get these subjects into three years of a six period day.³⁶

M. Clark Newell in 1959 compared the program of the seven period day with the program of the six period day in Utah high schools with enrollments of less than 600. His questionnaire received responses from 92 per cent of schools in this classification. When the principals and teachers were queried as to their preference whether a six or

³⁵Kenneth C. Farrer, "Are Seven Periods Better?" Utah Educational Review, LII (May, 1959), 20.

³⁶E. Allen Bateman, "Adjustment of Education to New Demands", (Utah: Department of Public Instruction, 1958), p. 9. (Miscographed.)

There is significant community and parental pressure on the student in Utah public schools to enroll in one hour of religious training each day. Released time is made available for this study. The school year 1958-1959 at Logan High School witnessed 82 per cent of the school population enrolled in classes of religion. This, coupled with one hour of physical education required by the Utah State Board of Education, would, in a six period day, leave four class periods to earn credit for other required and elective courses.

seven period day is a better program for the students 92 per cent of the principals and 80 per cent of the teachers preferred a seven period program. The teachers further indicated that 62 per cent preferred to teach in a seven period schedule and believed the majority (59 per cent) of the students favored such a program.³⁷

Glynn High School in this state carefully surveyed the gains and losses from a seven period day and offer the following as a summary of their beliefs:

Advantages:

1. Provides more electives, thereby better meeting the needs of the students.
2. More flexibility in schedule.
3. Counseling opportunities are improved with flexibility.
4. Equalizes responsibility of home room, increasing the possibility of individual teacher guidance because of decreased pupil ratio.
5. Greater opportunity of putting extra-curricular activities in the regular scheduled program, including seminar.
6. Students spend more time in the school program on a seven period day than they do on a six period day. The seven period program includes 50 minutes actual class time, plus 5 minutes passing time.
7. Everything else being equal, it is easier to correlate programs between departments as a result of having a consistent policy of a period off for every teacher.
8. Less need for home assignments if the day is longer.
9. Simplifies the transportation problem in that high school students can be delivered before elementary students and returned home after elementary.
10. The seven period day offers one extra elective opportunity per student over the six period day. This is a special advantage in a core course or double period program.
11. Increases the opportunity for students to get depth in some one field, engineering, math, etc., for example: more periods per subject possible. More challenge for better students.

³⁷H. Clark Hewall, "A Comparison of the Program of the Seven Period Day and the Six Period Day in Smaller High Schools of the State of Utah" (unpublished Master's thesis, Department of Educational Administration, Brigham Young University, 1959), p. 43-44.

12. Under a seven period program, offerings made possible are increased by one-fifth.
13. The seven period program gives greater opportunity to a teacher to teach in the field of his specialties and likewise makes possible the availability of students with special interest for these classes.
14. The seven period day makes it possible for students to have seminary contacts and still have a well rounded educational program.
15. The seven period day makes it easier to meet the new state program of studies.
16. The seven period program increases the possibility for work experiences within the school program without jeopardizing the general educational program.

Disadvantages:

1. It is easier to have a supervised program in a six period, one hour program than in a seven period, fifty minute program.
2. Does a seven period program offer too many subject contacts per pupil per day? With home work assignments this may be a real burden on a student.
3. Under the seven period day, the teacher who was teaching in the basic academic areas, teaches about 25 minutes longer per day than on the six period basis.
4. The teacher would prefer working in a program which more nearly meets the needs of youth through increased school offerings than to see his own program lightened. This may result in a heavier teacher load.³⁰

The administrators, boards of education, and the public must decide which is the best possible program for their youth. As early as 1911 O.M. Whipple reported, "If any nation is destined to perish, it is the one that fails to provide the best educational opportunities for those who show promise of leadership." One objective of American education is to produce the finest quality individuals and citizens in a democratic way of life. If educators are constantly

³⁰ mimeographed paper issued at quarterly meeting of Class A High School Principals in state of Utah, February, 1959, at Olympus High School.

alert to problems and opportunities this goal can be achieved. Bobbit offer an appropriate summary:

The purpose of education is to bring each human being to live as nearly as it practicable, in everything that he does in the way that is best for him. The method of education is for each individual to carry on all his activities all the time, as far as possible in the way that is best for one of his nature, age, and situation. In the education of any person, the good life is both the objective and the process.³⁹

³⁹Franklin Bobbit, The Curriculum of Modern Education, (New York: McGraw-Hill Book Co., 1911), p.5.

HISTORY AND ORIGIN OF SEVEN-PERIOD DAY

AT LOGAN HIGH SCHOOL

The public school students in the state of Utah are granted "released time" from the regular school day to enroll in seminary classes under the direction of the Church of Jesus Christ of Latter Day Saints. These classes are taken in church owned and staffed buildings usually adjacent to the secondary school. The seminary program is not an integral part of the local or state educational systems.

The optional seventh period at Logan High School had a very modest beginning. In 1948-1949 the seminary program under the direction of Ray L. Jones made available to interested students a missionary training class as a fourth year course in what was normally a three year program. This class was designed for seniors, boys and girls, who had completed three previous years of seminary; Old Testament, New Testament, and Church History, and who showed interest in serving a mission for the Church of Jesus Christ of Latter Day Saints. No credit was offered for the daily meeting. Attendance was recorded and a formal class atmosphere prevailed. The eight o'clock offering was expanded in 1959-1960 to include church history

which is a requirement for seminary graduation.⁴⁰ There is presently offered by three instructors two sections of missionary training and one of church history.⁴¹

The second eight o'clock class offered at Logan High School was orchestra in 1951-1955. There are three reasons for its inclusion in the schedule at this hour. Prior to the current schedule two teachers were responsible for instrumental music instruction for the entire district - high school, junior high school, and elementary. One faculty member withdrew from this assignment leaving the remaining member to now instruct at the two secondary school buildings. In order to mollerate the teacher's personal schedule and to make orchestra available to more junior and senior high students the schedule adjustment was suggested.

The administration's discovery that band was more popular than orchestra was the second reason for the time alteration. Orchestra had to be placed at an hour when it would prove attractive to the students in order to compete favorably with other music classes.

⁴⁰The seminary graduation requirements are dissimilar to requirements set down by the State Board of Education and the Logan City Board of Education. Graduation from the L.D.S. Seminary program requires successful completion of three courses; Old Testament, New Testament, and church history, normally taken in the freshman, sophomore and junior years. The Old Testament and New Testament are non-sectarian and credit earned will be applied toward high school graduation. Church history of course, is sectarian and credit earned is recognized only by the seminary program. Upon completion of the fourth year, sectarian missionary training class, the student receives a certificate of completion. This credit does not apply toward high school graduation.

⁴¹Interview with Don Bishop, Principal of L.D.S. Seminary at Logan High School, February 26, 1960.

The third reason was a result of the necessity for "outside" practices and the desire of many students to register for both band and orchestra. At present 60 per cent of the music students take both classes. The orchestra registrants may earn .25 credit or student body points - one point for every third practice. The orchestra class has increased in number each year since its conception with the exception of this year. Increased offerings in other fields of study have drawn potential music students into different eight o'clock classes.

The Reserve Officer Training Corps,⁴² has held a respected position in the Logan High School curriculum for 35 years, but only since 1957-1958 has such a class been offered before the normal school day. Previous to that time R.O.T.C. was taught during the second, third, and fourth hours of the day; however, the high school military personnel responsible were of the opinion that required classes offered at a similar time were demanding a large number of junior and senior students that may have been interested in classes of a military nature. In order to encourage student officers and non-commissioned officers to complete three years of R.O.T.C. training and to eliminate competition with other classes, an eight o'clock class was initiated. The R.O.T.C. program finds itself competing with or supplementing the physical education department depending on one's view. Two years of physical education are required. One year is required for all sophomore students; the other year may be taken as a junior or senior.

⁴²Hereafter referred to as R.O.T.C.

Two years of R.O.T.C. may be substituted for the second year of physical education.⁴³ It is the second and third year cadets the eight o'clock class is designed to attract. There is currently offered one section for junior students and one section for senior students.

The New Testament class, under the direction of Reverend Miner E. Bruner which was formerly offered within the normal school day, is available at eight o'clock during the school year 1959-1960. Designed for non-L.D.S. students and available in all grade levels, this course is taught in a nearby house of worship. Reverend Bruner is not a member of the Logan High School faculty. His time and energy are donated to the school district.

Mechanical drawing, elementary typewriting, and health and physiology were offered for the first time during the school year 1959-1960 to allow an enrichment program for those students wishing to expand their opportunities for taking additional classes. Student request and increasing graduation requirements encourage more classes being offered to allow for a wider selection of electives.

The complete eight o'clock curriculum is included in Table 1.

⁴³Logan High School Faculty Handbook. (Miscographed)

Table 1. Classes available at eight o'clock A.M. to Logan High School pupils, and enrollment 1959-1960

Class title	Credit earned	Grade level	Number enrolled	Elective or required	Credit earned toward high school graduation
Missionary Training	0	12	33	elective	no
Church History	0	11	23	elective	no
Orchestra	.25	10,11,12	30	elective	yes
R.C.T.C.	.5	11,12	20	elective	yes
New Testament	.5	10,11,12	9	elective	yes
Mechanical Drawing	.25	11,12	15	elective	yes
Elementary Typewriting	.5	10,11,12	35	elective	yes
Health and Physiology	.5	11,12	32	required	yes
Total	2.50		213		

PROCEDURE AND FINDINGS

Response of Faculty to Selected Questions

For the purpose of this study only, the faculty members of the L.D.S. Seminary are considered a part of the Logan High School faculty. Each of the 35 teachers was asked to respond to a questionnaire prepared and personally distributed by the author. Thirty-three were returned. The questionnaire might logically be divided into two parts; (1) the first four questions asking for a comparison of the eight and nine o'clock students relative to academic quality, problem of discipline, and number of tardies and absences to be answered only by those nine teachers having eight o'clock classes, and (2) the balance of the faculty responding to recommendations for program change and attitude toward a mandatory seven period day.

There are three instructors for the seminary classes, two for R.O.T.C. and one each for health and physiology, mechanical drawing, orchestra, elementary typewriting, and New Testament. The New Testament class is conducted for nine students in a nearby church by a local religious leader who is not a member of the high school staff. Because this instructor teaches only the eight o'clock class he would have no basis for comparison and consequently was not required to reply to the questionnaire.

