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**INTEGRATION OF THE WAR EFFORT AND OF THE
LONG-TERM PROGRAM IN CALIFORNIA
SECONDARY SCHOOLS**

Prepared by

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PREFACE

IT HAS been nearly a year since the Editorial Board and the editor of the *California Journal of Secondary Education*, in formulating plans for 1941-42, reached a decision that a series of articles dealing with the curriculum organization of the California senior and four-year high schools should be published during the spring of 1942. It was decided that the descriptions of curriculum organization should sample schools in various parts of the State and should be representative of communities of varied populations. It was expected that the entire group of articles would be sufficiently representative to include all, or nearly all, of the plans of curriculum development found in California high schools.

It was planned also that an examination be made of the series of articles in order to detect trends in development and to predict, if possible, the direction development would be likely to take in the next few years. The Editorial Board was of the opinion that the descriptions of curriculum developments in individual schools, plus examination and evaluation which indicated trends and possible future developments, would be of considerable value to those interested in secondary education. It was anticipated that these materials would be incorporated into a monograph to be published by the Society during the summer of 1942.

These plans were formulated before December 7. Since that time, numerous demands have been made on the schools of the Nation and of the State because of the war situation. Accordingly, it has seemed best to enlarge the original concept of this monograph to include recent developments in secondary schools in response to war demands. The contents of the present monograph, therefore, include descriptions of the new developments that have resulted from the war effort, as well as the original descriptions of curriculum patterns and the accompanying judgment on developing trends in secondary education.

The task of organizing the materials has been a difficult one, and the result leaves much to be desired. In his examination of the organization of the monograph, the reader should consider the original purpose, which was to present and analyze curriculum organizations and trends in senior and four-year high school curricu-

lums; he is asked to judge kindly the organization of a publication whose original purpose has been modified by developments of the past few months.

In the process of editing and compiling, only minor editorial changes have been made in the manuscripts of the contributors, the contributions having been threaded together by introductory paragraphs and by sections designed to give supplemental or additional information. This has resulted, as the reader will observe, in the fact that the length of an article sometimes gives too much and sometimes too little emphasis to the topic or question treated.

As the reader will observe, the opening chapter describes recent developments in certain of the Los Angeles County high schools. The description is comprehensive in character and serves as an excellent introduction to more detailed descriptions which come later. Chapters 2 and 3 are composed of contributions by individuals excellently qualified to treat the respective topics. The chapters describing curriculum organizations contain the basic plans in existence in the respective schools; although changes and adaptations have occurred in practically all of them since December 7, the main features remain. The final chapter attempts to show what must be done to make what we have into what we must have if the high schools are to render their maximum contribution to the war effort.

Events are moving with great rapidity. There is no question that new instructional materials will be introduced into the curriculum and that changes will occur in materials and practices already arranged to assist the war effort. It is believed, however, that most of the major problems already have been attacked and that at least an outline of procedure is contained in this publication.

One extensive and highly important area of school service is not adequately described in the monograph, the program for training workers for the war industries. So extensive and varied in scope is this program that anything like an adequate description of what is occurring would consume many pages, and so it has been impossible to include such a survey in this publication.

Although much of the contents of the chapters on curriculum organization was published in symposium form in the April and May, 1942, *Journals*, there have been extensive additions to the material that appeared originally.

Assignments for the articles on the schools' part in the war effort that appear in the text of this monograph were made towards the end of the last school year at two conferences of two days each which were held by the writer with directors of curriculum and high school administrative officers. A final meeting for consideration of the material was held by the writer with members of the summer workshop at the University of California at Berkeley and with members of the high school administrative staff of the Oakland city schools, at which time the contents of this publication were reviewed and the projected organization was described.

At the conferences mentioned above, numerous ideas were proposed and examined. Although the writer has drawn heavily on the points of view and the suggestions of those in attendance, meanings may have been modified inadvertently in the process of placing them in context. Those coöperating in the preparation of this publication should be regarded, therefore, as responsible only for the sections they prepared.

Those who read and profit by the descriptions of present, past, and probable future developments in California high schools are indebted to the officers and teachers in California's schools, who again have evidenced an unexcelled coöperative spirit and willingness to place their professional knowledge at the disposal of others.

AUBREY A. DOUGLASS

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Part I

PARTICIPATION OF CALIFORNIA SECONDARY SCHOOLS IN THE WAR EFFORT

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Chapter 1

ACTIVITIES OF THE LOS ANGELES COUNTY HIGH SCHOOLS TO AID THE WAR EFFORT

By C. C. TRILLINGHAM and REUBEN R. PALM

SINCE the war began, the Los Angeles County secondary schools without a single exception have seized the opportunity to cooperate in the Nation's war efforts. This cooperation, by nature extensive and varied, has been of inestimable value. It is the purpose of this report to present some idea of its extent and nature.

Information in regard to this participation in the war effort was obtained through personal interviews with the district superintendents or administrative heads of seventeen secondary school districts, including two which do junior college work. Data from county elementary schools and schools in chartered cities are not included in this report. The information obtained tells about new courses that have been added, modifications made in old courses, provisions for acceleration, use of the schools for war and civilian defense purposes, and contributions of the schools to the emergency and the nation's war program.

MANY courses designed to meet special war needs have been added to the curriculums of the schools in Los Angeles County. Several of the courses are for students in the regular secondary school day program; some are organized under the National Defense Training Program, while others are established in connection with regular adult education programs.

New Courses. The following are semester and full-year courses scheduled in the regular daily secondary school

program, carrying full credit toward graduation. The majority are of a vocational or shop type:

| <i>Title of Course</i> | <i>No. of Districts</i> |
|--|-------------------------|
| <i>Shop</i> | |
| Acetylene Welding | 2 |
| Aeronautical and Aircraft Drawing..... | 3 |
| Aircraft Riveting | 2 |
| Aircraft Sheet Metal | 1 |
| Blueprint Reading | 2 |
| General Metal | 1 |
| Machine Shop | 2 |
| Radio Operation | 1 |
| Sheet Metal Lay-out and Riveting..... | 3 |
| Shipfitting | 1 |
| Ship Welding | 1 |
| Shop Mechanics | 1 |
| Tractor Operation and Repair | 1 |
| <i>Other Courses</i> | |
| Aviation Science and Theory | 3 |
| Gardening | 1 |
| Home Nursing | 2 |
| Homemaking (advanced) | 1 |
| Mathematics for Military Use | 1 |
| Practical Mathematics Review | 2 |
| Vocational Mathematics | 2 |
| Nutrition | 2 |

The above courses have been added since America became involved in war activities and do not include many similar courses previously established in response to industrial demands of a war character before our country became an official partner in the war.

Modifications of Previous Courses. Extensive changes have taken place within long established courses in many schools. The changes are probably more numerous and much greater than reported. Those reported are the most notable ones, cooperatively decided upon by teachers and administrators. The changes listed here do not include those

modifications which teachers as individuals either consciously or unconsciously make in such courses like the social studies where the exigencies of the times lead to increased emphasis on, and time devoted to, the study of current events and geography. And, similarly, they do not include modifications in courses like sewing, foods, and chemistry, where many instructors have made changes that are not the result of formal study by curriculum committees or administrative direction. Typical of such changes are the emphasis on renovation and repair of old clothes in sewing courses, preparation of sugarless meals and conservation of foods, the nature of chemical warfare in chemistry, and applications to problems encountered in defense industries and military activities.

The courses listed below are those for which deliberate and planned changes were reported:

| <i>Title of Course</i> | <i>No. of Districts</i> |
|---|-------------------------|
| Art | 2 |
| Agriculture | 2 |
| Biology | 2 |
| Drafting | 2 |
| Dramatics and Speech | 2 |
| Guidance | 3 |
| Home Economics | 6 |
| General, Life, and Modern Science | 3 |
| Literature and English | 4 |
| Machine Shop | 4 |
| Mathematics | 5 |
| Music | 3 |
| Physical Education | 11 |
| Photography | 1 |
| Radio | 1 |
| Social Studies | 9 |
| Spanish | 3 |
| Wood Shop | 2 |

The most extensive changes, it is to be noted, have occurred in physical education courses, where the program of activities has been reorganized to include instruction and training in the knowledge and techniques of administering first aid and home nursing for girls. Several schools also report that physical education courses have added

activities designed to condition and harden the body for industrial and military needs.

In the social studies, units have been added on winning the war, Latin-American understanding, the meaning of democracy, why we are fighting, what the war means to us, and the geography and cultures of the countries at war.

Mathematics courses have been reorganized or modified to include training in budgeting and thrift, emphasis on higher standards of accuracy, and concern with problems related to practical life and to industrial and military situations.

In home economics, increased attention is being given to problems of diet and nutrition, preparation of sugarless meals and food substitutes, intelligent and economical purchasing of foods and textiles, and renovation of out-moded clothing.

Space does not permit describing the nature of changes and modifications that have been made in other courses.

Short Courses. Perhaps the most distinctive feature of the response of the secondary schools to the nation's war efforts is the great number of short intensive training courses that have been organized to meet specific wartime educational needs. Most of the courses are designed to develop, in a minimum of time, skills and knowledges that can be put to some immediate and practical use in defense industries, in military activities, or in civilian and home protection. A few courses such as first aid, Red Cross knitting, and nutrition are scheduled as electives for secondary school students, but the great majority are designed primarily for youth of sufficient age and maturity to qualify for positions in industrial or military occupations and for adults desiring to fit themselves in a short period of time for entrance upon those pursuits. For convenience these short courses are group-

ed below according to the purposes for which they were primarily established:

| <i>Title of Course</i> | <i>No. of Districts</i> |
|---|-------------------------|
| SECONDARY SCHOOL STUDENTS | |
| First Aid | 4 |
| Red Cross Knitting | 1 |
| ADULT SCHOOL STUDENTS | |
| Aircraft Sheet Metal and Riveting | 1 |
| Air Raid Warden Instruction | 10 |
| Auxiliary Police Instruction | 4 |
| Auxiliary Fireman Instruction | 4 |
| Aviation | 1 |
| Canteen Cooking | 1 |
| Chemical Warfare Protection | 6 |
| First Aid | 14 |
| Home Nursing | 8 |
| Leadership Training | 1 |
| Mathematics for Army Commissions.... | 1 |
| Motor Mechanics for Women | 3 |
| Nutrition | 7 |
| Pre-employment Machine Shop | 2 |
| Truck Repair and Maintenance | 1 |
| Welding | 1 |
| Women's Ambulance Service | 1 |

Of the above courses, it is evident that nearly all are designed for the protection and the general welfare of the civilian population. Those designed to promote the war effort away from home can be described as follows:

The twelve districts which reported titles of courses of this type indicate that a total of sixty-one different kinds of short-term courses are being taught in coöperation with the National Defense Training Program, for which secondary school buildings, facilities, and personnel are utilized. Space does not permit listing the names of all the courses. They can be placed, however, in three general classifications as follows:

| <i>Training for</i> | <i>Kinds of Courses</i> | <i>No. of Dists.</i> |
|---------------------------------|-------------------------|----------------------|
| General machine & metal skills. | 22 | 12 |
| Shipbuilding skills | 5 | 7 |
| Aircraft skills | 34 | 8 |

Of the Defense Training Program courses taught, thirty-four, or over half, are designed to develop specialized skills needed in aircraft production and maintenance. Sheet metal layout and riveting, sheet metal layout and assem-

bly, aircraft arc welding, aircraft acetylene welding, template layout, sheet metal fabrication, and aircraft extrusions are only a few typical examples out of thirty-four courses which are designed to develop thirty-four different skills and knowledges.

The general machine and metal courses constitute twenty-two in number, or over one-third of all National Defense Training courses taught. Only five courses are designed to develop skills useful in shipbuilding, yet seven schools have such courses.

Some idea of the large number of persons trained in short courses, both of the Defense Training and of adult education types, can be gained from the following figures drawn at random from reports of individual schools:

| <i>Type of Class</i> | <i>No. Trained</i> |
|---|--------------------|
| Aerial defense and chemical warfare classes | 400 |
| <i>El Monte School</i> | |
| Air raid warden classes..... | 366 |
| <i>South Pasadena School</i> | |
| Classes in civilian protection..... | 750 |
| <i>Inglewood School</i> | |
| First aid classes..... | 2,000 |
| <i>Whittier School</i> | |
| First aid classes for adults..... | 1,500 |
| <i>Montebello School</i> | |
| Home nursing and hygiene..... | 108 |
| <i>Citrus School</i> | |
| Nutrition Classes | 50 |
| <i>Redondo School</i> | |
| Welding and machine shop classes (both sexes) | 628 |
| <i>Covina School</i> | |

Because most courses are confined to basic essentials and taught intensively they can be completed in a few weeks, thus enabling instructors to take in new groups of students at frequent intervals. This accounts for the large numbers of persons that can be trained in a short time.

IN SPITE of the large increase in courses offered, few previously scheduled courses have been dropped. One school is dropping German. Several have experienced a decline in enrollment in French classes, and to a slight extent in Latin. In one school which this year offered eight classes in foreign languages, the enrollment for next year justifies the scheduling of only four. Enrollments in Spanish classes continue about the same, and, in fact, they are increasing in schools where Spanish heretofore has not been popularized. Enrollments in fine arts and music also are decreasing slightly. Explanation given for these decreases is that more students are enrolling in vocational and shop courses in order to secure training that can be utilized immediately in behalf of the nation's war efforts.

Similar trends are noticed in adult education classes, together with a decided decline of interest in commercial and clerical courses in some localities.

The thing to be emphasized, however, is that the decline that has been mentioned is more than offset by the increase in demand and popularity for courses designed to meet specific wartime needs.

MOST secondary schools have done little to speed up the process of education so that secondary school students can graduate earlier. Some permit capable students to carry an extra subject or two, attend summer school, or to graduate with a minimum number of units in order to finish a semester earlier. Two secondary schools doing junior college work allow twelfth grade students who have one or more free periods to take courses in the junior college, thereby reducing by that amount the time required to finish junior college.

One high school permits seniors of sufficient maturity, and needing only

three regular subjects to graduate, to schedule them in the morning so that they may enroll in defense training courses in the afternoon. While this does not hasten graduation, it enables students to secure practical training qualifying them for entry into defense industries immediately upon graduation.

WARTIME needs have necessitated increased use of school facilities, a use extending in many instances to twenty-four hours a day and throughout the summer.

Use by the Armed Forces. All except three of the districts have permitted United States military forces during the past year to use such facilities as auditoriums for movies and lectures, gymnasiums, shower facilities, playgrounds, and recreation rooms. They have placed classrooms at the disposal of army instructors, who have used auto mechanics shops for repair of army trucks, shops for construction of army projects, and buildings for mounting of searchlights and observation posts. The three districts that have not been used by military forces are not located near military encampments.

Use by Civilian Defense and Auxiliary Organizations. School buildings have been put to an even greater variety of uses by civilian defense groups and other organizations interested in contributing to the progress of the war.

Shops have been placed at the disposal of local organizations for repair and construction of emergency hospital equipment and rolling casualty stations. Classrooms have been made available for air raid and fire warden training meetings, meetings of local chapters of the Red Cross, the American Legion, auxiliary police groups, women's ambulance corps, The Women's Emergency Organization of America, canteen cookery, and for giving civil service exami-

nations. School buildings have been used for community-wide meetings related to various aspects of the war, for instruction of community groups in precautions to be taken in event of air raids or gas attacks, for registration of the community's man power and resources, for sugar rationing, for community entertainment of soldiers and sailors, and for storage of emergency equipment.

In some communities certain rooms or buildings have been equipped to serve as casualty and hospital centers in case of great emergency. One school has granted permission to the United States Post Office Department to use its facilities if necessity should require. Some schools permit local civilian defense organizations and draft boards to use school typewriters, adding machines, and duplicating equipment.

LOS ANGELES County Secondary School pupils and teachers have engaged in many activities arising out of war needs, some of which have been performed in connection with regular class instruction, but many of which have been extracurricular. In general these activities can be designated as follows: those of a construction and production type, raising money, school protective services, services rendered to armed forces and civilian defense and welfare groups.

Production. Students and teachers have produced a large number of articles contributing to student and civilian protection and of benefit to military forces. All schools have cooperated in making their quotas of fifty or more model airplanes for aviation instruction purposes. Nearly all have made splints, cots, stretchers, and bandages for Red Cross and first aid emergency purposes.

A number of schools have constructed and provisioned first aid kits and have made arm bands for first aid and

air raid wardens, games and puzzles for use during periods of air raid confinement, and posters and signs to designate locations of first aid stations and protection centers. Some schools have made tray favors and ditty bags for use by hospitalized soldiers. Many schools have engaged in knitting projects of various sorts. Some schools report school victory gardens. One school made night sticks for use of auxiliary police.

Raising Money. All schools have participated in selling United States Defense Stamps and Bonds. Most schools have participated in raising funds for the Red Cross and other war relief purposes.

Not all schools were able to state the amount of defense stamps and bonds purchased, but some idea of the probable amounts can be derived from the reports of the schools which had figures readily available.

| <i>Amount Purchased</i> | <i>No. of Districts</i> |
|-------------------------|-------------------------|
| \$6,000 or over | 2 |
| 4,000 - 6,000 | 1 |
| 500 - 4,000 | 1 |
| 300 - 500 | 2 |

One school reported that purchases average a hundred dollars a month. Another stated that the goal for one week was \$500 for students and \$500 for the faculty. In one school the Girls' League purchased \$200 in stamps and bonds to be given to a senior scholarship fund. These amounts are significant when size of schools is taken into consideration, enrollments ranging from 250 to 2,200.

Protective Services in Case of Disaster. Until recently America considered itself safe from military invasion. In the present war, however, all Los Angeles County schools have taken steps to protect the children in case of air raids. In addition to routine fire and air raid drills, many schools have trained groups of students to assist air

raid wardens, to act as messengers, and to assist in first aid and rescue work. About one-half of the buildings have a store of food supplies, and slightly more than half are equipped to serve as community casualty centers.

Services to Armed Forces and Community. All schools have participated in salvage collection and in rationing of sugar to commercial and industrial establishments. The figures listed below indicate extensive participation in a number of other activities designed to help the nation's war effort:

| <i>Type of Service</i> | <i>No. of Districts</i> |
|--|-------------------------|
| Salvage collection | 16 |
| Sugar rationing | 16 |
| Collection of books and magazines for army posts | 13 |
| Entertainment for armed forces | 12 |
| Sewing for Red Cross | 10 |
| Blood donations | 9 |
| Defense safety campaign | 8 |
| Better health campaign | 7 |
| Provision of clerical service | 6 |
| Speakers' bureau | 5 |
| Child care center, survey of emergency housing, finger printing | 2 |
| Draft registration, transportation, refreshments for air raid wardens..... | 1 |

One Los Angeles County school was able to furnish a very detailed report on the nature of its participation in the war effort. This information is presented with the thought that this school's contribution is indicative of what is being done by all schools in the County.

| <i>Production</i> | <i>No. of Articles Produced</i> | <i>No. of Pupils Participating</i> | |
|---------------------------------|---------------------------------|------------------------------------|---|
| Bandages | 754 | } | |
| Beanies | 22 | | |
| Dresses | 14 | | |
| First aid kits | 64 | | |
| Hospital bags | 25 | | |
| Sewing kits | 60 | | |
| Stretchers | 107 | | |
| Stretcher covers | 79 | | |
| Sweaters | 11 | | |
| Water bag covers | 50 | | |
| Home victory gardens | 20 | | } |
| Model airplane construction.... | 150 | | |

| | | |
|---|-------|------------------------------------|
| Model airplane painting | 65 | 8 |
| Pads for splints | | Girls' League |
| Pan-American essays | 15 | 15 |
| Preparedness booklets | 2,000 | 50 |
| School victory garden | | 38 |
| <i>Services (including training & organization)</i> | | <i>No. of Pupils Participating</i> |
| Campus patrol | | 35 |
| Clerical work (with identification data) | | 150 |
| C. & W. Defense Publication | | 26 |
| Defense committees | | 70 |
| Distribution and maintenance of air raid signs | | 10 |
| Editorials on defense | | 27 |
| Fingerprinting project | | 6 |
| Fire fighting assistants | | 36 |
| First aid station service and maintenance | | 15 |
| Listening post | | 10 |
| Messengers for emergency call service | | 6 |
| Panel discussion committees (why we are at war)..... | | 25 |
| Pep and morale building committee.... | | 30 |
| Rescue squads | | 28 |
| Salvage collection | | 118 |
| Science Talent Search Project | | 8 |
| Trained accompanists for emergencies | | 6 |

Other Services

Finishing work on identification tags.
 Making night sticks for auxiliary police.
 Painting posters for health and defense.
 Printing for Sheriff's Office.

Faculty Participation

The majority of teachers have completed training to administer first aid. Certificated first aid teachers have been supplied by the school to train other teachers and citizens in first aid. Industrial arts and vocational arts teachers have been supplied to train men and women for positions in defense industries and to train boys for later entrance into industry. Teachers have volunteered their services to assist on the campus by administering to the needs of evacuees or other persons detained on the campus because of the war emergency; they have organized in committee groups to supply first aid, food, clothing, and housing facilities. All teachers and employees are on twenty-four hour call. Teachers from the commerce department and secretaries have given secretarial service for community defense. Teachers and teacher counselors are giving guidance service to students with respect to

enrollment and work in defense industries. The office of placement is providing part-time and full-time placement for students in community jobs.

Teachers who assist on the health committee have been devising plans for improving the health standards among teachers and students.

Teachers have provided class instruction upon current events which have to do with the war, instructions relative to air raids, assistance relative to measures for maintaining student and home morale, instruction in thrift, and the like.

Teachers have offered instruction through foreign language and social science in giving an understanding relative to South American relationships.

Foreign language teachers have met with the Mexican students and Mexican parents of our district to interpret to them through the Spanish language the reasons for America's entrance into this war and to instill in them the American ideals for a democratic way of life.

Science teachers are offering training with respect to the importance of conservation and are training boys who will become chemists and physicists.

Mathematics teachers are training students in higher mathematics in preparation for enlistment in military service.

Physical education teachers are offering training in health, leadership, and physical education.

Teachers of art and music are offering programs which will contribute to general morale.

The teacher of agriculture is training boys and girls for agricultural life and is directing a school gardening project for furnishing vegetables for cafeteria use.

Home economics teachers are offering training to both boys and girls in health, diet, preparation of foods, and camp cookery; they are directing sewing and knitting projects for the local Red Cross.

The teacher of printing directed fingerprinting of the entire school and the printing of materials for the local Defense Council.

It can be seen from this report that the war has increased greatly the responsibilities of this school, responsibilities which teachers and pupils have assumed in an admirable manner. If time and records had permitted the securing of detailed reports, it is probable that all schools in the Los Angeles County dis-

tricts would have revealed achievements proportionate to their enrollments and the demands made on them.

ADMINISTRATORS were asked to state what each felt was the best single contribution his school had made to the nation's war effort. Many had difficulty answering this question because they felt most of the things done by their schools were worth-while. Answers were secured, however, from eleven administrators. Each of the following statements represents what an administrator thinks is the best contribution of his school toward winning the war:

Articulation with the United States Employment Service.

Community survey by the social studies' department.

Coöperation with community agencies.

Cooperation with the Red Cross and civilian protection officials.

Defense training program.

Emergency guide publication.

Guidance and counseling service.

Paper salvage.

Purchase of defense stamps and bonds.

Service given by the commercial education department.

Setting an example of unselfish service and efficient organization.

The striking thing about these statements is the wide variety of opinions held by the administrators, indicating probably that each district recognized some definite need and then formulated and executed a plan and procedure to meet that need.

AQUESTION that very well could be raised is whether the extensive participation by the Los Angeles County Secondary Schools in the nation's war effort has impeded or interfered with the attainment of long-time objectives and purposes of education.

Not one administrator feels that this is the case. In fact they feel that the efforts put forth have served to motivate rather than interfere with the edu-

cation of their pupils. School participation in the war program has given to many pupils a more definite purpose for going to college; it has added respectability to shop courses and has made mathematics more functional. The war has given added importance to health and physical education and to foods and sewing.

Several administrators say that the war has caused both teachers and pupils to develop an increased understanding of the meaning of democracy and

the giving of unselfish service. They note increased unity among students, as well as closer coöperation between pupils and teachers.

Administrators feel, however, that if the war continues to draw on the teaching ranks for men and women to supply the personnel needs of the military forces and defense industries many of the contributions of the schools to the war program of necessity will decrease and that effectiveness of the educational program may be impaired.

Chapter 2

NEW COURSES AND MODIFICATIONS OF EXISTING COURSES IN DAY SCHOOLS STIMULATED BY THE WAR SITUATION

WHEN the international situation grew tense and the nation began to recruit armed forces, it became evident that soon the schools would be called on to examine and to modify their programs in such a way as to contribute as effectively as possible to what was then called the national defense. And then, soon after the declaration of war, specific proposals regarding training were laid before the schools, especially secondary schools. Some of the most important adjustments which have occurred within the curriculum in response to needs created by the emergency are described in this chapter.

Long one of the most important functions of education, training for citizenship has received renewed emphasis. Principles and practices of democratic government, ridiculed by totalitarian states arrayed in conflict against us must be thoroughly understood; moreover, young people now in school will, if the war continues, bear the brunt of military service. In any event it will be their responsibility and opportunity in later years to give through the ballot direction to local, state, and national government. While the entire school program should contribute toward this goal, the special responsibility of the social studies is clearly recognized. How one school system is attempting to develop an understanding by high school pupils of war issues is described in the succeeding section.

Physical fitness and health constitute another of the important objectives long before the schools. In time of war,

physical fitness becomes imperative for men entering armed forces; it is almost as important for a civilian population which must provide the materials of war. What the schools should and can do to increase their contribution in this area is the theme of the second section of this chapter. The discriminating reader will observe that the war situation may enable an extension of a program long recommended by students and leaders in physical education.

The armed forces have needed and will need large numbers of technically trained men, particularly in aeronautics. The bases of technical training are science and mathematics. In the high school, special courses are being provided especially for boys who will enter the air force, but which are valuable as preliminary training to many divisions of military service. Examples of new courses in science and mathematics are presented in the last three sections of the chapter.

CITIZENSHIP DEMANDS OF THE YEAR

By ROSE STELTER

IT HAS been said that "if our free democratic world is saved it will be saved not just by machines and guns, but by our capacity to produce a higher type of human being, whose will and purpose are superior to that of the enemy."

We know that we must seek out and encourage any and all courses which seem likely to develop our students into citizens with informed, intelligent pur-

poses and constructive attitudes. To this end, the Los Angeles school system thus far has reorganized its course offering as follows:

A unit of study, variously called "United We Stand," "World War Number II," and "Victory Unit," has been required in the twelfth grade. This study reviews the events leading up to this war; it considers the effects of the war on A-12 students, civilian defense, the geography of this war, and problems of the peace. The purpose of this unit is to insure that every graduating senior will know why we are fighting, what we are fighting, what his own responsibilities are now, and what they are likely to be during the peace settlement. A booklet called *Partners in Defense* was prepared for use by girls, outlining their special contributions to the war.

A thoroughgoing review of geography has been instituted throughout the school system, aided by special geography study bulletins issued regularly from the Curriculum Office and by the widespread and frequent distributions of many map-supplements donated by leading newspapers. Sets of slides, colored and black and white, have been prepared to provide various aspects of up-to-date war-maps for projection in classrooms. A city-wide map contest was held, covering all grade levels, elementary and junior and senior high school. Much excellent map work was produced and exhibited.

A unit on "Community Relationships" has been developed for the twelfth grade Senior Problems course. Its purpose is to help the senior orient himself to the community in which he is about to assume adult status. Responsible citizenship is the keynote.

Leadership classes are appearing in many senior high schools to provide special opportunity for citizenship training of especially qualified students.

A youth survey has been carried out among the boys in all high school graduating classes to aid materially in proper vocational placement or plans for future training for each graduate. Every student possesses a card showing test results in his interests, aptitudes, skills, and health status. Thus he is provided a compass by which to chart his course. It is hoped to extend this service to all girls.

An earnest attempt has been made to inspire more vital and functional teaching of United States history and civics. This is being motivated principally through conferences of supervisors with members of social studies departments. The keynote for civics teaching is emphasis on the responsibilities as well as the rights and privileges of citizenship.

It is proposed to prepare for use in senior high schools next term materials specifically related to problems of the peace settlement and post war period.

In the elementary schools and junior high schools the emphasis has been and will continue to be placed on laying strong foundations for good citizenship through such means as the following: use of democratic classroom procedures; active participation of students in the administration of the school; strong, vital courses in social studies, including geography; attention to current affairs, with some appreciation of the significance of the present war and students' own responsibilities for its success.

PHYSICAL EDUCATION AND WAR DEMANDS BY DAVID P. SNYDER

A DICTATORSHIP, planning an expanded military program, organizes on a long term basis a physical education program of a military nature. The German and Italian youth movements, with their emphasis on physical

fitness, are outstanding examples. In contrast, a democracy does not begin to analyze its physical education programs in terms of fitness of the adult male population for military service until a military crisis arises. As a result of this type of planning, there is at present in this country a great hue and cry about the unpreparedness of the nation, and both schools and colleges are now re-directing and reemphasizing their programs of physical education.

How Many Are Unfit for Military Service? A sudden change of emphasis from one of education for peace to one of education for war always seems to provoke a certain amount of hysterical thinking on the part of professional educators and lay "authorities." The present situation is no exception in this respect. The purpose of this article is not to defend what has been done, but to suggest how the present program can be amplified so that it best meets war demands.

It might be well, however, to point out one major point of argument of the so-called "authorities." They cite the selective service statistics of 1917 and 1940 (before war was declared) and draw the conclusion that education and physical education have failed. Without going to great lengths to argue this question, it can be pointed out that actually no comparison can be made between the 1917 and 1940 examinations, owing to the better diagnostic methods used and the more deliberate selection made in 1940. Furthermore, the selectees that were not acceptable were those who had slight remedial physical defects which most certainly cannot be charged to the physical education programs. As long as the individual in this country is free to accept or reject medical care, there always will be a large percentage of the population unfit for the type of physical fitness demanded by the armed forces.

The Main Issues. What, specifically, can physical education contribute through its program of activities? What changes, if any, are necessary in the daily physical education period so that each boy and girl will be best fitted to meet war exigencies? Answers to these questions are not likely to meet with universal approval. The author, however, is of the opinion that changes should be made in the program by (1) introducing mass exercises in the form of calisthenics, relays, and stunts as a portion of the daily program in the junior and senior high schools; (2) increasing the leadership in both junior and senior high schools so as to provide for widespread intramurals; (3) eliminating much of the coeducational play, with the possible exception of certain types of dancing; (4) developing some form of pentathlon or decathlon of physical activities suitable for all age groups, thus requiring students to test themselves periodically.

1. *Mass Exercises.* Exercise in the form of calisthenics has practically disappeared in the physical education program. Game activities now make up the bulk of the program. There are several sound reasons for the inclusion of calisthenics at this time. First of all, though an end in themselves, they definitely do assist in building strong bodies. Secondly, they permit a saving of time and teaching staff in that large groups can be exercised at one time by one teacher. Thirdly, this type of program requires little or no equipment, and this will be an important factor if the war continues over a period of years. Lastly, this type of exercise has long been regarded by most of the public as the real way to achieve physical fitness. Inclusion of calisthenics in the program, therefore, will better public relations.

2. *The Intramural Program.* Should intramurals take the place of interscholastic

tic athletics as suggested among the proposed changes in the program? Generally the answer is "no" for the following reasons :

Many districts have eliminated their interscholastic program on the basis of transportation difficulties. In many areas where distances between schools are great, this is undoubtedly necessary. If the interscholastic program was important before this crisis, however, it is equally important now, not only from the standpoint of the program itself but of morale, both of students and adults in the community. All of which brings the discussion back to the necessity for increasing the intramural program in all areas, regardless of the elimination of intrascholastic athletes.

If the games type of competition is good, whether it be intramural or interscholastic, then it should be expanded wherever possible in both the intramural and the interscholastic programs. More boys should be given an opportunity for games competition, and such an expanded program needs more teacher time. If necessary, teacher time should be staggered so that adequate supervision is given the intramural program after school in the urban areas. In suburban districts where students must of necessity travel in school busses, time should be provided during the day, over and above the regular physical education period, for intensive intramural play.

Coeducational Play. Regarding the third proposed change, the elimination of much of the coeducational play, it can be pointed out that the trends in physical education in our country for the past thirty years have been more and more toward the development of social attitudes and recreational values. These trends are quite evident, not only in professional literature, but also in program content. Such activities as archery, badminton, tennis, dancing of

all types, and coeducational participation in sports are indicative of program changes. In short, the main objective of physical education, namely, the development of strength, vigor, and stamina, has been subordinated in part to the development of social attitudes and recreational activities.

The nation now is faced with a situation, however, where organic vigor is vitally needed, and almost every moment of time given to physical education should be taken up with activities of a "large muscle" variety. As fine as the sociological approach and objectives for physical education were in peace time, it would appear that it is necessary to redirect our physical education program so as to emphasize the biological and physiological outcomes at this critical period.

Balanced Abilities. The American likes a target to "shoot at" in his play, whether it be a basketball goal, an archery target, or par on a golf course. In agreement with this typically American play attitude the fourth suggested change, a program of events of a pentathlon or decathlon organization, should help decidedly to motivate interest in physical fitness. These events should be prepared with two points in mind, namely, (1) that methods selected for the development of organic vigor should have timeliness and should be of interest to young people; (2) that they should be of such a nature as to stimulate competition as a preparation for fitness to fight.

Physical Education After the War. Physical education has a definite job to perform in terms of a nation at war. The redirection of the program to provide an added emphasis on the development of the biological and physiological objectives is essential. But this need not necessarily imperil the enriched program which has been developed in past

years. Forecasting the status of physical education in a post-war world is a difficult task. It is probably safe to predict, however, that what has been gained during the past twenty years in the nature of program content will not be lost. Rather will it be utilized to expand facilities so as to allow people of all ages to enjoy physical exercise of a recreational nature.

A SURVEY TO DETERMINE PHYSICAL FITNESS NEEDS IN THE PRESENT WAR EMERGENCY

By **FRANK GRIFFIN**

IN ORDER to secure from army camps suggestions regarding the manner in which physical education programs may be modified to make a maximum contribution to the war effort, the writer visited fourteen service areas, covering Army, Air Corps, Navy, and Marine bases, camps, and training fields. Judgments and recommendations of military leaders with respect to physical education in high schools were obtained and can be reported as follows:

The Findings. Roughly, fifteen per cent of recruits may be termed "athletes," the majority of which are "one-sport" athletes with interest confined largely to the sport in which they excel. This group contains those best fitted for early combat service.

A greater competitive spirit is needed. Many recruits lack this attitude.

The average American youth has not been convinced that he should keep in rugged physical condition.

A national diet of hamburger and "coke" has produced a reasonably well-filled, but not a well-fed, youth, with resultant lack of stamina.

A test battery indicates that the athletic group is weak in arms and shoulder girdle. Other tests show the non-athletic group to be weak in practically all respects.

American sports are largely "leg sports," with relatively little attention given to development of muscles of arm, shoulder, chest, back, and abdominal wall.

Lack of endurance and lack of coördination occur among the members of the non-athletic group.

Men of agility also have strength, endurance, and coördination.

The Recommendations. A public school with a properly organized and efficiently administered physical education program may serve as a pre-service school in the physical conditioning of its youth.

All students should receive initial medical examinations.

Daily physical education classes should be definitely and progressively planned to develop coördination and skills, strength, endurance, agility, and combative spirit.

Physically fit students should be segregated on the basis of ability and achievement. All work should be graduated. There should be modified classes to care for particular needs and weaknesses and special classes for those physically handicapped.

Coördination and balance should be developed through special conditioning exercises, tumbling and apparatus work, trampolining, gymnastic dancing, and sports. Development of strength should occur through special conditioning exercises covering arms, shoulder girdle, chest, back, abdominal wall, and legs.

Initial tests should be given to determine the needs of an individual, with periodic follow-ups to check results.

Physical education periods well may open with ten minutes of conditioning work in light warming-up activities which are gradually increased in intensity until the maximum effort of the individual is required. Muscle groups

should be exercised in sequence, and coördinating exercises should be balanced with a strength series.

Running in some form is the best exercise for development of endurance and should be included in exercise periods at least three days per week.

The obstacle course is an excellent conditioner and is outstanding in the development of arm strength, agility, and endurance. Particular attention should be given to the selection and sequence of obstacles for the younger and the more advanced students.

Combative spirit should be developed through personal contact sports, with particular emphasis on football, boxing, wrestling, and hand-to-hand combat activities.

Swimming well may be made a requirement to graduation for all except medical cases. There should be a definite program for instructing the non-swimmer and a graduated program for developing endurance.

Because they provide an excellent outlet for the physically superior group and an incentive to the average group, interscholastic sports should be maintained and encouraged.

PHYSICAL EDUCATION IN SEQUOIA UNION HIGH SCHOOL

By FRANK GRIFFIN

AS A result of the survey of service areas reported in the preceding paragraphs, modifications of the physical education program at the Sequoia Union High School have been undertaken. The succeeding paragraphs outline the main elements of the new program:

The initial measure in obtaining basic information on the needs and capabilities of the students is the medical examination given to all upon the opening of the school term. Thus organic disturb-

ances are discovered and weaknesses determined so that the youngster may not be extended beyond his capacity. That we may meet particular needs, physically handicapped children are entered in special classes and those with particular weaknesses placed in modified groups. All students known to be organically sound and free of specific weaknesses or defects are segregated on the basis of ability and achievement into elementary, intermediate, and advanced groups. Strength, fitness, and posture tests are given periodically to indicate the progress of the individual. In the present emergency five elements are kept foremost, and the program is directed toward the development and increase of: strength, with particular attention to the muscles of the arm, shoulder girdle, back, chest, and abdominal wall; endurance power, coördination and skills; agility; and combative spirit.

Conditioning exercises, progressively planned and efficiently directed, open each period. These exercises, selected to develop strength and increase the degree of coördination, are arranged in three series to offset the monotony of daily repetition of identical work. Ten to twelve minutes of such exercise, graded in sequence and intensity, prepare the youngsters for the succeeding activity.

All students receive instruction in swimming, which is a requirement to graduation. Military swimming and life saving follow in balanced series. Similar progressive instruction and participation is carried on in boxing, hand-to-hand combat activities, wrestling, tumbling and apparatus work, trampolining, and the various seasonal games.

Twice a week all youngsters run the obstacle course, which is planned to suit the capabilities of the three groups. The obstacle course handles groups quickly

and efficiently and conditions them in strength, coordination, endurance, and agility. It carries great appeal to the individual, with resultant maximum of effort.

Interposed with the instructional and testing periods are the games which aid materially in the development of skills and in instilling the combative spirit.

Daily variation of work, activities purposefully planned, graded instruction and periodic testing, and competition for both the individual and group—all of these maintain interest, challenge imagination and prowess, and help in attaining the goal of physical well being and fitness.

Because it is widely used in training men in the armed forces, and because it will in all probability be adopted in many schools, the obstacle race deserves special comment. When well planned, the race provides the means for the development of the quartet of elements desired in promoting physical fitness: namely, strength, endurance, coordination, and agility. It also provides for the development of the competitive spirit; it handles large groups quickly and efficiently, and it is a challenge both to the imagination and to the prowess of youth.

In planning a course, four factors should be considered carefully: the wide degree of capabilities of the younger and of the more advanced students, proper selection and sequence of obstacles, protection against possible accident or injury, and efficient supervision. Initially, no speed tests should be required. Actually the speed element should be "played down" because of possible injuries. It is of primary importance that the students learn how to handle the various obstructions effectively. Definite training should be given, and the pupils should be permitted to run the course at their own speed. Such a procedure well may be followed for

at least one month. Thereafter, group and individual competition, together with time trials, may add zest to the work.

It is well to remember that this type of work may be overdone and its value thus minimized. To offset such possibility, conditioning exercises may be included in the program, with the obstacle course run twice weekly. Greater values will be secured if boys are separated into groups on the basis of the medical examination, strength and fitness tests, and ability. The elements in the obstacle course at Sequoia are the following: foxhole, rope climb, low hurdle, tunnel, overhead ladder, maze, fence vault, rail walk, horizontal rope, chicken coop, tank ditch, pyramid ladder, tire run, submarine, parallel bars, breastworks, ditch swing, barrel hurdle, wall scaling, and finish board.

PROPOSED SURVEY OF PHYSICAL EDUCATION

THE California Association for Health, Physical Education, and Recreation—and other groups have joined with it—has recommended that a statewide advisory committee be appointed to study and evaluate the present physical education and health education programs in the secondary schools of California, with a view to requiring participation in those activities which contribute most to the development of basic skills, strength, and stamina necessary for young men who are to serve in the various units of the armed forces.

In making this recommendation, the association emphasized that governing boards should make provisions for thorough physical and dental examinations and adequate follow-up practices. It also pointed out that time is necessary for the physical education program, that instruction in nutrition, including su-

pervised lunch periods, should be provided, and that students must be taught swimming and life saving. Finally, it is recommended that the State Department of Education assume responsibility for developing and establishing a battery of progressive tests involving strength, endurance, and agility on the various grade levels.

It may be anticipated that, during the current school year, the program of physical education will be thoroughly examined with a view toward effecting such changes as will better prepare young men for military service.

BEGINNING AND ADVANCED AVIATION IN THE MONTEBELLO SENIOR HIGH SCHOOL

By JOHN C. WHINNERY

IN AN effort to comply with the expressed wishes of the Federal government, the Montebello Senior High School has added to its curriculum a course in aviation. This course, established on a two-year basis, is designated simply as Aviation I and Aviation II.

Since this is a comparatively new subject in secondary education, it lacks the firm foundation of teaching methods and procedures that evolve through experimentation; and at present there is no time to assay the course. The situation faced by our country today, however, demands that the period of trial and error be brief; the schools are charged with accomplishment—not experimentation. Montebello has proceeded, therefore, to establish a course in aviation developed through a generous use of government bulletins, educational pamphlets, and textbooks.

The numerous bulletins on aviation which have been published throughout the country make it clear that two types of courses are being developed at present in schools of the United States. One line of development indicates an em-

phasis on preparation for factory production of aircraft; the other, a preparation for active service in the flying forces of the United States. The course which has been developed at Montebello seeks to identify itself with the latter line of development and may be considered a pre-military course.

The general aims of the course are as follows:

1. To develop an air-minded student group.
2. To develop the various abilities needed in the field of aeronautics.
3. To lay the foundation necessary for successful completion of the Army, Navy, or C.A.A. examinations.

The specific objectives can best be found in a brief outline of the course.

1. *Introductory Unit.*
 - a. Nomenclature and terminology of aircraft.
 - b. Historical survey of aircraft and the development of aviation.
 - c. Introduction to the theory of flight.
2. *Aerodynamics.*
 - a. Air foils and streamlines.
 - b. Forces influencing flight.
 - c. Lift and drag.
3. *Aircraft Engines.*
 - a. Types of engines.
 - b. Relationship of horsepower and performance.
4. *Avigation.*
 - a. Charts and their meaning.
 - b. Instruments and their use.
 - c. Types of avigation:
 - (1) Dead reckoning.
 - (2) Celestial avigation.
 - d. The effect of wind on avigation.
5. *Meteorology.*
 - a. The atmosphere.
 - b. Atmospheric conditions and weather hazards.
 - c. Instruments and laws.
 - d. The movement of air.
6. *Civil Aeronautics Regulations and Bulletins*
 - a. Pilot and plane certification.
 - b. The air traffic laws.
 - c. The Civil Aeronautics Board.

The condensed outline which appears above lists merely the major fields taken up in Aviation I. Aviation II emphasizes the three most important

areas, namely, aerodynamics, aviation, and meteorology.

Even without the benefit of a period of experimentation or tabulated data, we have come to feel that the course is an extremely difficult study for our students to master. We are particularly concerned with some of the slower students who are sure to be enrolled when a too high degree of selectivity cannot be exercised. It is becoming increasingly more evident that to secure tangible results the majority of the students will need assistance from other courses if they are to master the problems of aviation. For this reason, we are now engaged in an effort to bring about a closer correlation throughout the entire curriculum so that other courses may contribute their support to the aviation program.

Thus far a fully correlated curriculum has not been effected; yet progress has been made. Subject matter areas pertaining to aviation have been introduced in the following areas:

1. Physics classes will teach the theory of flight.
2. Mathematics classes will teach navigation problems.
3. Applied science classes will study aircraft instruments.
4. Chemistry classes will study the air and the weather.
5. Woodshop classes will make model airplanes.
6. Social science courses will study a unit based on the implications of the aircraft in World War II.

By this correlation we hope to strengthen the aviation course and to extend the meaning of air-mindedness to several hundred students who will not enroll in aviation. There is always some danger in any attempt at correlation that isolated islands of learning may be produced, with consequent reduction of the quality of the tried and established courses. That, however, is a problem for the individual classroom

teacher, and we are confident that our faculty can introduce aviation subject matter without breaking the continuity of their respective courses.

The introduction of aviation courses into secondary schools promises to be one of the most significant curriculum developments of the past decade. In a sense it is revolutionary, for aviation and aircraft studies once placed in the curriculum will be difficult to uproot. The now acknowledged importance of the aircraft, the growing interest of high school students in the aeronautical field, and the evident concern of our government in aviation education, all testify that aviation courses are not temporary innovations to be discarded at the war's end. The Montebello course is looked on as a permanent appendage to the curriculum, and no effort has been spared to give its framework a solid, permanent foundation.

Any course to be permanent must be flexible, subject to modification. With the advent of peace, Aviation I and Aviation II will be modified and no longer will be identified as pre-military training.

THE AERONAUTICS CURRICULUM GAINS MOMENTUM

By B. C. WINEGAR

THE aeronautics curriculum in Los Angeles high schools provides training for two major groups: (1) students who are interested in becoming commissioned officers in the Army or Navy Air Corps or in becoming civil aeronautical engineers, and (2) students who are particularly interested in service, maintenance, and production of aircraft. For both groups the program of instruction includes an aeronautical emphasis in general education in social studies, English, and physical education, and specialized training in closely

related mathematics, science, and industrial arts.

Students pursuing this major must show special aptitude for mathematics, science, and mechanical arts. Students who are not strong in these subjects are not encouraged to enroll in this curriculum. Credit in Advanced Physical Science and Physics may be given for work successfully completed in the Science of Aeronautics course. All senior high schools are encouraged to develop courses included in the aeronautics curriculum in so far as teaching staff, supplies, and equipment will permit. Four courses are basic to the aeronautics major—Science of Aeronautics, B11-A12; Military and Industrial Mathematics, B11-A12; Aircraft Maintenance and Service, B11-A12; and Intensive Vocational Training, B11-A12.

This curriculum is being developed with the close coöperation of officers of the United States Army and Navy Air Corps, with representatives of aircraft industries in Southern California, and with aircraft training schools. A program of teacher training has been organized, in which teachers will be working closely with aircraft industries and the United States Army and Navy Air Corps.

This curriculum is organized for both college and non-college preparatory stu-

dents. It is planned with a view to meeting college entrance requirements and to preparing for aircraft jobs and military service. The purposes of the curricula are: (1) to provide boys and girls with an orientation to the broad field of aircraft and aeronautics, (2) to provide prevocational training in aircraft production and operation, (3) to provide a practical and balanced training in primary vocational skills and understandings as related to aeronautics, and (4) to prepare students for CAA and military aeronautical training.

For the pre-engineering students and flying cadets eight semesters of mathematics, five semesters of science, nine semesters of industrial arts, six semesters of English, six semesters of social studies, and eight semesters of physical education are required normally. Provision also is made for four semesters of foreign language for those students who are planning to attend college or university. For students interested in the service, maintenance, and production of airplanes, six semesters of mathematics, six semesters of science, fifteen semesters of industrial arts, six semesters of social studies, six semesters of English, and eight semesters of physical education are required normally. Some modification in these requirements, of course, is possible.

The above programs extend from Grade 9 through Grade 12.

PLAN I

For pupils interested in service, maintenance, and production of airplanes.

NINTH YEAR

First Semester

1. Mathematics I.
2. General Science, with aeronautics emphasis.
3. Model Plane Making and Aircraft Identification (Wood Shop).
- 4 & 5. Social Living (with emphasis on aviation in its social, economic, and commercial aspects).
6. Physical Education and Health.

PLAN II

For pupils interested in engineering and aviation cadet training.

NINTH YEAR

First Semester

1. Algebra I or Mathematics I.
2. Electric Shop or Model Plane Making and Identification of Planes (Wood Shop).
- 3 & 4. Social Living (with emphasis on aviation in its social, economic, and commercial aspects).
5. Foreign Language (beginning ninth grade).
6. Health and Physical Education.

Second Semester

1. Mathematics II.
2. Electric Shop (unless taken in A8) or Drafting.
3. General Metal (unless taken in A8) or Drafting
- 4 & 5. Social Living (with special emphasis on world geography with an aeronautics point of view: understanding distances, longitude, latitude, etc.).
6. Physical Education and Health.

Second Semester

1. Algebra II or Mathematics II.
2. General Metal.
- 3 & 4. Social Living (with special emphasis on world geography with aeronautics point of view: distances, latitude, etc.).
5. Foreign Language.
6. Health and Physical Education.

TENTH YEAR

First Semester

1. Applied Mathematics (shop problems) or Algebra I.
2. Life Science and Health including First Aid.
3. Drafting and Blueprint Reading.
4. Engine Shop.
5. Orientation English (with aeronautics emphasis).
6. Physical Education.

Second Semester

1. Applied Mathematics or Algebra II.
2. Machine Shop or General Metal.
3. Photography (with aeronautics emphasis).
4. Orientation English (with aeronautics emphasis).
5. Aeronautical Geography.
6. Physical Education.

TENTH YEAR

First Semester

1. Geometry or Algebra I.
2. Life Science and Health.
3. Drafting and Blueprint Reading.
4. Orientation English (with aeronautics emphasis).
5. Foreign Language (beginning tenth grade).
6. Physical Education or R.O.T.C.

Second Semester

1. Geometry or Algebra II.
2. Machine Shop or Internal Combustion Engines.
3. Orientation English (with aeronautics emphasis).
4. Foreign Language.
5. Aeronautical Geography or Highlights of European History.
6. Physical Education or R.O.T.C.

ELEVENTH YEAR

First Semester

1. Physical Science (with an Applied Physics emphasis).
- 2 & 3. Aircraft Construction and Maintenance.
4. English (with aeronautics emphasis).
5. U. S. History (American Life and Institutions, with emphasis on U. S. and world geography).
6. Physical Education and Health or R.O.T.C.

Second Semester

1. Military and Industrial Mathematics or Geometry.
2. Physical Science (with Applied Chemistry emphasis).
- 3 & 4. Aircraft Construction and Maintenance.
5. American Government and Citizenship (Civil Air Regulations included).
6. Physical Education and Health or R.O.T.C.

ELEVENTH YEAR

First Semester

1. Algebra III or Geometry.
2. Physics.
3. U. S. History (with emphasis on U. S. and world geography).
4. English (with aeronautics emphasis).
5. Foreign Language or elective (photography, machine shop, radio communication, or internal combustion engines).
6. Health and Physical Education or R.O.T.C.

Second Semester

1. Algebra IV or Geometry.
2. Physics.
3. Aircraft Drafting.
4. U. S. Government and Citizenship (Civil Air Regulations included).
5. Foreign Language or elective (Radio Communication, Photography, Internal Combustion Engines, or Machine Shop).
6. Health and Physical Education or R.O.T.C.

PLAN I (Cont.)

TWELFTH YEAR

First Semester

1. Geometry.
2. Science of Aeronautics.¹
- 3 & 4. Intensive vocational training—two consecutive periods chosen from the following:

Radio Communication.
 Sheet Metal.
 Machine Shop.
 Welding.
 Instrument Installation.
 Motor Service.
 Plane Service.
 Assembly.
 Aircraft Design and Drafting.
 Advanced Mechanical Drafting.

5. English (with aeronautics emphasis).
6. Physical Education (tumbling, gymnastics, health, and first aid) or R.O.T.C.

Second Semester

1. Military and Industrial Mathematics.
2. Science of Aeronautics.
- 3 & 4. Intensive vocational training—two consecutive periods chosen from the following:

Radio Communication.
 Aircraft Sheet Metal
 Machine Shop.
 Aircraft Welding.
 Instrument Installation.
 Aircraft Engines.
 Aircraft Design and Drafting.
 Advanced Mechanical Drafting.

5. Senior Problems and Health.
6. Physical Education and Health or R.O.T.C.

¹Science of Aeronautics is restricted to students with good background in physical science and mathematics.

PLAN II (Cont.)

TWELFTH YEAR

First Semester

1. Solid Geometry or Algebra and Trigonometry.

2. Science of Aeronautics.

- 3 & 4. Aircraft Construction and Maintenance (Chemistry²), including (two consecutive periods):

Aircraft Engine Mechanics.
 Instrument Mechanics.
 Propellor Mechanics.
 Aircraft Sheet Metal Repair.
 Aircraft Factory Production Methods.
 Hydraulic Systems.
 Controls.
 Aerial Photography.

5. English (with aeronautics emphasis).
6. Physical Education (tumbling, gymnastics, health, and first aid) or R.O.T.C.

Second Semester

1. Trigonometry or Military and Industrial Mathematics.

2. Science of Aeronautics.

- 3 & 4. Aircraft Construction and Maintenance—two consecutive periods including:

Aircraft Engine Mechanics.
 Instrument Mechanics.
 Propellor Mechanics.
 Aircraft Sheet Metal Repair.
 Aircraft Factory Production Methods.
 Hydraulic Systems.
 Controls.
 Aerial Photography.

5. Senior Problems and Health (aeronautical geography, weather, etc.).

6. Physical Education (tumbling and gymnastics) or R.O.T.C.

²Engineering preparatory students should substitute chemistry for one period of aircraft maintenance and service.

SECONDARY MATHEMATICS AND THE WAR EFFORT

By DALE CARPENTER

THE present emergency requires that a large percentage of high school students be trained in some phase of mathematics which will equip them effectively for their part in the war effort. The type of mathematics which a given student should study is determined by two factors: first, our country's im-

mediate needs and, second, the student's mental and physical capabilities.

The major types of mathematical abilities demanded by the immediate necessity of our war effort are grouped as follows: the ability required for engineers; the ability required for pilots; and the ability required for industrial workers.

Mathematics for Engineers. Future scientific workers, naval and artillery officers, and navigators are included

with engineers for the purpose of planning their high school mathematics. The pre-engineering or mathematics major meets the vocational needs of this group fairly well. There are, however, minor changes which should be made at once in light of the war emphasis :

1. In ninth grade algebra, solution of formulas and equations involving problems of mechanics and aeronautics should be emphasized, rather than worded problems not inherently interesting or useful. Graphical representation of equations, reading of graphs, and making of graphs particularly related to power, speed, air pressure, temperature, fuel consumption, etc., must be stressed. Use of angles and vector representation of quantities are very important.

2. The axioms, nomenclature, and relationships of geometric figures should be stressed. More emphasis should be placed on applications in industry and less on demonstrative proofs. Algebraic solutions of practical applications should be used.

3. In advanced algebra, graphs and vector representation of quantities should be emphasized. Formulas from mechanics, physics, and aeronautics should be used. Use of slide rule and logarithms is important.

4. In plane trigonometry, attention should be centered on graphical representation, vectors, and use of more difficult formulas from mechanics, physics, and aeronautics.

5. Solid geometry and spherical trigonometry combined should be offered instead of the usual course in solid geometry. Applications to industry and navigation should be stressed.

Mathematics for Pilots. Training for pilots generally has been considered as essentially the same as training for engineers. The army and navy were quick to realize, however, that a sufficient number of pilots having pre-engineering background could not be trained for the emergency. Accordingly, they have had to establish training centers for pilot trainees, who must be high school graduates, 18 years of age. The training of an ever-increasing number of army and navy pilots is possibly our greatest task at this time. This problem is so immediate, so necessary, and involves such a large number of students that we should give it our major attention.

The pilot trainees at the Santa Ana Army Air Base are all required to take 20 hours of mathematics. This course is not intended to develop mathematicians, but it is intended to give future pilots facility with the mathematics which they will be using in their work. The content of this course includes (1) brief review of arithmetic processes, (2) ratio and proportion, (3) positive and negative numbers, (4) simple equations and formulas, (5) scales, (6) graphs, (7) angular measurement, (8) vectors, and (9) conversion factors including metric.

The officer in charge of the pilot training program at Santa Ana was asked what advantages would be gained if every pilot trainee had received this basic mathematics training in high school. The reply was : "Two advantages would be obtained from such a program. First there would be fewer wash-outs and, second, the boys would attain an accuracy and perfection which it is impossible for them to secure if they have had no previous training in mathematics."

Suggestions for the mathematics program for pilot trainees are :

1. Every high school should establish at once a course which will include all that is taught in the mathematics courses for pilot trainees described above. It should be practical in nature and make all possible application to the field of aeronautics. This course should be a requirement either in B-12 or A-12 for all boys of normal ability with the exception of those taking a mathematics major.

2. Tenth grade, first year algebra should be simplified to an extreme, with emphasis being placed on fundamental processes, ratio and proportion, formulas and simple equations, metric equivalents, graphs. Applications should be taken from industry and aeronautics.

3. Eleventh grade plane geometry also should be simplified, with emphasis on scales, angular measurement, graphs, vectors, metric system. Applications of geometric principles should be taken from the field of industry

and aeronautics. Very little formal proof should be required.

Mathematics for Industrial Workers. Industrial workers need mathematics which is clear, simple, and effective. Shop or applied mathematics, therefore, should be presented as a practical subject and should be closely related to the actual problems in the high school drafting rooms and shops. Such items as theory of numbers have very little value in shop practice.

Mathematics for industrial workers should not become a class of failures nor a remedial class in arithmetic. If the training given in high school in applied mathematics is to be worth-while it must deal with actual problems of drawing room and shop. Practice in arithmetic fundamentals is necessary, but a course organized as review arithmetic will not succeed in helping a boy or a girl understand shop practice.

Suggestions for a program of industrial mathematics follow:

1. Industrial mathematics should be taught as ninth grade practical arithmetic, including mensuration and simple formulas. Problems should be taken from metal, electric, and wood shops, and from the drafting room. They should deal with model airplane dimensions and with airplane construction.

2. At least two semesters of applied mathematics should be taken by industrial arts students in the tenth or eleventh grades. This work should include measurements and instrument reading, tolerances, reading of diagrams and blueprints, scales, formulas, and applied geometry.

3. Boys and girls who expect to become skilled mechanics should take two semesters of more advanced applied mathematics. This work should include instrument reading, fractions, applied algebra and applied geometry, shop formulas, slide rule, logarithms, applied trigonometry.

Counseling and Guidance. The three programs presented here must not be considered as three separate paths which supply separate needs. Students must be able to shift from one type of preparation to another if the change is

desirable on the basis of the ability of the individual boy or girl. Such shifting is not necessarily from a "higher" to a "lower" level. It may be from any one type to any other type.

Students mature rapidly while in high school and often develop ambition, interests, and abilities that were not apparent at the ninth grade level. Many students who do poor work in the more abstract mathematics often become interested in mathematics of a practical nature; many who have been slow in realizing the value of any mathematics may do very good work in algebra, geometry, or trigonometry as they become more mature. Our objective is to give an effective mathematical training to every boy and girl of normal ability. We must recognize that there are different individual interests and abilities and that different types of mathematical training must be provided in order to meet the needs of all the students.

PROJECTS FOSTERED BY NATIONAL AGENCIES

AS THE war goes on, the schools are called on to undertake other projects designed to assist the war effort. Three of these are described briefly in this section. Others doubtless will be added to the curriculum as time goes on.

"Air Conditioning America." Intimately related to pre-aeronautics training in science and mathematics is the "Air Conditioning America" project fostered by the United States Office of Education and the Civil Aeronautics Administration. While stressing the need of training boys who wish to become pilots, the "Air Conditioning America" project also seeks to enlist others, enrolled both in elementary and secondary schools, to think in terms of air transportation. A joint advisory committee of national aeronautical and

educational teachers announced their purposes as follows :

To serve as a general clearing house committee in which the related objectives and problems dealing with aviation education of the four Governmental agencies (Army, Navy, U. S. Office of Education, and Civil Aeronautics Administration) may be discussed, duplication of purposes and operating procedures eliminated, and mutual coöperation secured.

To stimulate a consciousness and recognition of the need for providing aviation education for American youth.

To initiate the promotion of aviation education programs for the pre-college age group which will be rapidly geared to the war needs and which will enable these youth to prepare for a post-war period in which the airplane will bring about great changes in our economic and social life.

To secure a rapid and sound development of aviation education in the schools of the country.

To review and to advise concerning plans and proposals when submitted by various subcommittees.

Commissioner Studebaker indicated that, while new programs may be organized in the schools to give necessary instruction, existing courses also may be utilized. For example, teachers can explain the theory of flight in physics, and essentials of navigation in mathematics. Geography can be brightened by following through many lands the courses of famous flights ; history classes can go back to Leonardo da Vinci, who first set down basic laws of aerodynamics in the fifteenth century.

Under the auspices of the National Joint Advisory Committee a large research staff has prepared instructional materials for the schools. These materials will supplement and enlarge units of instruction already developed or under development in California.

The Government's Program in War-Time Economies. One of the chief educational tasks to be accomplished in connection with the war effort is that of conditioning Americans to accept the

economic controls being imposed in an effort to ward off inflation.

High earning power and unparalleled employment have increased the country's capacity to buy consumer goods. But accompanying this increase in the national purchasing power has been a tremendous decrease in the amount of consumer goods available for purchase—a decrease that has had to come as a result of the conversion of materials and machinery to the production of war goods. Since people have more money to spend than there are goods for them to buy, it is obvious that without some sort of control prices will spiral. Accordingly, the Office of Price Administration was created as an emergency agency to limit the sale of certain scarce goods and to place ceilings on the prices of others.

The success of the entire OPA program, however, must rest on an understanding by the people of the necessity for regulation and an acceptance by them of the regulations imposed. And the development of this understanding is an educational rather than an enforcement problem. Hence the effort to bring the schools into the picture.

Through the schools the Office of Price Administration expects to educate the children of the nation and through them their parents. To work with the schools it has set up an Educational Relations Branch as a part of its Consumer Division. The Branch is supplying materials of instruction and plans to assist schools not only with printed materials but also by offering the services of speakers and other OPA personnel drawn from the teaching field.

The OPA educational program is based on the assumption that schools will have to consider matters of rationing and of price control if they are to keep their teaching live and vital. And, further than this, the Educational Rela-

tions Branch feels that in the present situation is the opportunity the schools always have sought to break down the barriers that exist between school and community. Here is the time when the schools can teach in terms of a problem that is of supreme importance in the winning of the war and in preserving the value of the dollar—and by so doing modify community behavior.

The OPA educational program has implications for most subjects of the curriculum. In fact, in many of the established areas of learning OPA materials are being used to motivate the work, for any course taught in terms of the war effort will arouse student interest. One of the areas where this instruction has been adopted most enthusiastically is that of consumer education. In fact, so nearly identical are the aims of consumer education and of one very important part of the OPA program—that having to do with the effort to educate the public in efficient

and wise purchasing—that frequently the OPA program itself is classed as “consumer education.”

Inter-American Affairs. To foster the Good Neighbor policy, the U. S. Office of Education has sponsored a project to place additional instructional materials dealing with Latin America in the schools. Schools and colleges have been encouraged to extend their efforts in this direction, demonstration centers containing evidences of Latin American culture have been set up, and steps have been taken to add to the present stock of units on Latin America.

In general, this work has been an extension of activities which already have been developed. Elementary schools already have organized numerous units dealing with Mexico or South America, while secondary schools have developed fairly extensive materials for their courses in social studies. The present project, however, will add new emphasis and new modes of approach.

Chapter 3

SPECIAL CONTRIBUTIONS OF THE SCHOOLS TO THE WAR EFFORT

ALMOST every conceivable type of skill or ability is needed if the Nation is to carry out successfully the manifold activities of the war effort. Although many individuals already possess one or another of these types of skills and abilities, the need for an adequate supply of talent means that others must be trained. Moreover, high school students are both willing and anxious to make their contribution to the war effort. Numerous high schools, therefore, have arranged to catalog the skills and abilities which young people already possess, and many have effected plans whereby additional skills may be developed in high school classes. Schools organized in this manner are ready, when the need arises, to call on their students for special services. Examples of the development of courses in two California counties designed to prepare students for national service are presented in this chapter.

Closely allied in purpose to these national service courses are the special contributions of the high schools to the war effort. As indicated in Chapter 2, these range over a wide field. The facilities of the school may be placed at the disposal of the military forces, needed articles may be made by the students, or other special calls for assistance may be met by the schools. Notable examples of the latter resulted in the model airplane project, which affected more than 600 schools in California, and in the mobilization of secondary school students for work in harvests and as fire fighters.

This chapter contains examples of the manner in which the students and the

schools have responded to suggestions that they render special service.

NATIONAL SERVICE COURSES IN VENTURA COUNTY

By M. E. MUSHLITZ

THE high school principals of Ventura County have endorsed unanimously the establishment of national service courses in the high schools, basing their stand on the following premises :

The secondary schools have a real and vital challenge. Public education is the right of the individual, but it is a right which exists with an obligation and responsibility of the individual to the nation that provides him with that education.

With America in total war a sense of obligation on the part of the individual must be developed by the school. A successful war can be waged by the military forces of the nation only when there is a trained civilian population ready to meet the regular civilian needs in time of war, plus the needs of increased production, civic morale, and the special emergencies which may be occasioned by disaster.

Young people are disturbed and uneasy. They feel that they should have a place in the total program. Tendencies in thinking are growing among students that schools as now established are off balance. When the immediate objective is vital, it is difficult to build morale on long-term planning alone. The importance of belonging in the emergency is as important if not more important than belonging to a group.

The program of national defense training has had a tremendous influence in America, but in each individual school it has barely touched the surface of the student body. This enormous group of boys and girls must be reached, and it can only be reached by positive action.

Ventura County school people believe definitely in the basic training given boys and girls. Long-term training and planning will be continued and re-emphasized. It may be re-evaluated, but it must be preserved. The "here and now" elements of action always are present in a live curriculum; at present they are of enormous importance. Emphasis should be turned upon these elements in such manner as to make young people feel that they have a vital part in the war effort. The feeling of belonging and an expression of contributing will manifest themselves in civilian morale.

Basically, training for national service courses required no change in programming and curriculum construction. As stated above, the elements are in the present offerings.

The principals of Ventura County appointed a committee of teachers, with a member of the superintendent's staff as chairman, to act as a clearing house and to develop standards of efficiency in the training. The committee recommended the granting of certificates for acquisition of skills and for hours of service. It insisted that these awards must have a real meaning in accomplishment but that standards should be such that a reasonable percentage of pupils can achieve them. Certificates, of course, are not intended as job assurances.

These certificates are to be identical in all schools and are to be granted at any time of the year, in assembly or in special courts of award. The type of service efficiency is to be written on each, certificates being granted in eighteen areas, as follows: cooking, K. P. duty, basic aeronautics, foreign language, drafting, photography, Red Cross, weather forecasting, telegraphy, short wave radio, shorthand, typing, welding, tractor operation, surveying, fire protection, and nutrition.

No school will offer all types of training, but all schools will offer training in some. New courses are to be added as

each school evaluates its program and personnel.

Several schools of the County began their participation in the national service course program by appointing a teacher organizer in national service. Usually the organizer is a member of the committee on standards of efficiency.

A CO-OPERATIVE EDUCATIONAL PROGRAM FOR NATIONAL SERVICE IN KERN COUNTY

By JOHN W. ECKHARDT

IN RESPONSE to increased demands that the secondary schools do more to help in the total war effort, several high schools of Kern County have united to develop a "National Service Course Training Program." While the idea of such training was not entirely original, these high schools have developed it into a practical, stimulating, and functional plan. Maricopa, Tehachapi, Delano, and Wasco high schools are the four coöperating institutions. The plan was directed by the department of coördination in the office of the county superintendent of schools.

The General Plan. National service courses are available to both boys and girls and may be taken at any time during enrollment in high school. More than one course may be completed by any student, but a high degree of competency or mastery is required for passing.

Each high school analyzed its resources to determine the number and kinds of courses that could be offered, a coördinator in each school being appointed by the district superintendent to perform this task. It was recommended and adhered to that no increase in personnel be undertaken to incorporate na-

tional service courses in the curriculum. Obviously, many courses which already were being offered in these schools could be classified as "National Service Courses." In most cases, however, the standards for passing these courses had to be raised to insure a high degree of competency or thorough mastery. Standards for all accepted courses were set by a joint committee made up of the appointed coördinators in each school, the district superintendent, and the county coördinator of secondary education.

Upon completion of a national service course, students receive certificates which indicate the areas in which proficiency has been achieved. These certificates are supplied by the county superintendent. These are signed by the instructor and the district and county superintendent and are issued to students at set times before an "honor assembly." Permanent records of all awarded certificates are kept in the office of the county superintendent and are filed according to work experience. This provides a continuous record of potential civilian man-power for national service.

Courses and Standards. Thirty-one national service courses were set up by the committee on standards. The requirements for certification in each course were designed to be of approximately equal difficulty. In all cases proficiency was the objective of course standards. The committee realized that in many cases students who received training would need additional training before fitting into war occupations. Descriptions of several of the courses, therefore, merely indicate "basic" training. It was felt that for the most part students would be able to step directly from high school into a national service occupation on the basis of their specialized training.

The thirty-one national service courses prepare students to serve as the following: weather forecaster, stenographer, typist, general office assistant, bookkeeper, public relations specialist (in public speaking), public relations specialist (in journalism), interpreter or translator, Red Cross worker, band musician, navigator, mathematician (basic), scientist (basic), specialist in radio theory and mechanics, specialist in quantity cooking, specialist in home nursing and child care, specialist in basic aeronautics, marksman, tractor driver, specialist in soil testing and conservation, specialist in livestock (breeding and feeding), welder, auto engine repairman, carpenter, lathe operator, foundry and forge specialist, basic woodworker, sheetmetallic, electrician, draftsman (basic), draftsman (advanced). Preparation for additional services will be added to this list as the need and occasion demand. Standards for certification have been set up in bulletin form and distributed to all teachers in the cooperating schools.

Anticipated Outcomes. The essential outcomes of the national service course program are of especial value. First, training of citizens for national defense provides a direct contribution by the high schools to the national war effort, immediate and future. Second, it provides direct participation by giving all students an opportunity to feel that they are doing something to aid their country. The armed forces and industry offer an appeal to youth which causes a noticeably disinterested attitude toward school. National service course training is serving to eliminate this negative attitude. Third, the plan provides for certification of all trainees. Properly administered, such certificates of fitness for national service well may become the most cherished possession of our population. Fourth, national service courses provide a marked turn toward

a more effective program of civic education.

As a result of this program, great interest has been stimulated on the part of teachers in curriculum planning. Curriculum meetings are being planned for the coming year in all of the high school areas of instruction. An avenue for coördinated instruction has been opened, and it is quite possible that coördination of the work of the high and elementary schools will result from the investigation that is to be made of pre-high school training.

The national service course training program is one of the most dynamic attempts to vitalize the high school curriculum in many years. Much hope has been expressed by administrators that it will continue into the peacetime era which lies ahead. For the present, the program represents a notable effort by educators to share in the stupendous endeavor to win this war.

THE MODEL AIRCRAFT PROJECT

By E. E. ERICSON

ON THE thirtieth of January of this year, a communication was sent out by Commissioner J. W. Studebaker, United States Office of Education, announcing the launching of a new type of war project for American schools. It was called the Model Aircraft Project.

Letters were addressed by Dr. Studebaker to superintendents of public instruction for the various states of the union and the territories and possessions, stating the magnitude of the project and suggesting methods by which to attain its ends. The announcement contained the information that the project was undertaken to supply the army and navy with at least ten thousand model aircraft of each of fifty different types of planes, including those

of the United Nations as well as those of the Axis Nations. The Naval Bureau of Aeronautics was to furnish the drawings and designs of these planes while the Office of Education would direct the activities of their construction through the public schools of America. The quota for California was set at 30,000 model aircraft.

Under date of February 10, 1942, a communication was addressed to city and district superintendents of schools in California by the superintendent of public instruction, announcing that Dr. Studebaker had been notified that California would accept her full quota of 30,000 planes, consisting of 600 sets of 50 planes each. This letter further contained the information that the responsibility for producing these planes would be placed with junior, senior, and four-year high schools. An organization embracing 200 communities with more than 600 schools was set up immediately. All junior and senior high schools which were judged to be large enough and to have the facilities for producing a minimum of fifty planes as specified in the instructions issued from Washington were included. Private schools, various types of craft clubs, model making clubs, and corrective institutions also were asked to participate.

While the program was undertaken to meet the need of the army and navy for model aircraft to be used for such purposes as recognition, range estimation, and determining of cones of fire, a secondary value also has been stressed in this work. That value is the experience which children of school age receive in connection with the making of models and the opportunity they have to study aircraft. Consequently, it was stressed from the beginning that auxiliary information should be brought into the project and that teachers and others should take occasion to make the con-

struction of model aircraft of as large educational value as possible.

The work was undertaken with great enthusiasm practically everywhere—although the high standards of workmanship required have been difficult to meet by boys of from 12 to 15 years of age on the junior high school level. The fact that each student was assigned the complete construction of individual planes rather than being a participant in some assembly-line method of production probably has resulted in the output of fewer models than otherwise would have been the case.

In order to encourage initiative and individual effort on the part of participants in the project, appropriate awards are presented by the Naval Bureau of Aeronautics. Ranks are given according to the number of planes produced as follows:

Cadet Aircraftsman—1 of any type of model completed.

Ensign Aircraftsman—3 of any type or types including a scout bomber or an observation plane.

Lieutenant Aircraftsman (junior grade)—5 models completed, including one twin-engine bomber and planes from two nations.

Lieutenant Aircraftsman—7 models completed, including a sea-plane or twin-fuselage fighter.

Lieutenant Commander Aircraftsman—8 models completed, including a torpedo bomber or biplane and including planes from three nations.

Commander Aircraftsman—9 models completed, including one four-engine bomber and including planes from four nations.

Captain Aircraftsman—10 models completed, including planes from five nations and consisting of the following types: fighter, scout bomber, observation plane, twin-engine bomber, seaplane, biplane, twin-fuselage fighter, torpedo bomber, four-engine army bomber, and four-engine patrol bomber.

The highest record of production reported is by a boy in San Francisco who had on June 1 constructed thirty-five models. He expected to complete one

each of the entire series of fifty before the end of the period for the project.

The time for the completion of the present model aircraft project was June 30 of this year. In cases where it was impossible to meet the quota, permission was given to carry some activity beyond that time. Questions have been raised regarding the possible continuation of the project for the next school year, but so far no information is at hand to indicate whether the work will be continued.

THE MOBILIZATION OF SECONDARY SCHOOL STUDENTS FOR WORK IN THE HARVESTS

CONSIDERABLE dependence is being placed on secondary school students for help in harvesting California's crops, and it is likely that, if the war continues, the need of student labor will be much greater. The schools have been both willing and anxious to respond to the request that they cooperate in making student labor available.

The demand for student help is conditioned by the amount of labor available from sources which have supplied it in the past, the amount of labor which can be recruited from various adult groups, and the number of workers needed. It has been clearly recognized by those whose official positions bring them into contact with the agricultural situation that student labor, particularly that which must be supplied by metropolitan areas, should be drawn on only after other possible sources of supply have been utilized.

Registration for Work. Secondary school students willing to work in the harvests were registered during the spring weeks of 1942 in the schools of the State through the United States Employment Service. Special forms

were supplied, one copy of which was retained in the school and one filed in the local office of the Employment Service, although in some school districts, registration was effected on local forms.

Because it was anticipated that it would be unnecessary to call on secondary students residing in certain metropolitan areas to help in the harvests, registrations were not requested in those areas. Local offices of the Employment Service, however, supplied registration cards for these districts on request.

Legal Restrictions on the Employment of Minors in Agriculture. The federal government, and the State of California as well, have enacted legislation designed to prevent the exploitation of child labor. While a summary of such legislation cannot be attempted here, it may be pointed out that age limits are set, the number of hours a minor may work in one day are limited, permits to work must be secured, and certain specifications are made about the conditions under which a minor may work.

An important aspect of the legislation in California designed to promote child welfare is the compulsory school attendance laws. Schools must operate at least 170 days per year, and with certain exceptions boys and girls must be in attendance to the age of 16. If employed, they must attend continuation classes at least four hours per week until 18; or three hours per day if unemployed. These standards have been in effect for a number of years and have experienced no change.

Adjustment of School Schedules. Local governing boards may set the dates for the opening and closing of school and are empowered by law to declare a holiday when good reason exists therefor. Arrangements have been made this year, accordingly, to open and to

close schools at times which will release older students for agricultural work. Other administrative devices also can be utilized in the emergency to make students available in the harvests without violating the compulsory attendance law.

Many administrators propose to operate teachers' institutes in such a way as to make it unnecessary to close school. Christmas and spring vacations have been and will be shortened. Schedules based on the minimum school day, which in high schools is 240 minutes, have been set up or are contemplated so that students may work four hours per day. It is probable also that the school term, for high school and junior college students, will be extended into the summer—from a legal standpoint, of course, this may be done since the local governing board is empowered to fix whatever dates it chooses for the opening and the closing of school. Moreover, elementary and high schools need not operate on the same calendar.

Early in the spring, interest was expressed in organizing summer schools, not only to enable certain students to graduate earlier, but to insure to those who work in the harvests an element of flexibility in arranging a full year of school work. Local governing boards long have been empowered to operate summer schools at district expense. The question soon arose about the possibility of operating summer schools through establishing special day and evening classes, for which the state gives financial assistance. This question was placed before the attorney general, who has ruled that summer schools may be so operated.

Employment of Students Residing in Rural and Semi-Rural Areas. In many rural and semi-rural areas, arrangements for work have proceeded as usual. Students were employed at home

or near their homes; they found work through their own efforts or through the United States Employment Service. Such employment, under ordinary circumstances, permits the individual to live under home conditions. This year, of course, larger percentages of students worked in the harvests than usually is the case.

School officials in districts of a rural or near-rural character maintained close touch with Farm-labor subcommittees and devised plans to cooperate in supplying labor for the harvests.

Employment of Students from Urban Areas. The majority of high school students reside in urban areas. To be available for harvest work they must go from their places of residence to the areas in which the crops are grown. This means either a daily trip or the establishment of camps in the vicinity where the labor is needed.

Farm - labor subcommittees, upon which are representatives of farmers, labor, the United States Employment Service, Agricultural Extension Service, and education, at first were depended on to indicate whether or not students from outside the immediate district were needed in the harvests. When a subcommittee decided that such was the case, it was expected to select a responsible organization or individual to establish and operate a work camp. The order for workers was to be given and forwarded by the United States Employment Service to a metropolitan high school having a list of students available for work in the harvests. This was the original procedure, but the United States Employment Service soon assumed more responsibility in rendering assistance in projects of this type.

Again, in the case of students from urban areas working in the harvests, certain legal measures must be observed. There are students for the operation of

camps, supervision is necessary, transportation must be provided, and insurance must be in force. School buildings and grounds may be used for camp purposes, provided proper arrangements are made with local governing boards.

Training Students for Work. Soon it was suggested that preparatory training should be given to inexperienced high school students to improve their usefulness in the harvests and that the Bureau of Agricultural Education of the State Department of Education should offer its services in this area. In response, the Bureau expressed the opinion that most of the training needed in actual harvest work can be given only on the job. Accordingly, agricultural teachers and supervisors rendered every possible assistance in the "breaking in" process. Measures were adopted to develop proper attitudes toward work in the students who proposed to work in the harvests. The opportunity to render a patriotic service was explained to them before work actually started.

The Bureau of Agricultural Education believes that its major responsibility lies in the field of training persons unfamiliar with agricultural operations. When requested by the United States Department of Agriculture War Board, through its county boards, the Bureau has assisted in the following ways:

1. By establishing, for rural individuals available for work but lacking in technical training, training courses in specific farm skills such as pruning grapes, repairing farm machinery, irrigation of crops, and proper feeding of livestock.

2. By establishing training courses for urban youth who have only a limited knowledge of agriculture. These courses of necessity are rather general in nature and are not designed to produce many skilled workers.

3. By assisting in carrying out surveys to determine community farm labor needs.

Relation Between Curriculum and Work Experience. For some time school administrators have been interested in extending the school into the community and in seeing to it that young

people learn to work. The relationship between work experience and the curriculum has been the subject of deliberations of committees of the Association of California Secondary School Principals and the California Junior College Federation. The following general principles, derived from the reports of these committees, were approved by the State Board of Education at its May 22-23, 1942, meeting, under the authority contained in sections 3.470 and 3.800 of the School Code, as guides for establishing relationship between work and instruction:

1. The pupil must be regularly enrolled in school.

2. The work experience must be definitely related to the in-school training of the pupil. The type of work experience shall be analyzed in such a manner as to indicate its specific elements of learning.

3. Supervision by a teacher, coordinator, or supervisor shall be provided, and shall be of such nature as to relate a part or all of class instruction to work experience.

4. Credit toward graduation may be awarded upon the same bases as are prescribed for the school subjects (Bulletin No. 1, January 1, 1937, Rules and Regulations of the California State Board of Education, Pages 12-16), provided that an evaluation or appraisal of the pupil's progress has been made.

PARTICIPATION OF STUDENTS IN HARVEST WORK

THERE are approximately two hundred high schools in California which have federally aided vocational departments of agriculture. In the section of this report entitled "The Mobilization of Secondary School Students for Work in the Harvests," it was pointed out that these departments may make an immediate contribution to the war effort by providing courses to train persons unfamiliar with agricultural operations to take the places of those leaving the farms to enter military service or to work in the war production industries. It was indicated also that

teachers of agriculture can cooperate with other agencies in determining the need for farm labor. And at the same time the schools with departments of agriculture are contributing in this fashion, they are making every effort to maintain and even to improve their long time programs.

Practically every one of these schools has been able to add services of benefit to its community, services that are of value to the State and to the Nation in the "Food for Victory" campaign. A view of what has been done may be gained from the following descriptions of activities carried on in high schools of the State.

*Program in a Small Community.*¹ At the Colusa Union High School two special classes have been organized for out-of-school youth in the operation, care, and repair of tractors, trucks, and automobiles. The classes also include instruction in electric, acetylene and forge welding and in the repair of farm machinery. Instruction is given by trained mechanics and is organized to assist young men in the community to be better prepared to do repair work of their own and to maintain farm implements. Many implements have been brought in from the vicinity and put in good condition.

In connection with the agricultural classes in the high school, instruction has been provided in tractor driving, maintenance, and care and in the operation of mowers, plows, harrows, and rakes. Non-farm youth have been taught these operations as well as the hand skills needed in growing beets, beans, and other row crops. The purpose of this is to anticipate and to overcome as far as possible a threatened shortage of farm labor. Boys enrolled in these classes last semester hoed over 800 acres of sugar beets, harvested over

¹By Arthur J. Godfrey, vocational agricultural instructor, Colusa Union High School.

300 acres of grain, and cut and raked 190 acres of hay.

The local chapter of Future Farmers of America, through coöperative procedures, bought and paid for a tractor, a plow, a mower, a rake, and a harrow. This machinery was used in the regular school courses.

*Activities in a Larger Community.**

During the past year the Agriculture Department of the Salinas Union High School, in coöperation with the Salinas Evening School, carried out a successful course in the maintenance and repair of trucks, tractors, and automobiles. The course, planned especially for out-of-school rural youth between 18 and 25 years of age, featured diesel tractor care, operation, and repair. One of its main objectives was to appeal to young men to prepare for an important aspect of the farm production program. The course also was available to service men stationed at Camp Ord. It was in operation during the summer.

During the spring the director of vocational agriculture acted in the capacity of organizer and coördinator of farm labor and thus helped to meet local demands of individual farmers, the U. S. Employment Service, the school placement service, the Federal Guayule Rubber Project, and the Grower-Shipper Vegetable Association of Salinas. Operations for which workers were needed were hoeing lettuce, hoeing beets, thinning lettuce, thinning beets, pitching lettuce onto trucks, field packing lettuce, weeding guayule rubber plants in nursery plots, picking berries, and cleaning, grading, and tying carrots. In the carrot and guayule projects, many women and girls took part and were given assistance in training and placement. The director took an active part in coördinating and training activities and in carrying out a follow-up program after

high school boys had been organized into work groups.

It was realized that many students were without previous experience in the activities in which they were expected to perform. Accordingly, it was felt important that students understand the services expected and that they develop necessary skills.

One of the most interesting programs at Salinas was a four-day carrot cleaning, grading, and tying school given to boys, girls, and women. Members of the class were assembled in the agricultural classroom where the representatives of the packers, inspectors, graders, and tyers explained and demonstrated the requirements and the proper methods of preparing a quality product to reach a distant market in attractive and fresh condition. After the class session, the class divided into teams and took crates of field run carrots for practice. As the individuals and teams moved through the operations, their skill was checked by the instructors and state or federal inspectors. Upon passing efficiency tests which took from one to three days, individuals and teams moved into the field to pay jobs. Approximately 350 individuals completed the course.

It is believed that such a training course is decidedly of advantage to employer and employee and well worth the time and expense necessary to produce efficient workers. It is believed also that training will enable the worker to earn higher wages and thus be much more satisfied than he would have been without the training program.

City High Schools Supply Workers for the Harvests. The big pools of high school harvest workers are the cities. Sometimes pupils may remain at home and make daily trips to and from the fields and orchards; in many instances, however, plans must be worked out to transport students to the areas in which

*By Warren E. Crabtree, director of vocational agriculture, Salinas Union High School.

they are needed and, in most cases, to supply them with living quarters. Both plans have been used, the city schools showing a high degree of coöperation in arranging for students to work in the harvests.

An example of what has been done is supplied by San Francisco.³

Two Y. M. C. A. harvest camps using San Francisco boys were in operation for several weeks during the summer at Yuba City and Marysville, with a third organized at Gridley late in the summer. Both the Yuba City and Marysville camps were housed in the high school buildings of those communities. The Gridley camp was located in a large hall with ample recreation facilities nearby. School cafeterias were used, and transportation was furnished by school bus.

The number of boys involved in each of the first two camps varied from 110 to 160. The Gridley camp contained approximately 100. A minimum wage was 50 cents an hour in the pears. Peaches were picked on a piece work basis of 10 cents per box.

The Y. M. C. A. reported that the camps were quite successful and that much was learned which will be of future value. Both the farmers and the boys were at first discouraged because it took time to acquaint city boys with the work they had to do. In the large majority of instances, however, boys soon became accustomed to their new tasks and were able to work effectively. Younger boys 15 to 16 years of age, particularly those weighing less than 130 pounds, were not as successful as the older boys; and the turnover was largely in this group.

Camp directors who either were Y. M. C. A. camp men or experienced school people stated that work in the harvests is a valuable experience and that a considerable amount of fruit was

picked and saved because these camps were established.

If the need is greater next year, as it likely will be, plans may be made early in the school year for the expansion of this program in the spring of 1943, based on the experience and experiment this summer.

Extent of Student Participation. Approximately 20,000 California students registered with the U. S. Employment Service to work in the harvests. By the middle of August, 5,000 had been referred by that agency to jobs. Since the peaks of the demand for workers come during August, September, and the first part of October, it was anticipated that additional thousands of students would be referred for harvest work.

These figures do not tell the entire story. Young people living in rural areas in large numbers made their own arrangements for work and therefore will not appear on the records of the Employment Service. Although there is no accurate method of determining the total number, there is no doubt that it is large.

Work Camps. Anticipating months ago that there would be a labor shortage, the Y. M. C. A. in California began to develop plans for establishing work camps for high school boys. This action was in part the revival of a project carried out in World War I, and in part an adjustment of the usual camping program sponsored annually by that organization. Placing its resources and personnel at the disposal of communities desiring high school harvest workers, the Y. M. C. A. by August 1 had set up twelve camps accommodating approximately fourteen hundred boys, and it expected to establish two additional camps to house 300 or more.⁴

Youth Hostels, Incorporated, have used their facilities for work camps. The

³The following statement of what San Francisco is doing is furnished by Albert D. Graves, deputy superintendent of schools, San Francisco City Schools.

⁴According to Philip N. McCombs, vice-chairman, Southwest States Council, Young Men's Christian Association.

Boy Scouts of America developed one extensive project for their membership and expect to develop others. In addition are instances where private individuals have supplied living quarters for secondary school students so that they might engage in harvest work.