Teacher recommendation is relied upon to determine differences in academic quality of the two groups of students. All eight o'clock

teachers have identical or similar classes at nine o'clock and are in a favorable position to perform such a comparison

Table 2. Teacher comparison of eight o'clock students to nine o'clock students relative to academic quality

Comparison	Number	Per cent
High better	1	11
Somewhat better	3	33
About the same	4	45
Poorer	1	11
High poorer	<u>0</u>	<u>0</u>
Total	9	100

From the point of view of the classroom teacher the early class would be more enjoyable and more challenging because of the composition of the students. These teachers feel that the academic quality of the eight o'clock student is at least as good and frequently better than the student in the regular schedule. One teacher opposed this statement.

Discipline problems are always unpleasant experiences for teachers. To gain further insight into the quality and kind of student having an optional class a question was placed before the teachers of eight o'clock classes asking for a comparison of class control and discipline between the optional class and the regular nine o'clock class.

Table 3. Teacher comparison of eight o'clock students to nine o'clock students relative to class control and discipline

Comparison	Number	Per cent
Fewer problems	1	11
Fewer problems	2	22
About the same	6	67
Create more problems	0	0
Create far more problems	0	0
Total	9	100

In view of the results in Table 3, teachers can expect somewhat fewer problems in class control and discipline with the seventh period students. None of the instructors experienced an increase of such problems. The students are in attendance to learn, not to create a disturbance and waste classroom time.

It is disconcerting to the teacher, an interruption for the class, and a disadvantage to the individual student when he is tardy. Almost every school will have some standard or policy attempting to keep tardies at a minimum. A comparison of the per cent of tardies of those eight and nine o'clock students will help to further describe the student who is registered for an optional seventh period.

Table 4. Teacher comparison of eight o'clock students with nine o'clock students relative to number of tardies

Comparison	Per cent of difference						
Fewer tardies by	per cent						
About the same	2						
More tardies by	10	20	25	5	10	500	10 per cent

Seven of the teachers involved with early classes report their eight o'clock students are tardy more frequently than their nine o'clock students. With one exception the increase in tardies is between 5 and 25 per cent. The outstanding exception reports a 500 per cent increase.

Prior to this study it was related by some teachers that the eight o'clock students were more prone to absence than the regular students and would, on occasion, absent themselves from the single early class. This is reason for concern since the loss, because of absence, to the teacher, classroom, and student are increased over that of the tardy student. Here again the teacher was requested to indicate a comparison between his two groups of students.

Table 5. Comparison of eight o'clock students with nine o'clock students relative to number of absences

Comparison	Per cent of difference						
Fewer absences by	per cent						
About the same	2						
More absences by	15	20	10	1	15	500	100 per cent

Seven of the teachers stated their eight o'clock students are absent more frequently than the nine o'clock student. The reported increases are between 1 and 20 per cent with two exceptions. One instructor determined a 100 per cent increase and another an increase of 500 per cent.

School administrators are aware that changes in established practices and policies should reflect to a degree the thinking of the staff. The faculty at large was asked for their recommendations pertinent to expanding, reducing or altering the optional seventh period. Table 6 records their reactions.

Table 6. Faculty recommendations concerning the extra class period

Recommendations	Number	Per cent
Suggest the program remain unchanged	27	82
Suggest the program be expanded by adding the following courses:	5	15
all classes at eight o'clock on optional basis	2	
U.S. History	1	
physics or chemistry	1	
all electives	1	
Suggest the program be reduced by eliminating the following courses	0	0
none		
Other	1	3
Request optional classes become part of mandatory seven period day	—	—
Total	33	100

Those teachers who recommended that the program remain unchanged indicated that the basic program is acceptable, but the administration should be aware of and make minor changes as the situation demands. Expansion was recommended by 15 per cent. None wished to eliminate any existing classes. One teacher recommended abolition of the optional program in favor of a mandatory seven period day.

When queried as to their preference for a seven period or six period day for all students the teachers recorded a priority for maintaining the six period day.

Table 7. Faculty recommendation for a mandatory seven period day

Recommendation for seven period day	Number	Per cent
Yes	7	21
No	<u>26</u>	<u>79</u>
Total	33	100

The 21 per cent recommending "yes" indicated it would place more importance on those eight o'clock classes that were experiencing frequent tardies and absences, strengthen the entire school curriculum, and offer all students greater chance for learning.

The remaining 79 per cent offered the following as support for their position:

1. "Leave the program optional - good psychology for these students to do something on their own."

2. "Teachers would be burdened if they were required to teach six out of seven classes."
3. "Early morning hours are used by students for make-up work, and extracurricular activities such as practice, decorating, planning, and etc."
4. "Many seniors work late evening hours. It would make the day too long - they wouldn't be effective."
5. "I would rather teach fewer hours more thoroughly."

In review of the faculty responses it can be said that the eight o'clock student's academic quality is equal to or higher than his counterpart at nine o'clock; he is responsible for fewer discipline problems; and is tardy and absent more frequently.

The preponderance of the faculty recommends the optional seven period day remain fundamentally unchanged and is unfavorable toward a mandatory seven period day. Comments on the questionnaire and conversation with the faculty leads the author to believe the rejection of a proposed mandatory seven period day is caused by an expected increase in classes taught per day and number of student contacts.

Response of Parents to Selected Questions

Good public relations and a desire to have the parents become interested and active in school affairs were reasons for inclusion of their responses in this study. Questionnaires were prepared and mailed to the parents of all students enrolled in an eight o'clock class. Of the 200 mailed, 132 were returned. Parent reactions were solicited to possible problems in the time schedule at home because of student's participation in an optional class at eight o'clock, transportation problems for the same reason, effect on student employment, parent's reason for student enrollment, effect on homework, and effect of class on non-school activities. As was done with the faculty, the parents were requested to supply recommendations for program changes and possible mandatory seven period day.

Table 8 shows the possible interference in the home time schedule due to a student's participation in an eight o'clock class. The "home time schedule" makes reference to the schedule of normal activities, e.g. awakening the family and preparing for day's activities, preparation of breakfast and punctual departure from home, occurring in a household during the early morning hours before school and whatever becomes necessary during the evening hours after school.

Table 8. Possible problems in home time schedule due to student's participation in eight o'clock class

Question	CH	HP	MD	MT	NT	O	RO	T ^a	No.	Per cent
Has created serious problems	0	1	0	0	0	0	0	0	1	.6
Has created some problems	3	3	1	3	0	5	3	5	23	17.2
Has created no problems	8	12	1	16	2	13	11	10	73	55
Has helped the schedule	4	1	1	5	2	6	3	7	29	22
Has greatly helped the schedule	<u>1</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>6</u>	<u>5</u>
Total	16	17	4	24	4	25	18	24	132	100

^aFor the purpose of this table and the remainder of this paper the eight o'clock classes will be represented by these initials:

CH - church history	NT - New Testament
HP - health and physiology	O - orchestra
MD - mechanical drawing	RO - R.O.T.C.
MT - missionary training	T - typewriting (elementary)

Approximately half, or 55 per cent, of the parents believe that student membership in the optional seventh period group has resulted in no problems relative to the home time schedule. Twenty-seven per cent registered improvement in the time schedule to some degree while 18 per cent feel it has interfered with the home situation. Possible problems can be visualized if a family has students in the high school, junior high school and an elementary school, all of whom must be prepared for and arrive at their respective destinations at different times of the morning.

Logan, Utah is a community of approximately 17,000 residents and one high school. There are no school district owned and/or operated buses for the transportation of students. Travel to and from school is accomplished by walking, private automobile or the city buses. Table 9 shows relationship between an early morning class and difficulty in getting to school

Table 9. Possible problems relative to student transportation due to participation in eight o'clock class

Question	CH	HP	MD	NT	NT	O	RO	T	No.	Per cent
Consistently	1	0	1	1	0	0	1	1	5	4
Occasionally	3	3	0	3	0	2	3	2	16	12
Created no problems	11	13	3	20	4	21	13	17	102	77
Improved transportation situation	<u>1</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>1</u>	<u>4</u>	<u>9</u>	<u>7</u>
Total	16	17	4	24	4	25	18	24	132	100

Lack of family problems or improvement in the student transportation situation due to participation in an eight o'clock class is recorded by 84 per cent of the parents. The remainder of the parents state the problems exist when the family resides a distance from the school sufficient to warrant use of bus transportation or when the student accompanies a working member of the household.

Many high school students, either through necessity or preference, must be employed part time while attending high school. Table 10 demonstrates the affect the optional class had upon such employment.

Table 10. Possible problems in securing part time employment due to student's participation in eight o'clock class

Question	GE	HP	MD	HT	NT	O	RD	T	No.	Per cent
Prevented employment	0	0	0	0	0	0	0	0	0	
Made employment difficult	0	2	0	1	0	1	2	1	7	5
Did not affect employment	16	13	4	23	4	24	15	22	121	92
Made employment more available	0	1	0	0	0	0	1	1	3	2.2
Insured student of a job	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>.8</u>
Total	16	17	4	24	4	25	18	24	132	100

Those who believe student participation in a class prior to the normal school day has interfered with the opportunity for employment are in the minority. As mentioned in an earlier section, job seeking and employment is accomplished primarily in the afternoons and evenings.

The parents were requested to record their thinking as to the source of encouragement to the student for enrollment in an extra hour of school each day.

Table 11. Parent's reason for student's enrollment in optional seventh period

Was enrollment initiated by	CH	HP	MD	HT	WT	O	HO	T	No.	Per cent
Parent	0	1	0	3	2	2	0	2	10	8
Student	11	11	1	21	2	17	15	19	103	78
Faculty	<u>2</u>	<u>2</u>	<u>3</u>	<u>0</u>	<u>0</u>	<u>6</u>	<u>3</u>	<u>3</u>	<u>19</u>	<u>14</u>
Total	16	17	4	24	4	25	18	24	132	100

Parents report that students are responsible for their own interest in the early class; however, parents will accept 8 per cent of the credit for initiating the student's action which is slightly higher than the 6 per cent the students recorded as parent initiated. The parents are somewhat more generous than their offspring in recognizing the influence of the faculty. This response shows the faculty is almost twice as influential as the home.

Students are sometimes cautioned not to enroll for too many classes, other than those required, with daily homework because they may become unable to perform to their capacity. The parents were requested to indicate whether the eight o'clock class has influenced school assignments performed at home.

Table 12. Effect on other studies in relation to time and effort spent on homework

	GH	HP	HD	HT	HF	O	RO	T	No.	Per cent
Made much more difficult	0	1	0	0	0	0	0	0	1	.8
Made more difficult	2	2	0	1	0	1	2	6	14	10.4
Remained the same	14	14	4	23	4	23	15	15	112	81.8
Made easier	0	0	0	0	0	1	1	3	5	4
Made much easier	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total	16	17	4	24	4	25	18	24	132	100

There is a close correlation between the parent and student responses concerning the affect of the eight o'clock class on time and effort spent on homework. Some difficulty was indicated by 11.2 per cent; 4 per cent recorded homework was made easier. No effect on homework was demonstrated by 81.8 per cent. This is reason to encourage student interest and also confirmation to parents with students not enrolled that other grades and homework does not suffer.