Effectiveness of Student Labor. Boys lacking physical capabilities, those not disinclined to work, those prone to homesickness, and those unable to conform to the discipline demanded by the working day are likely to prove unable to render a day's work in the fields and orchards. On the other hand, boys physically capable and willing to work have compelled those who predicted that high school students would be ineffective to change their opinion. It is to be expected that inexperienced young workers must be taught needed skills and that they must undergo a period of physical hardening before they are able to compete with seasoned labor. When these factors have been properly taken into account, high school students have surprised their employers and elicited praise from them by their willingness and ability to work. The net result has been a greatly increased demand for student labor.

Acquainting Students with the Farm Problem. So important is the food for victory program and so important will be the participation of students in harvest work that it was deemed advisable by the Bureau of Agricultural Education of the State Department of Education that a manual of instruction be provided for the schools. Accordingly, such a publication was prepared during the summer, published, and distributed to the schools at the beginning of the school year. In it various types of California's agricultural products are described; information is given about planting, cultivation, and harvesting; need for workers is stressed; and the contribution to the national war effort

of the State's agricultural production is explained. It is anticipated that the manual may be used either as a special course for students or as supplementary material for existing courses.

FIRE FIGHTING

DURING the dry season the control of fire is one of California's major problems, the responsibility for which lies with the Division of Forestry, Department of Natural Resources.

The Division of Forestry has equipment and permanent personnel, to which are added a large number of individuals who form a reserve of manpower to be called on in the event of a major catastrophe. Men of the Civilian Conservation Corps for several years have rendered invaluable service in this area. With the increased demand for workers in all pursuits, the Division of Forestry has found it difficult to secure men for its permanent personnel and for jobs during the summer months; and with the decline and final elimination of the Civilian Conservation Corps there has occurred a sharp rise in the need of men to form a reserve for fire fighting. The Division of Forestry thus has looked to the schools as a possible source of personnel.

Training Courses. To make available an adequate fire control force during the present emergency, a proposal was made last February, with the approval of the State Council of Defense, that a course be set up for the training of junior college and high school boys aged 16 and upwards who meet physical qualifications. The adopted course of training, prepared by the State forester, requires twelve to sixteen hours or more of intensive training, including the use of hand and mechanical equipment which is to be supplied by the State forest ranger in each locality.

The basic training in this course is designed to be usable by any fire-control agency engaged primarily in the control of rural structural, grain, grass, brush, and forest fires. The course also covers the fields of home fire-prevention, hazard reduction around homes and farms, and safety.

As soon as the course was ready, county superintendents of schools arranged with the local State forest rangers places and dates for meeting with the superintendents and principals of high schools and junior colleges. At these meetings the rangers explained the details of the fire-fighting training course to the superintendents and principals, who in turn informed the forest rangers of the names of members of their faculties who had agreed to enroll in the teacher training course to be given by the forest ranger or his delegated assistant. Places and days for designated teachers to receive the training were arranged.

After their teachers had received the requisite teacher training, the principals of high schools and junior colleges planned with them for the giving of the course to selected boys. Plans also were made with the forest ranger for the loan of necessary equipment in rotation among the schools.

Extent of Participation. Particularly in urban areas, chiefs of fire departments already have organized fire training programs, and auxiliary firemen have been recruited and trained. The project described above was designed, therefore, for rural and semi-rural schools.

Reports rendered in June showed that 3,257 boys in sixty-three schools had received training. These account for approximately half of the personnel of 502 crews operating under the direction of county farm advisers. Preliminary reports from other areas indicate that perhaps 2,000 additional boys

were recruited for fire-fighting during the summer. Because the program was centered in grain growing and forest areas, where high schools are scattered and have relatively few enrollments, the response of the schools to the call for assistance is regarded as excellent.

ADULT AND CONTINUATION EDUCATION

By GEORGE C. MANN

THE SCHOOL laws of California permit the organization of special day and evening classes in subjects beneficial to the adult population. Especially since December 7, such classes have been organized to promote activities directly connected with the war effort.

Number and Extent of Classes. Substantial increases have been made in the number of adult classes and enrollments in vocational subjects related to war industries and various phases of civilian defense. The most striking increases in the vocational field have occurred in classes in welding, aircraft mechanics, blueprint, machine shop, sheet metal, ship fitting, radio, and so on. The civilian defense classes which are most in demand are those for air raid wardens, police, fire-fighters, and ambulance auxiliary workers and classes in first aid, home nursing, and canteen cookery.

A comprehensive survey made in April, 1942, by the Committee on Adult Education of the California Teachers Association, reports the activities of ninety-seven adult schools in meeting the national emergency. The ninety-seven schools at that time were offering a total of 5,774 classes; this total included 3,595 regular classes, of which 1,118 were civilian defense classes and 1,061 were direct national defense vocational classes. On a percentage basis, 62.2 per cent of all classes were regular, 19.5 per cent of all classes were civilian defense, and 18.3 per cent of all classes

were direct national defense. The total enrollment of all of these classes was 199,562 students as of March 2, 1942. By July 15, it was estimated that the total number of classes and enrollments had doubled.

The adult programs have made an excellent contribution to national defense and the war effort and have demonstrated their capacity to respond quickly and effectively to community, state, and national educational needs. A large number of citizens have been drawn into adult classes who heretofore have not participated in this type of activity. For the work which has been done, a great deal of credit should go to the administrators of adult education throughout the State who have labored faithfully to train, employ, and supervise teachers, organize classes, and conduct a teaching program which was almost 50 per cent new.

Project in Visual Aids The WPA Visual Aid Project, sponsored and directed by the Division of Adult and Continuation Education, has been asked by officials of the local Civilian Defense Office to prepare slides and film strips to instruct large groups of citizens in the proper use of gas masks and other defense devices. The United States Army Medical Corps, stationed at Burbank, coöperated by sending gas masks and an army medical officer to demonstrate proper procedures. Strip films are being made from the pictures taken, and these will be made available to Air Raid Wardens, Red Cross personnel, and Civilian Defense representatives.

The Child Protection Program. The Child Protection Program, which has succeeded the WPA Nursery School Program, has been organized so as to include the following activities: (1) nursery schools for children from 2 to 4 years inclusive from low income families; (2) defense nursery schools for 2-, 3-, and 4-year-old children of men

in the armed forces and of industrial workers definitely engaged in war preparations—these schools may be established only in officially designated areas; (3) pre-school play groups for any children from 3 to 6 years of age—these may operate in conjunction with adult recreation activities in defense areas or as separate units in these and other areas; and (4) related parent and family life education, which is an integral part of all services to children.

New units of nursery schools are being developed in defense areas in accordance with the new federal program. In one or two cases local schools have given up sponsorship of programs because they had become more of a daily care program than an educational plan. Many other local schools have developed new units because of the demand for nursery school type of education as opposed to the day nursery plan for children between 3 and 5.

Reorganization of Continuation Schools. There are many evidences of renewed interest in continuation schools and in classes which have remained more or less static for the past ten years because of the lack of opportunity for employment. There has been a trend away from the original purposes of continuation education toward an adjustment program for that group which has not been suited for the regular school program. The regular school program, however, has been broadened to include an increasingly greater number of adjustment cases.

Increased employment has brought about a situation comparable to that of the early 20's, when opportunities for work were offered to many of the employable boys and girls between 16 and 18 years of age. This situation has increased greatly the number of applications for continuation programs for the year 1942-43. This in turn has necessitated many conferences with school offi-

cials interested in providing an educational program for employed youth of compulsory school age.

Summer Sessions in Secondary Schools. The recent opinion of the Attorney General that junior colleges and high schools might extend their regular sessions through the summer as special day and evening classes has enabled a number of junior colleges and a smaller number of high schools to go forward with their plans — both for special courses closely connected with the war effort and for regular classes designed to accelerate the period of graduation of senior students.

As of August 10, reports made to the Division of Adult and Continuation Education indicated that 2,074 classes had been organized in fifty-two districts. The total enrollment was 52,432, of which nearly half were junior college students attending a summer school organized by one of thirteen junior colleges. An estimate of the proportion of students engaged in summer school work may be gained by referring to the numbers in average daily attendance for the year 1941-42. This number was 306,969 for regular day students in Grades 9 through 12, and 28,151 for Grades 13 and 14.

Chapter 4

ADMINISTRATIVE PROBLEMS AND PROCEDURES

ADMINISTRATIVE practices, although closely related to curriculum activities, represent problems, techniques, and procedures which may be grouped together for purposes of discussion. This chapter contains only a few of the problems which events of recent months have placed before the schools.

It has been anticipated that shortages of teachers would occur, especially in elementary schools and in certain areas in secondary schools. The paragraphs immediately following indicate the situation as it existed in the early summer from a state-wide and from a more local viewpoint. Specific adjustments in teaching staff made within a school system are shown, as well as the success of the attempts to provide, through summer schools and local workshops, the training of teachers for new duties.

High schools and junior colleges have been caught between demands which are worthy but with which the schools cannot fully comply because of the conflicting nature of the requests. Secondary school students have been urged to speed up their programs so that they may finish school by the time they reach the age when they will be called into military service. On the other hand, students are needed in the harvests, in the food canning and processing establishments, in the defense industries, and as firefighters. They also have an unparalleled opportunity to secure employment at home. The administrative adjustments which are made necessary by these activities are discussed in this chapter.

One of the most difficult problems confronting the administrator consists

of devising appropriate training for minority groups. Lack of employment opportunities has existed for these persons heretofore; and the situation is not yet entirely cleared, even with the insistent demand for workers. Training and employment of minority groups, and related problems, are examined in the closing section of the chapter.

CALIFORNIA'S SUPPLY OF TEACHERS

By HERMAN A. SPINDT

DESPITE appearances, the effect of the war on the teaching profession has not been as drastic as on many other types of workers — except in small schools, where the average age of teachers is young enough to have forced all able-bodied male teachers into military service. The high percentage of women in the profession, high average age of teachers in city school systems, and the large reserve supply of qualified teachers have made the problem of teacher supply a comparatively easy one except in specialized fields where either there is a limited supply or where demands of the war effort have brought excessive competition. If the war continues into the school year 1943-44, however, shortages in some fields will be acute, especially for small schools.

Areas of Teacher Shortage. So far as one can predict at this time the situation for the school year 1942-43, there will be some teacher shortages in the following areas:

1. Small and isolated elementary schools.
2. Physical sciences and mathematics at the secondary and collegiate levels.
3. Industrial arts and vocational arts at all levels.

4. Instrumental music—especially in the case of men.
5. Public health nurses in smaller communities.
6. Vocational agriculture in small high schools.
7. Boys' physical education.
8. Home economics at all levels.
9. Commercial work—shortages of teachers with really adequate training.

It should be pointed out that the probable shortage of elementary, especially primary, teachers is not merely an effect of the war. Lower comparative salaries for elementary teachers have brought about a tendency for many prospective teachers to prepare for secondary teaching, so we have been preparing fewer elementary teachers than we should. The increase in the birth rate since 1933, together with migration into California in recent years, will bring large increases in the elementary schools in the next few years; more teachers, therefore, will be needed for elementary teaching.

There has never been any marked oversupply of teachers of physical sciences, mathematics, and industrial arts. War demands for research, technicians, and workers have been heavy in these fields; and at the same time students in the schools and colleges have tended to take more work in these fields in preparation for military service and war industries. The shortage will be complicated by the establishment of aviation science in many schools during the next year. Because of the competition of industry and the military service, there are practically no new teachers being trained in these fields.

For 1942-43, the shortages in these fields are acute, and some draft deferments are justified for teachers in the eleventh to fourteenth grades. Teachers of these subjects are necessary to the continuance of our physical war effort, and they should be worth more to our

armed services as teachers than as soldiers.

Although school administrators generally prefer men for band and orchestra teaching, it is probable that enough women can be found to take care of actual needs in this field.

The present shortage of public health nurses is acute and likely to continue even after the war is over. If salaries were increased, more women would be willing to take the five and one-half years of training required for this profession.

Possible Adjustments. There has been some talk of putting women physical education teachers in charge of boys in the high school. This suggested solution would be more reasonable if there were any reserve supply of women physical education teachers. On most faculties, however, there are men with some training in this field, so from the educational point of view there is small danger of serious loss to our students.

Increased training in home economics at the University of California at Davis should assist materially in solving the perennial shortage of well-trained teachers of this subject.

Areas of Surplus. Surplus of teachers continues in secondary social science, English, foreign languages, and life sciences. Many undergraduates now planning to enter the secondary field in these subjects would do well to train themselves for the elementary field. Guidance is needed for this group at an age before they become candidates for a credential, certainly as early as the thirteenth or fourteenth grade. If the shortage of elementary teachers becomes really acute, it would be better to use some of the teachers trained for secondary work than to run the danger of an increase in certification by county examination.

The prospect for decreasing enrollment in the high schools for the next decade (due to low birth rate in the

period before 1933) emphasizes the need for reducing the number of teachers preparing for crowded secondary fields, and for increasing the number in fields in which shortages seem reasonably certain.

SHIFTING GEARS IN THE TEACHING FIELD

By ELSIE GIBBS

NO SERIOUS shortage of total number of teachers is reported in a brief survey of secondary schools in Southern California. Some departments are facing a very acute shortage which is growing rapidly worse as the weeks go by, while teachers prepared in other fields are finding no opportunity for their services.

The shifting of interest due to rapidly increased employment opportunities for students has enlarged some departments at the expense of others. Ever since December 7, most high schools have had a constant ebb in enrollment which even the increased population of many defense communities has not counteracted. With the removal of thousands of Japanese, many schools find themselves with such an oversupply of teachers that no probationary contracts have been renewed except in shop and boys' physical education.

Areas of Scarcity and of Surplus. Teachers prepared to teach federally aided trade and industrial subjects, boys' physical education, industrial arts, and agriculture are difficult to find. These groups have been depleted by the heavy demands of the army, navy, and industry. Although science in the upper grade levels has suffered by similar but not so heavy demands, vacancies in this field can be filled with comparative ease by women who are already trained in this field.

Due to the increased employment of- fers to industrially and commercially trained students in areas near defense

industries, heavier enrollment is creating a strong demand for more teachers in clerical and business fields. Teachers are needed who can do outstanding work in teaching the skills.

The demand for many more adult classes in trade and industrial subjects and in clerical and business courses increases the need for more teachers with successful industrial or business experience of recent date. Some organizations claim that many teachers have so lost touch with the actual work conditions that their teaching is disappointing and impractical.

With the increased emphasis on Pan American relationships, Spanish is crowding other languages out of the curriculum. Many permanent teachers in other language fields realize that unless they can teach some other subject their services no longer will be required. Since they naturally shift to the Spanish, probationary or inexperienced Spanish teachers are experiencing extreme difficulty in finding vacancies.

Adaptations Which Teachers May Make. The versatility of some teachers and their willingness to shift into seemingly unrelated fields often are surprising, many of them doing work of high excellence in new fields. On the other hand, teachers are to be found who will not consider making adjustments even though thus they could secure positions. For example, one teacher has sought employment in a "classic" field in senior high schools for a period of ten months over an area of three or four counties. Regularly he "drops in" to the superintendent's office to inquire hopefully if vacancies have developed. When told of vacancies in other fields and changes in teacher needs, he shakes his head determinedly and says he will keep on looking.

The influx of enrollment due to new industries is enlarging the elementary schools, but in most places it has affected

little or not at all the junior and senior high schools. The drastic decrease in junior college enrollment is sending many junior college teachers to the senior high school fields.

If the war continues the schools probably will lose many of their men teachers to the armed forces, and both men and women teachers will go into industrial work. In the light of this fact and in view of the oversupply in English, the social studies, and languages it seems highly advisable, therefore, that teachers trained in these areas should prepare themselves for service in physical education, business education, science and mathematics, and industrial arts.

SUMMER PROGRAMS OF TEACHER RETRAINING THROUGH CONFERENCES AND WORKSHOPS

By FRANK B. LINDSAY

A NOTABLE development of the past summer has been the multiplication of opportunities for teachers to refresh themselves in special subjects in which review seemed desirable before taking on new teaching assignments occasioned by wartime demands on the schools. The requirements of war industries and aviation have brought to the fore urgent need for emphasis upon simple mathematics and mechanics at the same time that the number of teachers of science and mathematics has been seriously reduced by their withdrawal from high school to enter military services and industries. In consequence, many teachers who have not hitherto utilized their early training in elementary mathematics and physics will be called upon to instruct in these subjects during the coming school term.

A number of California cities responded to the request of the United States Office of Education to offer refresher courses in mathematics and physics. As reported on July 1 to the

State Department of Education for forwarding to Washington, the following centers were in operation:

| School System | Enrollment in | |
|--------------------|---------------|---------|
| | Mathematics | Physics |
| Berkeley | 150 | 20 |
| Burbank | 25 | 25 |
| Glendale | 135 | 23 |
| Los Angeles | 50 | 25 |
| Sacramento | 100 | 25 |
| Santa Monica | 75 | 75 |
| Santa Rosa | 20 | 20 |

In addition, at the University of California, Humboldt State College, Los Angeles City College, and in the San Diego City Schools, teachers were studying the topics and means of presentation of preflight aeronautics—a course developed by the Aviation Education Research Project sponsored jointly by the Civil Aeronautics Administration and the Office of Education. In these workshops, teachers attempted to master the materials of the relatively new field of aeronautics and to prepare source materials appropriate for units at the senior high school level. At San Diego, for example, projects of individual teachers included the development of aeronautics materials for junior and senior high school science classes and for industrial arts classes; also considered was the reorganization of the physics course to relate it more directly to war needs. Some consideration of the part junior colleges have in aviation training was given by members of the Junior College Workshop on Terminal Education held at the University of California at Los Angeles.

In general, the response of teachers to opportunities for attending the special workshops in pre-flight aeronautics instruction at Los Angeles City College and at the University of California at Berkeley and Los Angeles was disappointing. If the goal of the Civil Aeronautics Administration and the Office of Education is to be realized, certainly many more classes in pre-flight aeronautics must be offered in California

high schools during the coming school term than were indicated by these workshop enrollments.

An interesting and important educational event was the Los Angeles County Schools Workshop in Education of Mexican and Spanish-Speaking Pupils held at Montebello. American school children of Mexican- and Spanish-speaking descent were sympathetically considered by administrators and teachers intimately acquainted with their problems and opportunities in the California social scene. Among other topics of discussion were the meaning of membership in a minority group and means for bringing Mexican people into full community participation.

Participants in the workshop dealt with problems of language and reading of young children, of those in intermediate grades, and of junior and senior high school pupils. The contributions of Spanish culture to the development of Spanish-speaking pupils as American citizens was stressed.

THE SPEED-UP PROGRAM

By STEPHEN L. WALKER

THE "speed-up" program for secondary education may be gaining ground elsewhere, but school executives in California apparently are taking little stock in it. Thirty-two superintendents or their deputies, in answer to questions concerning the projected program, recently expressed frankly their belief that as yet such action is unnecessary and that for the present it is unwise. They and their actions indicate clearly that subject requirements should not be decreased, that time requirements should not be tampered with, and that the curriculum should be enriched rather than adulterated.

No school has been untouched by the war. No school is operating on the basis of "business as usual." But proposed

changes do not include the lessening of semester hours for graduation or the relaxing of subject requirements. Plans for reaching emergency objectives vary, but so great is the unanimity in regard to policy that the State's school systems may almost be considered as a unit.

During the end of May and the first week in June—late enough in the school year that possible changes for the fall semester might be revealed—thirty-five California school superintendents were sent letters asking about their plans in regard to "speeding up" the high school program. All but two answered, their replies centering around four main points: the summer school program, regular classes, subject requirements for graduation, and time requirements for graduation. These are discussed separately below.

Summer Programs. For practically every school system replying, the summer program offers the sole new possibility for acceleration. Without exception, these summer classes have been increased, broadened, or lengthened this year. Three of the cities replying state that they are offering for the first time summer classes in secondary schools. This trend is nation-wide in scope.

Summer classes center around the academic subjects; but important for the first time are shop courses—welding, sheet metal, machine operation—sciences, mathematics, and commercial subjects. Credit earned may be applied toward graduation in most schools thus operated; however, several superintendents report that classes were requested, whether or not credit was to be given.

Two city school systems in agricultural regions feel that the need for labor is so urgent that summer programs must not be allowed to compete. This is true, also, in many of the smaller high schools in farming communities.

Regular Classes. Classes offered during the school year are feeling the im-

pact of the war. New arrivals in the accepted general curriculum are home nursing, nutrition, first aid, and fire-fighting. These courses are not designed to eliminate others, but in most cases are being added to the existing list of offerings.

A demand on the part of army and navy groups is causing the addition of classes in mathematics, science, radio, and aeronautics. Commercial subjects, too, are being urgently sought, as are classes in machine shop, welding, sheet metal, plumbing, and the like.

Addition of these subjects, and increased enrollment in them, undoubtedly will cause corresponding decreases in enrollment in other subjects. If plans can be carried out, however, few subjects will be removed from the curriculum.

Subject Requirements. The school administrators who replied are unanimous in stating that subject requirements should not be lessened at the present time. There is a strong feeling on the part of several that if changes are made there should be an increase, but certainly no letting down of the bars.

Exceptions in graduation requirements are made by many systems in the case of students entering military service and those moved from their homes by the army.

Time Requirements. On this point, too, school authorities agree. A full course is recommended by practically all. Summer classes, as mentioned above, provide an opportunity for some students to supplement their semester hours and thus, in most systems, graduate early. Four superintendents state that they are maintaining their requirements in attendance; but most school systems have relaxed specific time requirements in the case of those students who do extra work and have accumulated a sufficient number of semester credits for graduation. One large school

system has gone a step further and has reduced to the state minimum the graduation requirements for seniors going immediately into defense industries or the armed forces.

By far the majority of school administrators questioned feel, however, that the high school must remain much as it is. There, they say, the foundation of education must be completed. Course and time requirements must be adhered to. Maturity to profit by further experience cannot be accomplished by edict, coaching, or cramming; and until students have reached that maturity, high school classes must be maintained for them.

In the heart of the centers of defense industry, school men consider this probant. They see in it grave implications. If, however, we can take the statement of others in less affected areas, and be guided by their judgment and verdict, California as a whole does not think that the problem is grave at the time, and it doubts that it is very likely to become so.

TRAINING, PLACEMENT, AND EMPLOYMENT PROBLEMS OF THE YOUTH OF MINORITY POPULATION GROUPS

By ARTHUR GOULD

IN DISCUSSING the subject of minority groups, it must be recognized that the only safe generalization to make is that we cannot generalize about the subject. There are reasons for this. In the first place, statements that are valid for one group often are not valid for any other. In the second place, the situation has changed so materially within recent months that conditions that prevailed in what might be called normal times do not prevail at the present time; and, possibly, conditions now existent will not continue very far beyond the close of the war emergency situation.

There is no doubt that in those centers where there are considerable numbers of young people in the minority groups, especially Mexicans and Negroes, problems concerning their training and placement have been widely recognized. Schools have found it very difficult to discover avenues of employment for these young people, and schools have not been very successful in developing training programs that are acceptable to the students and to their parents and at the same time that meet the needs of employment. The fact that this situation is somewhat changed at the present time undoubtedly is due to such factors as the urgent need for manpower, both trained and untrained, and also to the strong pronouncements of the Federal government demanding equality of training and employment opportunities. How far into peace times the present influences in the situation can carry is, of course, a matter only for conjecture. That the problem needs continuous and careful study and willingness on the part of school people to make adjustments cannot be denied.

Attitude of the Negro Group. One incident will reveal a phase of this whole problem. Not very long ago there appeared before the Los Angeles City Board of Education a committee, the chairman of which stated that a conference had been held recently to clarify the Negro's place in the war effort and to make him conscious of that place. The committee presented to the Board the question of proper training for Mexican and Negro people to participate in the war effort, stating that it was their thought to help further the war program. Another member of the committee stated that he was asking simple justice and an opportunity for the Negroes as a people to develop themselves to serve their country, stating that they wished an opportunity to do their part as citizens.

In July, 1941, a committee of Negroes appeared before the Los Angeles City Board of Education, presenting resolutions indicating that the "Negro people are not given the opportunity to work in defense industries on a basis of equality with other American workers."

Some time ago the Council of Social Agencies at Los Angeles appointed a Special Committee on the Study of the Negro Community. Under date of May 26, 1942, this special committee made a report. This report points out that "the Negroes are not a homogeneous group. There are high school and college graduates, as well as uneducated members; there are native, long-time residents, and newly arrived elements among them." Other parts of this report point out that there are such problems as the placement for Negro boys and the need for well-trained vocational counseling preliminary to placement. Adequate services in these respects seem to demand more money than is available for them through the agencies that attempt to meet these problems.

Past Difficulties in Training and Placement of Minority Groups. Placement of Mexican and Negro graduates of our schools has been a serious and difficult problem for years. In most cases, whatever success has attended efforts to place these young people has been the result of the individual personal work of school counselors, teachers, and administrators. These efforts have not been without some degree of success, but the problem has not seemed to diminish except as the pressure of the present employment needs has been of assistance. Too often there has been little relationship between any specialized training of these young people taken in high school and the placement opportunities that later develop. It may be considered typical of the situation that a rather large number of Negro girls take office work. On the other

hand, there are comparatively few openings for them in this field, and thus much training and ability go to waste. In recent months, a number of these trainees have found placement in the civil service of various political units.

In the past there has been much opportunity for Mexican girls in the operation of power-sewing machines in Los Angeles, where the garment making industry is large. This outlet, of course, would not exist in smaller communities. Mexican girls also have been widely placed in laundries. There has been some placement for office work if the girls are reasonably well-trained and intelligent.

Old and New Opportunities. The enormous development of defense industries has created some new developments for the placement of Mexican girls and for some Negro girls in two fields of work, sheet-metal and spot-welding. Reports thus far seem to indicate satisfaction in such placement.

The furniture-making industry in Los Angeles has large groups of employees. A considerable number of Mexican boys have found work in these factories in operating simple wood-working machinery, gluing, carrying away machined parts, and in work in spring departments, in renovation, and in wood carving. Employment in these lines has suffered considerably, however, because furniture factories have in many cases discontinued furniture manufacturing, turning their attention to defense industries and other activities.

There has begun a definite field of placement for relatively small groups of Negro boys in aircraft work. In most cases those with some specific training for the work have been preferred. Large groups are being asked for, and there is developing a willingness to train them

for such work as riveting. The personnel problem involved has been that of adjusting the thinking of the workers already on the job to the presence of these new workers. It can be said that prejudice is breaking down and opportunities are opening up. This seems to be a golden opportunity for these young men to prove their worth and their reliability. Something should come from this experience which will carry over to the after-war period and make the problem of training and placement of such groups much simpler in the future.

During the past two years the Los Angeles City Schools have put special emphasis on the matter of occupational guidance and on the development of training programs. Occupational guidance has included a special guidance survey for upper twelfth grade students which has been carried out most carefully for all of those about to graduate. In view of the fact that this particular guidance activity was carried on in the light of current defense activities, it had particular value for those in the minority groups about to leave school.

Summary. The whole situation may be summed up by saying that considerable success has attended efforts to prepare Mexican and Negro youth in special lines, some of which are open to them at the present time particularly on account of the general employment situation. These activities include food trades, waitress work, agriculture, auto servicing, power sewing, and routine production. It is to be hoped that the minority groups can retain some of the gains which they have made in these fields so that placement after the war is over will not be as difficult as it has been in the past. Retention of these gains will depend partly on the ability of educators in the State to recognize the new possibilities and to plan training programs to meet the needs.

Part II

CURRICULUM PATTERNS IN CITY HIGH SCHOOLS

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Chapter 5

LONG-TIME CURRICULUM PLANNING IN THE SANTA BARBARA SCHOOLS

By LILLIAN A. LAMOREAUX

IN this complex modern world, people, communities, or schools cannot live and work successfully unless they are willing to do some long time planning and evaluating. The Santa Barbara Schools came to realize that if they were to be truly effective, they must build for themselves a design for education that they believe sound. They felt that this design must be built on the needs of the community and its youth and must conform to the general pattern of national culture.

The first problem in the accomplishment of this purpose was to learn the needs and opportunities of the community and its surroundings. The 6,250 children in the City's schools come from thirty-two different culture groups which make up the citizenry of Santa Barbara Community. Santa Barbara is primarily a residential and resort city. The parents find employment in the professions, small industries, or on the out-lying farms.

A study of the turnover in school population reveals three kinds of transient pupils: those going from school to school, those from out of the city, and those from out of the state. The first group usually comes from homes where parents are on relief or have temporary employment. Many of these children are Mexican. Those from without the city usually come from oil field workers in the county and workers in the harbor. These pupils are with a given school usually only for a short period of time. Many of the students from the Mexican group miss the first

portion of each school year because they are walnut pickers.

It can be seen readily that the Santa Barbara school population represents a cross section of society whose individual needs must be met in order that they may find their place in the society of which they are a part.

The Santa Barbara staff is unable to think of guidance and curriculum as functioning apart effectively, nor can it conceive of the growth of the child and education in terms of segments of a school. It is equally impossible to consider curriculum apart from the changing social scene. The problem has been one of building a developmental curriculum from the kindergarten through the twelfth grade, built on the emerging needs of the individual, which would acquaint him with his privileges and responsibilities in the society of which he is a part.

THE staff of the Santa Barbara City Schools believes that education provides the only sure means of individual and social progress and accepts as the ultimate of education the maximum of happiness and development of the individual and society. It is the purpose of the school to provide public education for all, regardless of race, color, creed, or economic or social status. Equality of educational opportunity does not mean uniform education for all, but an educational program adapted to the needs of the various individuals. Santa Barbara aims to make it possible for each child to become richer in per

sonality and self-direction through an enlarged curriculum which is the child's life. We consider that a person who has the qualities necessary for effective democratic living will have a critical mind, will be appreciative, dependable, coöperative, purposeful, resourceful, spiritually minded, prudent, skillful, well-informed, vocationally minded, and physically fit.

There are several ways in which the school as an educational institution can be a force for achieving improvement in the direction of democratic ideals. In the first place, the school must be organized and operated on a democratic basis. Teachers should have freedom to exercise initiative in their work. Pupils and teachers should have ample opportunity to develop their potentialities and abilities in self-direction. All should have the opportunity to seek truth in all fields.

It is the function of the school to provide for individual development in life situations, to build an understanding of the place of the aesthetic and spiritual life in the development of the individual and of society. The school must help the child to establish desirable ideals of family life and to provide a basis for building a harmonious and happy home. Thus it becomes more necessary for schools to take note of vocational opportunities, hobbies, recreational activities, and other means of individual development.

The curriculum experiences in Santa Barbara are divided into two areas: the core program and the special interest program. The elementary school is entirely devoted to the core program and the development and maintenance of those skills which are necessary for living. In the junior high school and in the first two years of the senior high school, two hours of the day are devoted to the core, and the rest of the day is spent in the special interest program;

while in the twelfth grade only one hour is devoted to core, and the rest of the day is given over to the special interest program.

The core is problem centered. It deals with those common problems of boys and girls. In contrast, the special interest program is designed to provide opportunities for the development of individual powers.

IF the aims of education were to be met adequately, a design for continuous learning experiences had to be developed which was both inclusive and flexible and, at the same time, not restrictive. This broad plan of learning experiences is known as a *scope and sequence*. The scope indicates the basic life activities carried on by all people without reference to time or place. Since these activities are basic to daily living, it is the function of education to help pupils understand them and learn to carry them on successfully. These basic life activities are:

1. Developing and conserving personal resources.
2. Developing and conserving other than personal resources.
3. Producing, distributing, and consuming goods and services.
4. Communicating.
5. Transporting.
6. Re-creating and playing.
7. Expressing and satisfying spiritual and aesthetic needs.
8. Organizing and governing.

The sequence of the core curriculum is the planned, progressive sequence of areas of experience in which the child deepens his understanding of the scope, or basic life activities, each year.

Such a sequence provides for continuous learning. It guides the child in normal progress throughout his school experiences and enables him to utilize previous as well as new experiences in solving his daily problems. The se-

quence of areas of experiences for the core curriculum is stated as follows:

KINDERGARTEN AND FIRST GRADE:

Self-adjusting within the immediate environment.

SECOND GRADE:

Adjustment to the community.

THIRD GRADE:

Developing insights into the manner in which the natural and controlled environment is contributing to life in our community.

FOURTH GRADE:

Gaining insights into the manner in which the present cultural groups have adjusted to life in our community.

FIFTH GRADE:

Gaining insights into the manner in which present, as compared with former, culture-groups carry on the basic functions of human living in Santa Barbara and California.

SIXTH GRADE:

Gaining insights from problem-centered experiences directed toward the understanding of modern technics utilized in carrying out the basic functions of human living in the United States.

SEVENTH GRADE:

Gaining insights from problem-centered experiences directed toward the understanding of interdependence of individuals and other people in our school, community, regions of our nation, and our American neighbors.

EIGHTH GRADE:

Gaining insights from problem-centered experiences directed toward the understanding of how man's courage, knowledge, discoveries, and inventions have affected his way of living.

NINTH GRADE:

Gaining insights from problem-centered experiences directed toward the understanding and appreciation of the individual's privileges and responsibilities as an American citizen.

TENTH GRADE:

Gaining insights from problem-centered experiences directed toward happy and effective personal, spiritual, social, recreational, and vocational living in the home, school, and community.

ELEVENTH AND TWELFTH GRADES:

Gaining insights from problem-centered experiences directed toward the achievement of the highest possible quality of human experiences through striving for social, political,

and economic democracy in its local, state, and national setting for peace and cooperation on the international scene.

In making preparation for a class, the teacher keeps in mind the larger aims of education and the characteristics of the citizen he is trying to develop as well as the scope and sequence given for the grade level. He turns to all cumulative records for the individuals that comprise the class and confers with the former teacher of the group and with the principal. He notices past experiences, present abilities, interests, and needs of the pupil.

Using these data as a starting point, the teacher anticipates experiences for the given group in the sequential area for his grade, which will meet the needs of the pupil and at the same time be stimulating and satisfying to the group as they solve problems which help them make adjustments to, and gain deeper understandings of, the world of which they are a part. Each sequential area has many, many unit possibilities. Teachers and pupils have freedom to follow their interests within a given area.

The special interest program offers opportunities for three types of classroom experiences. One type is organized around the common subject material interests. In this type specific subject matter materials, skills, and understandings are logically organized for the purpose of teaching a preconceived body of knowledge. Another type of class is the laboratory type which is organized around a variety of interests within a broad field. The laboratory type offers more opportunity to give attention to the individual or small group needs and is more flexible as to subject matter and method of presentation. These classes are organized around a common area of interests and offer various opportunities to meet the needs of students. A third type of specialized interest experience is in the field of vocational training.

BY seeing that the classroom and student activities are organized in accordance with the democratic principle, we provide the growing child with a democratic environment in which he may come to understand and appreciate the characteristics of democratic organization. Democratic organization in the classroom is based first of all on the teacher's recognition of the needs and interests common to the group. Believing that learning occurs most effectively when the learner is aware of the need for it, the teacher helps individuals in groups to become conscious of their needs and interests and enlists their aid in planning the work of the class on this basis.

A democratic classroom is stimulating and challenging. It arouses consciousness of existing needs and interests as well as stimulating new ones. Individuals must feel confident that their problems are of importance and that their opinions are acceptable and valuable to the group.

The understanding of the privileges and obligations shared by the members of the group is an essential part of democratic environment. Opportunities are offered for students to participate in the formulation of problems to be studied and in setting up goals to be accomplished. Students also assume responsibility for planning the organization of the class necessary to carry out the solution of the problems. There is a sharing of the findings of the group or individuals delegated to specific tasks, and groups participate in the evaluation of the work carried on.

Such a program as outlined necessitates constant evaluation on the part of the department of curriculum, the classroom teacher, and the classroom pupil. Pupil behavior is the focal point for evaluation. At Santa Barbara standardized tests are used for serving as tools for guiding instruction in the improve-

ment of skills. Analysis sheets for pupil or teacher use, as well as behavioral rating scales for teachers' use, are being developed. It is the desire of the staff to build eventually instruments which will guide in the evaluation of all the activities in which the child engages on all levels.

A CURRICULUM revision program in Santa Barbara City Schools has been under way for six years. The first year was given over to basic study in the fields of philosophy, psychology, and curriculum trends under the guidance of members of the staff of the School of Education, Stanford University. The following year, the Stanford staff was appointed to serve as consultants. A director of curriculum was appointed, and a general curriculum committee was formed. That year the general curriculum committee worked on two major problems: the formulation of objectives and the over-all school design, putting their major work on scope and sequence.

As a result of these first two years' work certain guiding policies developed: (1) for consecutive, creative thinking it is wise to release teachers from classroom duty a day or two at a time for work in the curriculum laboratory; (2) the membership of each committee should represent a cross-section of the entire school; (3) 100 per cent participation on the part of teachers in curriculum building is necessary if improvement in the classroom is to be based on growth in teacher understanding; (4) every committee should be predominantly composed of classroom teachers; (5) curriculum development serves as a means of in-service training of teachers, and, therefore, the personnel of each committee should be selected from the standpoint of the contribution the individual can make to the committee or the contribution the committee can make to the individual; (6) each representative of the central committees

serves as a chairman of a sub-committee.

The following organization has evolved at Santa Barbara:

1. Curriculum director.
2. General Curriculum Committee.
 - (a) Aims and objectives.
 - (b) Scope and sequence.
 - (c) Editing.
3. Developing Power in the Skills Committee.
 - (a) Reading and communication.
 - (b) Arithmetic.
 - (c) Music.
 - (d) Art.
 - (e) Physical education and health.
4. Special Interest Areas Committee, composed of representatives from all special fields.
5. Evaluation Committee.
6. Curriculum Consultants.
 - (a) Staff of the School of Education, Stanford University.
 - (b) Representatives from major universities and educational organizations throughout the United States.

The *Skills Committee* was formed, at the request of teachers, to examine skill developmental opportunities in the core program and to give specific help in building power in the skills. Five skill committees were set up as listed above. Each committee was composed of people representing a cross-section of the school system. These committees studied hundreds of units that have been developed in the schools over a period of years. They examined these units, first to determine what skill opportunities have been provided for in these units and, next, to learn what skills could have been developed if the teachers had been alert to every opportunity. After that they studied playground and out-of-school activities to discover other skills that boys and girls need for daily living. Since the Santa Barbara program is a developmental one, the committees decided to develop a skills program that would guide teachers in analyzing and determining child needs and

offer help in fitting instruction to the needs of the children. The skills as presented in this program, therefore, are not developed according to grade levels, but rather as developmental phases.

A *Special Interest Committee* was formed to study each specialized field. This committee first reviewed the general problem of core organization to see what was included in the core and what was not. After that, each member of the committee held a series of meetings with other teachers of the secondary schools in his own special interest field to get suggestions from them regarding the content of the special interest in that given field. Out of these discussions the major plan evolved for the special interest program.

The *Evaluation Committee* is a continuous committee of which the membership rotates. It provides an excellent opportunity for members to gain techniques and experience for proceeding with and evaluating the program. The members of this committee are on the alert for evaluation tools and procedures used by other teachers in the system. The committee serves not only as an organization for devising new techniques and instruments, but as a center for disseminating such information.

Other committees have appeared as the program developed and needs became apparent, such as a *Records Committee*, a *Visual Aids Committee*, *Citizenship Committee*, *Promotion Policy Committee*, et cetera. Some of these committees have become continuing groups, while others are formed to meet a present need and then are disbanded.

A need for workshops became apparent as the program progressed. These workshops may be composed of teachers who desire to study newer techniques, or they may be for the purpose of building instructional materials, while still other teachers may be in-

terested in studying more carefully and pointedly a certain phase of child development.

Some of these workshops are held during the school year, after school hours, under the guidance of the supervisors. Others are held each summer for a six-weeks period. Attendance at all these workshops is voluntary. They are attended because they are centered around the recognized needs of the

teachers, and the teachers feel repaid for their efforts.

THE present emergency has brought to the realization of the Santa Barbara staff the soundness of a guidance curriculum design based on problems centered in basic life activities. The program allows for flexibility so that the emerging needs of boys and girls always can be met.

Chapter 6

CURRICULUM DEVELOPMENT IN THE OAKLAND HIGH SCHOOLS

By ROBERT E. BROWNEE, VIBELLA MARTIN, and JOSEPH WOODFIN

THE school as an institution fulfills the aspirations of parents for their children. The extent of this fulfillment is conditioned by the enlightenment of citizens, the available wealth, the professional competence of teachers, and the educational leadership through which this competence becomes effective. The program of studies is indigenous to the social and institutional environment and is most meaningful when viewed in its proper setting and against its own background. The curriculum of the Oakland high schools, therefore, is most intelligible when viewed in relation to the community it serves.

The city of Oakland is one of eight municipalities in the metropolitan area on the east shore of San Francisco Bay. Within the city limits from the water front to the lower reaches of the first coastal range, five activity zones are roughly discernible: the ocean-rail terminal section, the industrial district, the commercial centers, the city homes and apartments, and the recent suburban subdivisions.¹

Along the brow of the hill, in the restricted districts, are the more pretentious single-family residences. On the flats below, in the unrestricted areas, are the smaller cottages and multiple-family dwellings. In this lower section live the majority of the city's population. Here are most of the racial minority groups, most of the renters, most of the transients, most of the houses in disrepair or in process of conversion. Here also is the highest incidence of communicable disease, crime, and juvenile delinquency. While conditions in

some parts of the city have improved recently, the over-all picture remains. Habitability, values, and rents of residential property are approximately proportional to the distance from and the altitude above the industrial and commercial centers, and living standards vary in similar proportion.

One adult trade school, one adult business school, eight senior high schools, fourteen junior high schools, and forty-nine elementary schools comprise the Oakland system. Into the high schools, situated for the most part about halfway between the ocean-rail terminal section and the suburban hills, come the children of the native and the foreign-born, the rich and the poor, the employer and the employee. While the proportion of children in each classification varies throughout the city, every high school enrolls some students from every racial, social, and economic group. Every high school, therefore, endeavors to provide appropriate schooling for all and to minister to each according to his ability and according to his need.

WITH due attention to both the personal and social aspects of the maturing individual, the curriculum contributes to child development in a democratic society. It may be defined as the background of experiences, both class and extra-class, which the school provides for particularized groups, the basis of particularization varying in terms of anticipated outcomes and the changing needs, goals, and resources of boys and girls. The plan, therefore, is longitudinal rather than cross-sectional. Within the limitations of local conditions and of social requirements, the

¹1936 Real Property Survey, Works Progress Administration Project Number 2309, Oakland City Planning Commission, November, 1937.

content, procedures, and activities adjust to the evolving personality of the child, and proper attention to articulation and orientation promotes the continuity of his development as he passes from home to school, from school to school, and from school to adult life.

The teacher directs the experiences of boys and girls in particularized groups. The school plant, the courses of study, the textbooks, the visual equipment, the administrative, supervisory, and guidance staffs—all are but the resources which the teacher uses, either in discovering the characteristics of children or in providing or enriching the experiences that comprise the curriculum. Curriculum development, therefore, cannot be a task assigned by some one in authority. It is an inherent part and function of teaching. It involves continuous evaluation of practices and continuous adaptation to personal and social needs of children and to the inevitabilities of time and place.

THE Oakland program of curriculum development begins with the teacher in the classroom and grows through his association with other teachers and through the guidance and counsel of the supervisory, research, and administrative staff. In every high school there are chairmen of classifications,² usually one for the basic subjects and one for the specialized subjects. Selected for their leadership and ability, these chairmen devote approximately one-third of their school day to curriculum study, planning, and coordination.

The chairmen meet semi-monthly with the curriculum coordinator for the Oakland Public Schools or with her assistant at the Administration Building. These meetings are devoted to the consideration of common problems in all the high schools and serve also as a clearing house for plans, policies, and practices. Here the individual chair-

man becomes aware that not only is he a member of the staff of a single school but that also he is a part of the whole school system. The provincialism that characterizes anyone who spends most of his professional life in a single institution gives way to a more cosmopolitan spirit. He begins to think in terms of *our schools* instead of *my school*. Best of all, he has an opportunity to share with others the resources of his own professional experience and to make available to his fellow teachers the results of the experience of other teachers in other schools throughout the city.

In their own high schools, the chairmen of classifications are members of an instructional council, which includes, in addition to themselves, the principal and the vice-principals. In this council the problems of curriculum in relation to guidance and administration are viewed in the light of common policy. Here the ideas and plans of the chairmen of classifications and of the various members of the administrative staff are presented for discussion and are developed into a feasible program. Under the direction of the principal, it is the business of the chairmen to carry forward this program. In doing so they meet with teachers, counselors, departmental groups, and city supervisors and coordinators and thus are able to mobilize the total resources of their own school and of the Oakland Public Schools at the point of greatest need.

Through the office of the coordinator of instruction a direct relationship exists between the instructional council of the individual schools and the general program of the Oakland Public Schools. Because of this relationship, lines of communication between the classroom and the members of the general staff and between the general staff and the classroom are maintained on a cooperative basis to the advantage of all.

Ordinarily Oakland does not bring

²William R. Odell "Flexibility in Instructional Leader-

in outside consultants to assist in developing the curriculum. It emphasizes the development and use of its own staff. While Oakland coöperates with the University of California in training teachers and in maintaining a curriculum laboratory, and occasionally has joined with the General Education Board, the State Office of Education, and other agencies in various in-service investigations of child and adolescent development and curriculum modification, the chief purpose of these investigations has been to develop the teaching force and, through them, to improve the practices and procedures in the school and in the classroom. One of the advantages of a large system is that it can afford its own staff of consultants.

In brief, the Oakland plan for curriculum development is one that fosters flexibility rather than blind uniformity and that depends upon professional coöperation and common philosophy to engender essential unity. It utilizes the best leaders and the best minds of the whole teaching force to stimulate the thinking and activity of all, and it coördinates the efforts of teachers, supervisors, research workers, and administrators in the interests of the child.

THE curriculum is made up of two kinds of courses: those essential to the citizen in a democratic society and those essential to the individual because of his own particular purposes, interests and goals. The former comprise the general or basic curriculum, the latter, the specialized or specialist curriculum.

The special curriculum is concerned with the knowledge, attitudes, skills, and behaviors required for effective use of the content of a particular area, such as algebra, chemistry, or typewriting—content that is systematically organized and that is prerequisite for advanced courses and for specific vocations. The standards in this curriculum tend to be

fixed and exterior and usually contribute to a remote rather than an immediate goal.

The basic curriculum, on the other hand, promotes the growth of the student in the attitudes, behaviors, and knowledge that will concern him as a human organism, as a member of a family, as a citizen in the school and in the community, and as a participant in the economic order.

The essential outcomes of the basic curriculum are achieved in the core of required subjects,³ supplemented by the social program and by the unspecialized courses in art, manual arts, music, mathematics, English, and science. The unspecialized elective subjects serve individualized needs and promote aptitudes and interests through experiences in addition to or in extension of those afforded by the required core. Even in the required curriculum, however, the content and activities should not be construed as fixed and permanent. Merely the areas of experience are predetermined—the specific content, procedures, and outcomes being selected after a complete appraisal of the class and after pupils and teacher together have defined the purposes of the course and have developed criteria for the choice of content and activities and for evaluating individual achievement.

Viewed in this light, since basic subjects rest upon inner rather than exterior standards, sequence for the most part corresponds with the pupil's development and his readiness to learn. The minimum essentials in a basic course usually are the most the individual student can achieve with what he has, under prevailing conditions; ordinarily they are not prerequisite to other courses. The large areas of human experience covered by the core are based on life functions in a democracy, but the specific content, activities, and

³Robert E. Brownlee, "Developing Core Curriculum at University High School," *University High School Journal*,

procedures grow out of teacher-pupil planning in individualized groups in particular school situations. It is reasonable to expect, therefore, that the core program would vary from community to community and from school to school.

Considerable differentiation in the extent and organization of the core program prevails among the eight high schools in Oakland. All have senior problems and eleventh grade American history and government, all have orientation for the entering student, and all fulfill the legal requirement in physical education. Usually the core program cuts across the fields of science, English, social studies, physical education, home economics, and, to a lesser degree, art and music. In one or two schools this content, except for physical education, is fused or synthesized into an undepartmentalized curriculum, taught for the most part by general practitioners rath-

er than by subject specialists. In other schools the content is segregated and taught by subject teachers, either in time blocks of two or three consecutive periods or in periods scattered throughout the day. In the core, most schools also schedule guidance instruction, given sometimes by teachers and sometimes by counselors; and several include the usual homeroom activities.

THE outline below indicates the essential areas of the core curriculum exclusive of physical education, with statements of representative outcomes and procedures. Segregation usually is based on a combination of factors and is varied in different subjects to accord with outcomes anticipated. Recommendations of core teachers and counselors, reading ability, interests, social maturity, achievement, vocational and educational goals are among the prevailing considerations.

THE CORE CURRICULUM IN OAKLAND

TENTH GRADE

The Student in the School, in the Home, and in the Community (Orientation, English, Science, Social Studies)

Representative Procedures

Excursions to dairies, filtration plants, orphanages, social agencies, sanitariums.

Laboratory work on circulation, bacteria, sanitation, and heredity.

Scheduling of speakers from agencies such as Red Cross, Community Chest, public health service.

Use of sound films: filtration, first aid, famous scientists, civilian defense.

Reading from references: magazines, pamphlets, bulletins, stories, and biographies.

Recreational reading based on range in time and space, in types, and in degree of maturity.

Experiences in graphic illustration in writing, speaking, and use of essentials of English fundamentals.

Use of diagnostic tests to survey information, skills, achievement, interests, and attitudes.

Use of evaluation instruments to determine status and to establish a basis for planning: Interest Index, Voluntary Reading, Interpretation of Data, Application of Principles, Nature of Proof.

Representative outcomes

Orienting the student to the culture of a new school in a democracy at war.

Appraising and interpreting status, interests, and abilities.

Planning the next step in relation to goals, services, and resources.

Developing personal skills.

Developing social relationships and social techniques in and out of school.

Exploring occupational and recreational activities.

Understanding the family as a social institution; its provisions for security, safety, and protection; its basis in heredity and environment; its place in a democratic country at war.

Understanding some of the functions of the community in promoting and protecting the teen age, in conserving health, in providing employment, and in improving living conditions.

ELEVENTH GRADE

The Student in the Community, the Nation, and the World

(*The History of the Evolving Democracy of the United States—low-eleven*)
 (*Problems of Democracy—Political, Social, and Economic—High-eleven*)

Representative Procedures

Developing skills essential to panel discussions, debates, forums, taking notes, making outlines, organizing topical material.

Creating and presenting pictorial illustrations: graphs, diagrams, charts, sketches, maps, cartoons.

Developing study skills in using and evaluating newspapers, magazines, library sources, motion pictures, and radio programs.

Thinking critically on controversial issues, with emphasis upon analysis of propaganda and its effects.

Using evaluation instruments to show changes in interests, attitudes, and critical thinking: such as Application of Principles in Social Problems, Scale of Beliefs, Social Concepts, Interpretation of Data, and Controversial Writing.

Representative Outcomes

Promoting individual interests and abilities.

Appraising present status of a citizen in a national and world culture with emphasis upon services, attitudes, beliefs, behavior, ability to think critically and to act appropriately on public problems.

Understanding the steps in the evolving democracy of the United States.

Studying the problems of individual enterprise in relation to human welfare.

Understanding the purposes and causes of the war.

Studying intensively specific current problems in relation to the war emergency, such as housing, the migratory worker, public health and medicine, labor relations, civilian defense, public morale, and personal responsibility and service.

TWELFTH GRADE

The Student Now and After High School

(Senior Problems)

Representative Procedures

Reading for comprehension, appreciation, and enjoyment.

Writing frequently for correctness and clearness.

Listening to speakers; attending forums, conferences; viewing films on employment and service in the national emergency.

Taking field trips to various industries, trade and business schools, colleges, stores, and art galleries.

Developing skills in library research, précis writing, preparation of term papers, taking tests.

Evaluating changes through the use of instruments: such as Interpretation of Data, Interest Index, Voluntary Reading, Application of Principles.

Interviewing officials of the United States Junior Employment Service regarding placement.

Representative Outcomes

Appraising personal development, status, and fitness for the next step, for adult life, and for the nation's need.

Orienting to adult institutions and culture in the community.

Acquiring functional information and skills, with reference to:

Finding employment.

Homemaking.

Enjoying leisure.

Earning and spending money.

Appreciating the arts—especially literature.

Expressing thought clearly and logically.

Understanding the needs of the fighting forces and production services of the nation.

Participating in Civilian Defense and the war emergency program.

IN all the high schools, a broad extra-class social program extends and supplements the regular curriculum. A flexible administration permits the extra-class schedule to modify the school day

as occasion demands, and many activities, such as those developing out of dramatics, music, assemblies, journalism, and athletics, use both class and extraclass time.

AS IS indicated by names such as Chemistry Club, Commercial Club, Socionomic Club, and many others, the smaller interest and discussion groups are related closely to subject fields. The students' associations, the leagues for boys and for girls, the class-grade organizations—while they involve subject groups in many instances—are mostly a step removed from class activity. Students in art, for example, might design placecards and programs for a class dinner-dance; those in government prepare a new studentbody constitution; or those in tenth-grade orientation survey the whole social program; yet the interest of these subject groups in these larger organizations would for the most part be secondary. On the whole the social program extends and supplements both the basic and the specialized curriculum.

Evaluation in the Oakland high schools is based on a definite system of values. Since educational activities are directed toward the personal and social development of boys and girls in a democracy, teachers in accordance with this purpose formulate specific outcomes, select content and procedures, and develop appropriate class activities. Thereafter, they endeavor to verify outcomes in terms of individual growth and to appraise the contributions of both the process and the content in the changes effected. Evaluation, therefore, when carried on consistently and thoughtfully results in more effective planning, more interesting and significant classroom experiences, more appropriate content, and a clearer definition of outcomes.

Teachers select instruments and methods of evaluation appropriate to

the kinds of interpretations anticipated and supplement findings with the total information available from all sources. Observations of student participation and performance; inventories of interests, attitudes, beliefs, and appreciations; tests of achievement, of knowledge, of skills, and of critical thinking all have a place in the evaluation program.

IN summary it may be said that the curriculum in the Oakland high schools is directed toward the satisfaction of the personal and social needs of boys and girls maturing in this particular urban community. The teachers, with the guidance and counsel of coördinators, supervisors, and administrators, plan with pupils the experiences that comprise the curriculum and work with chairmen of classifications on the instructional problems of the different schools. One instructional council in each of the eight high schools and one in the central office coördinate the activities of curriculum, guidance, and instruction. Through the coördinator of curriculum, who meets semi-monthly with all chairmen of classifications, coöperative relationships are maintained between the instructional councils in the different schools and the central instructional council.

Subjects are classified as basic and specialized. The core of required subjects includes the experiences that all should have for effective participation in a democracy. The extraclass social program supplements both the special and the basic curriculum. Through a well organized program of evaluation, content, procedures, and outcomes are subjected to continuous appraisal.

Chapter 7

ORGANIZATION FOR CURRICULUM PLANNING IN THE LOS ANGELES CITY SCHOOLS

By ARTHUR GOULD

ADMINISTRATIVE planning for continuous curriculum development has been recognized as a necessary and sound part of the Los Angeles City School System for approximately twenty years. The form of organization during that time has changed in some respects, but during all that time the active head of the planning has been the superintendent.

Under present procedures a deputy superintendent is designated as having general charge of curriculum and instructional activities. Immediate responsibility for curriculum planning falls to a Curriculum Section in charge of a director. Associated with him are general and special curriculum supervisors in both the elementary field and in the secondary field. The plan just indicated helps to keep a good coordination between the various phases of curriculum work.

Numerous committees take broad responsibilities in connection with the work of the Curriculum Section. Some of these are permanent committees, and some are summoned for specific purposes. Three permanent groups deserve special mention.

The first of these is a group made up of all the head supervisors of educational activities. This group meets twice a month to discuss curriculum problems. In the group are included, with the general and special curriculum supervisors, the head librarian, the head supervisor of visual education, and the supervisor of equipment and supplies.

The second group which should be mentioned is called the Secondary Curriculum Advisory Committee. This consists of the superintendents and supervisors having to do with the secondary schools and of representative principals from the secondary schools. This group brings to the Curriculum Section the help of the practical school administrator in identifying his problems and proposing solutions.

Another similar committee is the Elementary Curriculum Advisory Committee. This committee has functions quite similar to those exercised by the Secondary Curriculum Advisory Committee.

IN curriculum work our first objective is to get as widespread a democratic participation as possible in the formulation of broad policies and general plans. Second, we seek to encourage individual schools to undertake extensive local planning as the only sound basis for adequately meeting pupil needs. The problems, concerns, and interests of boys and girls living in the many communities constituting the city of Los Angeles are the starting point in all of our curriculum activity. Experimentation is encouraged and supported as an effective way for bringing about sound improvement. Efforts are made to bring to teachers and principals significant new educational practices and developments throughout the country and to help them find more effective ways of achieving desirable objectives within their local situations.

The summer workshop is one of the more recently established techniques for curriculum improvement used in the city. Two workshops have been held to date. The attendance of teachers and administrators, which the first summer was 600 and the second summer 1300, indicates the wide interest in this activity. The workshop provides an opportunity for a more intensive and a richer type of in-service study and for effective personal and group relations than can be obtained through institute meetings and other activities held during the school year. Teachers and administrators bring their own problems to the workshop and work on them under the leadership of those who have had special training and experience in the fields wherein these problems lie.

As a result of our two summers of experience we have concluded that the workshop is one of the most practical ways in which the central staff can be of assistance to teachers. Understanding of pupil growth and needs is extended. Craft and skill training and specific teaching techniques very much desired by many in the city schools are provided. Teachers in schools in one part of the city find opportunity to work and plan with teachers with similar problems in schools in other parts of the city. Valuable creative and recreational opportunities are provided, and, most important of all, the democratic process in school relationships is strengthened and fortified.

THE Curriculum Division provides curriculum aids, source units, course plans, and so on, for all teachers who desire such materials. Curriculum plans after experimental try-out and after the development of materials by representative committees of teachers and administrators are made available for city-wide use. One example of curriculum aids is the chart used to provide a picture of a course or program in a concise,

readily usable outline form. Thus the double-period junior high school social living program in Los Angeles is described in a 25 inch by 30½ inch chart which gives in short sentences and summary outline form, organized in columns, the following data for each of the three junior high school grades:

- A. Philosophy and objectives
- B. Basic program
 1. Orientation and guidance
 2. Description of the course
 3. Basic texts
- C. Enrichment areas
 1. Recreational reading
 2. Historical and social backgrounds
 3. Related activities in geography
 4. Fine arts and crafts
- D. Fundamental skills
 1. Reading improvement
 2. Speech activities
 3. Composition and grammar
 4. Use of books and library
- E. Curriculum aids
 1. Audio-visual program
 2. Studies now in progress
 3. Curriculum section publications
- F. American ideals and citizenship

Other charts developed during recent years are "The Elementary Curriculum," "Junior High School Science Program," "American Life and Institutions," (for the eleventh grade basic course), and "Chart of Speech Education." All have met with enthusiastic response from teachers and principals. Charts have their short-comings, but they do meet a need of keeping before teachers and administrators a picture of the larger, evolving curriculum pattern and of giving readily available suggestions and techniques whereby each school may undertake its own curriculum planning in terms of local pupil needs.

City-wide modifications in curriculum policies and graduation requirements are developed democratically and are introduced into schools only after successful experimentation in representative centers in the city. This policy has

resulted in widespread coöperation in curriculum improvement.

All new policies are established in tentative form by curriculum advisory committees. Teachers and principals in all schools are given opportunity to share in the thinking before final conclusions as to desirable changes are made. Schools are then given from one to two years to introduce new procedures. At all times individual schools, while being required to adhere to the general framework of the city-wide program, are given the widest possible latitude in interpreting policies and adapting them to local needs.

AN example of this democratic procedure is the series of regional conferences held this spring with senior high school principals to consider war-time curriculum adjustments. The following proposals for changes were presented to all principals for reaction and suggestion. Those which are found to be satisfactory for all schools will be introduced at the beginning of next semester, or as soon thereafter as necessary adjustments can be made.

PROPOSALS FOR WAR-TIME CURRICULUM ADJUSTMENT

Purposes:

1. To extend the opportunities for practical training for all high school students.
2. To introduce courses which will prepare pupils more directly for military service and for defense work than now does the regular high school program of studies.
3. To accelerate high school graduation for selected pupils in academic and vocational fields.
4. To continue a sound and balanced emphasis upon both general and special education for the large majority of high school pupils to meet war and post-war needs of the individual and society.

Proposals:

1. Maintain the present program of required basic studies and electives for the large majority of pupils for whom it is best to continue the regular curriculum program as near normal as possible.

2. Excuse *selected vocational students* where necessary from certain required courses in the upper semesters as a means of accelerating graduation and of increasing vocational preparation.

3. Encourage *selected academic pupils* to carry five academic subjects as means of completing the high school course in less than the regular time. In no case, however, should pupils be graduated from high school before the completion of the eleventh year.

4. Reduce the need for twelfth grade remedial English and arithmetic by a continual and strengthened emphasis upon *fundamental skills* throughout Grades 9, 10, and 11.

5. *Lengthen the school day* so as to provide an additional period of time for electives and practical training.

6. Restrict to five semester units the total number of local graduation requirements which may be established by an individual school, this being done to relieve the present crowdedness of the curriculum.

7. As one means of reducing the number of requirements, accept *Business Correspondence* in all schools as meeting the fourth semester of the English requirement.

8. Offer *Life Science as a laboratory science* in all schools so that non-college pupils can meet both the Life Science and the laboratory science graduation requirements through the tenth year basic science course. Also, accept Tenth Grade Agriculture as meeting the Life Science requirement.

9. Increase the mathematics study of industrial arts students (1) by requiring of all pupils *one semester of Applied Mathematics* and (2) by urging pupils with interest and ability in mathematics to take *Applied Mathematics II*.

10. Offer a *course in Military and Industrial Mathematics* in all schools to provide background and application of arithmetic, algebra, plane geometry, and trigonometry for boys expecting to enter defense work or military service as technicians.

11. Extend the opportunities for college as well as non-college pupils to get *industrial arts and applied science training*, including a study of tools and machines, natural and synthetic materials, engines, aeroplanes, photography, radio, electricity, and meteorology and underlying scientific principles.

12. Through a promotional guidance program, encourage a larger percentage of superior students to prepare themselves for college study and professional work in the fields of *academic mathematics and physical*

sciences. There is a great demand today, in the armed forces and in industry, for men with a thorough background of preparation in mathematics and the sciences.

13. Provide basic training in physical and political geography for all pupils in eleventh grade social studies and Senior Problems. Military authorities request an increased emphasis on geography.

14. Introduce a *course in military and civil aeronautics* for boys interested in entering the United States Army and Navy Air Corps or industrial aeronautics.

15. Give credit toward graduation for *out-of-school work experience* as one means of increasing the practical emphasis during the high school years.

16. Offer a new high school major, combining practical and academic training, to be called *Military and Industrial Leadership Curriculum*. Its purposes will be to give a balanced training in industrial arts, commerce, mathematics, and physical science. This broad background is needed in many positions in defense industries and the armed services. The major will consist of three full years of industrial arts and/or commerce, one year of physical science, and one and one-half years of mathematics above Grade 9.

17. Offer *new elective courses in the practical arts*, wherever there is sufficient demand, to prepare pupils for specialized branches of the armed services. As an example, the new course in radio communication prepares boys for entrance into military service in the field of radio communication. Other courses such as the one on internal combustion engines and a shop course for girls are being developed at the present time. These should be introduced immediately into schools throughout the city where there is need for the training.

CONSULTANTS from outside the city have provided one of the most valuable aids to curriculum improvement in Los Angeles. This city has been privileged to have had generous assistance from staff members of the Commission on the Relation of School and College of the Progressive Education Association and of the Commission on Teacher Education of the American Council of Education. In addition, during recent years, Paul Hanna and J. Paul Leonard of Stanford University have, on several occasions, been called

in for curriculum assistance. These outside contacts are a real stimulus and encouragement to teachers, principals, and supervisors and are considered a valuable part of the curriculum improvement program.

One example of a successful use of out-of-city consultants is the intensive conference extending over a period of days. For example, an extended conference with H. H. Giles of the Eight-Year Study staff as a leader centered around the theme, "The Arts in General Education." Five half-days, Monday through Friday, were devoted to an intensive study of the meaning of democracy, the purposes of education in a democracy, the unique contribution of the arts to general education, the problems of the arts, and how these problems might be solved. Thirty representative teachers and administrators, excused from their regular school duties, participated throughout the week and gave indication at the end of the conference of the great value of this type of experience.

Widespread participation of teachers in the selection of text and supplementary books, audio-visual aids, and classroom supplies has proved another effective device for stimulating growth of teachers and for bringing about an improvement in classroom procedures. Textbook policies have been considerably liberalized as a part of the curriculum improvement program, and adoption procedures have been made more democratic. It is the policy of the Board of Education to adopt, for most courses, several basic texts to meet widely divergent levels of reading ability. In addition, titles of a supplementary nature containing enriching material also are adopted.

All textbook studies are conducted by central committees of representative teachers selected by the assistant superintendents and the Curriculum Office.

The teachers in a field in which new studies are being made are given an opportunity to study basic titles under consideration and to render an advisory vote to central committees which work under the guidance of members of the supervisory staff. The Curriculum Office, accepting the results of committee and teacher studies, makes its recommendations to the superintendent for approval and adoption by the Board of Education.

Teachers and administrators have indicated on a number of occasions the feeling that the textbook program has been one of the most helpful services of the Curriculum Office in implementing an improved curriculum program.

Many other things have helped in the work of the Curriculum Office, including in particular the procedures whereby outstanding teachers in the field are brought into the curriculum work for varying periods to serve as leaders in the in-service improvement program. Teachers needing assistance readily accept the leadership of other teachers who have faced problems similar to their own. It has been found also that teachers who become members of the curriculum staff gain much from their city-wide experiences to take with them

when they return to service in the schools. Rotation of staff members is an established curriculum policy and one which has proved exceedingly valuable.

IN A large city a curriculum division can have little influence if it does not work consistently over a period of years in terms of certain rather clearly established objectives which are widely accepted and understood. Time is an important factor. Fundamental, enduring changes come slowly. Patience and persistence probably are the two qualities which seem to be needed the most, for often it is found necessary to wait one, two, three years or more; and then if during the intervening period there is ample opportunity for conference and discussion obstacles seem oftener than not to fade away. Progress is based on a common acceptance of desirable adjustments.

Most of all we seek to maintain close working relations between curriculum workers and teachers. We try to keep fully informed on the problems and needs of each school. And we strive to include widespread and representative principal and teacher participation in all curriculum improvement activities.

Chapter 8

PALO ALTO HIGH SCHOOL PARTICIPATES IN A CITY-WIDE CURRICULUM REVISION PROGRAM

By IVAN H. LINDER

PALO ALTO Senior High School, part of the Palo Alto Unified School District, has an enrollment of 850 students. Palo Alto as an educational community differs in significant ways from the usual California school community. A larger percentage of our students come from homes offering superior cultural advantages; the general level of ability as measured by intelligence tests and later success in college is higher, and the prestige of preparation for college is significantly more dominating than in the average community.

The high school throughout its long history has reflected this community preference for high academic standards. Palo Alto Senior High School has nearly 12 per cent of its students in the California Scholarship Federation, whereas the average in other high schools is 6 per cent, and a 10 per cent affiliation is viewed with misgivings by the state officers of this organization. From 7 to 75 per cent of our graduates enter college.

It should not be construed from this that we do not have students of low ability or of non-academic interests. The number of students unable to profit by strictly academic and college preparatory courses is now on the increase in our community. The relatively slender offerings for non-academic students may be accounted for in part by the academically selective nature of our high school program, in part by the social prestige of college preparation, and to a considerable extent by the community pride attending the large per cent of our

students who do succeed at the college preparatory program.

PALO Alto Senior High School has been striving for the last five years to strengthen the program for the student who does not intend to go on to college or who has demonstrated his inability to carry college preparatory courses. Even for the college preparatory students there is a definite weakness in a secondary program, the values of which are pointed too exclusively to later education, and the fulcrum of whose student effort rests on future plans often to the neglect of present needs. In such a school the worth of the instruction is decidedly diminished when it is not built on a full recognition of the educational values of immediate associations.

A brief statement of a master set of institutional objectives formulated by our faculty gives a simple view of the guiding values to which our program now seeks to adhere. These objectives are as follows :

1. To continue to carry on toward the general objective of helping the student to take a responsible, constructive part in the life of the school and the community.

2. To develop an understanding and an appreciation of the principles, the purposes, and the practices of the democratic state.

3. To provide an environment favorable to the physical health of the students and to the development of wholesome attitudes toward themselves, their activities, and their relationships with others.

4. To open up to the students worth-while fields of interest.

5. To help the students to find desirable outlets for their growing needs for self-direction and self-expression.

6. To offer opportunities for acquiring skills, techniques, knowledge, and understandings that will be valuable to (a) the student whose formal schooling will end with graduation from high school or earlier, and (b) the student who will enter some specialized or advanced school.

OUR curriculum development program to date has been along three main lines, with a fourth one just now emerging.

1. As a part of the Palo Alto Unified School District, the high school has participated in vertical committees to coordinate the work of the senior high school with that of the lower schools. These committees have sought to establish continuity throughout the grades, eliminate needless duplication, and give the staff of the entire system a concept of the common implications of curriculum problems on all levels.

2. Along with this participation in the curriculum program of the entire system, the high school has had its own horizontal committees. Most of these committees have been in separate subject fields. Their work has been largely enrichment of existing courses, development of some new courses, and addition of a number of new units to old courses. These horizontal committees have been kept in touch with the work of vertical committees through having some individuals serving on both.

3. Considerable attention has been given to the problem of general education, though special classes for this purpose have not been developed throughout the high school years. General education instruction for sophomores is handled in sophomore English classes, while for juniors this work is placed in the junior social studies. On the senior level, certain general education classes reach all or nearly all students. These classes are Hygiene, Psychology, and Family Relationships. All students take one semester of Hygiene, boys and girls in separate classes. Psychology is a col-

lege orientation elective, and Family Relationships is an elective course.

4. We are just now working toward a special instructional set-up for general education in the sophomore and junior years. A study is being made of the relative advantages of the companion class arrangement, the double period for a combined social studies and English course, and the expanded homeroom with all fundamentals taught by a single teacher.

IN THE curriculum revision program the high school has participated in the following city-wide curriculum committees: English, Social Studies, Mathematics, Science, Counseling and Guidance, Healthful Living, and Applied Arts (fine, home, and manual). Monographs have been prepared in most of these fields but have undergone revision and are now being even further revised.

In the high school we have had a few general committees whose activities were not confined to the improvement in a subject field, but rather sought to improve the instructional and activities program of the high school as a whole. These committees have reported to the faculty and conducted discussions revolving on the quality of the whole high school program. They have not published materials to any great extent, but the influence on teachers, particularly those who think in terms of subjects, has been considerable. The following such committees have been active: Committee on Improving Immediate Student Relations Within the School, Committee on General Education, and the Committee on Graduates' Recommendations for Improving the School.

The horizontal committees, that is committees confining their activities to the high school, are for the most part organized on a subject basis. New courses have been or are being developed as follows: Boys' Hygiene, Girls' Hygiene, General Chemistry, Technical

Chemistry, Physics, Geometry, Psychology, Family Relationships, Tenth Year English Literature, Eleventh Year English Literature, Twelfth Year English Literature, Development of American Democracy (eleventh year social studies), Social Problems, Political Problems, Economic Problems, and World Affairs.

In fields in which we had neither the resources of teacher personnel nor the time available for extensive curriculum work, we have recorded the course of study being followed by the teacher. We called these committees "recording committees" because we felt the first step toward the improvement of the course was to pull it out of the subjective values of the teacher and get it into writing. The following courses were so recorded: General Shop, Printing, Office Practice, Physiology, World Literature, Reading Skills, World Civilization, Voice Training, Public Speaking, Drama, French, German, Spanish, and Latin.

WE feel that our next steps in curriculum construction are to bring our entire curriculum program to better terms with the following general principles:

1. Definition of the controlling purposes of our courses more satisfactorily in terms of the classroom learning experiences of students.
2. Organization of new instructional materials to function more effectively, in fulfilling our course objectives.
3. Direction of each course in the high school more specifically and realistically toward the improvement of the general objectives stated on the second page of this article.
4. Involvement of all classroom teachers in the general purposes activating our counseling program in order that the gap between counseling and instruction will be lessened.
5. Development of increasingly practical and effective methods of evaluation of student achievement in terms of growth, with each student assuming more responsibility for evaluating his own progress.

Palo Alto teachers, along with a great number of secondary teachers throughout the country, are growing increasingly skeptical of the idea that fundamentals of general education can be developed successfully as incidental to specialized course offerings or arbitrarily inserted in content as deliberate excursions away from the dominant purpose of these courses.

They are becoming disillusioned as to the possibility of counseling as an advisory function, connected if at all, at oblique angles with the curriculum program of the schools. No secondary school can combine effectively the growing knowledge of the way adolescents develop with the growth resources of specialized subjects and activities by means of an advisory counseling system alone. The growing conviction that the individual reacts as a unified being, and that his training must give as much attention to the functional unity involved in situations as to learning broken into subject elements, is forcing the secondary school to examine further the combined effects of learning stimuli on the individual student. Our institutional objectives imply directing all the influences of the school as a unitary program.

A school answering to such a responsibility must find ways of connecting counseling with instruction and harmonizing generalized with specialized objectives. Throughout all activities, curricular and extracurricular, it must seek to bring all divisions of the school program into an integrated pupil influence. The specialization of the teaching function with the accompanying analysis of learning elements must give way now to a fuller recognition of the manner in which the arcs of specialized subjects intersect with and merge into the larger circle of the school's responsibility.

Chapter 9

THE CURRICULUM PATTERN AND ADMINISTRATIVE PROCEDURES IN PASADENA SCHOOLS

By GEORGE H. MERIDETH and GLENN L. LEMBKE

"THE curriculum is those experiences of the child which the school in any way utilizes or attempts to influence." So conceived, the curriculum is more than the mere processes of instruction within the classroom, the printed course of study, and the materials of instruction. It is the process of placing the learner as the center of a total process of school, playground, community, and home activities which influence the development of a well-rounded individual. It places renewed emphasis upon the atmosphere of the classroom—the relationship of pupil to pupil and of pupil to teacher—and recognizes subject-matter as a means rather than an end in itself.

This concept is basic in the curriculum development in the Pasadena schools, elementary as well as secondary. Any attempt at a description of the Pasadena program must be predicated upon this concept. For the purposes of this article the secondary program, including Grades 7 through 14, must be interpreted as a developmental program based on the learner's experiences from the kindergarten through Grade 6. True enough, many problems of coordination, elimination of duplication, and provision of proper sequential development remain to be solved. But the basic philosophy is well recognized. Changes are attempts toward an improved fulfillment of these concepts.

The organization for curriculum development in Pasadena is quite impor-

tant in the accomplishment of the desired ends. Undoubtedly the reader can understand better the present program and proposed improvements by first visualizing the organizational structure.

THE functional chart of organization, developed by Superintendent John A. Sexson, divides instruction as a completely separate area from personnel, management, and so on. This area is the responsibility of the deputy superintendent, George H. Meredith, who, in turn, directs the total program through two coordinators, Mrs. Fannie Shaftel for kindergarten through the sixth grade, and Glenn L. Lembke, for Grades 7 through 14. They, in turn, work with curriculum assistants, directors and supervisors, principals (for curriculum; not administrative functions), teachers, and curriculum committees, composed of teachers, counselors, vice-principals, and principals.

In the junior high schools the curriculum development is functionalized by the coordinator and the five principals through conferences on policy and administration of the curriculum and by the coordinator and a central curriculum committee (composed of three representatives of the faculty of each junior high school) who confer on policy, organization of committees, implementation, and so on. Stemming from this central committee are grade-level and subject-matter committees for the determination of units, preparation of monographs, selection of instructional materials, and so on.

¹J. Murray and Dorris M. P. Lee, *The Child and His Curriculum*, D. Appleton-Century Company, Inc., 1940, p. 165

In the junior college the coordinator is a member of the principal's staff, which determines policy; he is a member also of the principal's council (this includes the administrative staff, the chairmen of departments, and the librarian), which is the advisory council as to general policy, curriculum development, and so on. In the light of council and staff action the coordinator works closely with department chairmen on course changes, introduction of new courses, and selection of materials. The department chairmen, in turn, establish their own committees for specific curricular assignments.

The planning period³ in the junior high schools (from 7:50 to 8:20 each morning) provides opportunities for the deputy superintendent and the coordinator to meet with total faculties, grade-level groups, subject-matter groups, or special committees on curriculum problems. The weekly staff meeting and bi-weekly council meetings at the junior college provide the deputy superintendent and coordinator with contacts, as do monthly departmental meetings and special committee meetings.

With the present emphasis on defense activities, it should be noted that at the junior college a special defense council has been established, with the coordinator a member. He, in turn, has a special "defense" committee on curriculum and guidance. This committee is composed of the associate dean of guidance, a counselor, and two students. The function of this committee is to study the defense needs of the students and recommend to the staff courses and curricular modifications for the national emergency. Illustrative of the work of this committee is the organization of triad short-term courses, refresher courses, and changes in requirements.

³"Junior High School Program in a 6-4-4 System," by George H. Merideth and Glenna L. Lembke, *California Journal of Secondary Education*, 16:465-469, 1941.

The previous description might imply that all curriculum changes are "from the top down." Avenues are provided, however, for the initiative to start with pupils or a classroom teacher—and this process not only is invited but urged. For example, last year teachers in the eighth grade felt considerable dissatisfaction in the "core" units. This was expressed in their planning period meetings, and then this dissatisfaction was made known to the building representatives on the central committee and to the coordinator. After study by the central committee and the grade-level committee, positive recommendations were made through the coordinator to the principals and the deputy superintendent. Two key teachers were commissioned to develop, at a workshop, the basic outlines for the new units. These units are now in practice.

Pupils enjoy a real part in the development of the curriculum. In the majority of the core classrooms pupil committees confer with their teachers on activities, organization of unit experiences, evaluation, and determination of materials. Pupils often study and evaluate sample instructional materials for readability, interest, and value. These pupil reactions as to materials, units, and activities are conveyed through the teacher and existing committees to the central office and definitely influence the selection of materials, the preparation of monographs, and even changes in units or themes.

CURRICULUM development can be intelligently planned only if guidance experts, who work closely with the pupils and parents, and the research or evaluation staff also are involved in the process, along with the curriculum director. While each of these three functions is quite distinct, each is complementary to the other. The services of Dr. Margaret E. Bennett in guidance and Dr. Georgia May Sachs in research

have been invaluable to the curriculum department. For example, when the central curriculum committee established a sub-committee to clarify the statement of junior high school purposes Drs. Bennett, Sachs, and Lembke took an equal part in the committee work. The results speak for the necessity of such a triumvirate for successful curriculum development.

The role of the supervisor or director of special services or subjects is not as distinct in Pasadena as in some other cities because there are few persons with such functions in the secondary schools. It would be remiss, however, to neglect the place of the director of visual and auditory service. The utilization of such services depends largely upon the planning of that department and the curriculum department. Teacher committees, especially in the junior high school core, have examined the resources in this department, issued special bulletins keying into the existing monographs the available materials, and written into new monographs specific references to available local materials and rentable materials. The utilization of these newer visual and auditory aids cannot be left to chance; hence, the deliberate planning by the audio-visual and curriculum departments to develop curriculum monographs together.

The supervisor of a special subject and the curriculum department have worked together successfully to develop a program. To illustrate, the revised eighth grade core program deals with the "American Heritage." In the development of materials for this course the supervisor of music and his staff met with the coördinator to study the core outline. A committee of music teachers then prepared a monograph to show (1) the music which core teachers could use to illustrate the units they had planned, and (2) the songs the eighth grade music teachers could use when the stu-

dents were studying certain units. This was a significant step in curriculum development. One department was studying and planning how it could assist, through the subject-matter at its disposal, another department. This is illustrative of the way in which special departments and the curriculum department in Pasadena are working on curriculum development.

The assistant secondary curriculum coördinator is working closely with the directory of industrial arts and the industrial arts department of one of the junior high schools in the development of a "general shop" program which coördinates the core program for Grade 7 and yet gives expression to individual pupil interest and ability. This, too, is illustrative of coöperative development of curriculum in Pasadena.

The library of the secondary school is a key spot in the new-type program. The librarian is just as much an "instructor" as any classroom teacher. In the Pasadena junior high schools the librarian occupies a prominent position in curriculum committees. In the junior college the head librarian is a member of the principal's council, and only the limitation of personnel restricts the possibility of having a member of the library staff on every curriculum committee. The five junior high school librarians and the curriculum coördinator meet each spring to survey needs as to texts, supplementary materials, library, and reference materials. This is important for the ascertaining of needs in areas in which changes are to be made and purchases made accordingly. This coöperative planning is vital since there is not a system of central purchasing for the secondary schools.

Libraries of the Pasadena junior high schools no longer are used as study halls. Instead, classes or committees from classes come to the library, by prior arrangement, to use its resources.

TABLE 1—*Proportion of General Education in the Pasadena Secondary Schools*

| Period | Grade | | | | | | | |
|--------|-------|---|---|----|----|----|----|----|
| | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 1 | R | R | R | R | R | R | R | R |
| 2 | R | R | R | R | R | R | R | E |
| 3 | R | R | R | R | R | R | E | |
| 4 | R | R | E | R | E | E | | |
| 5 | E | E | E | E | E | E | | |
| 6 | E | E | E | E | | | | |

R—General Education requirement.

E—General Education elective.

Blank—Vocational or additional general education elective.

This gives the librarian a first-hand knowledge of the needs of the pupils, the resources available for each unit or subject, and the needs of the library. It provides also an immediate laboratory for the teaching of library practice by the pupils.

This exposition thus far has portrayed the organization for curriculum development. Teachers, pupils, parents, and administrators of schools have a direct relationship to the coördinator and the deputy superintendent. Teacher committees, department chairmen, and councils serve as advisory boards. With all of this organization, what has been planned for the pupil which will make his experience in the Pasadena schools profitable and enjoyable?

THE primary function of the Pasadena secondary schools is to provide an adequate training for effective participation in our American democracy. This means for some pupils a general education so they may enter the university. For others it means a general education and a beginning of specialization, to be followed in the university. For still others it means general education and specific vocational, terminal education. Regardless of these varying goals, adequacy is the prime objective. Also, a thorough grounding in fundamental skills and general education is basic to professional, vocational, or further general education. To this end the second-

ary schools of Pasadena build upon the elementary experiences to provide a rich general education background.

The junior high schools, with a fundamental purpose of "meeting the maturing needs of adolescent youth," and the junior college, with a fundamental purpose of "development of competence in special abilities," are implementing the program which has been developed by the organization previously described.

The junior high school is entirely for general education. No vocational training is presented. The business and industrial arts offerings are for orientation purposes only. Even at the junior college level the major emphasis is on general education for Grades 11 and 12.

The curriculum pattern in Pasadena secondary schools includes the following general education requirements:

Grades 7 and 8—A three-hour core utilizing the resources of English, social science, arithmetic, science, and guidance. General science required in Grade 8, one hour daily.

Grades 9 and 10—A two-hour core utilizing the resources of English and social science. Biology also is required for one hour daily, Grade 10.

Grade 11—Physical Science Survey. Composition—first semester. Social Science—second semester.

Grade 12—Social Science. Humanities. Health Education (one semester required here or in any subsequent semester for fourteenth grade graduation).

Grades 13 and 14—English. Social Science. Science.

TABLE II—Required, Elective, and Contributing Subjects in the Pasadena Secondary Schools, 1942

| | GRADE | | | | | | | |
|--------------------|-------|----|---|----|--------------------|------|------|------|
| | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| English | R | R | R | R | R($\frac{1}{2}$) | R | R* | E |
| Social Studies.... | R | R | R | R | R($\frac{1}{4}$) | R | R* | E |
| Science | C | RC | C | R | R | E | R* | E |
| Mathematics | R | E | E | E | E | E | E | E |
| Art | CR | CR | E | E | E | EC** | E | E |
| Music | CR | CR | E | E | E | EC** | E | E |
| Ind. Arts..... | RC | R | E | E | E | E | E | E |
| Household Arts | R | R | E | E | E | E | E | E |
| Phys. Educ..... | R | R | R | R | R | R*** | R*** | R*** |

R—Required E—Elective C—Contributing

Note: All other fields, such as foreign languages, commercial subjects, and so on, are electives in all years—although, obviously, they are required for some major fields.

*One year course (6 units) required in each field for fourteenth grade graduation.

**Contributes to twelfth grade English, "Humanities."

***Health Education required, one semester.

The physical education activity course is required each semester of attendance in the secondary schools.

FROM this description it is evident that with a six-period day in the junior high school the student has four periods required for core and physical education in Grade 7. Art, music, industrial arts, homemaking may complete the program. In Grade 8 the three-hour core, physical education, and general science are required. Art, music, industrial arts, homemaking, and elective arithmetic complete the program. In Grade 9 the core requires two hours, physical education one hour, and the remaining three hours may be elected from art, music, industrial arts, homemaking, business, mathematics, and foreign language. In Grade 10 the core and physical education take three hours; biology is required, leaving two hours for electives from the subjects mentioned for Grade 9.

Upon entrance to Grade 11 the student is on a different basis for determining his program. The junior college uses the collegiate system of interpreting a student program. The "normal load" is in terms of units—16 being the

normal program. On this basis the "solids" are four units each and physical education one unit. Since the student is required to take two core courses, plus physical education, each semester in Grades 11 and 12, nine-sixteenths of the program is required.

The specific experiences are as follows: Every secondary unit in Pasadena is committed to a policy of general education. The junior high school rightly can be interpreted as contributing almost entirely to general education, with experiences in business and industrial arts and other fields as orientation. Some would like to emphasize the pre-vocational aspects, but when the entire span of secondary school opportunities in the community is studied, the justice for our position is recognized. In the junior college the core program of general education occupies one-half of the students' time during the first two years, with contact in vocational areas limited almost entirely to further orientation and pre-vocational experience. The actual vocational training thus is restricted to the last two years.

The general education program in the junior high schools has been receiving increased emphasis because of

the postponement of vocational work, due to the shifting employment pattern. This means that the entire time of the student in Grades 7 through 10 is in general education. (See Table 1, Proportion of General Education in the Pasadena Secondary Schools).

In this four-grade span of the junior high school the amount of required work in the general education field is somewhat reduced between Grades 8 and 9. Vocational or semi-professional work can be elected in Grade 11, but is not required. A student can, if he chooses, elect more general education work in this grade. Table 1 is to illustrate the amount of required general education, general education elective, and vocational or general education electives.

The general education pattern in the lower secondary grades centers around a three-hour core with a major emphasis on social problems. In Grades 9 and 10 the time element is reduced one hour, but the emphasis remains on personal-social-economic problems. Reference to Table 2 will illustrate the allocation of both subject-matter and the time element in the core.

SOME experience in English is required in every grade of the secondary schools, although present plans are for the requirement in Grade 11 to be for one semester only. In the junior high school the English experiences are keyed to the social problems units, especially for the oral and written work, library techniques, use of the dictionary, spelling, and so on. Literature is selected both for its relevancy to the problem and for leisure, recreational, free reading. Some readjustment of materials (subject-matter, as mentioned in the previous paragraphs) has been necessary with the introduction of a three-hour core.

For example, the question of "Shall Shakespeare be taught in Grade 8 or

9 or 10?" became translated into this question, "What is the problem which we are assisting the students to solve? Is there any work of literature which, if read, will assist the student in reaching a solution to the problem? How shall we select the best literature which will meet these specifications?" In the light of that series of questions, Shakespeare took his place with other literary products, and the selection came in the light of the teaching purposes rather than the purposes being rationalized out of the traditional pattern for English. This has meant constant study by teachers, committee work during the school year, committee work on monographs during the summer, using group planning periods at the start of the day—and such study still is in process. This example is illustrative of the method of curriculum development in one content area, as well as of the general technique.

English experiences at the junior college level are not integrated with social science, but they become a vital part of the core because of their own contribution to the student. The composition work in Grade 11 (formerly given in Grade 12) is to provide the student with a review of the tools and techniques of oral and written communication for effective achievement in the other subjects, as well as to develop further those skills in communication already mastered. In Grade 12 the students take a course in Humanities (formerly in Grade 11), which is an integration of art, music, and literature. In Grades 13 and 14 the student is required to complete a six-unit course in English, which may be in the English department or in related experiences in other departments—such as Business English, Technical Reports, and so on.