With national emphasis placed on bringing the family closer together the parents were asked to record their beliefs pertinent to the relationship between the eight o'clock class and non-school activities.

Table 13. Effect of optional class on non-school activities

Has student been less able to participate in church, family activities, etc.?	CH	HP	ND	HT	HT	O	RO	T	No.	Per cent
Consistently	0	1	0	0	0	0	0	0	1	.8
Occasionally	2	1	0	0	0	1	3	0	7	5
Created no problems	13	15	4	23	4	23	15	24	121	92
Increased participation	1	0	0	1	0	1	0	0	3	2.2
Greatly increased participation	0	0	0	0	0	0	0	0	0	0
Total	16	17	4	24	4	25	18	24	132	100

Partnership in family activities has not been significantly altered by the student's early arrival at school or possible increase in homework during evenings and week-ends. Parents who responded that no problems were created account for 92 per cent of those questionnaires received. Increased participation was experienced by 2.2 per cent while 5.8 per cent recorded some problems did exist.

Recommendations from the parents concerning changes or alterations in a future schedule are shown in Table 14.

Table 11. Parent recommendations for optional seventh period for the school year 1961-1962

Recommendations	OH	HP	HD	HT	HT	O	RO	T	No.	Per cent
Program remain unchanged	14	12	2	12	5	22	11	17	95	72
Addition of following courses:									32	21.2
Required courses	15									
Languages	6									
Physics	4									
Chemistry	1									
Industrial arts	3									
Algebra								2		
Homemaking								2		
Bookkeeping								1		
Chorus for girls								1		
Carpentry								1		
Reduction of following courses:										
Orchestra (to become part of regular day's schedule)									1	.8
Other:									4	3
Leave decision to faculty										3
Orchestra daily at eight o'clock									1	
									—	—
									Total	132 100

A large proportion, or 72 per cent, of the parents are content to have the current optional seventh period program remain unchanged. Those requesting additions are most interested in any required classes. Some responses were more specific when referring to additions, but there does not appear a demand for a particular subject area. The only recommended reduction suggested that orchestra be removed from the eight o'clock offerings and made a part of the regular day's schedule. Other suggestions, by virtue of their small number, are of little priority.

Table 15. Parent recommendation for mandatory seven period day

	CH	HP	HD	MF	MT	O	RO	T	No.	per cent
Yes	6	7	2	11	2	6	5	13	54	40
No	<u>10</u>	<u>10</u>	<u>2</u>	<u>13</u>	<u>2</u>	<u>17</u>	<u>11</u>	<u>11</u>	<u>78</u>	<u>60</u>
Total	16	17	4	24	4	25	16	24	132	100

A seven period day required for all students is not popular with 60 per cent of the parents. Some of the reasons offered for this are:

1. "Not in favor of seven periods. Teachers have too many demands. High school students are not capable of university pressure."
2. "If required classes were offered at eight o'clock it would be difficult for my girls to take missionary training and I want this for my girls."
3. "If regular classes began at eight o'clock then the students would be required to come at seven o'clock for the extra classes, drills, practices, and etc. and that is too early. As it is they too often go with too little sleep."
4. "If they would get out earlier in the day I think a mandatory eight o'clock class would be all right, but I think the school day is plenty long from nine o'clock to three forty o'clock."
5. "It seems to me that shortening any class period to less than an hour is cutting essentials to improve probables. Give the child a little extra time in each class to work on assignments or get material to further homework."

Those parents supporting a mandatory seven period day reinforce their decision with the following statements:

1. "She seems to do better in early classes."
2. "A very fine schedule I think."
3. "Would let them learn more."
4. "I am in favor of a mandatory seven period day and would recommend an eight period day and all classes start on the hour. I see no reason why the schools cannot have four periods in the afternoon as well as in the morning."

One parent voiced his disapproval of being requested to make a suggestion:

"I don't know how parents could be expected to suggest whether or not the program be unchanged, expanded or reduced. I feel that it is up to the school officials to decide whether or not it is essential, and if so, they should take the necessary steps so that all requirements might be filled for graduation. If the classes are well attended and the students desire this program then I feel that it should surely be continued, but if you are having to force students to attend at this early hour and are meeting with such opposition, then I would suggest that it be discontinued. As I have no knowledge of the conditions I could not be a judge."

A synopsis of the parents' reaction to selected questions would reveal: some problems in the home time schedule with approximately as many favoring as opposing; generally no problems relative to student transportation; virtually no difficulty pertinent to seeking of part-time employment; student initiative is the basic reason for such enrollment; little affect on other studies due to additional homework; student is still able to participate in family and church functions; a large majority recommends the program remain unchanged; and more parents favor a six period day than a seven period day.

Response of Students to Selected Questions

The recipients of the optional seven period program were asked to respond to pertinent questions. The author visited each classroom while class was in session to administer the questionnaire. Problems and questions were solved while the student answers were being recorded to insure complete understanding of sentence structure and student uncertainties concerning the questions. A follow-up visit was made to contact students who were absent on the previous occasion. As shown in Table 16, 30 per cent of Logan High School's student body, or 213 of 706 students, are participating in the optional seven period program. Of this 213, 181 responded to the questionnaire.

Table 16. Identification of respondents by grade level and sex

<u>Grade level</u>	<u>Number</u>	<u>Per cent</u>	<u>Sex</u>	<u>Number</u>	<u>Per cent</u>
Sophomore	33	18	Male	103	57
			Sophomore	13	
			Junior	48	
			Senior	42	
Junior	79	44	Female	78	43
			Sophomore	20	
			Junior	31	
			Senior	27	
Senior	<u>69</u>	<u>38</u>		—	—
Total	181	100		181	100

Sophomore registration in the optional seventh period is limited to elementary typewriting, New Testament and orchestra. The juniors mark the largest segment of participating students and are represented

in all classes with the exception of missionary training which is available only to seniors. The author senses a desire among junior students to increase their credit load during this year. Represented in each of the eight classes are the seniors with their greatest enrollment in health and physiology and missionary training.

That more boys than girls enroll in the early class is partially attributed to the knowledge that two of the classes, mechanical drawing and R.O.T.C. are not open to girls.

Table 17. Student reason for enrollment in the optional seventh period

Reason	CH	HP	MD	MT	NT	O	RO	T	Number	Per cent
Need credit to graduate	4	25	6	1	0	6	4	3	49	27
Opportunity to take elective	15	0	4	2	2	9	15	20	67	37
Encouragement from home	1	0	0	5	1	1	0	3	11	6
Encouragement from faculty	1	0	0	0	0	1	0	1	3	2
Help prepare for college	1	0	2	0	1	0	3	5	12	7
Only this course was offered	1	0	0	1 $\frac{1}{2}$	4	15	0	0	3 $\frac{1}{2}$	18
Total	23	25	12	2 $\frac{1}{2}$	8	33	2 $\frac{1}{2}$	32	161	100

That health and physiology is necessary for graduation is cause for the entire class of 25 to state this as their reason for enrollment.

The other students in this initial category are students who have failed classes at an earlier date and find themselves lacking the minimum number of credits for graduation. The 4 church history students obviously are referring to graduation from the L.D.S. Seminary as credit in this class is not applied toward graduation from Logan High School. The single missionary training student is in error; this class earns credit toward neither high school nor seminary graduation.

The opportunity to take an elective class in addition to the regular course offerings is what attracts the students to the early morning schedule. This is the greatest single cause for enrollment.

The proportionately small number of students influenced by encouragement from home, faculty and friends demonstrates the student's awareness of his personal situation and his ability to solve some educational problems on the basis of his own reasoning.

Preparation for college holds small claim as reason for the optional period. Typewriting and R.O.T.C. beckon most of this group.

Little choice in determining their eight o'clock schedule was offered those young people interested in orchestra, missionary training and New Testament (from Reverend Bruner). The early morning class is the only available time to effect registration; these classes are not offered at any other hour. The single church history entry in this category is in error; it is offered another time.

The author believes that there may be underlying reasons for enrollment in addition to those indicated in Table 17. A strong possibility would be to enroll for an eight o'clock class and arrange the

balance of the schedule to take some other specific class. The facts shown in Table 18 attempt to determine this.

Table 18. Enrollment in optional seventh period to take another specific class during the day

	GH	HP	MD	MT	NT	O	RO	T	Number	Per cent
Yes	18	15	5	1	0	2	16	20	77	43
No	3	10	7	21	8	31	8	12	100	55
No response	<u>2</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>4</u>	<u>2</u>
Total	23	25	12	24	8	33	24	32	181	100

The 77 students who specifically desired enrollment in some class during the normal day's schedule and found it necessary to adjust their classes to include an eight o'clock class listed the following as that other class in which they wished to enroll:

<u>Industrial Arts</u> (7)		<u>Science</u> (5)	
mechanical drawing	1	chemistry	3
advanced woodwork	1	botany	1
radio	2	zoology	1
auto mechanics	1	<u>R.O.T.C.</u> (3)	
metal shop	2	sponsors	3
<u>Music</u> (3)		<u>Homecoming</u> (3)	
band	3	home economics	3
<u>Physical Education</u> (6)		<u>Mathematics</u> (3)	
sports	5	elementary algebra	2
competitive athletics	1	consumer mathematics	1

<u>Business Education (9)</u>		<u>Social Studies (8)</u>	
shorthand	4	American Problems	4
business machines	3	world history	4
bookkeeping	2		
<u>Language Arts (12)</u>		<u>Seminary (7)</u>	
speech	4	church history	7
Spanish	2		
journalism	1	<u>Library (11)</u>	
English (make-up)	5	library (study hall)	11

A concentrated demand for a particular class or general area of study is not evident from the above information. The student interest is widely distributed.

Extra-curricular activities frequently occupy part of the student's school day. The influence of the optional seventh period upon these activities is demonstrated in Table 19.

Table 19. Effect of eight o'clock class on participation in extra-curricular activities

Effects	CH	HP	MD	MT	HT	O	NO	T	Number	Per cent
Much more active	1	0	0	1	0	7	0	1	10	5
More active	1	5	2	3	2	15	3	3	34	19
About the same	20	17	10	17	5	11	19	26	125	69
Less active	1	3	0	3	1	0	2	2	12	7
Far less active	0	0	0	0	0	0	0	0	0	0
Total	23	25	12	24	8	33	24	32	181	100

Table 19 reports that 24 per cent of the students have increased their activity while only 7 per cent have taken less part in extra-

curricular activities. As all classes report some increase, it is apparent that the orchestra students are the recipients of a large measure of such activity. The 7 per cent who stated they were less active are represented in 6 of the 8 classes in such small numbers as to be of little importance. The bulk of the students report there is no change in their extracurricular activities because of an eight o'clock class.