THE required social science experiences, as previously mentioned, evolve from the work of the central cur-

riculum committee in its statement of basic social functions. In Grades 7, 9 and 10, the problems approach is employed. In Grade 8 the main techniques are topical. In Grades 11 and 12 there is a combination of chronology and problems. This variation in organization and techniques springs from a conviction that no one technique is readily adaptable for all units.

The themes of representative units in these courses illustrate the point:

7. How can we use our physical environment more intelligently?
 - 7.1 Orientation to New Situations.
 - 7.2 How Can We Use Food More Intelligently?
 - 7.3 How Can We Use Our Water Supply More Intelligently?
 - 7.4 How Can We Use Our Textiles More Intelligently?
 - 7.5 How Can We Use Our Building Materials More Intelligently?
8. How can we use the contributions of our American heritage more intelligently?
 - 8.1 How Do Frontiers Influence American Life?
 - 8.2 How Do Contributions of Different Groups of People Enrich American Life?
 - 8.3 How Does the Developing Idea of Freedom Influence American Life?
 - 8.4 How Do Science and Invention Influence the American Way of Life?
9. How can we improve in our social-civic relationships?
 - 9.1 How Can We Improve Our Self-Government?
 - 9.2 How Can We Better Utilize and Improve Programs of Social Betterment?
 - 9.3 How Can I Gain a Better Understanding of My Vocational Opportunities?
 - 9.4 How Can I Better Adjust Myself to Problems of Group Living?
10. How can we understand current problems and what should our relationship be toward them?
 - 10.1 How Can We Better Understand and Use the Agencies of Communication?
 - 10.2 How Can We Better Understand and More Wisely Use Our Economic Institutions?

- 10.3 How Can We Further the Democratic Ideals?
- 10.4 How Can We Promote Better International Cooperation?

- 11.2 Development of America:
 - A. Basic structure of the Federal Government, its background, early interpretation, and development.
 - B. Growth of the United States; territorial, agricultural, industrial.
- 12.1 Further development of America:
 - A. Nature and history of American culture.
 - B. Structure of state and local government.
 - C. Functions and problems of government today.
 - D. The United States in a world society.
- 12.2 Problems of personal and social development:
 - A. Problems of personal adequacy.
 - B. Planning for one's personal, educational, and vocational future.
 - C. Problems of family life.

The outline must be rather sketchy in Grades 11 and 12 because the exact content for this revised course had not been determined at the time this article was written. Six units of social science also are required for graduation from the fourteenth grade. There is some discussion at this point as to whether we should have a required four-unit survey course in the social sciences, followed by a two-unit elective, or should continue the present pattern of six units elected at random. This, obviously, is not a new question to the advocates of general education, the proponents of required subjects vs. the proponents of free electives.

Guidance is part of the required core, but it does not function as a separate course. The first basic unit in Grade 7 deals with "orientation to new situations." A similar unit has been in the Humanities program at the junior college, as well as a more intensive unit directed by the counselors for all new students. The present curricular allocation would imply that the guidance program is confined to the subject-matter ap-

proach, but the exact opposite is more truly the case. Hence, the description of the curriculum must, of necessity, neglect much of the most important phases of the guidance program. It is necessary to state, however, that the core teachers more and more are teaching-counselors who work closely with their students and with the counselor assigned to that grade. This is providing more unity between guidance and instruction, but there still remains a big problem of in-service training.

SCIENCE, at present, is a contributing subject in Grades 7, 8, and 9. It is required of all students in Grades 8, 10, 11, and 13 or 14. The exact content may be understood from the titles: General Science, Biology (with personal hygiene strongly emphasized), Survey of Physical Sciences. In Grades 13 and 14 any six-unit course—including health education, first aid, mathematics, and so on, is construed as meeting the requirement.

Mathematics, at present, is required only in Grade 7. It is elective in all other grades. There are now proposals that tests of arithmetic proficiency be prerequisite to certain vocational courses and vocational curricula. The guidance workers have been the key persons, so far, in securing the election of mathematics by the students.

Physical education is required of all students, on a daily basis through Grades 11, and three times per week in the other grades. Health education, a one-semester course meeting for two hours per week, is required for graduation from the junior college. The requirement in physical education is, of course, for the classes of the activity type. Upon doctor's assignment students may be assigned to corrective rest, recreation, or limited physical education. In the junior high schools the work is a contact with many types of athletics, but from Grade 12 to 14 the

student on a "regular" program can select from a variety of more specialized types of activity. In the junior college the men must take at least one semester of swimming and boxing, and the girls take swimming, dancing, and modern gymnasium. Reserve Officer's Training Corps, of course, is an alternative for physical education for men.

Art, music, industrial arts, and household arts occupy varied positions in the different schools of the city. This is due partly to certain experimentation in the junior high schools, building and personnel facilities, and other controlling factors. The general move is in the direction of laboratories working closely with the core in the junior high schools, with some degree of specialization in the latter years. Since these fields often open into the vocational, Grades 11 and 12 offer increased opportunities for pre-vocational work or for the basic training for the university major in one of these fields.

The special interests and abilities of students often have been cared for by the creation of separate courses. The Pasadena schools definitely are committed to the opposite practice, although in some instances special classes still remain in our system. The core classes definitely were organized for the purpose of permitting a group of students and a teacher to live together for a time sufficient that the teacher can know and draw out the special abilities of the pupils. The organization of the units is sufficiently flexible for the teacher to make individual assignments which will permit the development of special abilities.

This procedure has been chosen because students in "special" classes too often were thought of as those who were limited, rather than prodigious in abilities. The special class too often was a place to "dump the undesirable." Teacher-counselors are working with

the students in assisting them to overcome their handicaps and in developing their special capacities. These become a matter of record so the junior college counselor, who can offer a wide variety of special electives, can program the student to supplement his required subjects by special interest studies.

To enumerate the subjects which a pupil might elect would be too voluminous for the purposes of this article, but perusal of the *Junior College Bulletin*, 1941-42, will show the variety of electives in every subject-matter field which is open to all students (except, of course, that business subjects are not available to East Campus students, since those courses are offered only on the West Campus.)

EVALUATION is an area which has been left much to the discretion of individual teacher, department chairman, or principal. The city-wide testing program and the guidance department have a general testing service which includes intelligence and reading tests,

tests in special subject areas, aptitude tests, and personality tests. The Pasadena schools are just launching a general evaluation program in the secondary schools, with Dr. Georgia May Sachs, research coördinator to the superintendent, providing the leadership. This evaluation program has been delayed purposely to secure from all teachers in the junior high schools a definite agreement upon the major purposes of their instructional program. The purposes committee has completed its work, so evaluation and curriculum committees now are at work building upon their statements.

With evaluation, guidance, curriculum, and administration working closely together, the program of continuous curriculum development in the Pasadena secondary schools, through the organization and for purposes previously described, can be an on-going process, just as the learning situation in the class room is an on-going process for the maximum development for each boy and girl.

Chapter 10

SAN FRANCISCO'S FIVE-YEAR CURRICULUM PLAN

By EDITH E. PENCE

INTELLIGENT participation in modern society requires a mind which is sensitive, not only to the end tips of human activities, but to the roots and premises upon which current issues are based."¹ The above statement, made recently by Kenneth Norberg research assistant of the Division of Field Studies, Teachers College, Columbia University, expresses the keynote of the philosophy underlying the balanced program which we have sought to develop for our San Francisco high schools in a five-year program of curriculum study and development. It is in keeping with the sound pronouncement against an "either-or philosophy" made by John Dewey in his book *Experience and Education*, published in 1938, which we have found to be a helpful guide.

When to the development of an understanding of the "roots and end tips of human activities" we add the important element of the personal and social development of the child, we have a satisfactory statement of the major goals of our balanced program. To serve as a guide in our curriculum development, however, we have summarized our philosophy in the following statement:

In order that the pupils of our schools may be equipped with the sound traits of character and civic and social outlook that are requisite for each individual in a successful democracy, with the fundamental skills necessary for success in normal life activities, with the knowledge of the social heritage that is basic for the formulating of sound judgments, and with an effective understanding of present day problems, it is important that a balanced curricular program be developed and main-

tained at all levels in terms suited to the respective levels and to the range of pupil abilities.

A SOMEWHAT detailed analysis of the above statement of philosophy results in the following set of basic curriculum principles for the several subject fields of our junior and senior high schools:

In order that the courses of all subject fields may make their contribution to the general educational objectives as well as in the special materials of the particular field, it is important that the following conditions be met—

1. That provision be made for meeting the individual needs of pupils of different levels of ability, through flexibility as to materials, procedures, and standards of achievement, and through guidance.

2. That the courses contribute to the strengthening of the fundamental skills, (reading, writing, spelling, speaking, and arithmetic), in so far as materials and procedures can make this possible.

3. That they contribute to the knowledge and understanding of the social, civic, scientific, and cultural achievements of the past in such manner as to provide a foundation for the understanding of present-day problems.

4. That they contribute to the appreciation and understanding of present-day problems and life situations, introducing materials and procedures that will arouse an active interest and vitalize the learning situation.

5. That there be active correlation between the particular field and the other subject fields through a program of coöperation that will be mutually beneficial and will emphasize the relationship between the different fields.

6. That there be close articulation between the different grade levels and the different school levels of the particular field.

7. That emphasis be placed on the contributions that the field can make to occupational success.

8. That such standards of workmanship be maintained and such emphasis be placed on

¹Meaning of Subject Matter in the New Curriculum," *Curriculum Journal*, 13:67, February, 1942.

high standards of citizenship as will result in the development of effective work habits, desirable traits of character, and sound social and civic outlook.

Contributions to the concept of the balanced program set forth here, to the realization of the importance of such a program for present-day youth, and to the set of basic curriculum principles that make for such a program, have come from teachers, school administrators, schools of education, and educational organizations, and from men and women in public life and in business, industry, and the professions.

Expressions from the students themselves, as to the things they feel to have real value and to hold real interest for them, also have served as a guide in formulation of the philosophy and in development of the program. The experience of former pupils of our own schools and that of pupils of other school systems, representing different educational philosophies, have given a helpful perspective on the effectiveness of different educational policies and procedures.

With the evidence gathered from these many sources, we feel that it is clearly indicated that there is no place for single-track thinking in the educating of youth for our complex social order. A balanced program that provides for the development of the needed skills and of a knowledge of backgrounds that will function as a sound foundation on which to stand in getting a perspective on the intricate problems of the present day, with their many ramifications, and that provides for the personal and social development of the young people who are to be participants in our highly organized and dynamic social order—these are the requisites for a realistic educational system.

THROUGH the presenting in our social studies, English, science, and mathematics courses of the "roots and

premises upon which current issues are based" and of the "end tips of human activities," which results in an understanding of present-day life and problems and of the relationship of these to the social heritage, and through procedures of coöperation between the different subject fields, effective provision is made for general education.

Through exploratory opportunities in the junior high school and through a wide range of elective opportunities along academic, cultural, and pre-vocational lines, as the student advances in the senior high school, provision is made for determining and for meeting the special abilities, interests, and purposes of the different pupils. Provision is made also for flexibility in teaching materials, in procedures followed, and in achievement expected, in order to adapt the situation to different pupil abilities and purposes in both the general and the specialized courses.

In San Francisco the grade levels for the different subjects and the content of the different courses in the several fields have been determined by curriculum committees of the teachers who are "on the firing line" and are working constantly with the pupils, studying their needs and abilities, and observing their reactions. The various teaching aids also are selected by the teachers who base their judgments on the needs and abilities of the pupils with whom they are working. Their expression of opinion is the guide in selecting texts, reference materials, periodicals, visual aids, maps, and the numerous other materials that make for a more effective teaching and learning situation.

When possible, books and other materials that are being considered for use in our schools are placed in the hands of some of the pupils in order that we may have the benefit of their opinions and reactions as to suitability.

Our plan for coöperation between different subject fields calls for active

participation by both teachers and pupils and includes such procedures as:

1. Coöperation by teachers: through interdepartment meetings, interdepartment committees, exchange of outlines of materials, and coöperation in developing the different phases of topics related to two or more fields.

2. Coöperation by pupils: through observation of relationships between different fields and discussion of these relationships; through coöperation of pupils in different fields in working out a problem related to two or more fields; and through combining of pupil groups to hear talks by experts, to see visual aids based on material of common interest, or to participate in a joint discussion, debate, or other type of program.

The coöperation of certain lay groups has been helpful in contributing information and materials relating to present-day problems in which our classes are interested. Among such groups are the Conservation Council, the Department of Agriculture, the Housing and Planning Council, the Junior Chamber of Commerce, the Community Chest, the Conference of Christians and Jews, and the Pan American Union.

EMPHASIS is placed on the importance of guidance as a function of all teachers in contributing to pupil development and to the problem of orientation. Certain special phases of the business of orientation have been placed in the hands of the homeroom teachers, the counselors, and the deans of boys and girls.

Student clubs and activities constitute an important part of the program for all schools. For the most part these club activities grow out of interests developed in the various classes. Contributions to the techniques used in student body organization and transaction of business come from classes in English and social studies. Sports and athletic activities tie into the physical education program. Journal and dramatic clubs receive their stimulus from activities of the English classes. Such hobbies as photography, aviation, gar-

dening, and nature study grow out of the materials studied in the science classes. Pan American and Spanish clubs have their roots in the Foreign Language classes.

Student initiative for carrying on the clubs and other student activities receives encouragement and guidance in the classroom relationships of students and teachers. In some cases the plan is followed of devoting an occasional class period to the activities of the student club that has grown out of interests developed as a result of the regular work of the class. Often periods of the school program are scheduled for the regular meetings of student committees and student clubs. Some of the student activities take place after school hours and function as wholesome leisure time activities.

As has been stated repeatedly in San Francisco, every teacher has important contributions to make to the program of guidance and must look upon satisfactory pupil development as a part of his function, through the daily activities and relationships of the classroom. Guidance in its more specialized phases and particularly as it relates to problems requiring extensive "follow-up" is placed in the hands of counselors who have the opportunity to familiarize themselves with special guidance problems and yet are in direct touch with the teaching situation through classes that occupy a part of their time.

There is a decided range of pupil abilities, needs, and purposes among the schools located in the different sections of the city because of different population backgrounds, both from economic and racial aspects. This is reflected in the range of elective offerings in the different schools and in the flexibility that is sought for in teaching materials and procedures in the different courses. Effective guidance, on the basis of pupil abilities and purposes, is essential in

aiding the different pupils to select those offerings that will be most helpful to them and in enabling them to receive the greatest benefits from the classes which they select.

For diagnosing pupil needs and for determining their progress and achievement various devices are used. For diagnosing the needs of pupils for the further development of certain skills, standardized tests often are used. The Bureau of Research coöperates with the teachers in this procedure.

The actual experience of the teachers with the pupils in their work and activities and their judgments formulated on the basis of such experience and observation, together with tests which the teachers themselves devise, usually are the bases for evaluating the progress and achievement of the different pupils. Conferences between teachers and between counselors and teachers and conferences with parents also contribute to the procedure of evaluating the gains pupils have made through their school experiences.

CURRICULUM development in the San Francisco high schools has been carried on with extensive and constant participation on the part of the teachers. Committees representing all of the fields and with representatives from all of the different high schools have participated in the discussion and formulation of the educational philosophy and in the statement of curriculum principles based on it. Through the channels of the different committees all the teachers of the respective fields have been given an opportunity to participate in the appraisal of the courses in their fields and in the analysis of the possible contributions of their fields to the general objectives, as stated in the basic curriculum principles, and of the procedures for making such contributions.

Over eighty teacher-committees, including approximately four hundred

teachers have participated in the appraisal of courses and the development of course materials in the various junior and senior high school fields in the five-year program. As liaison committees for the different fields the department heads and chairmen of the respective fields have met as Central Committees for their fields. Meetings of these committees have been held partially in school hours with the director of curriculum. The committees on the specific courses have been made up of teachers who expressed an interest in participating in curriculum development, and these usually have worked under the chairmanship of a Central Committee member. These committees, for the most part, have met after school hours.

In fields having a special director, committees usually have worked with that director. In some instances the special director has called upon the director of curriculum to collaborate in the development of curriculum materials.

For the purpose of working out a satisfactory plan of articulation between the different school levels, joint committees from the junior and senior high schools have met and these sometimes have met also with representatives of the elementary schools.

In the consideration of text materials to be adopted, it has long been the practice for teacher committees to meet and discuss the types of materials sought, in terms of curriculum principles and needs, and, on this basis, to draw up the criteria for the judging of the texts that are submitted. Guided by these criteria and by their own experience, all the teachers of the course, for which a text is sought, review the books under consideration and participate in the vote that determines the final selection of the text. This participation in textbook selection furnishes another channel for teacher coöperation in curriculum study and development.

Chapter 11

HOW THE CURRICULUM IS EVOLVED IN LONG BEACH SECONDARY SCHOOLS

By MAUD WILSON DUNN

IN order to understand curriculum work in Long Beach secondary schools, the reader should have a clear picture of the particular pattern that is followed in the city school system.

To begin with, the elementary teachers and principals, as well as secondary teachers and principals, have representation on what are called the "division committees." There are six of these Division Committees: Kindergarten-Primary, Intermediate, Junior High School, Senior High School, Junior College, and Adult.

The functions of each committee are listed here for those who may be interested:

To submit proposals on curriculum development to the General Committee, and to put into effect those proposals that are approved.

To seek, receive, and consider suggestions from teachers and others on curriculum development.

To give direction to study by teachers and others on the curriculum.

To arrange for division and group meetings where curriculum problems are discussed.

To coordinate the curriculum work of individuals and groups within the division.

To study coordination of the curriculum with other divisions.

To organize the division into subcommittees or groups that will be responsible for (a) production, (b) tryout, and (c) evaluation of curriculum or course of study materials. (This should not be thought of as opposed to the creative work of individual teachers, but as complementary to it.)

To review and approve or disapprove the proposals of subcommittees.

The general supervisors of elementary and secondary education are the

chairmen for the first four divisions respectively, the principal of the Junior College for that division, and the director of adult schools for his division.

Recommendations from the division committees are brought to the General Committee on the Curriculum, requesting approval of work to be done.

THE General Committee representation includes the superintendent as chairman; the coordinator of curriculum and child welfare as vice-chairman and secretary; the chairmen of the six Division Committees; the directors of elementary and secondary schools; a representative of the special service supervisors; a representative of the special field supervisors; presidents of the elementary principals', junior high principals', senior high and junior college principals' clubs; a representative of the adult school principals; the president of the City Teachers Club; representatives of kindergarten-primary, intermediate, junior high, senior high, junior college, and adult school teachers; and teacher representatives of each of the six division committees.

Those elected to the division or general committee hold office for two years. Principals and supervisors who are not active members of the General Committee are called associate members but have no voting power and no right to the floor except through their representatives on this committee. The General Committee also may have advisory committees and subcommittees.

| <i>Junior High School Program of Studies</i> | | | | | | |
|--|----------------------|-----|-----|-----|-----|-----|
| Course | No. Periods per Week | | | | | |
| | 7B | 7A | 8B | 8A | 9B | 9A |
| <i>Required</i> | | | | | | |
| English-Social Studies..... | 10 | 10 | 10 | 10 | 10 | 10 |
| Mathematics | 5 | 5 | 5 | 5 | --- | --- |
| General Science | --- | --- | 5 | 5 | --- | --- |
| Industrial Arts or Homemaking | 5 | 5 | --- | --- | --- | --- |
| Art and Music | 5 | 5 | --- | --- | --- | --- |
| Health and Physical Education | 5 | 5 | 5 | 5 | 5 | 5 |
| <i>Optional</i> | --- | --- | 10 | --- | --- | --- |
| <i>Elective</i> | --- | --- | --- | 10 | 10 | 10 |

The functions of this General Committee on the Curriculum are:

To formulate general policies relating to the curriculum development in all the schools.

To develop, or have developed, a plan for scope and sequence.

To coordinate curriculum development in the school divisions and segments.

To review and approve or disapprove the proposals of the division committees.

To review, or have reviewed, and approve all curriculum materials that are to be published or used "officially" in the schools.

It will be noted that teachers serve on Division Committees discussing curriculum development and have representation on the General Committee. When the preliminary work has been done by the Division Committee and the supervisor is ready to have actual writing begin, a request is made to the Curriculum and Child Welfare Department for releasing a teacher to work for a definite short period of time. A substitute is sent to take care of the work in the school, this service being paid for out of funds set up in the Curriculum and Child Welfare Department budget.

When materials are ready for editing, the supervisor sends the typed copy to the Curriculum and Child Welfare Department.

THE curriculum organization provides for changing curricular materials whenever the occasion arises requiring such a change. For example, the physical education courses now are

in process of change. The supervisor of that department and his assistants have gone over the units on first aid and with a teacher committee have brought these all down to date. The proper approvals have been obtained, and the revised materials have been written, edited, and released to the schools in a comparatively short period of a few days.

This school system provides a professional library well supplied with books, magazines, and reports both on the curriculum and the needs of adolescents. Anyone working on the curriculum—teacher, supervisor, administrator—has at his disposal this valuable resource on curriculum trends and the findings of research.

Whether a course shall be required or elective is determined by the High School Administrative Committee, of which the director of secondary schools is chairman. The high school principals, counselors, general supervisor, and the coordinator of curriculum and child welfare are members of this committee.

Through the organization just described in the preceding paragraphs, curriculum development takes place. The succeeding pages of this article will describe briefly the development of the curriculum in the Division Committees and in the General Committee.

IN September 1941, two committee reports approved by the General Committee on the Curriculum in March, 1941, were issued in one pamphlet to

all certificated personnel—"The Democratic Way of Life in America" and "Educational Philosophy for the Long Beach Public Schools."

The second of these reports is a definition of philosophy and includes statements in regard to the meaning of education, the purposes of education, the public school as a social institution, and the public school environment. The purposes of education as stated in part therein are "to provide experiences that help an individual to live adequately and richly in his total environment. It should insure his maximum growth in the realization of his potentialities . . . ; cultivate desirable human relationships. . . ; prepare the individual to become economically efficient . . . ; create in the individual a willingness to discharge his civic responsibility with intelligence."

When the pamphlet containing these two reports was released, the superintendent announced to the principals and supervisors that it contained materials for discussion on curriculum and guidance at faculty meetings during the year.

Several factors are taken into consideration in determining what understandings, skills, attitudes, and appreciations are to be taught in the secondary school. Experiences of teachers, supervisors, and administrators, records of standardized surveys of achievement, state requirements, and the Long Beach philosophy of education are part of these factors.

The following illustration shows how a teacher of home management met the needs of her class :

Recently this teacher consulted both the pupils and parents to determine which units should be selected for emphasis. She discussed the scope of the course with her five classes of senior high school girls during the first days of the semester. Each girl then listed the topics in order of importance to her,

the teacher endeavoring not to influence the pupils in their choices. Through written reports, the choices of the girls' mothers were obtained. The pupils and their mothers were not in agreement on the ranking of the topics. The teacher, however, decided to use the four units selected most frequently by the girls for the points of emphasis in the course, with the other topics being considered as they were related to the chosen four.

TO come now to the program of studies in the junior high and the senior high schools.

Included herein is a chart of the junior high program of studies—for Grades 7, 8, and 9—showing prescribed and elective courses. It will be noted that electives begin in the 8A grade. Variations in program load may be made with the approval of the counselor, when such variation will best serve the needs of the pupil.

The senior high school program of studies includes both general education and special education. Examples of the latter are the courses in arts and crafts, the commercial work and the shop courses, all preparing for vocations in industry.

The senior high school program is also set up to meet both state and local requirements for graduation. Since the state requirements are well known, these will not be enumerated. Since the local requirements, however, may vary from those of other secondary districts in the State, some of them are given here.

Pupils carrying more than the normal program load of twenty-five semester periods are permitted to do so for the purpose of enriching their educational opportunities rather than as a means of graduating earlier.

All girls who enter with less than senior standing are required to complete five semester periods in Home Management.

Pupils may not enroll in more than two shops nor in more than one period in any shop (except in trade courses) without permission from a counselor or the registrar.

While most of the secondary courses are placed according to common practice, there already is some change coming about. Modifications of courses in English, mathematics, and science have been made by setting up sections for pupils of varying abilities and interests. Only mature pupils who wish to take algebra in the ninth grade are enrolled in such classes in junior high. Biology as a tenth grade offering is now going out of the picture, and in its place is coming a laboratory course open only to juniors and seniors.

Both in the junior high school and senior high school, orientation is the specific responsibility of the social studies teacher. Orientation units are part of the course of study for all seventh grade pupils, for all new eighth and ninth graders, and for tenth year pupils in social studies.

In the junior high schools only can the social studies-English offerings be thought of as "the core." However, the scope and sequence for the social studies have been developed in outline for both the elementary and secondary schools. Revisions of these courses are now under way.

DURING this period of the "reorganization of secondary education," flexibility of program is to be expected. It should surprise more, therefore, to learn that we have tied student activities directly into the curriculum, basing them on the interests and needs of each pupil.

A statement from the handbook of one of the junior high schools reads:

Jefferson Junior High School believes that every boy or girl can find at least one activity or hobby in which he is vitally interested and which will help him develop into a more interesting person. For that reason, many clubs meet each Monday at 3:10 p.m. with different teachers or sponsors. All pupils are encouraged to join one. The names of a few of these groups are described below. Other clubs are formed as there is demand, so it

is wise for a pupil to consult with the guidance teacher before making a decision.

The following list shows the variety of clubs in this one junior high school: Boy and Girl Scouts, Boy and Girl Rowing Clubs, Boy and Girl Swimming Clubs, Boys' Tumbling Club, Camp Fire Girls, Cartoon Club, Commercial Club, Games Club, Girl Reserves, Horseback Riding, Instrumental Music, International Code, Koverall Klub, Model Boats, Puppetry Club, Reading Club, Spanish Club, Stamp Club, Trail Blazers. A description of two or three will serve to show the close connection with the curriculum:

Cartoon Club—Members of this club draw cartoons for their own fun and for school announcements and posters. The students improve their drawings in this way.

Reading Club—This club has been organized to help students who wish to improve their reading by learning how to read with greater speed and comprehension.

Koverall Klub—To get into a Koverall Klub a boy must be a member of a wood-shop class. New ideas in novelty wood turning are developed here. The members of the club also assist in the construction of articles needed by the school.

In another junior high school, certain clubs are grouped as service classes. "Some students feel the need of special work in reading or spelling. If they realize this need and wish to benefit by special training, and the teachers approve time given for this special work, they are enrolled in special service courses until sufficiently helped to return to their regular classes. Others then take their places in the service class."

Student activities in the senior high school are much more extensive and on a more mature level of organization than in the junior high school. They include the customary Student Body, Girls' League, Boys' League, Girls' Athletic Association, Scholarship Society, Junior Speakers' Bureau, and a long list of civic, cultural, and social clubs.

| <i>Student's Program</i> | | | | | |
|--------------------------|------------------|-----------------------|-----------------------|----------------------------|----------------------|
| Period | Monday | Tuesday | Wednesday | Thursday | Friday |
| 8:05- 8:20 | Section | Section | Section | Section | Section |
| 8:25- 9:20 | Activity Period | Subject | Supervised Study | Subject | Subject |
| 9:25-10:20 | Subject | Activity Period—Clubs | Subject | Supervised Study | Subject |
| 10:25-11:20 | Subject | Subject | Activity Period—Clubs | Subject | Supervised Study |
| 11:25-12:10 | Subject | Subject | Supervised Study | Subject | Subject |
| 12:15- 1:00 | or lunch | or lunch | or lunch | or lunch | or lunch |
| 1:05- 2:00 | Supervised Study | Subject | Subject | Activity Period—Assemblies | Subject |
| 2:05- 3:00 | Subject | Supervised Study | Subject | Subject | Activity Period—Ath. |

The Woodrow Wilson Senior High School organizes all of its extra-curricular activities in the regular program of the day. The object is to encourage students to participate in the extra-curricular activities because of their educational value. In the traditional school, extra-curricular activities come at the end of the regular school day, a fact which frequently inhibits a desire for participation since some of the students feel, "We must stay after school to participate."

In the Woodrow Wilson program one period each day is devoted to these so-called extra-curricular activities, staged in the manner shown by the table presented herewith. This plan is quite flexible. For example, excursions can be readily undertaken if a teacher makes use of the extra-curricular period and combines it with a period preceding or following this extra-curricular period. Another illustration of flexibility in the program is that of the Jordan Senior High School, which is one of the California experimental schools. It has also been working during the past three years with the Stanford Social Investigation Group.

These extra-curricular activities, clubs, and special classes, organized on the basis of interests and needs of adolescents, reveal the direct relationship of the curriculum to guidance.

THIS description of curriculum organization would not be complete without some mention of the organization which promotes a better understanding of guidance and facilitates its functioning, for in Long Beach guidance is looked on as a functioning part of the curriculum.

The Secondary Schools Guidance Council has a personnel composed of the superintendent as chairman; director of secondary schools, vice-chairman; coordinator of curriculum and child welfare, secretary; three teachers from the junior high schools; three from the senior high schools; two nurse inspectors; two deans; two librarians; two counselors; two principals; and the supervisors of junior high school education, senior high school education, attendance, and health service. Teachers, guidance workers, and principals are elected for a term of two years. The personnel of the Elementary Council consists of similar representation.

The functions of each Guidance Council are listed below:

To stimulate interest and furnish leadership in the articulation and coordination of the guidance services in the elementary/secondary schools.

To serve as an advisory, deliberative, consultative body.

To serve as a clearing house for the consideration of ideas, suggestions, and problems on guidance as they pertain to the elementary/secondary schools.

To recommend for consideration by elementary/secondary schools worthy studies, techniques, procedures, and practices in guidance.

To study suggestions and problems relating to better articulation in guidance between elementary and secondary schools.

To meet with the Elementary Secondary Schools Guidance Council and consider certain common problems relating to guidance, including the articulation of guidance services between elementary and secondary schools.

To appoint committees which shall report to the Council on specific problems pertaining to guidance.

To review the work of these committees.

To meet with committees on the curriculum and to consider certain common problems relating to instruction.

These councils were organized by the superintendent in the spring of the school year 1938-39, and in 1939-40 the following secondary committees were appointed: Classroom Guidance Techniques, Guidance Resources in our Schools, Types of Administrative Adjustment in the Schools, Guidance Resources in our Community, Gifted Pupils. Similar elementary committees were named.

These committees were selected both from the Guidance Council membership and from representatives of the certificated personnel. Narration of the specific assignment of two of these committees will illustrate the type of work the groups were assigned to do:

Classroom Guidance Techniques: "What guidance techniques or procedures are applicable to the classroom? What can the teacher herself do in the way of guidance in the usual classroom situation? This should

be replete with concrete as well as philosophical suggestions for teachers."

Types of Administrative Adjustment "What types of administrative readjustment are desirable in order that we may carry on an effective program of guidance in a secondary school? What does this involve—change in teachers' assignments, changes in allotment of special services, changes in supplies an equipment, etc.?"

Four reports by these guidance committees have been completed and accepted by the Guidance Councils. They form the basis for a program of implementation during the current year 1941-42—the elementary and secondary reports on Guidance Resources in our Schools, and the elementary and secondary reports on Classroom Guidance Techniques.

One of the suggestions made by the Secondary Committee on Administrative Adjustments approved by the Guidance Council and accepted by all principals was that one day a week, Tuesday be set aside for guidance purposes specifically. No meetings after school would be called outside the building which means that the faculty will be in the building on that day. One of these Tuesdays each month is to offer opportunity for a faculty meeting, at which will be discussed the reports on Classroom Guidance Techniques and Guidance Resources in our Schools; another will give opportunity for faculty members to attend P.-T.A. meetings; the two other Tuesdays are to be reserved for meeting any pupils or parents who wish to see the teacher or with whom the teachers wish to get better acquainted.

As an aid to setting up the faculty meetings on guidance each school month, there is a series of scheduled meetings with the elementary principals, the elementary guidance workers, the secondary principals, and the secondary guidance workers. At these meetings the two reports referred to above are discussed.

Next year it is planned to study with these same groups another of the Guidance Council reports, "Guidance Resources in our Community."

The Long Beach philosophy accepts individual growth as one of the responsibilities of educators. Through our guidance program, in which we focus attention on understanding the individual child or adolescent, there is opportunity to challenge practice that is not in harmony with the philosophy.

Additional resources are available to teachers concerned with difficult and involved problems of learning, maturing, and adjusting of any pupil. Besides counselors and nurse inspectors in the elementary schools, and counselors, deans, nurse inspectors, and vice-principals in the secondary schools, we have also a school psychologist, a visiting teacher, a school physician who is a psychiatrist, and a child guidance clinic

giving special attention not only to diagnosing the specific problems of a pupil referred for these services but also setting up plans for working with the difficulties of such a pupil.

Guidance thus functions in the curriculum by helping the teacher to understand his pupils better; what their interests and abilities are; and whether they are mature enough to profit by the courses offered on each level.

IN conclusion, we can say that in Long Beach there is a growing consciousness that the curriculum must be evolved out of functional situations meeting both the individual and social needs of the pupil. Emphasis is being placed on evaluating each new course in the light of the objectives of that course to determine to what extent these objectives are being reached.

Chapter 12

CURRICULUM BUILDING IN UPPER SECONDARY SCHOOLS OF SACRAMENTO

By GEORGE C. JENSEN

THE Sacramento City School Department has long been organized for curriculum building. Its policy over many years has been to allocate funds in the school budget so that substitutes might be provided for teachers who are relieved to work on curriculum projects. The theory behind this practice is sound, for it is not feasible or practical to expect teachers to do clear thinking, in curricular or other fields, after a full day's work. Building the curriculum is a fundamental part of any school department's responsibility, and so this major development should be provided for in the budget as adequately as are other phases of the school department's work.

IN connection with curriculum building in the senior high schools and junior college there are three fundamental questions which we constantly ask and endeavor to answer. They are:

1. What shall we teach?
2. How shall the teaching be done?
3. What are the results of our teaching?

These three questions will be recognized, of course, as having to do with educational objectives, content, teaching methods, and evaluating means. The City of Sacramento School Department believes that the answers to the questions can best be had by the use of the conference method and most adequately given by minds that come fresh to the task. Nor do we believe that only specialists in a given field should be permitted to think in that field and to build up the curriculum. The important con-

sideration is that each of the groups which are organized for curriculum building shall be a logical group, regardless of positions held or subjects taught by members of the group; each shall consist of persons who can make contributions to the constructive thinking of the group. In every instance, as we have learned long ago, it is necessary to carry on a great deal of discussion in order to arrive at agreement. In many cases various phases of research are necessary before agreement or conclusions can be reached. It is part of the Sacramento plan to allow adequate time for discussion and for group thinking. Sacramento does not believe that a single person can write as good a course of study or curriculum as can a group of persons which is called together because the members of the group are qualified and willing to think collectively.

From a democratic standpoint it is impossible to escape group thinking. The older type of academic freedom in the curriculum field, where each person had the right to determine what he was to teach and how he was to do it, where he was the sole judge of whether or not he was doing it, really has no place in a democracy. The question of what should be taught either in the whole field of education or in any special phase of the field is a question which should and must be answered collectively if we are really interested in the democratic process and in getting the best educational answers.

There can be no individualistic academic freedom, for instance, in the field

of educational aims, for aims are a primary concern of all. The same is true in the matter of evaluating. The business of determining whether or not the aims which have been agreed upon are being attained in the teaching process is not of concern merely to individuals. It is the responsibility of the entire school or school department. There can be no escape from the task of seriously studying evaluating and of setting up collectively the best means possible for measuring educational results.

In the field of educational methods the case is a bit different. In this instance it is the business of the group to discover all the methods which have been found successful in the teaching of a particular unit or a course and to set those methods down in some useful form. It is not the business of the group to determine that any particular teacher or school shall use any particular method. The successful use of educational methods varies directly with instructors. It is the responsibility of the instructor to understand the various methods which have been found to be successful and to adapt these to his own teaching. The school department's responsibility is that of insisting that the method or methods used by a teacher shall be successful in reaching the aims which have been collectively agreed upon. Any method which obtains the desired results must be regarded as a good method. In that sense the individual teacher still has academic freedom in the field of educational methods.

Operating under the above philosophy a school department cannot escape purchasing thinking power in the curriculum field. It is for this reason that Sacramento sets apart each year considerable funds for placing substitutes in the teaching positions of those who are appointed to curriculum study groups. The time for this work may amount to as much as ten to twenty full

days a year for a teacher or a study group. This is an investment on the part of the school department and a good one.

IT IS the policy also of the senior high schools and junior college not to enter on too many major curriculum projects each year. We feel that it is far better to concentrate on a few and to work these through thoroughly rather than to scatter shot too widely. Another phase of this which is equally fundamental is that of getting a curriculum job completed and then leaving it alone for a reasonable length of time so that it can actually go into operation. A reasonable length of time is four or five years at least. When a course is being mulled over continually the teachers find great difficulty in knowing precisely where they are. Where a course remains fixed for a period of years, it is much easier for a teacher to teach the course and it is much easier to determine whether or not the course is being taught.

In the senior high schools and junior college during the past two years major study groups have been set up in the fields of English, science, foreign languages, and in certain phases of mathematics and industrial arts. Changes in other fields have been incidental. Other fields must await their turn for major consideration. The curriculum committees in English, science, and foreign languages are city-wide committees. They consist of representatives of the whole secondary field in which these subjects are taught. That is, the junior college, senior high schools, and junior high schools. In Sacramento one assistant superintendent is in charge of the curriculum for the elementary and junior high school field, while the other assistant superintendent is in charge of the senior high schools and junior college. Where these fields overlap and the same subject is taught in both segments, curricular committees are set up

Course: *English 4x and 4y*

Division: *I—Composition—(Nine Weeks)*

Unit: *A—Written Expression*

| Aims | Content and References | Suggested Means | Evaluating Methods |
|--|--|---|--|
| <p>To develop skills in the mechanics of written expression.</p> <p>To develop an active interest in vocabulary building and in a nice choice of words.</p> <p>To develop skill in writing descriptions and simple narratives.</p> | <p>Punctuation rules, spelling rules, and lists of words.</p> <p>Grammar rules and good usage. Sentence structure</p> <p>Word lists and good usage exercises.</p> <p>Minimum essentials lists</p> <p>Subject matter based on personal experience, observation, and literature read in class.</p> <p>References: <i>Seeley: Experiences in Thought and Expression</i> <i>Chapman Using English</i> <i>May: Better English, Book 1</i></p> <p>Mimeographed materials: Style book Drill exercises</p> | <p>Drill on minimum essentials established in English 4x and 4y</p> <p>Use mimeographed exercises.</p> <p>Drill on pronunciation and use of words from lists in minimum essentials</p> <p>Write biographies, descriptions, experiences, and stories—a minimum of ten compositions a semester.</p> | <p>Department tests based on minimum requirements in punctuation, spelling, grammar, and good usage</p> <p>Vocabulary tests and pupil participation in class activities</p> <p>Observation and notation of carry-over in pupils' written work.</p> |

coöperatively. This is true in the three fields named above and will be true in many other fields.

Often, in connection with curriculum building, it is necessary to carry on current studies in fields indirectly related to the curriculum building, such as counseling, visual education, testing, and similar projects. In each instance a definite committee is set up, consisting of the logical persons to make the study. Invariably these committees consist of teachers, administrators, and supervisors. The work of such committees is invariably tied in to the curriculum question. Counseling, for instance, involves the whole matter of differentiation, which of course is fundamental in curriculum building. Visual education has to do with educational methods. Coördinating has to do with continuity as between the senior high schools and junior college, or junior high and senior high. And research has many implications to the whole field of curriculum.

Wherever necessary, substitute time is allowed for the members of these committees.

IN the senior high schools and junior college and in courses which overlap the ninth and tenth years, all the curricula are being set up on a four-column form. In the first column the aims of the course or of the unit are stated. In the second column appears the statement of the content of the course. Where a text is used, reference to the text and to auxiliary materials is regarded as sufficient statement. Where a definite text is not used, as in the case where the library method is used, the content details are worked out in this column. In the third column are assembled the various teaching methods which have been found successful in teaching the course or unit. And in the fourth column are placed the evaluating or testing methods to be used in teaching the course.

The value of this kind of a setup lies in its directness and brevity. With such

a statement at hand it is possible for either teacher, supervisor, or administrator to see quickly all the essential facts relative to the course or curriculum. Teaching aids such as student handbooks or teachers' manuals are prepared over and above the course and are referred to in the third column. They are not regarded as a part of the course itself, but merely as means for implementing the course. This form also has value in that it lends itself to clarity of thinking. It is a means for analyzing a course of study so as to make sure that all the essential factors have been thought through.

A characteristic page taken from an English course of study is included in this article as an example of the procedure followed.

The entire English curriculum setup for the three years of the senior high schools requires about forty mimeographed pages. The materials are brief, definite, and easy to follow. There can never be any doubt about the teacher's duty, and yet there is ample opportunity within the agreed-on lanes for any amount of initiative. Nor must it be forgotten that the conclusions were arrived at collectively and that these courses are not arbitrary assignments.

Part III

CURRICULUM PATTERNS IN UNION HIGH SCHOOLS

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Chapter 13

SEQUOIA'S PHILOSOPHY OF EDUCATION DETERMINES ITS CURRICULUM DEVELOPMENT

By A. C. ARGO

SEQUOIA is a four-year union high school with an approximate enrollment of two thousand. A heterogeneous group of pupils attend, representing a great variation of needs, interests, and abilities. In contrast with pupils of high intelligence are to be found some low-grade morons; overprivileged children from wealthy homes associate with the sons of the indigent; pupils of splendid physique must be cared for along with physical weaklings; pupils from homes of culture associate with pupils from homes of little refinement.

Acceptance of this existing local situation, together with our awareness of changing social and economic conditions, an increased knowledge of the varying needs of pupils, the experience of other schools and the previous experience of our own school, the findings of psychologists, and the theory of educational experts—these are the factors which challenge Sequoia constantly to revise its curriculum. Meeting the divergent needs of the heterogeneous group of pupils and taking advantage of the best thinking in curriculum development are the two important curriculum problems.

It is the purpose of this article to describe briefly the present organization of the curriculum and the administrative set-up established for its development.

THE Sequoia faculty believes that there should be some major or general purpose which is directive in the selection of content and method. When thought through and stated by the

teachers, this purpose, it is believed, is far more effective in the selection of functional content than tradition or chance.

For six or seven years the following statement served for our school: "The goal of education is the maximum happiness and well-being of the individual and the welfare of society. This can be accomplished by developing all the desirable capacities of each individual up to the maximum; this philosophy presupposes that the ultimate good of the individual is to be found in the general good of society."

Recently a special committee working on philosophy developed a simpler statement: "The goal of education is to help individuals work together effectively in our democratic society to meet their needs." The Committee states: "This presupposes that the purpose of society is to produce creative well-balanced individuals. This philosophy puts emphasis on society as a means, not an end. It puts the burden for meeting needs on the individual, not on education. It puts the school in the rôle of being an agency to meet needs."

If individuals are to live effectively, they must have certain understandings about themselves and society; they must possess attitudes (aspirations or desires) to act in line with their best thinking (understandings) about the care of their persons and in their relationships with other people in whatever kind or size of group is closely or remotely related to them; they must develop competence (skill) in putting their thinking into effect; and they must

acquire appreciations of the best in things, people, and relationships. For the above reasons, Sequoia has organized its objectives under the following three groups: understandings, skills, and values. In this organization, attitudes and appreciations are listed under the heading of values.

In order to facilitate the placement of responsibility, objectives have been classified under the following headings: Area of Vocations, Area of Social Relations, Area of Recreation, and Area of Health.

Sequoia has worked out a tentative listing of these objectives, but the lack of knowledge of adolescent development, the college requirements, tradition, divergence in pupils' backgrounds and readiness make the assignment of responsibility for achieving these objectives a difficult one. Individuals and committees have made progress, but Sequoia has a long way to go still in replacing tradition and chance with definite assignment of responsibility. Staff and committee meetings and discussions connected with selection and classification of objectives have had a broadening effect on faculty members.

Before proceeding to a consideration of Sequoia's plan of curriculum organization, we must not fail to recall that objectives can be realized only in terms of experiencing. The vital part of the curriculum is the experiences (subject-matter). The pupils must experience through reading, writing, listening, looking, and participating; and Sequoia believes that experiences must be suited to the needs and abilities of individual pupils if these individuals are to gain the understandings, skills, attitudes, and appreciations that are the purposes (objectives) of their education.