Table 20. Effect of eight o'clock class on other studies in relation to time and effort spent on homework

Effects	CH	HP	MD	HT	HT	O	SO	T	No.	Per cent
Made much more difficult	0	0	0	0	0	0	0	1	1	.5
Made more difficult	4	6	0	1	0	1	7	1	20	11
Remained the same	18	18	12	22	8	32	17	36	153	84.5
Made easier	0	1	0	0	0	0	0	3	4	2
Made much easier	<u>1</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>3</u>	<u>2</u>
Total	23	25	12	24	8	33	24	32	181	100

Table 20 indicates that a very large majority of the students believe the optional class has not affected, favorably or unfavorably, the balance of their schedule. Eleven and one half per cent or 21 participants are cognizant of some difficulty. Figures in the other two categories are not significant.

Table 21. Effect of eight o'clock class upon opportunity for part-time employment

Effects	CH	HP	ND	HT	NT	O	RO	T	Number	Per cent
Prevented employment	3	1	0	0	0	0	0	0	4	2
Made employment difficult	1	0	0	0	0	1	1	0	3	2
Did not affect employment	19	22	11	24	8	32	22	28	166	92
Made employment more available	0	0	1	0	0	0	1	4	6	3
Created or insured us of a job	<u>0</u>	<u>2</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>1</u>
Total	23	25	12	24	8	33	24	32	161	100

Employment on a part time basis for these students has little reference to their enrollment in an eight o'clock class. As many were assisted in employment as were impeded. Pursuit of labor by high school students is accomplished primarily in the afternoon and evening and an optional class before the normal school day would ordinarily not prohibit such activity.

If, when a student registers each spring, his schedule will permit he may enroll in a library class. This class is designed as a study hall to give students some study time at school while near printed references and the faculty. Table 22 attempts to determine the number of students so registered and the frequency of study halls.

An attempt to determine whether the early morning students were using the extra hour for a formal class or as a study period prompted the inclusion of Table 22 in this paper.

Table 22. Inclusion and frequency of study hall in schedule

Inclusion of study hall	Number	Per cent	Frequency of study hall	Number	Per cent
Yes	72	40	Daily	42	56
No	<u>109</u>	<u>60</u>	Alternate	<u>30</u>	<u>42</u>
Total	161	100		72	100

The realization that the majority or 60 per cent of these students have not registered for a study period would suggest that they are more desirous of learning a new skill or exploring an area of interest with their optional hour than adding to their study time.

The Utah State Board of Education recommends that students attend school for six full periods a day. An effort was made to determine whether the eight o'clock students were enrolled in a total of seven class periods per day or ending their school time one hour earlier than the regular student while still complying with the recommendations of the Utah State Board of Education.

Table 23. Number of daily class periods in which eight o'clock students are enrolled

Class periods	CH	HP	ND	NT	NT	O	RO	T	Number	Per cent
Seven	21	21	8	21	6	29	20	31	157	87
Six	2	1	4	3	2	4	4	0	20	11
Five	0	2	0	0	0	0	0	1	3	1.5
Four	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>.5</u>
Total	23	25	12	24	8	33	24	32	181	100

Eighty seven per cent of the students are utilizing this time as an addition to the normal six period school day. The apparent exceptions to the minimum six period day are made for those students who by financial necessity must work a large part of the day; students who should have graduated in earlier years and have now returned to complete graduation requirements and find it unnecessary to spend the entire day at school; those students who are wards of the juvenile court and by mutual agreement the local board of education and the juvenile court feel a partial day best for those students; and a small number whose poor health would prohibit a full day's attendance.

In order to determine the importance of the optional seventh period to the participating student each was asked, "if it became necessary for you to eliminate one class, excluding those required, which one would you drop? Is this your eight o'clock class?"

Their collective reply is as follows:

Classes to be dropped:

Library	33	Language Arts Area	9
Seminary Area	30	Industrial Arts Area	8
Business Education Area	18	Home Economics Area	8
Music Area	17	Social Studies Area	4
R.O.T.C. Area	14	Physical Education Area	4
Science Area	12	Mathematics Area	2
		Art Area	2

Table 24. Similarity of eight o'clock class and class selected for elimination

	CH	HP	MD	MT	NT	O	NO	T	Number	Per cent
Yes	5	1	4	10	2	6	9	6	43	24
No	16	19	7	14	6	27	13	24	126	69
No response	<u>2</u>	<u>5</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>2</u>	<u>12</u>	<u>7</u>
Total	23	25	12	24	8	33	24	32	181	100

Satisfaction with the early morning class is assured with 69 per cent stating that if any single class should be voluntarily eliminated it would not be the optional period.

The quantity of students who would repeat, in subsequent years, an optional seventh period enrollment would aid in determining the holding power of eight o'clock classes. Table 25 reveals the number "new" to the program and the number of repeating students.

Table 25. Number of students who have participated in optional seventh period in previous years

Enrollment in optional seventh period prior to current year	OH	HP	ND	MT	NT	O	RO	T	Per	
									Number	cent
Yes	0	2	2	6	0	20	10	7	47	26
No	21	23	10	17	8	12	14	25	130	72
No response	<u>2</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>4</u>	<u>2</u>
Total	23	25	12	24	8	33	24	32	161	100

While 130 students have shown this is their first experience with the optional seventh period it should be recognized that 33 of this group are sophomores and have had no opportunity for such enrollment. The relatively small portion who are repeating an eight o'clock class would lead one to believe that either the students are not aware of the opportunities such a program offers as juniors and sophomores, or those who have participated in other years were not sufficiently satisfied to duplicate such registration. The fact that orchestra is offered only at eight o'clock would account for the large proportion of repeating students in that class.

Responses for possible expansion of the eight o'clock offerings were solicited from the participating students. These suggestions are assembled in Table 26.

Table 26. Student recommendation for program expansion

Recommend wider selection of eight o'clock classes	CH	HP	MD	MT	NT	O	RO	T	Number	Per cent
Yes	11	20	11	18	4	15	15	25	119	66
No	11	5	1	5	4	17	9	7	59	32.5
No response	<u>1</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>3</u>	<u>1.5</u>
Total	23	25	12	24	8	33	24	32	181	100

The specific classes students wish to see added to the optional offerings are here listed:

Art	1	Homemaking	8
Sports	1	Physics	5
Industrial Arts	3	Geometry	1
Shorthand	5	Chemistry	9
English	6	Algebra	2
Spanish	3	Consumer Mathematics	2
German	8	Trigonometry	1
Botany	2	U.S. History	6
Zoology	2	"Required" classes	55

It is evident that a notable number of students wish to see the course offerings expanded. Specific student recommendations are somewhat equitably distributed among seventeen different classes with one salient exception. Of the 119 recommendations for expansion, 55 fall under the category of "required" subjects. This would suggest that any required class at eight o'clock would improve the individual scheduling and arranging of classes during registration.

Each of the 181 students in question has a particular personal reason or a spark more ambition to consent to one hour of formal education beyond the normal school day. It was decided to draw from

these people their reaction to a mandatory seven period day.

Table 27. Student recommendation for a mandatory seven period day

Favor a mandatory seven period day	CH	HP	MD	MT	NT	O	EO	T	Number	Per cent
Yes	17	7	5	12	1	9	3	16	70	39
No	5	10	7	12	7	24	21	15	109	60
No response	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>2</u>	<u>1</u>
Total	23	25	12	24	8	33	24	32	181	100

The single class which voted heavily in favor of a mandatory seven period day is church history for which credit toward high school graduation is not offered. The other class which receives no credit toward graduation is missionary training. This group was evenly divided. One would suggest that if the participating students, those who are willing and ambitious enough to attend school one extra hour each day, are collectively opposed, the balance of the student body would support this attitude to a larger degree.

A digest of student responses reveals: the main purpose of enrollment is opportunity to take an elective; there is no concentrated demand for any other single class in the remaining six periods; such participation has not appreciably affected extracurricular activities; there is little affect on other studies due to time and effort spent on homework caused by the eight o'clock class; opportunity for employment is not affected; the students are utilizing this time as an

addition to the school day; that a large majority indicate this is their initial experience with an eight o'clock class; a preponderance of students would recommend a wider selection of classes at an early hour; and 60 per cent do not favor a mandatory seven period day.

Comparison of Courses Taken and Credit Earned of Participating
and Non-participating Students

To further understand the operation of the optional seven period day at Logan High School it is necessary to compare a representative sample of eight o'clock and nine o'clock students in relation to the difference in total credits earned, if any, and the areas of study.

The author consulted the registration files for the current school year and selected the registration cards of 36 sophomores who are participating in the optional seventh period. These 36 students represent all of the sophomores so participating. An equal number of non-participating students of the same grade level was selected at random for comparison. This procedure was followed with 50 each participating and non-participating junior students and 50 each participating and non-participating senior students. The 272 students whose registration was investigated represents 39 per cent of the entire student body.

Recording the class taken and credit earned for each student concerned revealed the sought after information. The following three tables indicate the differences in credit earned in the general study areas.⁴⁴ An itemized list of credit earned for each class offered within each group of students is included in the appendix.

⁴⁴Logan High School was established and still operates under the Carnegie unit of credit. Dependent upon the nature of the course offered, a student may earn from .25 of one credit to a full credit.

Table 26. Comparison of credit earned by 36 eight o'clock and 36 nine o'clock sophomore students

General area of study	Eight o'clock	Nine o'clock	Difference favoring eight o'clock	Difference favoring nine o'clock
Art	1.5	1.5		
Business Education	21.5	27.5		6
Home Economics	5.5	2	3.5	
Industrial Arts	4.75	4.25	.5	
Language Arts	47	46.25	.75	
Mathematics	33	34		1
Music	7.75	5.25	2.5	
Science	2.5	1	1.5	
Social Studies	16	8	8	
Physical Education	9.25	8.5	.75	
R.O.T.C.	6.5	6.5		
Seminary	<u>30</u>	<u>30</u>		
Total	185.25	174.75	17.50	7

The 36 eight o'clock students earned a total of 10.5 more credits than did the companion group of equal size at nine o'clock. This difference was distributed over 7 general areas of study with social studies manifesting the largest contrast. Home economics and music are the recipients of the next largest increases. Business education shows a salient increase for the group beginning the school day at the traditional hour.

Table 29. Comparison of credit earned by 50 eight o'clock and 50 nine o'clock junior students

<u>General area of study</u>	<u>Eight o'clock</u>	<u>Nine o'clock</u>	<u>Difference favoring eight o'clock</u>	<u>Difference favoring nine o'clock</u>
Art	.25	1		
Business Education	28	21.5	6.5	
Home Economics	2.75	3		.25
Industrial Arts	3.5	3.75		.25
Language Arts	55.25	52.25	3	
Mathematics	20	25		5
Music	5	3.75	1.25	
Science	56	54.5	1.5	
Social Studies	49	50		1
Physical Education	8.75	7.5	1.25	
R.O.T.C.	10.25	8.5	1.75	
Seminary	39	36	3	
Total	<u>277.75</u>	<u>266.75</u>	<u>18.25</u>	<u>7.25</u>

Garnered over seven areas of study are the 11 additional credits earned by the 50 eight o'clock students with business education, language arts, and seminary displaying the greatest difference. The area of mathematics proved more popular with a difference of 5 credits earned by the nine o'clock students.

Table 30. Comparison of credit earned by 50 eight o'clock and 50 nine o'clock senior students

<u>General area of study</u>	<u>Eight o'clock</u>	<u>Nine o'clock</u>	<u>Difference favoring eight o'clock</u>	<u>Difference favoring nine o'clock</u>
Art	2.5	2	.5	
Business Education	26.75	27.5	1.25	
Home Economics	3	4.25		1.25
Industrial Arts	5.75	3.25	2.5	
Language Arts	66.25	57.75	8.5	
Mathematics	16.5	14	2.5	
Music	7.25	3	4.25	
Science	55.5	65		9.5
Social Studies	55	52.5	2.5	
Physical Education	10.25	9.75	.5	
R.O.T.C.	9.5	5	4.5	
Seminary	28	4	24	
Total	268.25	248.00	51.00	10.75

Ten areas of study contributed to the 40.25 increased credits earned by the optional class students with language arts, music, R.O.T.C., and seminary contributing the largest portions. Science registered a substantial increase in favor of the nine o'clock students. Senior

students are permitted to register for more full credit courses than are sophomores and juniors. This will account for the greater number of credits earned by the eight o'clock seniors than by the eight o'clock sophomores and juniors.

The 136 students in the optional seventh period earned a total of 61.75 more credits than did an equal number of nine o'clock students. With the exception of the ordinary area at the senior level these increased credits do not represent a significant student interest in any single area of study.

COMPARISON OF TOP 15 PER CENT OF SENIOR CLASS TO
RECOMMENDATIONS OF DR. JAMES B. CONANT

When one attempts a study or critical analysis of education or its many divisions that person frequently consults the authorities. One of the nation's most respected and informed living educators is Dr. James B. Conant. The author of many books and contributor to periodicals, Dr. Conant was, in his early years, an assistant professor of chemistry at Harvard University. He later became head of the chemistry department before his selection as president of the University in 1933, a position he held until he retired in 1953.

He served the nation in two world wars; in the Chemical Warfare Service and as an adviser to the Manhattan Project which produced the first atomic bomb. He has been a lifelong student not only of American education but also of comparative education, and has made intensive studies of Australian, New Zealand, British, German, and Swiss schools.

Dr. Conant was sent to Germany in February 1953, as U.S. High Commissioner, a post he retained until after the formal occupation was terminated, when President Eisenhower appointed him U.S. Ambassador to the Federal Republic of Germany. He resigned in early 1957.

His most recent contribution to education, more generally the American public, is a study of the comprehensive American high school. High schools in 26 states received the visits of Dr. Conant and/or his co-workers. His "first report to interested citizens" labels the objectives of such an institution as follows:

. . . the three main objectives of a comprehensive high school are: (1) to provide a general education for all the future citizens; (2) to provide good elective programs for those who wish to use their acquired skills immediately on graduation; (3) to provide satisfactory programs for those whose vocations will depend on their subsequent education in a college or university.⁴⁵

It is the third objective that immediately interests this author. Further reading of Conant will reveal the structure of our educational system contributes to its own problems. The first objective quoted above can and does limit the accomplishment of objective three. Conant explains this:

. . . there is no doubt that the use of our public schools consciously or unconsciously to keep our society "democratic" and fluid presents us with an educational dilemma. The more we try to employ the instrument of universal education to offset those forces of social stratification inherent in family life, the more we jeopardize the training of certain types of individuals. In particular, we tend to overlook the especially gifted youth. We neither find him early enough, nor guide him properly, nor educate him adequately in our high schools.⁴⁶

A look at our scheduling practices in American high schools may initiate action that would, in part, achieve the objectives and deter the faults. A brief example of this would direct our attention to Conant's recommendation for a seven or eight-period day with periods as short as forty-five minutes. Laboratory periods as well as industrial arts courses should involve double periods. Increased class periods allow a flexibility of course selection that is denied students under the traditional six period day. A required physical education class for all and a "required" seminary class for a large

⁴⁵James B. Conant, The American High School Today, (New York: McGraw-Hill Book Co., 1959) p. 17.

⁴⁶James B. Conant, Education in a Divided World, (Massachusetts: Harvard University Press, 1948), p. 65.

majority of Utah students would further limit course selection, while this situation is undesirable for the general student it is magnified for that Dr. Conant nominates as the "academically talented". A broad definition of academically talented would include those students . . . able to study effectively and rewardingly a wide program of advanced mathematics, science, and foreign languages.⁴⁷ On a national basis, the group referred to as academically talented constitutes about 15 per cent of the high school population.⁴⁸ A program of study for this top 15 per cent would include:

Four years of mathematics, four years of one foreign language, three years of science, in addition to the required four years of English and three years of social studies; a total of eighteen courses with homework to be taken in four years.⁴⁹

The arguments in favor of an academically talented student's electing a wide program of at least eighteen hours of homework are best related by Conant:

To my mind the most compelling argument is that the student in question has potentialities shared with only a relatively few contemporaries, probably not more than 15 percent of his age group. If these potentialities are not developed as far as possible during the school years, they may never be fully developed. From the point of view of the individual, failure to develop talent in school may be the equivalent of locking many doors. For example, without mathematics and science in high school, it would be difficult later to enter an engineering school, to take a premedical course in college, and impossible to begin a scientific career in a university. If something approaching mastery of a foreign language is not attained before graduation from high school, it may never be attained.

⁴⁷Conant, The American High School Today, p. 20.

⁴⁸Ibid., 58.

⁴⁹Ibid., 57.

The loss to the individual from not electing a suitable program in high school is clear. So too is the loss to the nation. From the 15 per cent of the youth who are academically talented will come the future professional men and women. These people ought to have as wide and solid an education as possible. It is in the national interest to have them develop their capacities to the full and to start this development as early as possible.⁵⁰

With this information in mind the author attempts, in this section of the paper, to compare the courses taken of the top 15 per cent of the 1959-1960 senior class at Logan High School with the recommendations set down by Dr. Conant for the academically talented. This study concerns itself with Dr. Conant's report in order to determine if the academically talented were enrolled in the eight o'clock class, and if they were to what degree if any the extra hour enabled them to complete classes in the recommended areas of study. Thirty-five students (15 per cent of the 235 students in the senior class) were selected according to available test data and recommendation by school administrators. Those students were selected who received recommendations from the school principal, the counselor for girls, the counselor for boys, and whose percentile score was 85 or higher in the following tests: (1) National Merit Scholarship; (2) Hemon-Nelson Test of Mental Ability; (3) Cooperative Achievement Test (English); and the (4) General Aptitude Test Battery (verbal and numerical). Test results were made available to the author on the condition that students would not be identified by name. After these students had been selected their permanent record cards were investigated to determine courses taken during four years of high school. Table 31 offers the comparison.

⁵⁰ibid., 59-60.

Table 31. Comparison of credit earned in selected areas of study of top 15 per cent of senior class at Logan High School with recommendations of Dr. James B. Conant

Areas of study	Student data								
	1	2	3	4	5	6	7	8	
Student number	1	2	3	4	5	6	7	8	
Sex	F	M	F	F	M	F	M	F	
Enrolled in eight o'clock class in 1959-1960	No	Yes	Yes	No	Yes	No	No	No	
Mathematics credit earned (Recommended - 4)	1	5	2	1	2	1	3.5	4	
Foreign Language credit earned (Recommended - 4)	1	2	0	0	3	1	0	0	
Science credit earned (Recommended - 3)	2	2	1	1.5	2	2.5	3	3	
English credit earned (Recommended - 4)	4	4	4	4	4	4	4	4	
Social studies credit earned (Recommended - 3)	2	3	3	3	4	3	4	2	
Courses with home-work taken in four years (Recommended - 18)	10	16	10	9.5	15	11.5	14.5	13	

Table 31. Continued

Areas of study	Student data								
	17	18	19	20	21	22	23	24	
Student number	17	18	19	20	21	22	23	24	
Sex	M	M	M	F	F	F	M	F	
Enrolled in eight o'clock class in 1959- 1960	No	No	No	Yes	Yes	Yes	Yes	No	
Mathematics credit earned (Recommended - 4)	3	3	3	2	3	2	5	3	
Foreign language credit earned (Recommended - 4)	2	0	0	1	0	1	0	1	
Science credit earned (Recommended - 3)	2.5	2	3.5	3	1.5	2	1	2.5	
English credit earned (Recommended - 4)	4	4	4	4	4	4	4	4	
Social studies credit earned (Recommended - 3)	3	4	4	2	3	4	3	2.5	
Courses with home- work taken in four years (Recommended - 16)	11.5	13	11.5	12	11.5	13	13	13	

Table 31. Continued

Area of study	Student data								
	25	26	27	28	29	30	31	32	
Student number	25	26	27	28	29	30	31	32	
Sex	M	F	F	M	F	M	F	F	
Enrolled in eight o'clock class in 1959- 1960	No	No	No	Yes	Yes	Yes	No	Yes	
Mathematics credit earned (Recommended - 4)	4	1	1	4	1	4.5	1	1	
Foreign language credit earned (Recommended - 4)	0	0	2	0	1	1	0	0	
Science credit earned (Recommended - 3)	2.5	2.5	3	3.5	1.5	3	1.5	1.5	
English credit earned (Recommended - 4)	4	4	4	4	4	4	4	4	
Social studies credit earned (Recommended - 3)	3	3	3	2	4.5	3	3	4	
Courses with home- work taken in four years (Recommended - 18)	13.5	10.5	13	13.5	12	15.5	9.5	10.5	

Table 31. Continued

Area of study	Student data			
	33	34	35	
Student number	33	34	35	
Sex	M	F	M	17 male - 18 female
Enrolled in eight o'clock class in 1959- 1960	No	Yes	No	15 yes - 20 no
Mathematics credit earned (Recommended - 4)	2	3	4	mean 2.6
Foreign language credit earned (Recommended - 4)	0	1	0	mean .7
Science credit earned (Recommended - 3)	3.5	1.5	3	mean 2.5
English credit earned (Recommended - 4)	4	4	4	mean 4
Social studies credit earned (Recommended - 3)	3	3	3	mean 3
Courses with home- work taken in four years (Recommended - 18)	12.5	15.5	14	mean 12.8

Logan High School's academically talented students are evenly distributed between the sexes. While perhaps not statistically reliable, it is evident that a relatively larger proportion, 15 of 35, or 43 per cent of the academically talented are enrolled in an early class while only 213 of 706, or 30 per cent of the total student body are so engaged. Of the 15 academically talented participating in the early class 9 are females.