SEUOIA believes that all boys and girls should obtain a broad general education. They should acquire certain

understandings, skills, attitudes, and appreciations in degree according to their ability if they are to live together to their mutual benefit. Sequoia believes, also, that all children should have an opportunity to develop their special interests and abilities.

Sequoia provides for general education through its basic (required) courses, which have the chief responsibility, and through the elective courses, which have a supplementary responsibility.

The special interests are discovered in the basic courses and developed here as far as possible as supplementary to general education. In the electives they are given primary importance.

For the sake of convenience and effectiveness in teaching, experiences (content) of a related character are grouped together in courses (subjects). However, especially in the basic courses, teachers are asked to disregard subject matter lines and draw content from any field that will help the pupils gain better understandings of situations, problems, and principles. As a result, two new courses have been started, "social living" and "home arts and applied science." These are the only new ones, however, as the plan in most cases has been to modify gradually the content of already established courses.

Basic courses are as follows:

Ninth year—social living, home arts and applied science, and physical education.

Tenth year—social living and physical education.

Eleventh year—U. S. History, English III, and physical education.

Twelfth year—English IV, physical education, and senior problems (except for college preparatory students). A laboratory science also is required.

Dramatics, public speaking, or journalism may be substituted for English III.

To the basic courses is given the chief responsibility for including content that will provide each pupil with a good

general education. The elective courses provide mainly for special needs, interests, and abilities, though they also must include content that will add to general culture of the pupils. In general, electives are placed in three fields: college preparatory, practical arts, and cultural.

In addition to being given the usual subjects required for college entrance, the pupil expecting to go on to higher education is assisted in planning a course that will prepare him to enter a specific course in a selected college. It is the purpose of Sequoia to keep the standards so high that they will challenge the pupils of better ability.

Practical arts courses are found in the commercial, the shop, the home-making and the gardening fields. Needs and selections of pupils determine the numbers and types of courses. Extensive offerings are to be had in all these fields.

Though music and art are listed as the cultural courses, they are taken frequently as a part of a practical arts course. Courses from the college preparatory and practical arts field frequently are taken as cultural.

Through using teachers of electives on committees that consider phases of general education, teachers are increasingly making their courses more functional in realizing general education values.

In scheduling, preference is given to the basic courses. As far as possible English and social living courses are scheduled in the morning. With social living in the first and second, and the third and fourth periods, two classes in speech correction scheduled in the second and fourth periods can serve these classes. Senior problems classes are scheduled in pairs so that teachers may combine classes for pictures or exchange groups for special units, such as safe driving, which only one instructor teaches.

IN Sequoia, orientation is considered a process continuously happening to every pupil during the four years of high school. The school constantly helps each pupil to develop a better understanding of his environment and a desire to make the most of it. During the freshman year much material of an orientation nature is included in the social living course. The following topics are covered as need arises: physical plant and administrative personnel, personal analysis, social adjustment, offerings of the school, how to study, and parliamentary procedure.

The so-called student activities are considered a definite part of the curriculum and as such are a means of realizing the objectives of the school. They offer an excellent means of developing democratic understandings and developing skills in working in small and large groups. Certain basic course classes are the units of student body government. In these classes pupils discuss student body problems, and from these classes representatives are sent to the councils. Pupils are excused from classes to attend council, board, and commissioners' meetings.

All teachers are considered counselors. The chief responsibility for counseling belongs to the teachers of the basic course classes. Especially in social living, where students are with the same teachers two hours a day for two years and content is of a socializing character, is the responsibility for counseling placed. Counselors in the office are coordinators of counseling, following the pupils through the four years of high school. Their contact with the pupils and parents makes them valuable advisers on curriculum development.

"SEQUOIA has set up its working philosophy and has a continually developing list of general educational objectives as well as objectives in the various curriculum areas. In most in-

stances these objectives may be expressed in terms of understandings, skills and values. Are the learning efforts of the pupils directed toward the most functional understandings, skills, and values? Are we coordinating our efforts with the pupils' needs, interests, abilities, difficulties, and accomplishments? Are we attaining a satisfactory degree of accomplishment? Do our methods, curriculum content, and administrative procedures contribute the maximum toward the most effective and economical realization of our accepted objectives?" Our evaluation program attempts to offer help in answering these and other questions of similar nature.

In general, our program considers as of prime importance the collecting and analyzing of data concerning the less tangible as well as the tangible outcomes. We are attempting to use more information which is rather subjective and less formal, such as teacher ratings, performance in extra-classroom activities, pupil interests, and social adjustments. At the same time we are not neglecting the help we may receive from formal testing. Standard tests and our own teacher-made tests provide us with achievement ratings, diagnostic information, and prognostic values.

We use these data, in addition to the ways already mentioned, as follows:

1. As a major aid in ability grouping for instructional purposes.
2. As a help in selecting pupils for differentiated subject matter and teaching methods.
3. As a means of measuring pupil progress.
4. For diagnosis of class and individual difficulties.
5. For prognosis of pupils' abilities and interests.
6. In the evaluation of methods, materials, and teaching aids.
7. In curriculum construction, organization, and revision.

IN order that curriculum development might progress in an orderly way, Sequoia always has had a general plan

of administration of curriculum construction. This has evolved to the following organization:

Curriculum Director.

General Curriculum Committee.

Objectives Committees:

1. Committee on all school objectives.
2. Committee on vocational education
3. Committee on social education.
 - (a) Committees on special studies.
4. Others (not functioning at present).

Departmental Committees:

1. English and social living.
 - (a) Special studies committees.
2. Shop.
3. Language.
 - And so forth.

Visual Aids Committee.

Auditory Aids Committee.

Student Activities Committee.

Evaluation Committee.

Advisory

Counselors.

Consultants from Stanford. (The Stanford Social Investigation staff has given much valuable assistance.)

At Sequoia, because of the division of duties, the principal, who is responsible for the supervision of teaching, is serving as director of curriculum development. With the advice and help of the administrative staff he stimulates and guides the work of the general education and other committees.

In accordance with the principle that a curriculum cannot be imposed on the school, but that it must be a growth from within, the teachers are chiefly responsible for curriculum development. Each teacher must develop the curriculum used in each class with each pupil. Teachers meet in committees to determine objectives and responsibility for attainment of objectives, to pool resources in developing reservoirs of teaching materials, and to discuss methods and evaluation.

Though the content found in the textbook of the subject taught and the personal beliefs of the instructor determine to a large extent what understandings, skills, attitudes, and appre-

ciations will be gained by the pupils, progress is made when the teachers have purposes coordinated with other teachers and when the selection of content is of such a nature that it will give the pupils the training needed to achieve these purposes.

THE principal committees which have been organized to work on curriculum development function as follows:

General Curriculum Committee. This committee is generally responsible for the curriculum development in the school. Its membership includes representatives from each department, from the counselors, the librarian, the research director, the deans, and several teachers at large known for their interest and preparation for curriculum construction. This committee forms policy and authorizes subcommittees to carry on special studies.

Committee on All School Objectives. During the last two years, this committee has attempted to determine the understandings, attitudes, skills, and appreciations that all should possess to have a good general education. From lists submitted by the majority of the teachers, a tentative list has been organized. This list is subject to constant change as the teacher committees change their opinion on curriculum values. The decision as to the value and the placement of the responsibility for achieving these objectives stimulates teachers, broadens them, assures the inclusion of more functional content, improves placement of content, and eliminates at least part of undesirable duplication.

Objectives Committee on Special Subjects. A special objectives committee has been appointed by the general education committee upon the recommendation of the objectives committee to study vocational education, and this

committee has commenced to function. The Stanford Social Investigation has sponsored social education in the school three years. This objectives committee with many special committees has been working on various phases of social education. Undoubtedly later, the objectives committees will study recreation and health education. These objectives committees have membership from every department and special interest in the school, including the English, social studies, commercial, shop departments, and the like.

Departmental Committees. These committees, made up of the teachers of the departments, meet and discuss their curriculum problems. Two or more departments may meet to discuss common curriculum problems. In the past, overlappings between the senior problems and the home arts and applied science course have been ironed out in conferences. The English and social studies departments have frequent meetings. These departmental committees, especially the English department, have special committees to study special problems and produce source material.

Other Committees. Other committees representing all departments and interests serve the teachers. There are strong visual aids, auditory aids, and student activities committees. One of the strongest committees is the one on evaluation. Headed by the director of research, its purpose is to promote evaluation of the best type by furnishing expert assistance to teachers in the construction, selection, and use of evaluative instruments.

Consultants. The school is sensitive to the need of expert advice. The counselors who are evaluating the results of the curriculum and who frequently come in contact with the parents and citizens make definite recommendations. Stanford University's Social Investi-

gation corps has given much valuable guidance along the lines of curriculum development.

Use of Laymen in Curriculum Development. Sequoia believes in the use of laymen, but believes that the time and effort involved do not always compensate for the service given. Many informal contacts with parents and community leaders furnish opportunities to gain better understandings of curriculum needs. In accordance with the law, advisory committees in pre-apprentice and apprentice shop courses help determine the curriculum.

WE like to think of a curriculum development rather than a curriculum revision program. Every major curriculum committee plans regular meetings, with special committees working on special problems when desirable. At times certain objectives need to be especially emphasized, but there are certain fundamental understandings, skills, attitudes, and appreciations that form the body of the curriculum. The school is seeking constantly to teach them more effectively.

In many classes, in order that the content may be functional, pupils cooperate with the teachers in planning the industrial materials. Sequoia, however, believes that it is the function of the teachers to introduce content that will not only satisfy immediate interests of the pupils but will awaken new interests.

The curriculum content (teaching materials) in the final analysis, must be furnished by the teacher himself. Because the source material from which to draw teaching material cannot be too abundant, individual teachers are requested to place in files materials they develop, in order that others may have access to them. Committees of teachers also produce materials that are available to the group. A special committee of the English-social studies group, in cooperation with the librarian, has made an excellent collection of pictures to be used in teaching English and social living. The evaluation office has many samples of evaluation materials, and the research director advises with teachers concerning their use and the production of special instruments.

Part of the daily task of the teacher is to attempt to improve his teaching. The attempt is made to organize the curriculum development program so that no teacher is overburdened. This means slower progress but a sounder curriculum and more effective teaching. Usually teachers meet at the close of school in the afternoon, but not more than one afternoon a week. Frequently, refreshments are served. Teachers who are challenged by the program appreciate this opportunity of discussing curriculum problems or preparing curriculum materials.

Sequoia has been making progress slowly, but it believes that the progress has been sound.

Chapter 14

FORTUNA MEETS CHANGING STUDENT NEEDS WITH A CHANGING CURRICULUM

By JAMES A. BATCHELOR

THE Fortuna Union High School for many years has faced squarely the problem of meeting changing student needs with a changing curriculum. It has faced the factors that make changes desirable: the recently widened fields of knowledge in the natural sciences and the social sciences; compulsory attendance; youth unemployment; and now the impact of the war, with its attendant huge job of winning final victory and of preparing for the peace.

Besides these factors, there is another which the school feels is fundamental and must be considered: the local community. Fortuna High School has an enrollment of approximately 450 students, graduates of fifteen scattered elementary schools. The area served is largely rural, with the principal industries being lumbering, dairying, and farming.

It was early discovered that any attempts to formulate a functioning curriculum were impossible until a decision had been reached regarding a philosophy—there was need for a framework of values within which the school could operate. It was readily seen that in the formulation of a philosophy at least four important factors must be considered: (1) The needs of adolescents; (2) The manner in which a child grows and develops; (3) A realistic view of the changing society in which we live; (4) The basic philosophy of living to which Americans subscribe—the democratic way of life.

Briefly stated, Fortuna's general goal is to help the adolescent develop his per-

sonality, potentialities, and capabilities to the maximum degree—in order that he may be a happy, useful, and effective citizen in our democratic society.

This general aim has been broken down into three broad objectives:

1. To help students understand this complex, changing world in which they are living.

2. To help students develop a moral code, a philosophy of living, a set of standards by which to make decisions and upon which to base action.

3. To help students develop their own individual abilities to the maximum, so that they can be readily effective in the changing society in which they are living.

Naturally, such broad objectives are useful only in so far as they can be made meaningful. These three objectives readily may be broken down into behavioral characteristics—into understandings, attitudes, and skills. These, in turn, are characteristics which actually can be measured and evaluated. Thus, the problem becomes one of helping young people to develop those understandings, attitudes, and skills which will produce the kind of behavior necessary for effective citizenship in our democracy.

It remains, then, to agree upon the understandings, attitudes, and skills which will achieve this aim—then the curriculum can be formulated. And how can these be selected? From the results of studies, from personal experience, from observation, from an understanding of students, from the

layman's view of the function of the school.

The magic word here, of course, is "need." What skills, attitudes, and understandings does the student need to be effective in our democracy? It is possible to reason directly to *effectiveness* as far as skills and attitudes are concerned, but a consideration of understandings poses a more complex problem. In facing this, Fortuna has attempted to think of the understandings necessary in the four great areas of human relationship, namely: immediate personal-social relationships, social-civic relationships, economic relationships, and personal living.

In various ways the school has been working on this problem for some time. The Social Studies Department has worked out its own list of the behavioral characteristics—social studies teachers have worked with the elementary teachers of the district on another tentative selection—and the faculty at present is working with the Board of Trustees on those which the entire school and community can accept.

THE curriculum makes provision for a body of experiences with which every student should have contact—a "general education" program. This includes health and physical education, language skills, and the social studies. Each student is required to take four years of each of these three subjects.

The Physical Education Department endeavors, throughout the four years it contacts the student, to take him through a well-rounded program of physical development and to ground him in the fundamental principles of good health.

The English Department endeavors to help the student develop his skills of communication and his appreciation for worth-while literature—with a view to both his present needs and his future place in a changing world. The work is made as practical and useful as possible

—for example, this year one of the eleventh year English classes has done the complete job of putting out a school handbook. The techniques of producing a research paper also are stressed.

The Social Studies Department has been revising its thinking in terms of scope, sequence, techniques, methods, and objectives. Since the summer of 1939, the school has been participating in the Stanford Social Education Investigation, which is under the co-directorship of Dean Grayson N. Keffauver and Professor I. James Quillen. The treatment of scope and sequence as worked out in this connection is of interest.

The sequence of subject matter is as follows: ninth year, Orientation (school and community); tenth year, World Culture (international scene); eleventh year, American Civilization (regional, national); twelfth year, Social and Economic Problems, and Vocational Life.

The scope of the work is expressed in the four great areas of human relationship, namely: immediate personal-social relationships, social-civic relationships, economic relationships, and personal living. The needs of the students in all four areas of relationship are met year by year through the use of subject matter and experiences. For example, each unit or topic in the ninth year work contributes to one or more of the four areas, and the entire year's work contributes to all four of them. It is the same with the other three years of social studies.

Fortuna recognizes its responsibility also to care for the specialized needs of its students, in addition to providing them with the general education program. These needs are met in many ways. For example, the total curriculum is divided into seven courses of study: the University Preparatory Course, the State College (teaching) Course, the General College Course, the Agricul-

ture Course, the Commercial Course, the Home Economics Course, and the Industrial Arts Course. The last four courses of study mentioned are further divided into "college" and "vocational" sections.

Thus, the school undertakes to help the student to prepare himself for whatever he may have in mind: he may go to the state university, to any teachers' college, to any general college, to any agricultural school, to any commercial school, to any home economics college, to any industrial arts college—or he may fit himself to work as a farmer or dairyman, as a stenographer or bookkeeper, as a homemaker or a housekeeper, as an automobile mechanic or carpenter.

A recent change is illustrative of the trend in the entire school toward making educational experiences meaningful. Until a year ago, the course in General Mathematics seemed to be merely a hodge-podge of several units organized without satisfying the needs of the individual pupils except in isolated instances. In each class were thrown together students from the commercial, industrial arts, home economics, and agricultural fields—each with different needs as far as mathematics was concerned.

A radical departure was taken in order to remedy this situation. After a great deal of planning with the different departments, four separate General Mathematics courses were worked out—one for home economics students, one for industrial arts students, one for agriculture students, and one for commercial students. This work has become so valuable that now the subject is required of all students enrolled in any vocational course.

Special interests of students are further provided for in the general curriculum by the inclusion of such subjects as public speaking, dramatics, or-

chestra, band, glee club, choir, art, et cetera.

A PROBLEM which faces the school is one with which many four-year high schools are quite familiar: that of orienting the students from a number of eight-year elementary schools (many of them one-teacher schools) into the strangeness of the departmentalized high school.

At Fortuna the solution of this problem is begun long before the student comes to the high school. During the semester previous to the student's enrollment, the high school principal and a few teachers visit each elementary school, talk with the eighth grade students, advise with them, and register them in the course of study which the child, his parents, and his teachers decide upon. The freshman class then sponsors an "Eighth Graders' Day." All eighth grade students are invited to come to the high school for the entire day, to be the guests of honor at various programs, to lunch in the cafeteria without charge, to visit classes, to talk with teachers, and to become acquainted with the school plant.

When the student becomes a freshman, the school makes many attempts to smooth over the transition which faces him. The ninth grade social studies class assumes major responsibility for the new student's happy adjustment to high school life. The first few weeks of work are concerned with the physical plant, the teachers and staff, the school organizations, traditions, awards, school songs and yells. A series of meetings of the new freshman class is held, conducted by the student body officers. The officers welcome the new students, explain school traditions and awards, and the school yells and songs are practiced under the direction of the student leaders. About three weeks after the opening of school, the sophomore class sponsors the annual "Freshman Recep-

tion," which consists of a program and dance at which the freshmen are guests of honor. There is no hazing of new students at Fortuna.

To aid in the orientation of the new class, each freshman advisory (home-room) elects one representative to the Advisory Board (Student Council). This representative reports regularly to his advisory what business has been transacted at the daily meeting of the Advisory Board. Thus Fortuna freshmen quickly lose their awe of the new surroundings, forget their loyalty to an elementary school, and become an integrated part of their new class and the student body.

The Advisory Board just mentioned is an interesting phase of student activity related to the curriculum. It was an outgrowth of three previous extra-curricular experiments. Several years ago the senior class took over responsibility for library control and conducted a library court to confer with offenders. At the same time, the junior class assumed responsibility for maintaining orderly hallways and instituted a traffic court. Two years ago the senior class made an attempt to have school-wide representation on their library court, and invited the president of the freshman, sophomore, and junior classes to sit on cases with two senior judges.

These plans worked so successfully that last year the traffic court and the library court were combined into one Student Court, composed of two representatives from each of the four classes. This court attempted to handle many cases besides library and hallway violations. At this time, there was a great deal of dissatisfaction with the existing student body government, and so after thorough discussion by faculty and students, a temporary Planning Committee was set up to look into the possibilities of a general revision of student body government, student affairs, and

the like. The group functioned so well that a permanent committee was organized for the present year, to be known as the Advisory Board.

This Advisory Board is composed of one representative elected from each Advisory and meets each day with the principal and one teacher. The members are excused from their social studies or English class, if necessary, in order to include the meeting in their program. They handle such things as student body finances and the revision of the student constitution. They help also to make many decisions having to do with student activities and behavior. The whole attitude of the student body regarding the "democracy" of the school has been more wholesome since this group was organized.

FORTUNA views the total guidance of the student as the job of the entire school.

For example, the student's health is guarded zealously. Through his physical education class, he receives an annual physical examination conducted by the school physician. In addition, his sight is tested by means of the Snellen sight chart, and his hearing is tested by means of the audiometer. This information is made available to all teachers so that they may make adjustments in regard to seating and in other ways help the handicapped student. In cases of abnormal conditions of sight, if the student is unable to pay for glasses or treatment, funds are available for this purpose. In cases of poor diet, malnutrition, and similar disorders, individual conferences are held with the student and his parents to try to effect a correction. In cases of dire need, a school lunch ticket is made available free of charge through cooperation with the federal surplus commodities program. Through the use of surplus commodities, the school also is able to furnish a

bowl of hot soup to each child in school every day without charge.

Sex education is taken care of by the Physical Education, Home Economics, Science, and Social Studies Departments. Leisure time activities which have a definite carry-over to later life are important in the English and social studies work. The Physical Education Department sponsors a student-conducted intramural athletic program during the noon hour, in which every student participates.

Educational guidance is a major phase of the social studies work during the ninth and twelfth years, particularly. During the ninth year, a survey of the entire field of vocations is followed by a detailed review of the courses of study offered by the school. With parental help, the student's four-year program of studies is worked out. In the twelfth year class, those students who are planning to continue their formal education are put in contact with the school of their choice to discover exact entrance requirements, courses offered, and other necessary information. Once each year the seniors make a one-day trip to the Humboldt State College at Arcata.

In addition to the guidance given in each of the vocational departments, the social studies classes contribute during the ninth, tenth, and twelfth years. In the ninth year, the emphasis is on a general survey of all fields of employment. In the tenth year, the emphasis is on a possible selection of one or two fields as a probable choice for life work. In the twelfth year, the emphasis is on preparing for, applying for, and getting the particular job which the student has in mind upon his graduation.

Vocational commercial students elect Business English during their twelfth year, in place of the regular English class. This class is organized on the order of a "Better Business Bureau,"

with officers elected twice yearly. Each student selects the particular business for which he is preparing himself and throughout the year builds all his projects with that job in view. He is urged to contact local business men and women in his chosen field and to write to others in larger cities for information suitable to the solution of his questions.

Job placement also is assumed by the school. The Agriculture, Home Economics, Industrial Arts, and Commercial Departments make definite efforts to place their graduates in available jobs. Furthermore, one teacher is in charge of finding part-time employment for students while they are still in school. The community is thoroughly canvassed for possibilities, and, in addition, the NYA program makes work available to many students. Through contact with the State Employment Bureau, all students who applied for summer jobs were placed last year; through contact with available schools, an average of ten to fifteen of the graduates each year have been placed in jobs in the Bay District.

Guidance in the field of social skills is adequately handled in the Home Economics and Social Studies Departments. The foods classes have ample opportunity for each student to be host and guest at simple parties. The tenth year social studies work affords students a chance to study the personality of others and to consider (possibly for the first time) their own personality. The twelfth year social studies work devotes one entire semester to the problems of home and family living and the development of effective social relationships.

THE school realizes that in order to justify its existence, it must make efforts to evaluate its effectiveness. The evaluation, of course, must be on the basis of the purposes—whether or not

they have been achieved, and, if so, in what measure. Two techniques are being used: the administering of many of the Progressive Education Association instruments, and the conducting of a quite extensive graduate survey. The PEA instruments have proved very helpful in the evaluation of personal growth in attitudes and abilities.

The graduate survey has gathered returns from members of the classes of 1939, 1940, and 1941, and this year a second questionnaire will be sent to the members of the classes of 1939 and 1940.

The results of this survey have been made available in tabular form only—those responsible are at present engaged in an analysis and interpretation of the result. We can be sure, however, that returns on certain items are sure to affect our curriculum, when they are properly evaluated, including those that have to do with graduates who leave home immediately, the problems of health education, getting along with others, locating a job, consumer problems, sex education, effective mastery of mathematics and English for everyday use, spending leisure time wisely, developing a responsibility for community affairs. Indeed, already some change has been effected in the English and mathematics work as a result of the survey.

THE major responsibility for the administration of the curriculum of the school rests with the principal. Teachers work with him, either individually or by departments, in the development of their work. For example, the Social Studies Department meets once each week with the principal and attends with him the workshop at Stanford University each summer, since the school is one of ten participating centers in the Stanford Social Education Investigation. Members of the staff of the Investigation visit the school sev-

eral times during the year and are available for help to all departments.

Many teachers consult with these staff members during their visits, as they have done with the state psychiatrist and the chief of the Bureau for the Correction of Speech Defects and Disorders. Having these visitors, together with attendance at summer sessions and institutes and the utilization of much professional material available in the school library, enables the faculty to maintain a fresh viewpoint regarding problems of education.

AT the present time, the faculty at Fortuna is thinking through the deep implications for the public high school which come during a period of war. Education must contribute to the war effort in a way that will help to final victory and honorable peace, without the tremendous let-down, the spirit of cynicism, and the feeling of disillusionment which followed the earlier world war.

The curriculum at Fortuna is meeting such challenges as that issued by the Educational Policies Commission in its bulletin, *A War Policy for American Schools*. Fortuna is training workers for war industries and services; it is safeguarding health and physical efficiency; it is conserving materials by prudent consumption and salvage; it is increasing effective man-power by correcting educational deficiencies; it is protecting the ideals of democracy against war hazards; it is teaching the issues, aims, and progress of the war; it is sustaining the morale of children and adults; it is maintaining intelligent loyalty to American democracy.

The curriculum at Fortuna is not bound by tradition. The community knows that the fundamental criterion for the existence of the school is that the needs of the children must be met in a world as it exists now. Fortuna will make every effort to meet those needs.

Chapter 15

HOW OAKDALE IMPLEMENTS ITS CURRICULUM AIMS

By H. E. CHASTAIN

EDUCATION is a function of society and is not the same in all settings. The educational program of the Oakdale Joint Union High School is designed and operated to serve the particular communities in which it is located. Therefore, to understand better the problems which this school must meet, it is necessary to know something about the district it serves.

The high school district comprises a territory of 465 square miles of Eastern Stanislaus County and serves six separate rural communities, the largest of which has a population of approximately 3,000 and the smallest a population of 200. Seven hundred pupils form the student body and twenty-nine teachers comprise the faculty. Four hundred fifty pupils are transported to school in buses, one of which travels thirty-five miles in one direction while another travels twenty-five miles in the opposite direction. The school is in the center of a diversified farming, dairy, orchard, and cattle-raising area. It is a typical public high school, operating by means of the regular sources of support, and, incidentally, at a per capita cost considerably lower than the average high school in the State.

IN attempting to become as effective as possible in meeting the needs of individual children on one hand and the requirements of society on the other, the faculty at Oakdale Joint Union High School has developed a philosophy in which the pupil is the center and hub about which the structure and func-

tion of the entire curriculum revolve. The central objective is to provide the activities and experiences which will permit wholesome rural adolescents to grow into informed, responsible, active, intelligent American citizens; that will allow children at the brink of adolescence to be able to orient themselves to an ever-growing concept of a complex and changing environment; which will help developing young adults to interpret this environment in terms of personal purposes and needs; and that will help them gain competency in life relationships to the limits of their capacities. The school program starts and ends with the human organism, not with subject-matter to-be-repeated or facts to-be-memorized.

A functional-laboratory type of method which attempts to approximate activities typical of contemporary life is the conception — an educational plan that keeps changing constantly in the light of new insights on the part of its directors as to real pupil needs and the shifting of the American scene. Pupils participate in planning, organizing, and effecting all activities, in the classroom and out.

Pupil wants are given as much consideration as is commensurate with needs. Objectives are set up in terms of pupil behavior, and evaluation concerns itself, likewise, with measurements of altered conduct.

EQUAL representation of faculty and pupils on a general curriculum committee provides the administrative

organization which formulates basic policies of curriculum development. The assistance of laymen is obtained occasionally, and the constant advice of the Stanislaus County secondary school curriculum coordinator (also half-time director of curriculum and guidance in the school) and other curriculum specialists from nearby universities and colleges is secured. A long-term inservice training program featuring concentrated study of curriculum trends throughout the country has been in progress for the past five years.

A faculty study club reviews current publications in the fields of secondary curriculum, psychology, sociology, philosophy, and mental hygiene, reporting to the whole faculty on the more significant works. Over fifty volumes have been reviewed and discussed in this manner during the past year.

In addition to the general curriculum committee, special course committees of teachers meet regularly at weekly luncheon meetings to discuss details of meeting course objectives, particularly in the general (or core) courses. Discussions of course teachers are not held to create uniformity or regimentation of all sections but for the exchange of ideas concerning teaching techniques, materials, and devices and to energize one another in the interest of greater effectiveness. We believe that an objective can be realized in many ways and that freedom of teachers and pupils to work out specific techniques together is an essential requisite to genuine interest and consequent learning.

Other general committees, composed equally of teachers and pupils, whose special work has a definite bearing on the curriculum include the Assembly, Scholarship, and Citizenship Committees. The faculty Professional Committee, the only one on which pupils are not equally represented, organizes the yearly programs of professional growth,

promotes faculty-trustee relationships, and operates to maintain high standards of ethics and morale.

When any committee has discussed a possible change in curriculum involving the entire school and agreed as to its recommendations, the plan is presented to the faculty as a whole for discussion and action. When action is taken, the principal is responsible for putting the plan into effect.

Curriculum reconstruction is a continuous process contingent upon the changing configurations of employment possibilities, international developments, performances of graduates, scientific developments in agriculture and industry, and the slower, but nonetheless real, realignments of the social culture.

An example of the manner in which this ever-active curriculum revision program has felt the pulse of rapidly changing conditions affecting pupil needs, and responded, is shown by the changes which have occurred while the recent events in Europe have impinged themselves ever more sharply upon the lives of Americans.

Early in 1940, provision was made, through the above process, for the inclusion in the ninth year general course, "Social Living," of an extensive instruction in the principles of first aid and life saving. This involved a training course for teachers, which was held at once under the direction of the Red Cross, with a 75 per cent attendance of all faculty members. Included in courses in physical education, health, and hygiene, home nursing and life problems were extended units in first aid, offered so as to train immediately all students in school in what the Curriculum Committee saw to be a vital immediate need of adolescents in a world at war.

Immediately after December 7, 1941, there appeared the necessity for faculty and pupils to study intensively together the principles of civil air defense and

to organize an air raid defense program within the school. This was started by setting up a Student Defense Council with student committees on air raid drills, publicity and information, fire prevention, first aid, and morale. The Student Defense Council began an intensive study of printed materials on the subject, organizing panel discussions and student discussion groups for the dissemination of information. A revitalized interest in first aid, fire fighting and prevention, and values of studying and working together for a common purpose have resulted. This program is very much in progress at the present time.

Typical of longer term needs and their satisfaction within the school curriculum has been the realization on the part of the Curriculum Committee that ninth year students in the Oakdale Joint Union High School need a better understanding of those biological and physiological structures and functions which reach a climactic stage in early adolescence, thus giving increased support for the pupil's mental and moral stability. Consequently, a series of units has been incorporated into and correlated with the Social Living course, taught to each section by a woman teacher with a life science major and a broad social background. Subject-matter topics presented to most sections include respiration and environment, scientific attitudes, organs of the head, digestion, skin, circulatory and urinary systems, body control, microorganisms and communicable diseases, and reproduction and genetics.

FOR the past five years the Oakdale curriculum has included traditional subject field courses and new-type "child-need" centered courses in varied ratio, the latter type increasing in number each year. At the present time there is a series of general (or core) courses, which with physical education, science,

and the extensive activity schedule, constitute the program of general education and are required of all pupils.

To provide for individual differences in abilities, interests and needs, an array of special departmental courses is available in agriculture, art, commerce, homemaking, dramatics, language arts, industrial arts, languages, mathematics, library, music, and social science. Patterns of elective courses are scheduled by entering students, assisted by the advice of ninth year general course teachers. In the light of changing personal plans of pupils, these four-year programs are revised each year, with the close supervision and attention of general course teachers and counselors.

The ninth year general course, Social Living¹, is based on principles of guidance and aims, basically, to adjust the new pupil to high school life, local community life, and to his expanding place in a democratic society.

It reaches down into the twelve elementary schools in the Oakdale district, and, through the Freshman Speakers Bureau, a "future freshmen" program, letters to parents of eighth graders, an eighth grade visiting day, and Social Living Deputations Committee programs, attempts to build in the prospective ninth grade pupil an interest in and an ardent anticipation to enter upon his high school career.

Among specific objectives of this general course are the following:

1. To orient the pupil to his school and community life.
2. To stimulate him to work with a purpose in mind.
3. To make for appropriate choices of subjects and activities.
4. To promote mastery of communicative arts.
5. To stimulate good reading habits.
6. To promote interest in world affairs.
7. To understand the biological aspects of adolescence (in life science units).

¹This course is described in full by J. B. Vasché and E. D. Morgan in "The American Way," *The Clearing House*, 15: 259-263, January, 1941.

The Social Living program offers a diversity of experiences, each selected and directed by pupils and teachers working in close coöperation and based on the studied needs of the particular group involved. It aims at an optimum of democracy within the schoolroom, and each detail is developed with that end in view.

In the tenth year general course, World Culture, the orientation of the pupil proceeds with a general purpose of developing a more mature understanding and appreciation of various levels of human culture commensurate with his psychological and social growth. The further fixing of habits of desirable democratic behavior, development of good taste in literature, music, and art of all ages, increasing skill in oral and written expression, and the understanding and recognition of the functioning of the pupil's own and of others' instincts and emotions as they find expression in group relations are other major objectives.

Each teacher is encouraged to use the approach, subject matter, and methods deemed most appropriate for the groups which he guides, so, in consequence, as many actual courses exist as there are teachers. The content of one recent World Culture course included the following:

1. Activities of artistic self-expression, including a handicraft exhibit; American Indian, foreign, domestic, and Oakdale High School applied art.

2. Being understood; problems in personality and self-expression as illustrated in certain literary works, such as *Silas Marner*, et cetera.

3. Desirable democratic behavior; what makes a pleasant classroom; preparation of a pupil's handbook for classroom and school behavior; writing a school code of ethics.

4. Understanding the principles of propaganda; response to art in propaganda with reason as well as emotion.

5. Emergence from adolescence; desirable family life as depicted in certain literary works, such as *The Odyssey*.

6. Democracy throughout the ages and in varied cultures.

7. Extension of patriarchal and patrician control to royal and imperial governments.

8. The Christian ideal of democratic brotherhood, its conflicts, its compromises, and its applications.

9. Growth in achieving democratic living as the patriotic duty of American students.

Frequent meetings of section teachers and the use of a daily mimeographed News Analysis Discussion Sheet are used for purposes of coördinating effort.

AMERICAN Life, the eleventh year general course, began with a correlation of United States history and American literature. As a result of several years development, activities and experiences intended to increase appreciation for American art, music, and drama, as well as considerable group guidance material, have been incorporated into most of the sections. Here, as in World Culture, teacher-pupil planning largely determines the materials and methods used in the different sections.

The improvement of reading habits, the broadening of literary horizons, realistic understanding of the American culture, increasing abilities to think critically in social situations, furthering skill to work coöperatively in small groups, greater development of responsibility, initiative, and self-reliance—these are the working aims which stress the developmental rather than the fact-pouring nature of the process.

Several approaches are used, including the historical, chronological, and problem; and considerable emphasis is placed on contemporary happenings. A radio listening room is available for pupils who desire to hear certain scheduled selected broadcasts throughout each day. Visual and auditory aids are used freely but carefully by all general course teachers.

In the twelfth year all seniors are required to take Social Studies IV for one semester and either Life Problems or College Problems in the second semester. Social Studies IV is a vitalized civics course dealing with such topics as: totalitarianism and democracy; World War II; United States foreign policy and foreign relations; United States-Japanese conflicts; federal taxation and finance; legislation; security for the American people; the national defense program; and the good neighbor policy.

Supplementary reading includes appropriate articles from such magazines as *Time*, *Current History*, and *Readers Digest*. Members of the staff have engaged in extensive material-gathering and bibliography-building research in the development of the reading program for this course. Debates on current issues, including local student body issues, also are included to impart life and vigor and to personalize the process.

In the second half of the twelfth year, those pupils whose individual plans include college or university entrance within a few weeks enroll in a College Problems course. This course is designed to coordinate the four-year group of college preparatory subjects which these pupils have taken and to facilitate further the transition from a rural high school to the often strange and impersonal atmosphere of a large university.

Objectives of this course are:

1. To develop in pupils a fuller realization of what college life is like and what it will mean to them.
2. To teach the best methods to use and attitudes to assume while pursuing a college education.
3. To assist pupils in formulating goals which will operate for greater achievement.
4. To help pupils recognize and eliminate personality defects which might act as a detriment to college success.

5. To acquaint pupils with methods of financing themselves while in college—wise budgeting of allowances, et cetera.

6. To assist in speeding up rates of reading.

Experiences of the course include the following: note-taking from lectures; wide reading of college-level material; practice in bringing together material from wide sources into fairly long papers; practice in making study time-budgets; practicing methods of speeding up mental activity and concentration; investigating curricula, activities, and living groups of various colleges; making contacts with college students, professors, and deans to receive their advice and counsel; and actual visitation of campuses.

Seniors whose plans do not include further academic education (about seventy-five per cent) are enrolled in the course in Life Problems, the general objective of which is to assist pupils to understand some of the problems which lie immediately ahead of them as job-seekers, home makers, beginners in the world of business, and as active young citizens in a democracy.

Specific units in last year's course were as follows: Your Personal Growth and Development; Your Health: Physical and Mental; Your Future: Marriage, Home, and Family Life; Your Job; and Your Security in America.

Extensive bibliographies have been developed for each of the above units and library facilities enhanced to provide a wide range of realistic, effective reading materials.

The development of a mimeographed Daily Participation Sheet edited usually by committees of the instructors but occasionally by pupil groups and placed in the hands of each ninth grader each day helps coordinate the basic learning materials with current school activities, the supplementary reading program, radio programs, magazine articles, and so on.

The daily mimeographed News Analysis and Discussion Sheet^a is utilized in all general courses to a greater or lesser degree.

THE faculty of the Oakdale Joint Union High School accepts the guidance function as a major responsibility and is sincerely endeavoring to develop a functional program, recognizing the fact that guidance, instruction, and curriculum development are inseparable parts of the educational process.

A director of guidance, four counselor-coordinators, two deans, the director of the Adjustment Bureau, and the director of the student work program, all of whom do some regular classroom teaching, carry on special phases of a guidance service which includes every member of the faculty. An examination of the discussion of general education courses above shows the extent to which correlation between guidance and instruction has been accomplished within general course organization.

Several years ago, the spotlight of attention was turned upon the problems of guidance by the Professional Committee, which inaugurated and carried to unusually successful completion an inservice training program using the theme, "Evaluation of the Oakdale Guidance Program." A series of faculty study meetings was held, throughout one entire school year, in which the literature and current practices were examined and the local program assessed in the light of this data. Sub-divisions under which the study was made were:

1. Needs of adolescent children.
2. Ascertaining needs and information about children.
3. The social background of guidance.
4. Group guidance.
5. Personal counseling.
6. Orientation of pupils.

7. Use of cumulative files.

8. Job-placement and follow-up service.

As a result of this faculty-wide study, the guidance program was revised and revitalized and became a conscious, meaningful objective of each teacher in the school. Recent developments in the field of guidance are reviewed by the members of the faculty study club (mentioned above) and the more important works reported to the whole staff.

Outstanding features of the guidance program at present are the following: the continuous inservice training plan; incorporation of personality development, vocational information, and mental hygiene units into the regular courses of instruction, particularly in the general courses; adoption of a cumulative record folder containing pertinent personal information about each pupil; completion of surveys on graduates, drop-outs, employment opportunities, and attendance; a work experience program, including the NYA lunch work schedule and a community work plan; and a "future freshmen" pre-high school orientation program.

Closely coordinated with the materials and experiences concerning occupational fields is the work of the Adjustment Bureau, a recent addition to Oakdale's guidance services. This organization is an employment bureau plus and was set up for the purpose of assisting graduating students or "drop-outs" to make the contacts and initial adjustments necessary to bridge the gap between high school and the next step in their careers.

To date, contacts have been made with the recruiting services of the United States armed forces, prospective full-time and part-time employers, and all types of higher (or further) institutions of learning. Housing facilities have been obtained, scholarships secured for deserving graduates, part-time em-

^aFor a detailed description of the Oakdale Daily Participation Sheet see: J. B. Vasché, "Daily Participation Sheet—A Learning Aid," *California Journal of Secondary Education*, 13:206-207, April, 1939.

ployment arranged, and a myriad of minor adjustments made as a final benefaction to the parting son or daughter. The possibilities of the Adjustment Bureau are extremely large and, in relation to potentialities, they have been hardly touched as yet.

A THIRTY-MINUTE activity period each day provides time within the regular school day for a varied program of student activities that includes every pupil and teacher. The normal weekly schedule for this period is as follows, although it remains flexible enough to provide for special events as they occur:

Monday—Regular homeroom advisories, class meetings, Girls' League and Boys' Federation meetings.

Tuesday—Vocational and special interest clubs.

Wednesday—Motion pictures. Social dancing class.

Thursday—Honor, service, and departmental organizations.

Friday—Assemblies and rallies.

Throughout the activity program, students determine policies, conduct all meetings and projects, and carry on the business of the various organizations. The vocational and special interest club program involves 95 per cent of the student body and 85 per cent of the faculty, all on a voluntary basis. This year there are twenty-four clubs organized on the basis of pupil interest and faculty qualification for sponsorship.

Oakdale High School is attempting to provide a type of secondary educa-

tion that not only will prepare its pupils to function effectively in later life but will build through a vital developmental experience, the skills, attitudes, and ideals that make for competency in child life, here and now. The ability to do worth-while school projects with skill; the ability and desire to coöperate in a democratic way with schoolmates; the stability and fortitude to meet adversity without losing heart; the studied choice of the better forms of expression and conduct; and a devotion to the principles of democracy based on intelligence—these are the outcomes on which the school is willing to be judged. If they are the objectives, then they will constitute the criteria for evaluation.

The testing of memorized facts is forming a smaller and smaller fraction of the evaluative process at Oakdale. Student questionnaires and inventories, reports and surveys, instruments of self-appraisal based on goals accepted by the learner as well as the teacher are being used more and more. The cumulative file with its autobiography, its anecdotal records, its interview reports, its statements of progress and growth, its evidences of change in the individual's development tells the story infinitely better than the required A to F marks.

It is with this philosophy and toward these ends that the faculty at Oakdale is working. Progress is being made, slowly though steadily, but there is still much to be done.

Chapter 16

CURRICULUM REVISION IN THE YUBA CITY UNION HIGH SCHOOL

By MARION McCART

IN 1933 there was begun in our high school a plan for curriculum revision. Individual departments made detailed studies of their objectives, weeding out the outmoded ones, replacing them with newer, more vital purposes. They presented their outlines at faculty meetings and, after a discussion of the entire group, prepared from their own fields a list of minimum essentials with which they felt every high school student should be equipped.

Nor was the subject matter angle the only approach; questionnaires were given seniors, graduates, and parents. Laymen in major occupations of the community were consulted. Diagnostic tests were administered to eighth grade students.

Realizing that conditions are changing constantly, the faculty, during the 1938-39 school year, restated aims and objectives.

In putting into words our aims, we endeavored to state first the aim of education, then the objectives of the four-year high school, and next of our own Yuba City Union High School.

THE high school is a part of the general educational system of the United States. Being a part of the common school system, its function will be to aid in carrying out the aim of all education. Consequently the aim of education must be understood before the objectives of the high school may be determined. The purpose of education is to produce a citizen for life in a democracy who is intelligent and socialized. A democracy

is a government of the people, by the people, and for the people.

Citizenship consists of: assuming responsibility, honesty, reliability, co-operation, taking care of health, having grasp of fundamentals, courtesy, promptness, loyalty, self-control, generosity, broad sympathetic outlook, willingness to accept criticism, courage, orderliness, and willingness to support an adequate educational program.

An intelligent citizen is one who has a command of those skills, powers, and knowledges, to the limits of his capacities, that will enable him to enjoy and contribute to the culture of the group. Basically, these are the arts of communication — language, written and spoken, numbers, music, and so forth — which will facilitate near and far contacts with men, goods, and ideas. He is one who is able to evaluate, standardize, and have the proper outlook so that he will regulate his attention, determine his choices, organize his activities, shape his personality, and control his emotion.

The problem of socialization is one of adjusting the individual to the group. Every individual acquires, early in life, egocentric characteristics. The care and attention that the infant gets intensifies the ego and prevents the development of social characteristics. As socialization develops, selfhood is broadened so that it takes in more than the individual. Socialization cannot be considered merely as the process whereby the individual moves from juvenile reactions to the complex reactions of adults, for there is no reason for assuming that

adult patterns of reaction are socialized. What is may not be, and often is not, what should be.

Although socialization means being a member of a group, it does not mean that the individual must conform to all the wishes of the group. He may strive to change the ideas and customs of the group to what he believes to be better ideas and customs. The aim of education is to direct the individual toward intelligent socialized citizenship for life in a democracy.

THE aim of all education being to develop intelligent socialized citizenship means that parts of the educational system will have the same general aim, with different functions and objectives to be used as sign posts leading to the aim. The elementary school, high school, junior college, and university will have different duties to perform, according to the stage of development of the students attending them.