The top 15 per cent who participated in an eight o'clock class earned a mean 13.2 credits in the five areas of study while the nine o'clock students earned a mean 12.6 credits.

Collectively, these students fall short of Dr. Conant's recommendations in three of the five study areas. Foreign language, prominent in its deficiency, demonstrates the poorest record. The recommended 16 hours of homework is far in excess of the 12.8 accomplished by the top 15 per cent of the 1959-1960 senior class at Logan High School.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

What the author believes to be the significant results of this study are summarized below:

1. The addition of four new eight o'clock classes for the school year 1959-1960 brought the total to eight; six of which offer credit for high school graduation. Student request, opportunity to explore an area of study, and a general increased number of subjects required for graduation were the reasons for such addition. Thirty per cent of the student body is enrolled in an eight o'clock class.
2. The teachers of the eight o'clock classes feel the academic quality of those students is at least as good and frequently better than the student in the regular class.
3. There are fewer control and discipline problems with eight o'clock students than with nine o'clock students.
4. A greater number of tardies and absences are evident in eight o'clock classes than in nine o'clock classes.
5. A large majority of the faculty indicates reasonable satisfaction with the current program.
6. The faculty is collectively opposed to a mandatory seven period day. The primary reason for this is anticipation of a longer work day - teaching six of seven classes where they are now teaching five of six.

7. Student participation in the optional seventh period has not affected nor helped the home time schedule, e.g. normal family activities necessary to begin each day. A similar statement can be made for student transportation to school.

8. Part time employment is not altered by enrollment in an eight o'clock class.

9. Initiative on the part of the student is responsible for his participation in an eight o'clock class. Little credit can be awarded to the faculty or parents.

10. Time and effort spent on homework in other classes and extracurricular activities are not affected by the optional seventh period.

11. Parents as a group would recommend the eight o'clock program remain unchanged.

12. The majority of the parents do not favor a mandatory seven period day.

13. While all grade levels are participating, the juniors hold a plurality. There are more boys than girls taking part.

14. Students are enrolled because they need the credit to graduate, it is an opportunity to take an elective, or it was the only timethe course was offered.

15. Slightly less than half of the participating students enrolled in an eight o'clock class do so in order to adjust their schedule so that they might include some "other" class in their day's activities. There is no evidence the "other" class represents a particular field of study.

16. Sixty per cent of eight o'clock students do not have a study period within their daily schedule. This "extra hour" in school is spent, by most students, in a formal classroom studying a particular subject.

17. The early students are not using the eight o'clock class as a device to end their school day at an earlier hour. A full seven periods are experienced by 87 per cent of this group.

18. Less than one third of the students enrolled in an eight o'clock class had enrolled at a similar time in previous years.

19. A majority of the students recommend wider selection of course offerings at the early hour with "required classes" being the most popular.

20. A majority of the students do not favor a mandatory seven period day.

21. Those students cooperating in an optional seventh period are earning more credits than their nine o'clock counterparts in from seven to ten general areas of study.

22. While perhaps not statistically significant, it is noted that a larger ratio of the academically talented students are enrolled in eight o'clock classes than the student body at large. Those students in the top 15 per cent who are enrolled in an eight o'clock class are more nearly accomplishing the courses suggested by Dr. James B. Conant than those whose day begins at nine o'clock.

23. The top 15 per cent of Logan High School's graduating class for 1959-1960 are earning fewer credits than those recommended by Dr. James B. Conant in mathematics, foreign language, and science. Lack of foreign language study is the outstanding deficiency.

Conclusions

1. Direct benefit to the individual and indirect benefit to the community and nation are evidenced in the knowledge that thirty per cent of Logan High School's student body is desirous and ambitious enough to voluntarily enroll for an extra hour of study in the school day. Such action is in contrast to frequent reports of juvenile misconduct and for this action they are to be commended.

2. Eight different classes taught at eight o'clock of more than 63 available have attracted 30 per cent of the student body. If the eight o'clock offerings were expanded to include additional areas of study the interested students might number well beyond the present figure. The increase in students could evolve into a seven period day with most or all students participating.

3. The better quality student is the one attracted to the early morning classes. His academic achievement is respected by teachers, his conduct is most favorable, and his ambition and aspiration prepare him for leadership in a competitive world.

4. The relatively small number of students who register for eight o'clock classes for more than one year while at Logan High School is caused by the small number of classes available, resulting in fewer choices, and sophomores new to the school who are perhaps insufficiently informed of the optional seventh period program.

Recommendations

Recommendations following this study are here indicated:

1. It is recommended the eight o'clock classes remain "optional" to encourage study and learning for those interested and ambitious students who are willing to begin school an hour earlier each day than their classmates. The segment of slow students could not effectively handle an additional hour of school.

2. It is recommended that one or two sections of some "required classes", e.g. chemistry and U.S. History or one section each of English 10 and 11, be made available to improve individual student scheduling for the balance of the school day.

3. It is recommended that a more detailed study of the feasibility of a mandatory seven period day be conducted, in the event a mandatory seven period day is desired, to include cost to the school district for possible increases in teaching personnel and supplies, additional classrooms and facilities, changes in student contacts and number of preparations for faculty members, acceptance of changes by Northwest Accrediting Association, and other related problems.

4. It is recommended that sophomore students and transfer students be made cognizant of the eight o'clock program and its advantages to enable them to participate for three years if they so desire.

5. It is recommended that the foreign language program be expanded to include third and fourth years of study in languages now taught with consideration given to the addition of other languages.

6. It is recommended the academically talented students receive added counseling and encouragement to enroll in more mathematics, science, and foreign languages. Convince this select group the optional seventh period offers an opportunity to accomplish such a goal.

LITERATURE CITED

Books

- Bobbitt, Franklin. *The Curriculum of Modern Education*. New York: McGraw-Hill Book Co., 1911.
- Conant, James B. *The American High School Today*. New York: McGraw-Hill Book Co., 1959.
- _____. *Education in a Divided World*. Massachusetts: Harvard University Press, 1948.
- Ely, Frederick. *The Development of Modern Education*. New York: Prentice-Hall, Inc., 1952.
- Edmonson, J.B., et al. *The Administration of the Modern Secondary School*. New York: Macmillan Company, 1948.
- French, Will, Hull, Don J., and Dodds, B.L. *American High School Administration*. New York: Rinehart and Co., 1957.
- Jacobson, Paul B., Reavis, William C., and Logsdon, James D. *The Effective School Principal*. New York: Prentice-Hall, Inc., 1954.
- Koos, Leonard V., et al. *Administering the Secondary School*. New York: American Book Company, 1940.
- Spears, Harold. *The Emerging High School Curriculum and Its Direction*. New York: American Book Co., 1940.

Articles and Periodicals

- Alexander, A.M. "What Procedures and Techniques Assure Good Schedules for the School and Individual Student," *Bulletin of the National Association of Secondary School Principals*, XLI (April, 1957).
- Casile, Bruno A. "Study Halls Are A Waste of Valuable Classroom Space," *Nation's Schools*, LIX (June, 1957).
- Conant, James B. "Some Problems of the American High School," *Phi Delta Kappan*, XL (November, 1958).
- Guony, Edward R. "Longer Periods - No Study Halls," *Bulletin of the National Association of Secondary School Principals*, XLII (September, 1958).

Douglas, Earl R. "Trends in Organization and Administration of Junior High Schools," Bulletin of the National Association of Secondary School Principals, XI (October, 1956).

_____. "The Modern High School Curriculum," The School Review, LXIII (January, 1955).

"Educator's Dispatch," The Letter for Administrators, January 12, 1960.

_____. June 27, 1959.

Farrer, Kenneth G. "Are Seven Periods Better?" Utah Educational Review, LII (May, 1959).

Foster, O.I. "What Is the Most Effective Way of Arranging the Length and Use of the Class Period?" Bulletin of the National Association of Secondary School Principals, XII (April, 1957).

Glen, David E. "Length of the High School Day," Bulletin of the National Association of Secondary School Principals, XI (October, 1956).

Gorman, Burton W. "The High School Schedule," The American School Board Journal, CXXVI (March, 1953).

Kalmbach, Lynn R. "The Alternate Day School," The Clearing House, XXIII (April, 1957).

Kinney, Lee F. "What Is the Most Effective Way of Arranging the Length and Use of the Class Period," Bulletin of the National Association of Secondary School Principals, XIII (April, 1958).

Moloughlin, Sam. "Are Seven Periods Better?" Utah Educational Review, LII (May, 1959).

Montgomery, Ray. "Plans for Learning," Phi Delta Kappan, XXVIII (April, 1952).

National Education Association, Research Division, "Trends in City School Organization 1938-1948," Research Bulletin, XXVIII (February, 1949).

Park, G.L. and Varner, Glenn F. "Let's Look Before We Leap," American School Board Journal, CXXIX (October, 1959).

Phillips, Frank H. "The Schedule - A Barrier or a Boon to a Good Curriculum," Bulletin of the National Association of Secondary School Principals, XIII (October, 1958).

Robinson, Willy F. "Organization of the Seven Period Day," California Journal of Secondary Education, XXIV (January, 1960).

Trump, Lloyd. "New Directions in Scheduling and Use of Staff in High School," California Journal of Secondary Education, XXX (October, 1958).

Wyman, Raymond. "Full Employment of Teachers and Schools," American School Board Journal, CXXXV (July, 1957).

Unpublished Material

Bateman, E. Allen. "Adjustment of Education to New Demands." Utah: Department of Public Instruction, 1958. (Mimeographed.)

Logan High School Faculty Handbook. (Mimeographed.)

Hewell, M. Clark. "A Comparison of the Program of the Seven Period Day and the Six Period Day in Smaller High Schools of the State of Utah." Unpublished Master's thesis, Department of Educational Administration, Brigham Young University, 1959.

Statement issued at quarterly meeting of Class A High School Principals in state of Utah, February, 1959, at Olympus High School.

Other Sources

Logan High School Latter Day Saint Seminary. Personal interview with Don Bishop, Principal. February 26, 1960.

APPENDIX

APPENDIX A

Faculty Questionnaire

1. How does the general academic quality of the eight o'clock student compare with the student in the regular schedule?
 - A. Much better _____
 - B. Somewhat better _____
 - C. About the same _____
 - D. Poorer _____
 - E. Much poorer _____

2. How do the eight o'clock students compare with the students in the regular schedule relative to class control and discipline?
 - A. Far fewer problems _____
 - B. Fewer problems _____
 - C. About the same _____
 - D. Create more problems _____
 - E. Create far more problems _____

3. How do the eight o'clock students compare with the nine o'clock students relative to the number of tardies?
 - A. Fewer tardies by _____ per cent
 - B. About the same _____
 - C. More tardies by _____ per cent

4. How does the number of absences of the eight o'clock students compare with those in the nine o'clock class?
 - A. Fewer absences by _____ per cent
 - B. About the same _____
 - C. More absences by _____ per cent

5. The "optional seventh period" presently includes the following classes: R.O.T.C., elementary typewriting, church history, missionary training, New Testament, orchestra, mechanical drawing, and health and physiology (one semester - only "required" course).

Considerations for the optional seven period program for the school year 1961-62:

- A. Suggest the program remain unchanged _____
- B. Suggest the program be expanded by adding the following courses:
- C. Suggest the program be reduced by eliminating the following courses:
- D. Other (specify)

6. Would you favor a mandatory seven period day at Logan High School?
 Yes _____ No _____

Possible schedule:

1st hr.	8:25 9:35	
2nd hr.	9:20 10:10	passing time
3rd hr.	10:15 11:05	passing time
4th hr.	11:10 12:00	passing time
		lunch hour
5th hr.	1:00 1:50	
6th hr.	1:55 2:45	passing time
7th hr.	2:50 3:40	passing time

APPENDIX B

LOGAN SENIOR HIGH SCHOOL
162 West, 1st South
Logan, Utah

March 1, 1960

Dear Parents:

As an instructor at Logan High School and a graduate student at Utah State University, I am conducting a study of the optional seven period day at Logan High. This study is being performed with the approval of the Superintendent and Board of Education.

Parents of students enrolled in an eight o'clock class are asked to participate by supplying information relative to the optional or seventh period. Will you, at your earliest convenience, complete the enclosed questionnaire and return in the envelope provided? No identification will be made of individual students or families.

Your cooperation and prompt reply will be greatly appreciated.

Sincerely,

Boyd Applegarth
Logan High School
162 West, 1st South
Logan, Utah

APPENDIX C

Parent Questionnaire

1. Has your son's/daughter's participation in an eight o'clock class resulted in problems relative to the time schedule at home?
 - A. Has created serious problems _____
 - B. Has created some problems _____
 - C. Has created no problems _____
 - D. Has helped the schedule _____
 - E. Has greatly helped the schedule _____

2. Has such participation resulted in problems relative to student transportation to school?
 - A. Consistently _____
 - B. Occasionally _____
 - C. Has created no problems _____
 - D. Improved the transportation situation _____

3. Has such participation affected your son's/daughter's opportunity for part-time employment?
 - A. Prevented employment _____
 - B. Made employment difficult _____
 - C. Did not affect employment _____
 - D. Made employment more available _____
 - E. Created or insured him of a job _____

4. Was the student's enrollment in an eight o'clock class initiated by:
 - A. You the parent _____
 - B. The student _____
 - C. The school faculty or administration _____
 - D. Other (specify) _____

5. How has the eight o'clock class affected your son's/daughter's other studies in relation to time and effort spent on homework?
 - A. Made much more difficult _____
 - B. Made more difficult _____
 - C. Remained the same _____
 - D. Made easier _____
 - E. Made much easier _____

6. Has the student been less able to participate in non-school activities such as church, family activities, and etc. because of his eight o'clock class?
 - A. Consistently _____
 - B. Occasionally _____
 - C. Has created no problems _____
 - D. Has increased participation _____
 - E. Has greatly increased participation _____

7. The following courses are currently offered at eight o'clock: R.O.T.C., elementary typewriting, health and physiology (one semester - only "required" course offered), church history, missionary training, New Testament, mechanical drawing, and orchestra.

Considerations for the optional seventh period program for the school year 1961-62:

- A. Suggest the program remain unchanged _____
- B. Suggest the program be expanded by adding the following courses:
- C. Suggest the program be reduced by eliminating the following courses:
- D. Other (specify)
8. Would you favor a mandatory seven period day at Logan High School?
 Yes _____ No _____ (It is not anticipated that graduation requirements would be increased if the Logan City School District favors a mandatory seven period day.)

Possible schedule:

1st hr.	8:25 9:15		lunch hour	12:00 1:00	
		passing time			passing time
2nd hr.	9:20 10:10		5th hr.	1:00 1:50	
		passing time			passing time
3rd hr.	10:15 11:05		6th hr.	1:55 2:45	
		passing time			passing time
4th hr.	11:10 12:00		7th hr.	2:50 3:40	

APPENDIX D

Student Questionnaire

1. Grade level _____ 2. Sex _____
- A. Sophomore _____ A. Male _____
 B. Junior _____ B. Female _____
 C. Senior _____
3. Why did you enroll in an eight o'clock class?
 A. Needed the credit to graduate _____
 B. Opportunity to take an elective _____
 C. Encouragement from home _____, from the faculty _____,
 or from friends _____
 D. To help prepare for college _____
 E. Only time the course was offered _____
 F. Other (specify) _____
4. Did you enroll in the eight o'clock class so you could take another class during the regular day's schedule? Yes _____ No _____
 Which other class are you able to take because of participation in the optional seventh period? _____
5. How has the eight o'clock class affected your participation in extracurricular activities?
 A. Much more active _____
 B. More active _____
 C. About the same _____
 D. Less active _____
 E. Far less active _____
6. How has the eight o'clock class affected your other studies in relation to time and effort spent on homework?
 A. Made such more difficult _____
 B. Made more difficult _____
 C. Remained the same _____
 D. Made Easier _____
 E. Made such easier _____
7. How has the eight o'clock class affected your opportunity for part-time employment?
 A. Prevented employment _____
 B. Made employment difficult _____
 C. Did not affect employment _____
 D. Made employment more available _____
 E. Created or insured me of a job _____
8. Does your present schedule include a study hall? Yes _____ No _____
9. If "yes" in number eight, how frequent is the study hall?
 Daily _____ Alternate days _____

10. Are you enrolled in seven classes including the optional seventh period? Yes _____ No _____ If "no" how many classes have you? _____
11. If it became necessary for you to eliminate one class, excluding those required, which one would you drop? _____
Is this your eight o'clock class? Yes _____ No _____
12. Have you registered for an eight o'clock class in other years at Logan High School? Yes _____ No _____ As a sophomore _____, as a junior _____
13. Would you recommend Logan High School offer a wider selection of courses at eight o'clock? Yes _____ No _____
Specify.
14. Would you favor a mandatory seven period day at Logan High School? Yes _____ No _____

Possible schedule:

1st hr.	8:25		lunch hour	12:00	
	9:15			1:00	
		passing time			passing time
2nd hr.	9:20		5th hr.	1:00	
	10:10			1:50	
		passing time			passing time
3rd hr.	10:15		6th hr.	1:55	
	11:05			2:45	
		passing time			passing time
4th hr.	11:10		7th hr.	2:50	
	12:00			3:40	

APPENDIX E

Credits earned by 36 eight o'clock sophomore students

<u>Class</u>	<u>No. of students in each class</u>	<u>Credit earned</u>	<u>Class</u>	<u>No. of students in each class</u>	<u>Credit earned</u>
<u>Art</u>	4	1.5	<u>Music Area</u>		
<u>Business Education Area</u>			Band	10	.5
Bookkeeping	5	5	Chantaires		
Business Machines			General Music	1	.25
Elementary Shorthand			Glee, Girls	19	4.75
Elementary Typewriting	33	16.5	Glee, Boys	1	.25
Advanced Typewriting			Orchestra	8	2
Office Practice			<u>Science Area</u>		
Bookkeeping 1A			Botany	4	2
<u>Homemaking Area</u>			Chemistry		
Clothing			Genetics		
Advanced Clothing			Physics		
Advanced Foods			Physiology		
Homemaking	11	5.5	Zoology	1	.5
<u>Industrial Arts Area</u>			<u>Social Studies Area</u>		
Auto Mechanics	8	2	American History	7	7
Advanced Auto Mechanics			American Problems		
Radio	8	2	Citizenship and Government		
General Metals	2	.5	Economics		
Mechanical Drawing			Psychology		
Elementary Woodwork	1	.25	Social Living		
Advanced Woodwork			World History	9	9
<u>Language Arts Area</u>			<u>Physical Education Area</u>		
English	36	36	Athletics	1	.5
English 12A			P.E. Boys	13	3.25
French I	4	4	P.E. Girls	22	5.5
French II	2	2	<u>R.O.T.C. Area</u>		
Journalism			R.O.T.C.	13	6.5
Spanish I	1	1	<u>Miscellaneous</u>		
Basic Speech	4	4	Driver Education		
Public Speaking			Library	7	0
Interpretive Speech			<u>Seminary</u>		
<u>Mathematics Area</u>			New Testament	30	30
Elementary Algebra	11	11	Church History		
Advanced Algebra			Missionary Training		
Consumer Mathematics	7	7			
Plane Geometry	15	15			
Solid Geometry					
Trigonometry					
Total	152	113.25		116	72.0