The purpose of the four-year high school is to take the pupils where the elementary school leaves them and direct them as far as possible toward the aim of all education.

It is important that every student coming in contact with the high school be guided and motivated so that he will develop the proper attitudes, ideas, and ideals, so that, after completing his formal education, he will be able to direct himself to the limits of his capacities toward intelligent socialized citizenship for life in a democracy.

THE Yuba City Union High School has an enrollment of about 700 students. These students come from homes representing various economic and social conditions. Some have the ability and intend to enter institutions of higher learning, and others want to obtain employment or enter into gainful occupations at the completion of their school

course. Others have not made choices concerning their future.

It is the belief of the faculty that all students, since they are being directed toward intelligent socialized democratic citizenship, should have certain common experiences during their high school education. In addition to their common experiences all students should have the opportunity to better prepare themselves to enter the occupation of their choice according to their abilities and aptitudes. The students who have not made their choice should be aided by counseling and guidance. All students of the high school should be properly tested so that wise counseling and guidance can be effected.

In order to meet the various needs of the pupils and direct them toward the aim of education according to their interest, abilities, and aptitudes, our high school has set up a basic core running through the four years, with one or more electives each year and a guidance program.

The basic core is as follows :

| | |
|---------------------------------------|-----------------|
| <i>Ninth</i> | <i>Tenth</i> |
| English I | English II |
| Phys. Educ. | Phys. Educ. |
| Personality and Social Development | World Cultures |
| General Math. | |
| <i>Eleventh</i> | <i>Twelfth</i> |
| English III | |
| Phys. Educ. | Phys. Educ. |
| U. S. History and Civics | Modern Problems |

Art and music appreciation both are given in connection with all the social studies. There is close planning and co-operation between the teachers of English I and Personal and Social Development, English II and World Cultures, and English III and United States History and Civics. The new type courses we have developed are Personal and Social Development, World Cultures, and Modern Problems.

DURING the spring semester of the 1939-40 school year, the faculty decided to "check up" the whole program. This was done by having each teacher fill out a questionnaire and having the results compiled by a committee.

A comprehensive picture of our curriculum procedures is presented by a summary of the data which this evaluation collected. Questions asked and topics on which comment was requested are given in italics, and the answer to each follows immediately.

1. *What Are We Attempting to Accomplish in the New Program?*

The answer: A thorough understanding of the requirements of intelligent, socialized, democratic citizenship by teachers and students—this to be accomplished by emphasis on educational and vocational needs of individual students, by continual recognition of student aptitudes and interests through guidance and counseling, by developing of abilities and broadening of interests, by providing certain common worthwhile experiences for all students (basic core), by developing a sense of personal responsibility, by self-evaluation, by functional use of fundamental skills, and by evaluating progress toward objectives.

2. *What Are the Actual Changes in Administrative Procedure in the New Program?*

The answer:

Individual needs of students are given more consideration when curricula are revised and equipment is selected (the emphasis no longer being on college-bound students).

Increasing provision of equipment to meet the needs of students in enriched courses.

Policies determined by faculty and committees.

Faculty committees in each department determine whether a student should graduate from that department.

Student representation in faculty committee meetings.

Faculty meetings called when needed rather than periodically.

Fostering of spirit of coöperation between faculty and students.

Committees from various departments meet to determine interrelated needs (foreign language teachers suggesting timely handling of certain skills to English teachers, for example).

Keeping of written records of all committee meetings and activities.

Policies improved due to visits of evaluation committee and ideas presented by other cooperating schools.

Objectives of individual courses, departments, and entire school tie in with the aim of education.

Attempts to evaluate material and objectives.

Counseling handled in core classes rather than in homerooms.

Solving of administrative problems no longer superimposed but now a concern of the entire faculty.

Students have direct part in planning student body budget.

Each student body organization plans earning and spending of its own funds.

Addition of personality rating chart to a revised report card.

By abolition of the merit system, discipline has been made more elastic to meet individual needs.

No written excuses for pupils' absence required from parents.

Reorganization of entire curriculum.

3. *Procedures in Teaching.*

The answer:

Instruction proceeds according to individual differences.

Music and art appreciation correlated with English and social studies

Panel discussions and individual expression of opinion replace formal recitation.

More use of visual aids.

More use of aural aids.

Frequent field trips to observe actual conditions pertinent to units of study.

Textbooks replaced in core classes by supplemental reference materials.

More use of library.

Utilization of a student interest approach rather than a chronological one.

THE YUBA CITY UNION HIGH SCHOOL RATING SCALE

Name.....

| | | | |
|---------------------------|---------|---------|-------|
| | Above | Average | Below |
| Reliability | | | |
| Coöperation | | | |
| Courtesy | | | |
| Promptness | | | |
| Self-control | | | |
| Sympathetic outlook | | | |
| Orderliness | | | |
| Sociability | | | |
| | | | |
| Ability to: | | | |
| Regulate attention | | | |
| Accept criticism | | | |
| Determine choices | | | |
| Organize activities | | | |
| | | | |
| | Teacher | | |

Students encouraged to work in committees to secure varied aspects of one field.

Guidance through the core instead of in isolated areas.

Frequent use of teachers from other departments, local speakers, and student officers to present information.

Functional approach to skills rather than routine drill.

Encouragement of self-evaluation by pupils.

4. *The Training of Teachers in the New Program.*

This is attempted by:

- Summer courses.
- Visiting demonstration schools.
- Professional periodicals and organizations.
- Faculty and committee meetings.
- Adults' school forum.
- Completing reports and questionnaires.
- Individual conferences.
- Supervision of classroom procedure.

5. *Appraisal or Measurement.*

This is being done by:

Standardized tests of general intelligence, personality, vocational aptitude, reading, and subject matter.

Tests improvised by instructors.

Evaluation by the faculty as a group, by departments, by special committees, and by student opinion.

Reports from visiting curriculum experts of neighboring school systems, from representatives of colleges attended by graduates, and from employers.

6. *The Extent to Which Purposes Have Been Accomplished:*

Five years ago the Yuba City Union High School began its experimental work in core courses and was accepted as a coöperating school, but due to a change in administration, a statement of the school's objectives was not formulated until 1939. Hence, work on evaluation is only now beginning.

With the statement of objectives and aims in October, 1939, the faculty of the Yuba City Union High School has achieved a unity of purpose and an awareness of a common objective throughout the departments.

After statement of the aim of education was agreed on, the faculty decided that they would measure progress toward intelligent socialized citizenship, first by grades given by teachers and second by a rating scale. They chose what they considered the more important statements used in the aims and set up a rating scale including them. The terms used on the rating scale were defined by the coöperative effort of students and teachers in the seven freshman core courses.

Each freshman was rated by his teacher. Each teacher's rating was transferred to a master sheet, and a curve indicating the average was drawn.

A replica of the rating scale used is included in this article.

Each student was given the scale showing his average. That is, he did not see the individual teacher's rating, but he did see the total picture. The core teachers and counselor have used the rating scale in counseling students. If the average shows that an individual is low in responsibility, coöperation,

and so forth, the counselor and core teacher have tried to find out why he is rated low, in order to help him improve.

7. Basis upon Which Principal and Staff Are Willing to Have the School Judged.

The answer:

Achievement of students in institutions of higher learning.

Degree of success of graduates in the occupational world.

Judgment on the basis of recently revised objectives set up by the faculty.

Continual reports from the principal, the departments, and faculty members.

Cognizance of the ability of taxpayers to provide equipment.

Check up on results of test given by the faculty to cover particular fields.

AS was stated at the outset of this article, curriculum revision in the Yuba City Union High School began in 1933, at which time a list of minimum essentials was prepared. In 1939 we restated our aims. This was done by

starting with the aim of education and working down to aims of the high school, of basic core courses, and finally getting down to the individual student.

Now we intend to start with the student and approach the problem from adolescent needs by:

Listing all known needs.

Listing common needs.

Listing needs peculiar to groups.

Listing needs peculiar to individuals.

We hope to recognize adolescent needs by use of:

Studies of adolescents.

Personnel records.

Experience of teachers in coöperative planning.

Pupil questionnaires.

Parent questionnaires.

Questionnaire to employers.

The curriculum revision that has been done was made possible by the coöperation of the entire staff. We believe that all teaching, supervising, and administration should be done by democratic procedures.

Chapter 17

CARPINTERIA'S LONG-TIME CURRICULUM PROGRAM

By FRED J. GREENOUGH

SINCE 1934 this small four-year high school has been involved in a curriculum study problem of one nature or another. The over-all period of time included in the numerous reports which have been prepared in this school provides a definite perspective as to the inception, creation, and evolution of a curriculum program.

This extended perspective, likewise, insures a conservative attitude on the part of the person reporting for this school.

Although recent administrative changes have been made in this situation, the philosophy adopted in the early stages of the school's revision efforts still is acceptable and valid, even in these hectic days of the war emergency.¹

SIMPLY stated the purpose and function of this school have been and still are delimited by the following statements:

1. The high school is primarily concerned with the interests of every adolescent youth of the community.
2. The child is to be given the opportunity to develop as a functioning member of a democratic society.
3. The educational program should be organized in terms of "experience units" derived from the basic functions of society, thus including Health, Recreational, Socio-Civic, and Vocational experiences.
4. *The curriculum must be envisaged as a continuously developing process to conform to the continuous change in life about us.*

¹Originally this statement of the school's philosophy of education was the result of the joint effort of a committee composed of teachers, parents, and administrators: *A Brief Statement of the Educational Program of Carpinteria Union High School*, by J M Hawley, 1936 (unpublished curriculum bulletin).

The fourth item has been italicized for special emphasis because it is significant that in the years that have passed since the beginning of this school's program, this fundamental concept in our philosophy has been proved valid time and again. The recognition of change as an absolute factor in the thinking and planning for our students has made it possible for us to meet changing demands and situations with complete assurance and frankness.

Our philosophy as stated probably could be expanded to include many other terms such as "needs," "integration," "maturation," and so forth; but careful evaluation of the four fundamental statements will reveal that they are as comprehensive as the experience and imagination of the person interpreting them.

Working within such a general framework might be criticized by those interested in details and specific terminology. Time has proved to our satisfaction, however, that the individual teacher involved in the classroom situation will be a greater determining factor in the success of a revision program in achieving the goals of the school than any stated philosophy.

Acceptance on the part of the teacher of the concept that the pupil is important as an individual is most vital. This vitally important conditioning of the adult instructor is tacitly included in our philosophy.

WITHIN the curriculum of this school is a "general education" core that is shaped around the State

Board of Education requirements: English, history (social studies), civics, and physical education (health).

These may be considered as forming the basis of any "general core," so called. Briefly summarized these requirements include:

1. Three years of English.
2. Social studies—ninth grade.
3. U. S. History—eleventh grade.
4. Senior problems—twelfth grade.
5. Science and mathematics—ninth grade.
6. Elective science.
7. Four years of physical education.

In addition, special classes have been organized to accommodate pupils from the Aliso Elementary School (Mexican), these classes being required of all students entering from this school unless individual capacities permit other adjustments.

Graduates from this school enter the high school on an equal basis with other students. The number of students entering has increased materially in the last few years until at present it nearly equals the number of students entering from the regular elementary school.

In the past, records of achievement of these students in high school showed that they had not been adjusted adequately to a regular high school program. Dropouts coincided with the age of 16 years regardless of individual capacity or ability. Their attendance was irregular, and their attitude toward school was one of resentment and suspicion. Girls as well as boys failed to become assimilated properly.

With such an increase in the proportion of enrollment, nearly 30 per cent, it followed that something had to be done to accommodate this group even though they remained in school for only two years. For this reason special classes in English, social studies, science and mathematics, homemaking, agriculture, and Spanish were established for these students as their core.

Our curriculum, then, includes the general education courses for both groups, plus the special classes already described for Mexican pupils. There are three general curricula included in the school's program: (1) General Education Courses, (2) Pre-vocational Experiences, and (3) College Preparatory Courses.

SEQUENCE of experiences in these curricula is varied to meet the problems of each successive group of students, who, individually and collectively, commence secondary school in Carpinteria.

Within each department and between departments, efforts are directed toward arrangement of a sequential order of experiences from one year or grade level to the next. Each teacher is expected to develop the sequence within each unit of work according to the maturation level of the individuals in his or her classes and, in collaboration with other teachers, to determine the general continuity of experiences within the school's curriculum.

This is one of the most difficult tasks before the faculty at the present time because it follows that it is extremely difficult to find any general agreement within a class of youngsters when intelligence, achievement, economic status, emotional stability, and physical maturity are all considered. This is an undertaking which will require considerable study and effort in order for us to accomplish the desired results.

The implication of this attempted individual evaluation is that in this school there are as many curriculums as there are students enrolled.

The question of what understandings, skills, attitudes, and appreciations should be taught involves the teacher as a personality affecting the total school picture. The individual instructor assumes a major role in resolving the intangible as well as the objective goals

of the school. Generally, values vary with the training, experience, and understanding of the individual responsible for any given situation. To attempt to standardize them would be almost impossible.

The responsibility of insuring standards lies with the individual teacher. This responsibility is important, particularly in the matter of dealing with special interests and abilities. This school, though small, has within its curriculum an extensive list of departmental offerings that have, with varying degrees of success, more or less satisfactorily met the needs of a majority of our students.

Art, music, industrial subjects, commercial subjects, homemaking, agriculture, work experiences, these, in addition to the so-called academic college-required subjects present a varied and well-rounded curriculum opportunity for our pupils.

Extra-curricular activities, increasingly motivated through the Activity Period in our schedule, further expand the possibilities for students with special interests and talents.

Retention of the required academic subjects insures the college-bound student ample background and fundamental training in his college requirements, plus the opportunity for a well-balanced experience through participation in the activities already mentioned.

AN important characteristic of our curriculum set-up is the provision of adequate opportunity for counseling and guidance, which consume a great deal of teacher time in any situation.

Our philosophy of education dictates that guidance and counseling, though educationally speaking considered sometimes as separate items in the scope of the school's functions and as a separate assignment in the work of the teacher, are not to be separated from or placed apart from regular classroom instruc-

tion. This means that each teacher is to be considered a counselor and that instruction should not stress subject matter at the expense of and detriment to the human values of guidance and counseling work.

The basic criteria in any guidance program we feel must include the following in order to be valid:

1. The guidance program must be fashioned in terms of student interest, needs, and purposes.
2. The service rendered must be continuous and should serve all school youth including graduates.
3. It should be organized not only to deal with problems as they arise but also to prevent them from arising.
4. It should provide for all phases of individual study, including: the physical, mental, emotional, and vocational.
5. It must enlist the interests, abilities, and efforts of every member of the staff and related functionaries.
6. The guidance of each pupil should be purposeful, unified, and coordinated.
7. The guidance service progressively must make all concerned more able to guide themselves.

The scope of the guidance functions in Carpinteria High School include the following ways of assisting the individual pupil to meet his particular problems more fully and of preparing all pupils to adjust themselves more satisfactorily to the life that the future holds for them:

HEALTH GUIDANCE

1. Guarding and maintaining health standards in the group and for the individual student.
2. Assisting special classes to become rehabilitated.
3. Assisting in establishing emotional balance and mental health.

EDUCATIONAL GUIDANCE

1. Assisting each pupil in gaining a full and rich educational experience.
2. Disclosing educational opportunities of an advanced character.
3. Assisting in determining life goals. Projecting plans of action for reaching these goals.

4. Encouraging and directing individual understanding of the meaning and value of "an education."

5. Instilling and maintaining interest, enthusiasm, ambition, and ideals.

6. Planning educational experiences suited to each individual's needs and desires while he is in this high school.

VOCATIONAL GUIDANCE

1. Discovering the individual pupil's capacities in special fields of endeavor.

2. Arranging contacts with professional workers in various professions.

3. Providing opportunities within the school experience for the development of vocational skills.

4. Providing and supervising "work experiences" for as many students as possible.

SOCIAL GUIDANCE

1. Insuring, in so far as possible, individual social acceptance and participation.

2. Identifying social needs within the school and community and consideration of possible solutions.

3. Assisting in destroying complexes that result in social maladjustments.

4. Maintaining an active, progressive, and worth-while society within the school.

GUIDANCE IN PERSONAL PROBLEMS

1. Contributing to the solution of individual problems that may require special attention due to the nature of the problem or the personality of the individual; this aspect necessarily must be cared for by special counselors, by the principal, or by teachers with students' confidences or with special training.

SPECIFICALLY the function of the school is to develop each individual student to his fullest capacities, to equip him with those attitudes, understandings, appreciations, and skills which will enable him to participate intelligently in modern life situations.

We hold, therefore, that the individual student should attain the following characteristics:

1. Sound judgment of proportions and values.

2. Ability to think and act effectively, to use the necessary skills efficiently, and to achieve his or her maximum potentialities.

3. Wholesome social attitudes and rich appreciation of arts, beliefs, knowledges, and morals.

These summarize the goals of instruction in Carpinteria High School and as goals to be achieved are the basic criteria used in the evaluation of our efforts.

At Carpinteria evaluations are being made constantly, not only in the classroom but throughout the school and community. Progress of inschool students and graduates is carefully recorded and studied as a basis for further modifications in our practices.

A testing program is in the process of being developed that not only includes achievement and intelligence tests, but personality and social adjustment ratings as well. Vocational aptitude tests are given in the twelfth grade as part of the vocations unit in the Senior Problems course.

Health records are complete and on file in the school for reference study by the teacher in collaboration with the school nurse. Carpinteria prides itself on its health program, which is organized to include every student in school in some phase of health education and activity.

Throughout the school, standards of achievement in all subject fields constantly are being checked and rechecked.

An example of this procedure, demonstrating the inseparability of this teaching function, is found in the eleventh grade English and history core experience that is being developed this year. The evaluation scheme outlined for this course is included in this report because it shows quite clearly the thinking and planning that is going on in the school in reference to this important problem:²

In the development of the course on the eleventh year level, a new plan combining American history and American literature was introduced this year. We

²The following statement in regard to this course is taken from "Outline for Integrative Course in American Literature and History," by Marjorie Holmes. Unpublished Paper at the University of California, 1941.

felt that through meeting these two fields of American life and background together, students would learn to think of them simultaneously, learning to associate contemporary happenings in the political and economic world with those in literature, gathering a wider comprehension of the principles and ideals of this country, and thus learning to interpret more successfully their life and problems.

The plan provided for two sections of this core course, each one hour in length, with a team of two teachers in charge, each collaborating with the other to achieve a unity of background and development in the whole area of American growth by means of the following objectives:

1. To study the valuable results of past experiences of the American mind in the light of present problems.
2. To learn about and to appreciate American ideals and traditions—that is, the cultural heritage, and the growth of both.
3. To read, understand, and appreciate American authors as real people, and to see the relationship between them and the period in which they write.
4. To develop a sense of appreciation and enjoyment of the best American literature.
5. To relate the study of American history, in so far as the student is able, to the study of literary events and people.
6. To develop and inspire in the student a better understanding of the democratic principle in our country and a wish to keep this principle functioning for future generations.

There is no assigned text for this course. Numerous references are supplied for individual and group work. Panel discussions, individual reports, dramatizations—written and oral, interpretations of individuals, periods, literature, lectures, and readings provide the methods for achieving a unified perspective of the whole. Committee meetings are held at various intervals for discussion of the progress of work and for organizing material for future units. The meeting time is simplified by the

fact that all teachers concerned have the same free period for such work.

Evaluation is an inseparable part of the course and as such provides for constant revision of content and method. The chief purposes of evaluation are the improvement of instruction and the increased effectiveness of the guidance of individual students.

It is realized that many of the desired outcomes are difficult to determine, even with specific tests. The most important of these are changes in the life and personalities of the individual pupils. But if pupil learning has been satisfactorily accomplished, individual changes will result. These should be shown by: (1) acquisition of information, (2) familiarity with sources of information, (3) facility of interpretation, (4) sensitivity, and (5) habits of working coöperatively.

These changes may be measured by: (1) Observations of student behavior, utilizing (a) anecdotal records, (b) individual work, (c) student self-evaluations, (d) rating scales; and (2) Tests, including measures of (a) ability to recognize problems (comprehension), (b) ability to analyze problems (interpretation), (c) free expression (written), and (d) appreciation.

In evaluating the course units, the objectives of the course always must be kept in mind, the teacher striving to create situations whereby she may evaluate these objectives.

In addition to this evaluation program that is part of each instructor's responsibility in this school, individual teachers are working with a consultant, the county secondary school coördinator, developing and utilizing evaluation instruments that include standardized tests, self-made tests, surveys, and other rating materials developed for use in this school and throughout the county.

As an example of this coöperative effort, evaluation techniques for the

work-experience program were developed which included a sample questionnaire that is submitted to each employer following employment of a student enrolled in this school. This, in addition to individual pupil and teacher ratings, gives the student and teacher additional material for use in further instruction and development.

OUR work experience opportunity mentioned in the curriculum outline and again in the evaluation section of this article in our opinion is one of the most significant and worth-while efforts we have made in regard to meeting the problems of our young people in this community.

A significant change that has taken place in the thinking of educators in the last few months is the recognition that is being given to work experiences on the secondary school level.

Carpinteria High School recognized this need over two years ago and began going about the job of establishing such work experiences as were possible at that time. This effort has culminated in a rather effective work experience program that now includes a considerable proportion of the student body.⁸

Utilizing the opportunities afforded by the community, this school has managed to operate a student placement bureau that is increasingly becoming more significant to the school and the pupils because of the integration and correlation of work requirements and classroom instruction.

This phase of our curriculum is under the direction of a teachers' committee that also serves as coördinating committee for the NYA program that has functioned with considerable success in this situation.

THE small high school is a unique educational unit in regard to the various functions allocated, by the very

nature of its organization, to its administrator. Carpinteria is no exception in this respect. With limited opportunities, defined rather well by the number of faculty members, their versatility, and the school enrollment, the small high school administrator finds himself responsible for a multiplicity of functions.

Curriculum revision is just one more duty required of the administrator who must of necessity keep his school abreast, at least, of current school thinking and practices.

In our own situation the present policy of curriculum direction stems from past experiences found effective in meeting our problems as they have arisen.

Teacher autonomy is the rule in so far as course organization and classroom methods are concerned, with, of course, a reasonable amount of supervision and coöperative planning on the part of the administrator in charge. Teachers are encouraged to develop original ideas as well as to suggest modifications in those suggested by others in the school.

Committees, chosen because of related assignments or mutual interests, work voluntarily in coöperation with the administration and special consultants.

A definite attitude exists in regard to the policy of complete preparation before attempting to teach a new curriculum experience. Preparation takes time. Schedules have been arranged wherever possible to allow teachers working on new units time for research and planning during the school day. This is not always possible but is definitely considered when the schedule is made.

The number and size of committees depend entirely on the tasks at hand. At present there are programs involving science, visual aids, English, and

⁸"Work for Wages," George Mangis and Fred J. Greenough, *School Executives*, 61:16-18, January, 1942.

the core course in literature and history under way. The different teachers working on these various assignments, without exception, all voluntarily have sought the work involved in improving these various school offerings.

Persons working in revision are encouraged to report their results, not only to the school and community, but in so far as is deemed practical, to report them for publication.

A considerable number of the present faculty are comparative newcomers to this community. Revision has tempo-

rarily been set aside for teacher orientation, not only to the community but to the philosophy and functions of the school.

This summary of the present program and its relation to past experiences in this school will, we trust, prove valuable in this orientation of our staff, and we hope that from it those who now are working in this school will receive inspiration to carry on the stimulating and worth-while job of keeping Carpinteria High School in the front line of small secondary schools in California.

Chapter 18

NEEDLES HIGH SCHOOL DEVELOPS A CURRICULUM FOR AN ISOLATED COMMUNITY

By R. E. JOHNSON

DOES the present program of our school fulfill the needs of students of this locality? If not, what changes and improvements are necessary? Those were the questions the administration and faculty of Needles High School asked themselves a year ago. It is my purpose here to trace the development of the program followed during the past year to find answers to these questions.

The first step was the organization of a "Committee on Philosophy," which sought to ascertain and state the aims and purposes of the school. The committee agreed that students through participation in democratic living should be prepared:

1. To live more fully their present lives.
2. To learn social adjustment.
3. To develop their personalities.
4. To get along with people.
5. To prepare for vocations.
6. To learn how to participate in leisure time activities.

The committee expressed a common viewpoint, an understanding of its need for planning the future growth of the school. The concurring opinion was that present organizations were not meeting the needs of the students since only a small percentage of our graduates attend college, yet we were emphasizing college preparatory courses, and were offering no vocational courses. There was a need for change in attitudes of the public toward the dignity of labor, purposes of the school, and the value of junior colleges and terminal courses.

IN ORDER to determine what conditions existed in the school and community so as to make adjustments in the school program, the committee divided the task into a number of surveys or studies to be carried out by individual members. These surveys and the results can be summarized as follows:

1. A survey of the ability distribution of students of the high school, as indicated by intelligence tests, revealed that intelligence quotients ranged from 55 to 150, with the largest number centering around 100. The mean intelligence quotient for the boys was 95, and for girls, 105.

2. A survey of the per cent of Needles graduates leaving during the past eleven years showed that an average of 11 per cent attended a four-year college or university and that 20 per cent attended some institution of higher learning.

3. A survey to determine how soon after graduation the girls marry revealed that of the classes graduating during the last four years, 42 per cent of the girls were married, and that of the last graduating class 32 per cent had married six months after graduation.

4. A survey of the number of students enrolled in the various classes in Grades 10, 11, and 12 showed that 390 students were found to be in classes of an academic nature, as compared to 377 in classes of a practical nature. The average enrollment in academic courses was 24.3, in practical courses, 18.8.

5. An occupational survey in the city of Needles revealed a total of 967 workers, of which 696 were employed by the

Santa Fe Railroad, and 271 in non-railroad work, such as commercial, professional, personal, skilled, semi-skilled, and non-skilled work. The survey indicated the various types of work engaged in under each of the above headings, with the number of people doing each type of work.

In connection with this survey several employees were asked to state what qualities they believe are requirements for obtaining a job. The quality mentioned three times as often as any other single one was "knowledge of a job." "Neat appearance," "sales ability," and "ability to think quickly" were listed in the order given.

6. A survey of the type of employment entered by graduates of the last four years showed that 90 per cent were doing work preparatory to railroad work, and 10 per cent were clerks.

7. A survey carried out by means of interviews with leading officials of the Santa Fe Railroad was made to determine what jobs are filled by Needles graduates. The officials were asked also to state their opinions as to the type of training most needed by their employees. The results of this survey may be summarized as follows:

1. Most of our graduates enter work leading to railroad work, and but few enter into clerical work.

2. Most young men secure jobs as shop laborers.

3. Courses that would be beneficial in preparing for shop work deal with: deisel engines, machine shop, welding, mechanical drawing, blue print reading, and mathematics.

WHEN the above studies had been completed, the committee made these recommendations:

1. That there should be more courses of a practical and vocational type.

a. More students should be given home-making training, including homemaking for boys.

b. A ninth grade orientation course should be established for all students.

c. More shop and vocational courses are needed, such as: machine and metal shop, welding, and mechanical drawing.

2. That the use of teacher-time be readjusted so as to permit these course additions:

a. Fusion of academic courses wherever possible.

b. Offering of certain academic courses only on alternate years: *e.g.*, foreign language, social problems, physics.

c. Elimination of academic courses not justified relatively by actual student needs and numbers served.

3. That faculty and townspeople be given an understanding of the actual facts regarding student needs in schooling as shown by tables and surveys in this report, so that we all may have common aims and understandings concerning this problem:

a. There should be less emphasis upon preparation to enter college—too much now in both faculty and parent counseling.

b. Even college preparatory students should have some practical or vocational training, both as an aid to personal adjustment and as a means for the financial furthering of their education.

c. The possession of an A. B. degree cannot magically make a cultured, happy, useful, well-adjusted citizen.

d. The dignity and worth-whileness of the thousands of skilled and semi-skilled non-white-collar occupations are needs to be stressed.

THE above study and recommendations were completed during the school year 1940-41. With the results of the surveys and recommendations in mind the next logical step was a follow-up in the form of a curriculum improvement program. The administration attempted to design new courses and revise courses already in the curriculum to meet the needs.

The chief innovation has been the addition of a complete first-year program in machine and metal shop, mechanical drawing, and blueprint read-

ing. This program is being carried out with the whole-hearted support and aid of the Santa Fe Railroad. The shop instructor of the high school and the shop foreman of the Santa Fe work in close coöperation in order to train boys to work for the railroad.

A class in boys' homemaking, which is filled to capacity, is enthusiastically learning the rudiments of cooking and homemaking. A class in personal development and home decoration for girls is being taught in alternate semesters by the homemaking and art instructors. More girls are counseled to enroll in at least one year of homemaking.

Other classes of practical value, par-

ticularly for terminal students, include Business Mathematics with emphasis upon fundamentals, practical mathematics problems, and business forms. Business Principles and Economics, Occupations, and Senior Problems are classes which also meet the same need.

The improvements made thus far are merely a beginning in an attempt on the part of the school to determine the needs of its students and to revise the curriculum to meet these needs. It is our hope that as a result of this improvement program students will secure a more valuable and usable education which will aid in developing skills in vocations, training for leisure time activities, and a well-rounded citizenship.

Chapter 19

CURRICULUM AIMS OF THE MODOC UNION HIGH SCHOOL

By HARRY WANDLING

MODOC Union High School is a four-year school located in a sparsely settled area in northeastern California. The students come chiefly from the surrounding cattle ranches, lumber camps, and the several towns, as well as from the county seat where the school is located. Approximately one-half the student body rides on busses, some of which travel as far as 106 miles a day. The county population lacks a foreign element, but, apart from this fact, the students, in their individual differences, abilities, interests, and so forth, represent a good cross section of American life.

Modoc's faculty always has tried to see ways of improving instruction, and this effort gradually has evolved into a definite program of curriculum development. In setting up this program we decided against copying a pattern being followed elsewhere and instead proceeded on the basis of our answers to three questions:

1. What specifically are we trying to do with these boys and girls?
2. What qualities are inferior in the present seniors which might be improved by a more direct approach with the lower classmen?
3. What conditions of learning will best contribute to these chosen aims?

It was recognized that some changes would be necessary, and it was agreed that any combination of experiences or type of organization would be acceptable when the faculty saw the educational merit of such changes.

Thus the list of tentative objectives stated below, if slightly enlarged, may very well be the guide to evaluation of

our curriculum program. Modoc Union, for the present, insists upon using these personal qualities of individual growth, which collectively contribute to the welfare of the group, as the scope or the breadth of experiences which it is trying to give.

OBJECTIVES of education as accepted by the Modoc Union High School are the following:

- A. In the *development essential to personal well-being*, to provide experiences which lead the student to:
 1. Appear well and dress in accordance with the demands of time, place, and occasion.
 2. Be poised, natural, and at ease among people.
 3. Be interested and sincere in all dealings with his fellow students and adults.
 4. Develop social skills and a confidence in his ability to get along with people.
 5. Develop the habit of truthfulness and the respect for ownership.
 6. Be responsible in keeping promises and meeting appointments promptly.
 7. Be industrious, resourceful, and persistent.
 8. Participate regularly in the group as a leader or as a follower.
 9. Investigate and test data before reaching conclusions.
 10. Acquire emotional stability, face facts, make choices, and evolve standards.
 11. Develop habits, behaviors, judgments, and other qualities essential to satisfactory marriages and the maintenance of family life.
 12. Recognize authority and be intelligently obedient with the consequent feeling of security.
 13. Develop social concern.
- B. In the *development and preservation of health*, to provide experiences which lead the student to:
 1. Establish the habit of temperance.

2. Postpone the use of tobacco, at least until maturity.
 3. Recognize certain dangerous drugs, sometimes camouflaged.
 4. Be conscious of the expense, futility, and even danger of many patent medicines.
 5. Provide and consume habitually all the necessary food essentials.
 6. Develop a sense of responsibility for family and community health.
 7. Practice sanitation as applied to himself and the community.
 8. Establish a willingness to face his limitations, recognize his potentialities, and learn to adjust accordingly in social, civic, and economic life.
 9. Develop a mechanical sense of cause and effect, sense a safe speed at all times, and acquire skill and safety in using all kinds of tools and machinery.
- C. In the *development of aesthetic appreciation*, to provide experiences which will lead the student to:
1. Participate in music production, both individually and as a member of a group.
 2. Be able to observe beauty in any environment, and be able and willing to contribute to this beauty.
 3. Create in the arts and crafts.
 4. Experience the zest and joy that come from literature, and feel a growth in appreciation of better literature.
 5. Acquire a background of science, social science, physical geography, mathematics, astronomy, and so forth, as a basis for spiritual values.
 6. Appreciate the historical and present contributions of institutions, traditions, rituals, and so forth.
- D. In the *maintenance and development of democratic attitudes*, to provide experiences which lead the student to:
1. Practice democratic principles in daily school life.
 2. Acquire a respect for personality, fair play, and the right of individual opinion.
 3. Elect officers without interference from teachers; acquire ability to discriminate as to the qualities needed for various offices under teacher guidance.
 4. Spend the money of the group according to business practice and without favoritism.
 5. Learn to lead according to his potential abilities and ideals of service, and learn to follow and cooperate with other leaders.
 6. Realize the benefits of seeking counsel from certain adults and to discriminate in accepting advice.
 7. Acquire respect for and obedience to governmental laws and delegated leaders.
 8. Realize that we have liberty and democratic principles because institutions and people have worked and sacrificed to acquire and maintain them.
 9. Understand governments and institutions and the effects that various governments have on the personal development of their people.
 10. Realize the threats to free speech and the necessary safeguard for maintaining this democratic principle and the part that tolerance plays in free speech.
 11. Develop a desire for truth and realize its necessity if democracy is to endure.
 12. Develop the ability to analyze critically radio and press reports and other kinds of propaganda and to evaluate such in terms of good to the entire group.
 13. Realize the personal and social value of fair thinking toward the people of foreign nations.
 14. Realize that no person can be truly American and promote race, religious, or class hatreds.
 15. Participate in speeches, reading, forums, and other activities necessary for maintaining a democratic philosophy in a rapidly changing world.
- E. In the *development of economic well-being*, to provide experiences which lead the student to:
1. Appreciate the contributions that inventions have made to our present-day living.
 2. Understand the necessity of management, organization, labor, and capital.
 3. Realize the responsibility of both capital and labor in the production of human wants, and appreciate the value of harmonious planning.
 4. Realize the effect of working conditions on physical and mental health.
 5. Appreciate the effect of international relations on business prosperity.
 6. Evaluate his potentialities in terms of opportunities in an industrial and changing world, and select his vocation.
 7. Realize the need for education and skills necessary for various vocations and begin adequate preparation.
 8. Acquire skills in using tools, machines, and the social skills essential to business practice.

OUR philosophy is indicated by the objectives which show that the school feels that education has a tremendous responsibility in extending the welfare of the group through the well-being and contribution of the individual. We believe that children and adults learn through adequate experiences in proper sequence and that much learning is "caught and not taught" by the provision of adequate environment, including personnel.

In the light of this viewpoint, a bus driver becomes much more than a mechanic and works with teachers in directing the lives of boys and girls as they attempt to make every experience—including athletic trips, parties, and playing host to visitors—an educational experience which will lead to the development of students in personality, health, and so on.

Just as teachers have worked with other scopes to provide logical sequence, our staff is now working to provide problems, activities, and materials to realize these aims. This makes all the teachers, not only those in the social science area, conscious of the contribution which their teaching field can make toward the development of personal well-being, health, aesthetic values, democratic attitudes, and economic well-being.

With only five divisions in the general outline of objectives, and with the breakdown closely associated with the goals of evaluation, a teacher can hold the beginnings and ends of education in mind as he proceeds in his daily chore of planning and directing student experiences. This direct action procedure does change teachers from the subject matter point of view.

IN the breakdown of objectives presented above, there was listed under the division of "development essential to personal well-being" the specific ob-

jective of providing experiences which lead the student to "be poised, natural, and at ease among people." The following sample from a chart showing the experiences which were worked out by one teacher to guide the implementation of this objective in the various departments of the school illustrates the procedure we are following:

Physical Education—

- Freshman boys and girls play mixed games.
- Participation in drill team, in parades, as majorettes, and so on.
- Practice in participation in social life of the school.

Commercial—

- Knowledge and discussion of business courtesies.
- Experience in office work.

Clubs and Assemblies—

- Entertaining and persuading.
- Practice in appearing before the group.

Language—

- Knowledge and discussion of customs, language, and cultural background of other countries.
- Public speaking.

English—

- Public speaking.
- Debating.
- Dramatics.

Science—

- Gaining confidence in one's ability to make discoveries, organize facts, and report conclusions.

Student Government—

- Anticipating and planning for the needs and desires of fellow students.
- Satisfaction derived from serving fellow students.

Homemaking—

- Expression through selection and design of clothing.
- Personal make-up

Social Studies—

- Planning and reporting.
- Experience in grappling with student problems.

Homemaking—

- Discussion of social usages.
- Evaluating the total school program in terms of self and relationship to the group.

Music—

Participation in group singing and orchestra.

Participation in drill teams, as majorettes and so on.

Mathematics—

Practice in orally proving a theorem in geometry or a formula in algebra.

Carpentry—

Community participation.

Ease and satisfaction resulting from creating or building.

Oral discussion of evaluating the work of an individual.

Arts and Crafts—

Pride and satisfaction in creating or giving expression.

Agriculture and Shop—

Oral discussion.

Satisfaction in producing.

Other Activities—

Participation in group singing.

Participation in plays and other forms of entertainment.

Attendance at dinners and parties.

MODOC Union still has the subject matter organization, but not the traditional subject matter philosophy. Teachers are doing much to cross boundaries through working in committees and planning experiences for their groups. For example, the homemaking, science, and agriculture teachers form a committee for joint planning; one committee is composed of teachers whose subject field obviously needs an arithmetic background, including members from shop, homemaking, agriculture, science, and commercial classes, as well as from higher mathematics; teachers of physical education, science, homemaking, and those in charge of social affairs join forces in accomplishing objectives in such areas as health, personality, and social concern.

The chairman of the counseling committee constantly is working with the

eight counselors who are coordinating the experiences provided by the personnel of the entire school. The daily schedule provides a twenty-minute period from 8:30-8:50 for students to meet with their counselors, and also an hour from 3:30-4:30 for teacher committees to do their joint planning.

While accomplishing the changes we have been effecting in our curricular program, we are working in close harmony with the elementary teachers of the county. Committees made up of both elementary and secondary teachers are working to determine the best procedures for attaining objectives throughout the twelve years of education. These committees, plus work with parents and school visitation for elementary students, make articulation easy between elementary and high school.

NEXT June Modoc County will hold its third workshop. During this two-week period, our staff will continue its plans under the guidance of consultants who have been selected and directed to help the total county program.

We may be led far afield from present practice as we think through our problems, view good practice elsewhere, and continue with our post war plans. But in any case we expect to remain a child-centered school, wherein all personnel, community organizations, community resources, and both curricular and extracurricular activities will be tied together in promoting student growth. Thus far we have focused our attention on the analysis of *what* we are trying to do; next, we will determine the best techniques of organization and administration for doing it.

Chapter 20

ORGANIZATION AND ADMINISTRATION OF THE EDUCATIONAL PROGRAM AT FILLMORE

By JESSE M. HAWLEY and M. E. MUSHLITZ

FILLMORE is a town of approximately 2,500 population, situated in eastern Ventura County. The major vocational pursuit is agriculture, citrus being the main product. Some oil activity is evident near the town and in the outlying districts.

The school is a six-year institution including Grades 7 through 12. The enrollment is about six hundred, with approximately one hundred in each grade. One half of the students come from the Union Elementary school located in Fillmore; the remainder are transported by bus from the surrounding territory.

The school plant has three classroom buildings, one physical education building for both boys and girls, ample playing grounds, and special rooms for subject curricula. The campus consists of 24 acres. The student body is similar to those found in other agricultural communities in Southern California. Eighteen per cent are of Mexican ancestry; the remainder are white natives or recent immigrants from the South Midwest. There are some who need emphasis upon physical development, some who may never achieve academic success, and some whose economic well-being is bordering on the needy class.

The faculty consists of a principal, assistant principal, and a vice-principal for girls, six counselors, a librarian—twenty-eight members in all. The counselors and girls' vice-principal teach part of the school day. The county nurse gives weekly service, and the school employs a doctor on a part-time basis.

Administratively the school is organized along functional lines. When faculty meetings are held, the principal and vice-principals become members of the discussion group. Each year a faculty member is elected by the teachers to preside at the meetings. Curricular and other professional problems are discussed, and committee reports are presented for faculty consideration. Curriculum and other committees are appointed by the staff president, who consults with the principal on policies and special problems. The entire faculty considers itself a committee to study general school needs.

Back of any organization of a school must lie a philosophy of education. This philosophy may not be in a written form, but somewhere it has resulted in a printed schedule of classes, a student organization, a faculty grouping, and administrative set-up, and a building program. The purposes of, and the approaches to, education are interwoven into this framework. The more clearly a school has evaluated its offerings in light of the purposes of education, the more definitely will a particular type of school organization appear in some form or outline. The more teacher participation, and the more effective the inservice training, the more easily functions the administration of the school.

SEVERAL faculty committees have been appointed to guide the educational program at Fillmore. In 1939 one committee reported that the school was organized almost entirely around college preparatory courses, with other

subjects loosely thrown in to take care of those who were absolutely non-college material. This group also reported that these other subjects were leading nowhere and that students who graduated from high school and who were not pre-professional merely had a sum of credits.

A second committee reported that its study of high school graduates for the ten-year period from 1928 to 1939 showed barely 15 per cent going to a university or college.

Faced with these facts on student personnel and school offerings, the faculty proceeded to study trends in curriculum development, it being felt that a working philosophy based on the statements made by the Educational Policies Commission, in *The Purposes of Education in American Democracy*², was broad enough and elastic enough to fit into any school situation. Thus the objectives, (a) Self-Realization, (b) Human Relationship, (c) Economic Efficiency, and (d) Civic Responsibility, were accepted as a broad background for curriculum construction.

There was no predetermined organization that the curricular pattern was to take. The group showed a marked degree of openmindedness. It worked with a spirit of freedom and with a genuine desire to benefit these particular students, the non-college group, no matter what form the organization might take.

AFTER many weeks of study, the faculty decided that the curricular organization well might be based on certain fields of human life activities. These human life activities have been designated as the trunk line across which each student is to pass in his daily program. Within this trunk line—covering the students' entire program in Grades 7 and 8, and narrowing to one-

third of the day at Grade 12—are variations of experiences to meet the needs of individual differences among the students.

Along this trunk-line course are parallel major centers of interest which begin at Grades 9 and 10 and continue as specific training through Grade 12. These parallel major centers of interest are so constructed as to meet the specific pre-vocational needs of students who are concerned with "economic-" and "self-realization."

Briefly, the trunk-line course consists of six broad fields of life activities. These are: (1) language arts, (2) fine arts, (3) practical arts, (4) social studies, or human relations; (5) natural environment, including mathematics, and (6) health. The major centers of interest which parallel the trunk-line course consist of: (1) pre-art; (2) pre-professional; (3) pre-agriculture; (4) pre-business; (5) pre-music; (6) pre-homemaking, (7) pre-industry, and (8) projects. The last type was introduced to meet the needs of those students, who—it is felt, as a result of study, testing, and counseling—will profit most from practical hand experience in simple labor.

The approach is upon the John Dewey philosophy of learning: the progressive development of intelligent, meaningful, and worth-while interests on the part of the child, leading out of the comparative isolation in which he is born into a greater and greater degree of participation in the activities of mankind. On the sociological side, it is the development of pupil interests into the social aspects of human activities.

The reorganization also entailed a revision of the graduation requirements. It did away with the study hall, for all students are in classes the entire day and are assigned to the library through their various courses.

Specifically, the trunk-line course may be assumed to take care of the major as-

²Educational Policies Commission, National Education Association, Washington, D. C., 1938, page 47.

pects of general education, while the parallel major centers of interest allow for special as well as general education. Required classes for all students fall within the trunk-line course, and electives all fall within those courses in the major centers of interest. Each center-of-interest course, however, has its own required and elective subjects, each according to the curricula established therefore.