APPENDIX F

Credits earned by 36 nine o'clock sophomore students

<u>Class</u>	<u>No. of students in each class</u>	<u>Credit earned</u>	<u>Class</u>	<u>No. of students in each class</u>	<u>Credit earned</u>
<u>Art</u>	4	1.5	<u>Music Area</u>		
<u>Business Education Area</u>			Band	3	1.5
Bookkeeping	13	13	Chantaires		
Business Machines			General Music	2	.5
Elementary Shorthand			Glee, Girls	13	3.25
Elementary Typewriting	29	14.5	Glee, Boys		
Advanced Typewriting			Orchestra		
Office Practice			<u>Science Area</u>		
Bookkeeping 1A			Botany	1	.5
<u>Home-making Area</u>			Chemistry		
Clothing			Genetics		
Advanced Clothing			Physics		
Advanced Foods			Physiology	1	.5
Home-making	4	2	Zoology		
<u>Industrial Arts Area</u>			<u>Social Studies Area</u>		
Auto Mechanics	10	2.5	American History	1	1
Advanced Auto Mechanics			American Problems		
Radio	3	.75	Citizenship and Government		
General Metals			Economics		
Mechanical Drawing			Psychology		
Elementary Woodwork	4	1	Social Living		
Advanced Woodwork			World History		
<u>Language Arts Area</u>			<u>Physical Education Area</u>		
English	36	36	Athletics		
English 12A			P.E. Boys	18	4.5
French I	2	2	P.E. Girls	4	4
French II	2	2	<u>R.O.T.C. Area</u>		
Journalism	1	.25	R.O.T.C.	13	6.5
Spanish I	3	3	Sponsors		
Basic Speech	3	3	<u>Miscellaneous</u>		
Public Speaking			Driver Education		
Interpretive Speech			Library	10	0
<u>Mathematics Area</u>			<u>Seminary</u>		
Elementary Algebra	12	12	New Testament	30	30
Advanced Algebra			Church History		
Consumer Mathematics	11	11	Missionary Training		
Plane Geometry					
Solid Geometry					
Trigonometry					
Total	118	115.50		115	59.25

APPENDIX G

Credits earned by 50 eight o'clock junior students

<u>Class</u>	<u>No. of students in each class</u>	<u>Credit earned</u>	<u>Class</u>	<u>No. of students in each class</u>	<u>Credit earned</u>
<u>Art</u>	1	.25	<u>Music Area</u>		
<u>Business Education Area</u>			Band	4	2
Bookkeeping	3	3	Chantaires		
Business Machines			General Music	1	.5
Elementary Shorthand	18	18	Glee, Girls	2	.5
Advanced Shorthand			Glee, Boys	1	.25
Elementary Typewriting	5	2.5	Orchestra	7	1.75
Advanced Typewriting	8	4	<u>Science Area</u>		
Office Practice	1	.5	Botany	2	1
Bookkeeping 1A			Chemistry	23	23
<u>Homemaking Area</u>			Genetics	3	1.5
Clothing			Physics	21	21
Advanced Clothing			Physiology	17	6.5
Advanced Foods	1	.25	Zoology	2	1
Homemaking	5	2.5	<u>Social Studies Area</u>		
<u>Industrial Arts Area</u>			American History	45	45
Auto Mechanics			American Problems	4	4
Advanced Auto	1	.5	Citizenship and		
Mechanics			Government		
Radio	2	.5	Economics		
General Metals			Psychology		
Mechanical Drawing	5	5.25	Social Living		
Elementary Woodwork			World History		
Advanced Woodwork			<u>Physical Education</u>		
<u>Language Arts Area</u>			<u>Area</u>		
English	50	50	Athletics	6	3
English 12A			P.E. Boys	8	2
French I			P.E. Girls	3	.75
French II			Sports	6	3
Journalism	1	.25	<u>R.O.T.C. Area</u>		
Spanish I	2	2	R.O.T.C.	16	8
Basic Speech			Sponsors	9	2.25
Public Speaking	2	2	<u>Miscellaneous</u>		
Interpretive Speech	1	1	Driver Education		
<u>Mathematics Area</u>			Library	23	0
Elementary Algebra	2	2	<u>Seminary</u>		
Advanced Algebra	15	15	New Testament	1	1
Consumer Mathematics	1	1	Church History	38	38
Plane Geometry	2	2	Missionary Training		
Solid Geometry					
Trigonometry					
Total	136	109.75		242	158.00

APPENDIX H

Credits earned by 50 nine o'clock junior students

<u>Class</u>	<u>No. of students in each class</u>	<u>Credit earned</u>	<u>Class</u>	<u>No. of students in each class</u>	<u>Credit earned</u>
<u>Art</u>	3	1	<u>Music Area</u>		
<u>Business Education Area</u>			Band	4	2
Bookkeeping	2	2	Chantaires		
Business Machines			General Music		
Elementary Shorthand	18	18	Glee, Girls	7	1.75
Advanced Shorthand			Glee, Boys		
Elementary Typewriting			Orchestra		
Advanced Typewriting	3	1.5	<u>Science Area</u>		
Office Practice			Botany	4	2
Bookkeeping 1A			Chemistry	20	20
<u>Homemaking Area</u>			Genetics	4	2
Clothing			Physics	22	22
Advanced Clothing			Physiology	12	6
Advanced Foods			Zoology	5	2.5
Homemaking	6	3	<u>Social Studies Area</u>		
<u>Industrial Arts Area</u>			American History	46	46
Auto Mechanics	2	.5	American Problems	4	4
Advanced Auto			Citizenship and Government		
Mechanics	3	1.5	Economics		
Radio	3	.75	Psychology		
General Metals	1	.25	Social Living		
Mechanical Drawing			World History		
Elementary Woodwork	1	.25	<u>Physical Education Area</u>		
Advanced Woodwork	1	.5	Athletics	3	1.5
<u>Language Arts Area</u>			P.E. Boys	6	1.5
English	50	50	P.E. Girls	8	2
English 12A			Sports	5	2.5
French I			<u>R.O.T.C. Area</u>		
French II			R.O.T.C.	12	6
Journalism	1	.25	Sponsors	6	2.5
Spanish I	2	2	<u>Miscellaneous</u>		
Basic Speech			Driver Education		
Public Speaking			Library	20	0
Interpretive Speech			<u>Seminary</u>		
<u>Mathematics Area</u>			New Testament	3	3
Elementary Algebra	5	5	Church History	33	33
Advanced Algebra	13	13	Missionary Training		
Consumer Mathematics	2	2			
Plane Geometry	5	5			
Solid Geometry					
Trigonometry					
Total	121	106.50		224	160.25

APPENDIX I

Credits earned by 50 eight o'clock senior students

<u>Class</u>	<u>No. of students in each class</u>	<u>Credit earned</u>	<u>Class</u>	<u>No. of students in each class</u>	<u>Credit earned</u>
<u>Art</u>	5	2.5	<u>Music Area</u>		
<u>Business Education Area</u>			Band	8	4
Bookkeeping	4	4	Chanteires		
Business Machines	13	3.25	General Music	4	1
Elementary Shorthand	3	3	Glee, Girls	4	1
Advanced Shorthand	10	10	Glee, Boys	4	1
Elementary Typewriting	3	1.5	Orchestra	5	1.25
Advanced Typewriting	10	5	<u>Science Area</u>		
Office Practice			Botany	6	3
Bookkeeping 1A			Chemistry	12	12
<u>Home-making Area</u>			Genetics	13	6.5
Clothing			Physics	11	11
Advanced Clothing	4	1	Physiology	43	21.5
Advanced Foods	2	.5	Zoology	3	1.5
Home-making	3	1.5	<u>Social Studies Area</u>		
<u>Industrial Arts Area</u>			American History	1	1
Auto Mechanics			American Problems	5	5
Advanced Auto			Citizenship and		
Mechanics	4	2	Government	7	3.5
Radio	5	1.25	Economics	20	10
General Metals			Psychology	35	17.5
Mechanical Drawing	3	1.5	Social Living	30	15
Elementary Woodwork			World History	3	3
Advanced Woodwork	2	1	<u>Physical Education</u>		
<u>Language Arts Area</u>			<u>Area</u>		
English	50	50	Athletics	7	3.5
English 12A	2	1	P.E. Boys	6	1.5
French I	2	2	P.E. Girls	7	1.75
French II	2	2	Sports	7	3.5
Journalism	1	.25	<u>R.O.T.C. Area</u>		
Spanish I	3	3	R.O.T.C.	16	8
Basic Speech	4	4	Sponsors	6	1.5
Public Speaking	2	2	<u>Miscellaneous</u>		
Interpretive Speech	2	2	Driver Education		
<u>Mathematics Area</u>			Library	29	0
Elementary Algebra	2	2	<u>Seminary</u>		
Advanced Algebra	4	4	New Testament		
Consumer Mathematics			Church History	4	4
Plane Geometry	2	2	Missionary Training	2h	2h
Solid Geometry	9	4.5			
Trigonometry	8	4			
Total	158	122.75		300	165.50

APPENDIX J

Credits earned by 50 nine o'clock senior students

<u>Class</u>	<u>No. of students in each class</u>	<u>Credit earned</u>	<u>Class</u>	<u>No. of students in each class</u>	<u>Credit earned</u>
<u>Art</u>	5	2	<u>Music Area</u>		
<u>Business Education Area</u>			Band	1	.5
Bookkeeping	10	10	Chantaires		
Business Machines	6	1.5	General Music	2	.5
Elementary Shorthand	2	2	Glee, Girls	6	1.5
Advanced Shorthand	7	7	Glee, Boys	2	.5
Elementary Typewriting	2	1	Orchestra		
Advanced Typewriting	9	4.5	<u>Science Area</u>		
Office Practice	3	1.5	Botany	10	5
Bookkeeping 1A			Chemistry	14	14
<u>Homecoming Area</u>			Genetics	17	8.5
Clothing			Physics	13	13
Advanced Clothing	3	.75	Physiology	10	20
Advanced Foods	2	.5	Zoology	9	4.5
Homecoming	6	3	<u>Social Studies Area</u>		
<u>Industrial Arts Area</u>			American History	5	5
Auto Mechanics			American Problems	4	4
Advanced Auto Mechanics			Citizenship and Government	0	4
Radio	2	.5	Economics	13	6.5
General Metals			Psychology	30	15
Mechanical Drawing	4	2	Social Living	36	18
Elementary Woodwork	1	.25	World History		
Advanced Woodwork	1	.5	<u>Physical Education Area</u>		
<u>Language Arts Area</u>			Athletics	7	3.5
English	19	19	P.E. Boys	5	1.25
English 12A	1	.5	P.E. Girls	4	1
French I			Sports	8	4
French II	1	1	<u>R.O.T.C. Area</u>		
Journalism	1	.25	R.O.T.C.	9	4.5
Spanish I			Sponsors	2	.5
Basic Speech	4	4	<u>Miscellaneous</u>		
Public Speaking	2	2	Driver Education		
Interpretive Speech	1	1	Library	27	0
<u>Mathematics Area</u>			<u>Seminary</u>		
Elementary Algebra	4	4	New Testament		
Advanced Algebra	3	3	Church History	4	4
Consumer Mathematics	1	1	Missionary Training		
Plane Geometry					
Solid Geometry	7	3.5			
Trigonometry	5	2.5			
Total	112	106.75		219	119.25