Thus the total program of the school inculcates the four major objectives stated in "*The Purposes of Education in American Democracy.*"

THE foundations of the educational program at Fillmore Joint Union Junior-Senior High School may be expressed as follows:

1. Human relations
 - a. Better adjustment to society.
 - b. Appreciation of life in a democracy.
2. Making a living
 - a. A survey of vocations and vocational proficiency.
 - b. Recognition of ethical standards in an economic world.
3. Healthful living
 - a. The development and maintenance of a healthy body.
 - b. Proper use of leisure time.
4. Living in our natural environment.
 - a. Familiarity with natural surroundings.
 - b. Understanding of man's control of environment.
 - c. Attainment of leisure time activities in nature.

Specifically each field of human life activity may be broken down into experiences which make up the scope of the program:

- Music*—purposeful experiences in:
1. Aesthetic enjoyment.
 2. The music progress of the race.
 3. The appreciation of good music.
 4. Music as a way of life.
 5. The development of the emotional nature.

- Art*—purposeful experiences in:
1. The orderliness of living.
 2. The art progress of the race.
 3. Richer living.
 4. Creative expression.
 5. The appreciation of beauty in nature.

Language Arts—purposeful experiences in:

1. The literary progress of the race.
2. The organization of thought.
3. Meaningful communication, written and oral.
4. The expression of the emotional and imaginative side of life.
5. Critical and discriminative reading.
6. Effective speaking.

Health and Recreation—purposeful experiences in:

1. A program of physical and mental growth.
2. An appreciation and knowledge of the functions of the body.
3. Nutrition and healthful living.
4. Individual development.

Human Relations—purposeful experiences in:

1. The adjustment to school, city, state, nation, life.
2. An effective understanding of world culture.
3. Citizenship through problems in society.
4. The social progress of the race.
5. Personality adjustments.
6. Service to our country.

Mathematics and Natural Environment—purposeful experiences in:

1. The development of scientific habits.
2. The intelligent appreciation of environment.
3. The development of the knowledge and use of scientific principles.
4. The development of a curiosity toward nature.
5. The scientific attitude toward life.
6. The scientific progress of the race.
7. Mathematics skills and functions.

Practical Arts—purposeful experiences in:

1. Developing active interest in industrial life and in production.
2. Good workmanship and design.
3. The development of pride in doing useful tasks.
4. Handling tools and material.
5. The industrial progress of the race.
6. The foundations of homemaking.

The trunk-line course is considered to be the foundation of all learning in Grades 7 and 8 and tapers off to a study of health and orientation to life in Grade 12. In total the trunk-line course embodies the following:

Grades 7 and 8—experiences in:

1. Music and art.
2. Language arts.
3. Social studies.

4. Health and physical recreation.
5. Mathematics and natural environment.
6. Practical arts.

Grade 9—experiences in:

1. Language arts.
2. Social studies.
3. Health and physical recreation.
4. Science and mathematics.

Grade 10—experiences in:

1. Language arts.
2. Social studies.
3. Health and physical recreation.

Grade 11—experiences in:

1. Language arts.
2. Social studies.
3. Health and physical recreation.

Grade 12—experiences in:

1. Social studies (orientation).
2. Health and physical recreation.

FOR local purposes the term *counseling* is substituted for the conventional concept of *guidance*. Counseling, for this particular school at least, is conceived to be a function which is all-inclusive in scope and meaning. It implies a program of continual adjustment for the boy and girl which is predicated on the basis of prevention rather than correction.

Counseling is thought of as being a part of the teaching function, and every teacher is a counselor in practice as well as in theory; in addition, certain ones may be assigned further duties in this regard. The organization, as it is now in effect, includes all twenty-seven teachers as counselors, seven of whom comprise a special committee.

Those teachers who have been assigned to this special committee are relieved of at least one-sixth or more of their customary daily load. The committee is divided into sub-committees which shift their emphasis from time to time throughout the six grade levels of the school.

The seventh member acts in the capacity of chairman and has been allocated additional time to supervise and to accelerate the entire program.

All teachers, including those who have additional duties in counseling,

employ the "observational technique." Observation of each and every individual child is a continuous process; and, when supplemented with an extensive system of available records, leads to a possible adjustment.

To supplement the local effort, the teachers have the assistance of a trained psychologist. This person, who is a member of the Ventura County Schools staff, is available upon call and to date has been making an invaluable contribution. The Fillmore program of counseling, as previously stated, is based upon the premise that indications of future maladjustment on the part of the child can be detected, studied, and treated without resorting to the belated process of correction.

Also, it might be said that this concept of counseling, which has been described, has an additional advantage. It constitutes a continuous program of "training in service" for the faculty. The responsibility that a teacher assumes at Fillmore to guide and assist as well as to teach should act continually as an incentive to keep her abreast of the times and professionally alert.

EVALUATION is another phase of the teaching function which is conceived of as being a "constant." A faculty committee composed of teachers representing the various grade levels of the school has assumed this responsibility. Provision has been made in the teacher's daily schedule for this specific duty.

The purpose of this group is to determine the effectiveness of the present curriculum in part and as a whole. Usually there are one or more problems for research being given attention simultaneously. For example, the evaluation committee, with the assistance of the Ventura County director of secondary education, has given considerable attention to the degree of attainment in

language usage and mathematics from Grades 7 to 12 inclusive. As a direct result of this local study, specific recommendations were made, and improvements now are in effect.

IT IS a policy of the administration to furnish to the faculty current curriculum materials and publications as soon as available. In addition, teachers and committees are encouraged to make their reports in written form. Reports pertaining to the curriculum, counseling, evaluation, and so on are duplicated and made available for continual reference.

A perusal from time to time of this teacher-motivated material indicates clearly that the local program constantly is in a state of flux. Changes in methods and techniques, alterations in trunk-

line courses and related fields always are in progress.

A summary of the educational program for this school should indicate clearly that no brief is held for the validity or soundness of the local ideas and practices. The foregoing procedures were conceived by the Fillmore teachers and put into effect by them as a means of solving their own problems and meeting the apparent needs of their school. Our program of curriculum development has been a coöperative effort on the part of the entire faculty, the students, the administration, and the Ventura County Schools staff.

Probably one of the most gratifying accomplishments to date is the realization of, and acceptance by, the staff that the job of administering a curriculum is never quite completed.

Chapter 21

WESTWOOD JUNIOR-SENIOR HIGH SCHOOL SERVES THE NEEDS OF THE COMMUNITY

By STUART MITCHELL, J. WESLEY BRATTON, RONALD W. COX, RITA H. FRIEDLINE, BETTY HADDOCK, G. RAY HASKELL, and ERNEST C. STUMP JR.

WESTWOOD is a "company town" of 5,440 population. The Red River Lumber Company, which owns practically all the real estate, follows a policy of leasing concessions to garage operators, stores, theaters, et cetera. Homes are practically all rented, at reasonable rates. Water, telephone service, and garbage disposal are free services. No personal property tax is collected. Electricity is furnished at a rate that is among the lowest in the state.

The unified school system has 1,100 students in a kindergarten, elementary school, and junior-senior high school, and some 500 adults in a night school program, operating under a liberal board of education. The school district owns its own properties.

The junior-senior high school has twenty teachers and an enrollment of 440 students coming, for the most part, from homes of company employees whose minimum wage at present is 72 cents an hour. There has been an influx of Dust Bowl refugees lately. A very few students come from homes of executives, lessees, technicians, and professional people.

EVERY man is entitled to raise a moustache at some time during his career (albeit a short time); and by the same token of defiance or apology it may be said in California that every educator is entitled to at least a visit to Teachers College, Columbia University. In 1939, encouraged by the board of trustees, three teachers under the leader-

ship of George Geyer, then district superintendent, worked a summer at Teachers College on a curriculum plan for Westwood Junior Senior High School.

This group was most strongly influenced by Professors Harold F. Clark and William Featherstone, to whose guidance the members were assigned. The inspiration received might be epitomized in the conclusion of one of Dr. Clark's speeches: "What will the schools of the future be like? It is safe to say that these schools will be *functional* schools dealing with the *health, life essentials, work, and leisure* of the individual. Such are the schools of tomorrow!"

And what makes good talk before Rotary Clubs and civic organizations is that such schools should train students to be capable of producing more, earning more, and consuming more. Finally, therefore, our standards of living should go up.

These four areas, Health, Work, Life Essentials, and Leisure, according to Dr. Clark's studies, are the areas in which the people of the United States spend most of their time, money, and energies. Therefore they should form, according to the criterion of function, the most important part of the curriculum.

Well, time and experience have somewhat mellowed the enthusiasm with which these gauges were applied to the curriculum of Westwood. At the time of their original application, it was felt

that the school was weak in health information and practices, weak in work experiences and knowledge of vocations, weak in knowledge of food, clothing, and shelter, and weak in leisure activities. It is felt that the school, while it may be stronger than it once was in these fields, is yet inadequate in them. Some improvements have been made, as we consider them, and these will be passed on for your consideration:

1. We found it advisable to add a fifth field—Social Relations. While the topics dealt with under this heading all might be classified in the original four areas, it seemed easier to compromise by setting them apart.

2. A program of rotating specialist teachers was adopted as an urgency measure to give nine-week units to seniors in nutrition, mental health, vocations, and accident-prevention and first aid. Every graduate, it was felt, should be entitled to know the essentials of an adequate diet, principles of mental hygiene; what jobs are available, how to get a job and hold it; and, with more people being killed in highway accidents than in war, every senior should have a standard Red Cross first aid course and more training in accident prevention.

3. Another home economics teacher was employed and additional courses offered.

4. A teacher was given a period a day to handle all vocational problems: placement, development of a program, coöperation with townspeople, and so on.

To match athletic and scholastic awards, a school service award (certificate and pin) was developed to recognize those behind-the-scenes individuals who are sometimes the best citizens and to recognize the value of service to the community and to dignify work. Both a girls' and boys' school service group have received school credit and been

operated on a class-time schedule in improving school environment. They have fashioned elaborate signs, made curtains, done landscaping, developed air-raid shelters, improved sports equipment, and so on.

An athletic field improvement program, painting, roofing, and other summer jobs totalling \$15,000 have employed students almost exclusively, under teacher or contractor-supervision.

A school that attempts to serve the needs of its students, 80 per cent of whom are terminal, must do something to aid youth prepare for employment as they leave school. Adjustment on the job also is necessary, and a follow-up system that endeavors to get together the individual and the job that gives him most satisfaction.

Information about the world of work is given in some form in every basic course at Westwood. A running survey of the local labor market has resulted in up-to-the-minute occupational information's being made available to the student. An NYA program helps a limited number. The district employs all students, except two full-time adults, to service and maintain the plant.

Plans for an apprenticeship program which will alternate training on a job with training at school are now being developed. The plan should train, in the next few years, some of those eighteen boys who must stay and work at home for every boy who is at the battle front.

5. In encouragement of carry-over sports, four tennis courts were built; golf equipment was purchased and a practice course developed out through the basalt and boulders of this country; skiing and ice-skating were encouraged by bus excursions, propaganda, clubs, and purchase of team-equipment; hobby clubs were fostered, and more sports books were purchased for the library.

In our locality we need more emphasis on nature and geography-study hikes and on camp craft, hunting, and fishing.

Football and track were not eliminated, for a revolution did not seem desirable.

6. The Health Committee has been responsible for the working out of the basic course program in that area. Units were completely worked out by the committee with the help of the teachers who would have to teach the material. The Health Committee was composed, at first, of the boys' and girls' physical education instructors, the nurse, dean of girls, and teachers from the basic course then being considered. Later, in addition, the nurse began acting as health coördinator, working with a student committee on environment and with the faculty committee on curriculum revision and health habits and information.

7. The most important change has been in basic-course content. A committee of junior-high basic teachers worked a year on revision, and the following year the senior high teachers did likewise under the chairmanship of the vice-principal acting as curriculum director. The vice-principal also serves as a clearing house for materials, suggestions, visual aids, and techniques for handling special units. He carries on no supervision except when invited to the classroom to help on a special problem. He is available for conference at call.

Sub-committees of teachers worked on the different grade levels. The work was integrated by the fact that some teachers taught both a junior high and senior high basic course.

Generously and in a fine professional spirit, the teachers have given time outside of full teaching loads to the improvement of the program. The total job is not yet done and, of course, never

will be. Teachers have taken the immediate problems with them into the classroom and there under the experience of practice *and with help from students* are developing units that will lead to change in the direction of goals.

8. In adult education, enrollment has tripled in the past three years and now is 530, or greater than the combined junior-senior high school enrollment. This is as it should be, according to Clark. The educational lag among adults is something that the schools must correct if our democracy is not to be a prologue to a farce or a tragedy.

Courses in nutrition, home nursing, first aid, home making, and forums and hobby courses all answer positively to the function criterion.

THE general objectives of the school point to accomplishment in the five areas already mentioned. The objectives are stated in terms of abilities and traits which both the home and the school should try coöperatively to develop and are conceived mainly as objectives that may operate in the present, as well as in after school life of the student. Grouped according to area, they are as follows:

WORK

1. Vocational alertness leading to proper vocational choice.

LIFE ESSENTIALS

1. Knowledge about and desire for a normal family life.
2. Critical mindedness in relation to propaganda, advertising, and pressure groups.
3. Ability and desire to spend money wisely.

HEALTH

1. A high degree of physical and mental health.

LEISURE

1. The ability to plan for the effective use of time.
2. An ability to enjoy and interpret properly the modern press, radio, and movies.
3. Discrimination or good taste in the ways he chooses to spend his leisure time.
4. The ability and desire to create beauty in the several environments in which he spends time.

Chart 2—Proportionate Relationships in Westwood Program

| | | | | | | |
|------------|--------------|--------------|--------------------|--------------------|--|--------------------|
| 7th Grade | Basic Course | Basic Course | Basic Course | Mathematics | Exploratory : Music Shop Art Hmkg. | Physical Education |
| 8th Grade | Basic Course | Basic Course | Citizenship | Mathematics | Physical Education | Elective |
| 9th Grade | Basic Course | Basic Course | Mathematics | Physical Education | Elective | Elective |
| 10th Grade | Basic Course | Basic Course | Physical Education | Elective | Elective | Elective |
| 11th Grade | Basic Course | Basic Course | Physical Education | Elective | Elective | Elective |
| 12th Grade | Basic Course | Basic Course | Physical Education | Elective | Elective | Elective |

SOCIAL RELATIONS

1. Wholesome social relationships.
2. The ability and desire to be of service to social groups.
3. An understanding of and appreciation of the world of nature.
4. A philosophy of life that contributes to our democratic social order.

And to these must be added—

Enough of Reading, Writing, Arithmetic, and Reasoning to provide for the fullest possible attainment of objectives listed.

A PROGRAM, courses, subjects, and curriculum are of course necessary to implement these objectives. The program must be organized to provide both integration and differentiation; provide opportunity to meet the varying interests, needs, and abilities of a homogeneous group in Grades 7 through 12; provide opportunity for training and drill in the fundamental processes; and at the same time meet the demands of flexibility so as to further out-of-class activities.

The program of Westwood has been organized around a core-curriculum, of which the basic course and physical education stand as the most important elements. A schematic diagram showing proportionate relationships of core content and electives is included herewith.

The electives are arranged to provide a pattern of studies that will lead to training in the fields of college preparatory, commercial, homemaking, vocational, and cultural pursuits.

The basic course program has grown from a two-hour combination of social studies and English to become the instrument for general education in the school. The work of the basic courses centers around the five areas of Health, Work, Life Essentials, Leisure, and Social Relations. Work and study are related as closely as possible to these areas by constant reference to the objectives for the school and for the particular work of the class.

The following outline gives a picture of the nature of the basic course curriculum being developed at Westwood:

HEALTH

Seventh Grade—General personal hygiene.

Eighth Grade—Health through safety.

Ninth Grade—Personal health—school, home, boy and girl relationships—public health, and safety.

Tenth Grade—The nature and prevention of communicable diseases.

Eleventh Grade—American history and government.

Twelfth Grade—Nutrition, standard first aid, safety, mental hygiene.

WORK

Seventh Grade—What people in America do to earn a living.

Eighth Grade—Factors that are the basis of social order in California; what people in California do to earn a living.

Ninth Grade—Special personal interest, special personal abilities, occupational survey (community).

Tenth Grade—The ideas and ideals of our world, (a) in industry, (b) in education.

Eleventh Grade—American history and government.

Twelfth Grade—Looking forward after graduation to earning my own living (vocations).

LIFE ESSENTIALS

Seventh Grade—The status of our standard of living.

Eighth Grade—How people in California live today.

Ninth Grade—Food-clothing-shelter essentials.

Tenth Grade—The ideas and ideals of our world, (a) in religion, (b) in philosophy, (c) in government.

Eleventh Grade—American history and government.

Twelfth Grade—Looking forward after graduation to spending my income.

LEISURE

Seventh Grade—Hobbies I can develop to improve the use of my leisure time.

Eighth Grade—Recreational facilities available to me as a citizen of California.

Ninth Grade—Recreation through music, art, and reading; how to plan.

Tenth Grade—Adult and young people organizations—the part they play in leisure activities.

Eleventh Grade—American history and government.

Twelfth Grade—Organizing outdoor and indoor activities for group and individual leisure.

SOCIAL RELATIONS

Seventh Grade—Orientation.

Eighth Grade—Citizenship.

Ninth Grade—Personal rights and citizenship responsibilities.

Tenth Grade—The ideas and ideals of our world in international affairs.

Eleventh Grade—American history and government.

Twelfth Grade—Family relations; orientation to college (for college preparatory group only).

THE counseling, guidance, and testing program is called the personnel plan, and activities in this sphere are under the chairmanship of the dean of boys. This procedure operates to give each student a personal program since the aim is to have every student given an opportunity to select and adjust his course of study to meet his individual abilities, needs, and interests.

Because there is a multiple-period basic course type curriculum, each basic course teacher is the counselor of each student enrolled in his class and therefore has primary school responsibility in assisting and guiding the individual in his selection of courses.

The basic course teachers usually carry a class through for two years, the better to counsel. During the current large-scale revision of courses, however, basic course teachers usually have kept the same grade-level class so as to develop units more effectively and to have more time for these changes.

EVALUATION has been recognized at Westwood as a major problem closely allied with the counseling function and the teaching-learning process. This fact is evident in the following set of principles, developed by the Evaluation Committee:

1. Letter, numerical, or other abstract symbol used for a mark too often is interpreted in terms of subject matter achievement and often is a stumbling block in the way of real pupil progress along lines that are more developmental.

2. Evaluation is meaningful only as it honestly and realistically seeks to appraise the extent to which the practicable goals of the program are attained.

3. Evaluation defeats its purpose if it does not on as large a scale as possible encourage the development of the spirit and techniques of self-analysis or self-appraisal on the part of the individual pupil.

4. Evaluation should approximate a life situation. When school days are over, the individual's development is likely to be conditioned by his ability to take stock of his own progress toward goals, which, by and large,

he has set for himself and which have real meaning for him.

5. The school is neglecting one of its prime responsibilities if it does not more actively help the pupil to desire higher and higher goals and if it does not in connection with those goals afford him a more systematic practice in self-evaluation.

6. Evaluation should provide many intimate conversations with pupils and parents concerning the progress of the individual pupil. Through these intimate contacts, better evaluation should be achieved, self-evaluation enhanced, and guidance more easily effected.

Any plan based on the above principles makes it necessary for the teacher to know a good deal about the pupil. The Education Committee attempted to appraise pupil development with regard to as many aspects of development as possible. To present a more complete picture of pupil growth the following means or methods of appraisal were put into operation:

Quarterly ratings (report cards). These ratings are on the qualities meant to represent some of the more immediate manifestations of our general school goals or outcomes. They are the ones seemingly most understandable to pupils and easily within the observation of the teacher. Every rating is arrived at through pupil and teacher conference in which an attempt is made to diagnose weaknesses and point out remedial actions possible.

The qualities are:

- Responsibility as a citizen.
- Getting along with other people.
- Regularity of attendance.
- Use of class time.
- Eagerness to improve.
- Care, accuracy in work.
- Practice of healthful habits.
- Reading ability.
- Language ability.
- Arithmetic ability.

They are checked in appropriate columns headed: Outstanding Progress, Progress Shown, and Attention Needed. One copy of the pupil's record is sent home, and the duplicate is deposited

in the central student-folder file for future reference.

Letters to parents and pupils. Letters are not sent home at any designated time; but when the situation demands it—when there is a piece of work to commend, or when the teacher thinks that home coöperation is needed to insure better work on the part of the pupil.

Progress reports to parents. Many teachers do not use the letter to parents but report to the home on a form worked out for that purpose. This makes it possible for the parent to receive at shorter intervals reports on the pupil's work that are diagnostic as well as suggestively remedial, and at the same time it does not entail the tedious task of reporting by letter.

Self-rating devices. A good many self-checking devices are put into the hands of the pupils so that they may have the opportunity to find where they stand in relation to certain standards set by others. It has been found profitable in pupil guidance to have them construct their own rating devices and rate themselves. After being studied, the various devices are filed in the central, student-folder file.

Through examinations and written work. Copies and samples of written work of the pupil typical of his stage of development are filed in the folder. The student is conscious of this, and so this practice serves as a motive for increasing efficiency. Essay and new-type examinations are used to measure progress in class.

Standardized tests. A rather comprehensive testing program is carried on through the entire six grades. A running record is kept that shows better than marks the rate of pupil development in the fundamental operations and subject matter.

Other aspects of school and home life are filed in the folder so that the picture

of the pupil may be complete. Some of the other records are: records of home life and home conditions; health records; records of attendance and tardiness; results of interviews with parents and students and teachers; record of student's participation in school and work activities; reports of counseling committees.

THE student body, run on the usual democratic plan, has an Executive Committee of all student body officers and one representative each from the seventh, eighth, and ninth grades, two representatives each from the tenth and eleventh grades, and three representatives from the twelfth grade.

Students have a chance to express their feelings and their wants in open student body meetings and in basic courses, which admirably fit into the scheme of things, for in such groups discussions of school policy are fostered and election by ballot takes place.

An Administrative Council of five faculty and five student representatives acts as a cabinet to the principal to consider problems of faculty-student relationships and other administration problems that seem to call for such a coun-

cil's advice. Adults are sometimes called in from the community to meet with this body when issues involving community coöperation are involved, such as planning for town celebrations, making American Legion awards, or discussing student behavior in town.

Typical of school problems handled are the following: violation by a faculty member of a rule of the Student Court (passed to the principal for action); locker key and theft problems; courtesy campaign, or minimum standards of class conduct (Administrative Council student representatives on occasion meet with the entire faculty); objection by the American Legion Auxiliary to appointment of a girl of Mexican extraction to Girls' State (since the girl was nominated by the Council, this body met with the Auxiliary; arguments coming direct from student members convinced the Auxiliary of the justice of the appointment); making school service and other awards; reference of third-offenders from Student Court (action suggested, or case passed to principal or counselor for handling with the home); appearance of students with grievances or pleas.

Part IV

THE SECONDARY SCHOOL OF THE IMMEDIATE FUTURE

Authors contributing to this section include the following:

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Chapter 22

CONVERTING WHAT WE HAVE INTO WHAT WE MUST HAVE

CALIFORNIA educators are convinced, as other groups in the Nation are convinced, that the task to which every other consideration must be subjected is the winning of the war. In this undertaking, the schools have played, and will continue to play, an important part. They have coöperated with federal and state agencies which propose lines of activities designed to promote the war effort, and they have on their own account initiated services and developed projects in response to the demands of the war situation. Preceding pages have indicated some of the numerous developments which have occurred within recent months. Without qualification it may be asserted that developments of value to the war effort will be vigorously continued and others will be initiated and vigorously carried forward.

The war effort is the prime consideration of the schools today, it is true, but as much as the exigencies of the times permit, thought is being given to what may be called the long-term plan of education.

In recent years those responsible for the secondary schools have exerted a constructive effort to improve educational offerings. They have reconsidered the purposes which should control the program of secondary education; they have set assiduously about the task of studying the needs and interests of youth; they have developed new materials of instruction; and they have become increasingly conscious of the need of evaluation and appraisal of progress made by students. As a result of these efforts, changes have occurred and other

changes have been projected in the organization, content of instruction, methods of procedure, and process of evaluation.

The school man must bring these two trends into the proper perspective, the immediate urgency of participation in the war effort and the long-term plan of education. It is necessary for him to have a point of view towards developments which are occurring and which will occur because of the war effort and to understand their relationship to the long-term program of secondary education. It is necessary for him to anticipate, in so far as it is possible, the organization the program will take during war time and during the years which follow the close of hostilities.

CURRICULUM DEVELOPMENT BEFORE PEARL HARBOR

THE CHAPTERS immediately preceding present specific examples of the organization of high school programs before the declaration of war. Although the descriptions deal primarily with general education and with administrative organizations set up to further the study and improvement of the educational program in individual school systems, it is possible to deduce from the information given and from other sources the general structure of the total programs of the schools. Well marked trends are in evidence, some of which are as follows:

A Philosophy of Education Guides Curriculum Making. It is quite evident that a point of view towards the purpose which should be achieved by secondary

education guides the efforts of both teachers and administrators. In some instances where schools are beginning to examine their curriculums a period of weeks or even months has been devoted at the outset to a consideration of the school as a social institution, what it should accomplish, and how it can organize its program most effectively in light of its avowed purposes. Some educators regard the formulation of a set of guiding principles, or philosophy, as an essential first step—holding that, until direction is charted, efforts toward improvement will be inefficient.

In contrast with this procedure is a plan of study that begins immediately on problems which challenge teachers and which they believe hinder or block progress in curriculum improvement. Those employing the second method believe that the point of view teachers already have is sufficient to permit effective work in the improvement of courses, especially if teachers have available the services of curriculum directors with matured views in the philosophy of education.

Those favoring this latter procedure believe, moreover, that a long period of time is likely to be spent in the formulation of a satisfactory philosophical statement and that discussion will become so involved as to kill interest or to become confusing. Certainly there have been instances where this has occurred. It is better, so it is maintained, to spend but little time at the outset in discussing educational philosophy, but to proceed at once to specific tasks, encouraging and stimulating thought upon purposes, objectives, and general plans as the attack upon specific problems progresses.

Once a school has agreed on a philosophy, it proceeds to analyze into objectives the general purposes or ideal set as the goal of education. Perusal of the sections in the preceding chapters describing what has been done will show

that heavy dependence has been placed on such items as social relations, citizenship, and personality; vocational fitness, including guidance, training, and perhaps placement; health and physical education; home membership, often included in social relationships. The discriminating reader will observe that, even though "moral education" may not be mentioned specifically, moral values pervade practically every category listed. Strongly evident is the stress placed on the aim of personality development, with the correction of maladjustments and the development of a positive view or outlook on life.

Organization of a "scope and sequence" pattern also is in evidence in the description of the high school programs. This has been most clearly stated in Santa Barbara, where life activities basic to daily living are selected and where areas of experience are the basis of activities which, grade by grade or year by year, extend the understanding of the learner in such areas of experience as developing and conserving personal resources, transportation, or communication. Less well defined, although in evidence, is a similar pattern in core or basic courses which may be called "social living." In other instances the conventional organization and such terms as English and mathematics are used.

Much more important is the similarity in activities and in methods of attack which are found within the framework of organization whatever its outward form or title may be. When allowances are made for differences which must exist between a four-year union high school in a rural area and a large senior high school in a city, or between a junior-senior high school in a lumbering district and a high school in a community with a strong representation of college professors and professional men, the similarity becomes even more important.

Moreover, in techniques of developing materials of instruction, in attitudes towards community activities, in dispositions to determine the interests and needs of students, and in dependence on instruments of measurement or appraisal—all the schools have much in common in these areas. It would be entirely possible for the advocates of two drastically different forms of curriculum organization in California to disagree and yet find themselves in agreement on types of instructional units and methods of developing them for learning and teaching.

Committee Organization. It is a striking fact that all schools employ committees of teachers to carry the work of curriculum improvement. Types of committee organization apparently depend on local factors, as numerous forms of organization occur. Workshops for teachers, in which those participating may set their own problems and where they have time, materials, and assistance to work on them, would not have had the strong development they have had in California had not all concerned realized the importance of the teacher in improving the work of the school.

Less well developed but nevertheless important is the plan of community and of pupil groups in determining policy and practice. California teachers and administrators have made significant advances in studying community conditions and in determining needs of adolescents, and they have shown marked progress in using results in developing instructional units and activities. The newer techniques employ surveys of student interests and need, student discussion and opinion in planning, and community appraisal of educational objectives accompanied by suggestions for improvement.

Not only is the process of using student, community, and teacher effort to

effect curriculum improvement more democratic, but it is also more effective than the old plan of employing an "expert." The expert still is used, but as a source of reference and information; and he is not unhappy in this new role.

General Pattern of the School Program. Generally speaking, the senior or four-year high school provides a group of courses designed to promote general education and also offers parallel groups of courses designed to minister to the needs of individual pupils or groups of pupils. This organization is essentially the same as the one which has prevailed for years. In most California high schools, however, it is more than likely that within one or more of the courses significant developments have occurred which brief descriptions fail to disclose.

Opportunities for general education are offered by required English, physical education, history and civics, and perhaps mathematics. There may be little correlation between existing courses. Paralleling the offerings for general education are the groups of courses set up to prepare for college, or to give training in agriculture, business, the industrial or mechanical arts, and home-making.

Varying from the conventional organization are some of the plans described in this monograph. In schools where these plans are in effect there is provision for general education in the form of a basic, core, or trunkline course. A succeeding section is devoted to an analysis of a number of organizations of this type which have been developed.

Here it may be pointed out that the core or basic course is regarded as an extension of the common or general training of the elementary and the high school, including the fundamental processes as well as the attitudes and knowledge which should enter into the train-

ing of everyone; also it is the center of guidance. Activities have been developed to give the pupil orientation to his new school environment; care is awarded to personality factors; habits of study receive attention; difficulties encountered in various classes are considered; plans are laid for the educational career; and attention is given to vocational interests and abilities. Some schools regard the basic or core course as a place where pupils develop interests which they may exploit in non-core courses. A strong tendency is evident to place on teachers of the core or basic course increased responsibilities in guidance.

Parallel with the core or basic courses, designed to provide general education, occur courses or groups of courses organized to promote special interests and abilities. For the most part these are vocational or near vocational in character and are aimed at agriculture, business, homemaking, and mechanical arts. In a number of schools it is believed that any worthy interest a boy or girl may have developed should be exploited, and in so far as possible corresponding opportunity is offered.

GENERAL EDUCATION IN SEVENTEEN CALIFORNIA SECONDARY SCHOOLS

By H. N. McCLELLAN

GENERAL education of some character always has been characteristic of the curriculum of the American secondary school. In the early days of the high school, the required program consisted primarily of foreign language, mathematics, science, and the classical literature and constituted a body of subject matter which was conceived to be of value for all students to prepare them for college. With the influx of students of varying abilities during the last fifty years, however, courses designed to meet the needs of pupils who will not

go to college have been added. The multiplication of courses and the elective system have made a guidance program necessary, and guidance has been added as an administrative function.

With the child study movement and increasing understanding of the physical, mental, and social characteristics of adolescence there has come an emphasis on the needs of the pupils, which has brought about a new attitude toward the required, constant, or core courses. With college preparatory subjects as the core, it was rather generally assumed, at least by implication, that what is good preparation for college also is good preparation for life. With increased recognition of the needs, interests, and abilities of adolescence, it has become necessary to shift the basis for the required course.

Instead of assuming that what is good preparation for college is also good preparation for life, the advocates of a reorganized secondary curriculum have raised the question: Is it not possible to provide first for the life needs of all pupils attending the secondary school, and is it not likely that this provision, if properly made, will qualify those who go to college if the colleges will relax their entrance requirements? This, in effect, was the basic question of the Eight-Year Study of the Progressive Education Association; and the answer to the question appears to be "yes," on the basis of that study. Many secondary schools, therefore, have swung away from the core course with a subject matter basis and have come to the point of view that the personal development of the pupil and the requirements of the social order in which he is to live should form the basis of the core.

What Is "General Education?" According to this trend, general education has been defined as "that common body of experiences which all pupils should have." Two definitions of general edu-

cation may be accepted as authoritative, since they come in the one instance from the chairman of the Commission on Secondary School Curriculum of the Progressive Education Association, and in the other from the chairman of the subcommittee of the General Education Committee, Commission on Curricula of Secondary Schools and Institutions of Higher Education, of the North Central Association of Colleges and Secondary Schools.

The first states :

The purpose of general education is to provide rich and significant experiences in the major aspects of living, so directed as to promote the fullest possible realization of personal potentialities, and the most effective participation in a democratic society.¹

According to the second :

General education is intended for everyone . . . General education is concerned with the total personality . . . General education is concerned with the individual's non-specialized activities.²

One other definition of general education deserves attention since it grows out of the Eight-Year Study :

In a few schools of the Eight-Year Study, "general education" becomes the name of a special course required of all students. As a rule these courses are of the type known as "core" courses, dealing with problems of personal adjustment and daily living, or the significant problems of society. These courses are designed to meet the needs of adolescents as directly as possible.³

From these definitions, as well as from other literature bearing on the subject, it seems justifiable to set up certain criteria of general education. Justification of these criteria will not be attempted in the space of this article but

is to be found in the abundant literature recently produced on general education.

These criteria are as follows :

1. The program of general education provides a body of common experiences (unspecialized) which all pupils should have.

2. The general education program is required of all pupils regardless of their ability or future destination.

3. The general education program includes experiences in the major aspects of living to meet the needs of adolescents and to preserve and extend democracy. These experiences are commonly organized in one of two ways: (a) with the needs of adolescence as the basis; or (b) with the basic aspects of living (major social functions) as the basis.

4. The content material for the course in general education usually is drawn from the fields of English, social studies, personal problems (physical and mental health, family life), science, and sometimes mathematics.

5. The program of general education should provide for guidance, evaluation, and work experience as an organized part of the core or basic curriculum.

Basic Curricula in California High Schools. With these criteria in mind, the following analysis of the basic, required, or core courses of the California secondary schools described in preceding chapters of this monograph has been prepared. Since in the preparation of their articles the authors were requested to cover two phases of their curriculum organizations, namely, their plan of organization and the administrative procedure they have set up for implementing it, it is evident that certain phases of the programs which are here analyzed are not evident from the articles; but nevertheless they are in operation in certain of the schools. Some additional information regarding the curriculum program was secured by correspondence from five of the schools. On certain of the items on which the analysis is based there was an absence of definite information contained in the articles, but the implications were so clear that practices in these schools have been included. It seems fair to assume, however, that where a certain feature of the basic program of the school is not men-

¹*Mathematics in General Education*, Report of the Committee on the Function of Mathematics in General Education for the Commission on Secondary School Curriculum, Progressive Education Association, D. Appleton-Century Company, Inc., 1940, p. 43.

²B Lamar Johnson, chairman, *General Education in the American High School*, prepared by a sub-committee of the General Education Committee, Commission on Curricula of Secondary Schools and Institutions of Higher Education of the North Central Association of Colleges and Secondary Schools, Scott, Foresman and Company, 1942, p. xii

³H. H. Giles, S. P. McCutchen, and A. N. Zechiel, *Exploring the Curriculum*, Commission on the Relation of School and College, Progressive Education Association, Harper and Brothers, 1942, p. 7.

tioned in the article, or is not clearly implied, as an integral part of the curriculum program (guidance or evaluation, for example), it is not actually present.

Ten of the seventeen schools report a core type of curriculum organization, with seven operating on the subject basis. The term used in eight of the schools to describe the core or required program is "general," "basic," or "core course." Five schools use the term "general education"; two, "required" or "prescribed course"; and one, "trunk-line." The basis of the core program in seven of the schools is described as "child needs," or "needs of youth"; six schools use "basic life activities" or "basic social functions" as the basis of the core, and four use a subject matter basis.

In the subject fields represented in the core program, English and social studies are present in all the schools. Science usually is present in the core, and sometimes mathematics, particularly in the lower grades.

The place of physical education in relation to the core is not well defined. Because of the legal requirements, it is mentioned as a required subject in every grade. Some schools mention physical education as a part of the core, while some schools evidently add to the legal requirement additional health material under the names "health and recreation," "safety," "hygiene," "first aid," and "nutrition." This additional material usually is mentioned as part of the core, evidently a recognition of the fact that:

In addition to programs of physical education it is essential that schools develop well-rounded, integrated programs of health protection, health guidance, and health instruction. A physical education program cannot take the place of a health program, nor can health education take the place of physical education.⁴

⁴American Association of School Administrators, *Health in Schools*, Twentieth Yearbook, The Association, February, 1942, p. 117.

Some schools mention fine and practical arts as part of the core course in certain grades. Orientation in Grade 9 or 10 and orientation and senior problems as twelfth year requirements are mentioned by a number of the schools. Guidance as a definite field from which content is drawn is mentioned by one school, although the same practice is implied in many schools having orientation, social living, senior problems, and similar courses.

Guidance, evaluation, and work experience as definite constituents of the core curriculum are mentioned as among the criteria of a complete training in general education. Guidance as an integral part of the curriculum is mentioned by eleven schools, with its status in two schools doubtful. Evaluation is mentioned by twelve schools, with a doubtful status in one.

Work experience as a definite part of a program of general education evidently is only in its beginnings. It is mentioned by only one school (Carpenteria), and the account cited seems to substantiate that school's claims. "Credit toward graduation for out-of-school work experience" is mentioned in the Los Angeles article in connection with proposals for war-time curriculum adjustments.

General Education and Emergency Demands. During the past few months there have been thrust on the schools all sorts of emergency demands which usually are considered noncurricular, or at best extracurricular. Many of these demands, if correctly organized and utilized, may provide real-life situations which will introduce realism into the curriculum and stimulate desirable modification.

Perhaps the general education program is flexible enough to respond to special (emergency) needs, at the same time carrying forward the general, or basic, program which provides the common training needed by all students.

Some emergency demands (health education, first aid, nutrition, gardening, and so on) already have been incorporated in the basic program. Possibly the core program, being unspecialized and based on personal and social needs, will provide a means of keeping the secondary program for all pupils in tune with a changing world. This will furnish the needed flexibility, at the same time providing, by means of specialized subjects, for the skills, information, techniques, et cetera, needed by pupils for special interests and abilities.

WAR DEMANDS ON THE SCHOOLS

THE DEMANDS which the war is making on the schools may be classified roughly as follows: Emphasis is placed on certain objectives which constitute and have constituted accepted objectives of secondary education; demands are made for special training in the form of new courses or modifications of existing courses; special services of an extracurricular nature are asked of pupils and teachers during the time school is in session; activities of a work nature are demanded during vacations and during the school year. The entire process is resulting in a sharpening of issues and a demand that essentials be taught with a high degree of efficiency, and education is being brought into closer contact with reality. Thus the issue of making what we have into what we should have has assumed greater magnitude than ever before.

At the same time they participate in the Nation's war effort, administrators, supervisors, and teachers must retain a policy of unification and control of the program to prevent disintegration which easily can be caused by the multitude of special demands now confronting the schools.

Increased Emphasis on General Education. While the call for certain lines of specialized training is unmistakable,

it is clear also that the military forces and industry need and demand young people with good general training. This means a need for individuals with alert and capable minds, of sound health and physical fitness, with knowledge and ideals of democratic government, and with strong morale. Such persons will be able to assimilate specialized training either of a military or an industrial character, and they will possess firmness of character which will enable them to meet without wavering the stresses which are being encountered and which will become increasingly great as time goes on.

Although specific units in the general, core, or basic course are not indicated in Chapters 4 to 21, or in the analysis contained in the preceding section, information is sufficient to warrant the comment that, if the secondary school really is to provide a common body of unspecialized knowledge and experience, considerable attention should be given to the determination of the experiences and knowledge which should comprise general education. As the basic or core courses have developed, they have drawn heavily on English and the social studies; they have included also the fine arts and orientation, with attention to personality problems. Other elements, such as education for home life, are included. The core also is recognized as the center of guidance.

But general education should include much more than the present core or basic courses provide. Experience and knowledge based primarily on science, mathematics, and the industrial arts enter into the lives of all, or nearly all, individuals. Health is a factor of highest importance; this involves more than physical education, which, though required of all, often is separated in organization from the course or courses relied on to supply general education. If the concept of general education is

to receive the attention it merits, the organization of the entire program must be considered, and means must be instituted for determining the accomplishments and stage of growth reached by the individual pupil. Courses required for purposes of general education should contain a balanced ration of elements which enter, or should enter, into the training of the individual; and it is reasonable to assume that teachers of vocational and other courses not primarily of the general type should be aware of the purpose and content of the courses set up to give general education and that use of the contributions of these teachers should be made to extend general training.

Experience has demonstrated conclusively that different pupils, brought into contact with what may be termed the minimum essentials, gain from such contacts varying degrees of proficiency and development. Individual diagnosis with individual treatment and prescription of learning situations which may and should extend into the more specialized courses are needed, rather than the conventional mass attack which assumes that, when the ground has been covered, the school has discharged its duty.

Experience also has demonstrated conclusively that teaching-learning situations must be meaningful to the student. While drill periods are helpful and should be used, the secondary school should not depend too much on them to clinch a mastery of the fundamental processes or to insure the acquisition of what may be termed fundamental knowledge and skill. There are some indications that the high school may follow too extensively this line of least resistance, rather than organize learning materials or units in such a way as to utilize basic knowledge and skills and thus insure the pupils' mastery of them and ability to use them. Here the high

school may learn from the best elementary school practices, where units are developed which challenge pupils' interest and which at the same time depend on and make use of basic skills and knowledge. Moreover, the elementary school has not dispensed with drill periods.

The American secondary school never has had a systematic plan for the cultivation of basic knowledge and skills, including the fundamental processes. Aside from physical education, now required in California by law throughout elementary and secondary schools, English has been about the only subject which is continued from year to year throughout the curriculum, thus permitting sequential development of learning situations. Even in English there has been a tendency to schedule a semester or a part of a semester in composition, to be followed by a similar period devoted to the study of literature. The assumption is too likely to prevail that, once the ground has been covered, the teacher's duty has been discharged. It then becomes the responsibility of the pupil, not only to understand and be able to use what has been presented, but to keep fresh in memory those things which presumably have been taught so that they may be used upon demand.

With these exceptions, subjects supposed to contribute primarily to general education have lacked the advantages which year-by-year study can produce. The block organization has been and still is extensively employed. Instruction in arithmetic, for example, has closed with the eighth grade, to be followed by ninth grade algebra and tenth grade geometry. In Grades 11 and 12 no scheduled instruction in mathematics has occurred for the great body of pupils. In science the pupil may encounter tenth grade biology or he may not; probably he will complete chemistry or physics in Grade 11 or 12. He may be

actively concerned with citizenship problems only in an eleventh grade course in American history and government.

Someway and somehow, boys and girls are supposed to learn, understand, and remember; when they do not, they are condemned for their lack of application, and school and teachers are censured for not doing their duty. Secondary schools of other nations long have arranged their schedules in such a way as to continue the attack on an area of learning for successive years; they have not assumed, as American schools have assumed, that schedules can be arranged satisfactorily only on a basis of five periods per week per subject for a semester or a year. The time has arrived long since for American educators to set about the task of devising programs that will require consecutive and continuous learning. The war situation calls imperatively for adjustments which will increase efficiency in general training.

Probably it is in the field of the fundamental processes that criticism most often falls. High school graduates, it is asserted, are incapable of manipulating simple arithmetical processes; they know little of algebra; they read, write, and spell poorly; they are deficient in oral expression; or they have no grasp of ordinary scientific phenomena. While many such criticisms are unjust, some contain too much truth for comfort. Standardized tests, given to twelfth grade students, often have shown them to fall below eighth grade standards in one or more of the areas usually designated as the fundamentals. What can and will happen, unless the high school develops a program to keep alive the learnings achieved in lower grades, is indicated in the next section in which suggestions also are made as to the manner in which the high school not only can keep alive the learnings of the lower

grades but can reinforce and extend them.

*Mastery of Communication Skills.*⁴

Problems dealing with all skills on the secondary level need examination. It is the purpose of this brief presentation merely to open some of the problems in relation to the communication skills, many of which are confronting teachers today. In the "communication skills," both reading and self-expression are involved. Reading involves those skills which enable one to get ideas from the printed page. Self-expression involves skills which enable one to convey ideas to others.

Data secured from the annual reading survey in Santa Barbara seem to indicate some loss of skill efficiency on the secondary levels. There are many probable or possible reasons for this.

In the secondary school the reading program is incidental to some other program, whereas in the elementary school considerable time is spent on a developmental reading program. The entire skills program receives more time and concentrated attention on the elementary levels. Another reason for this decline in skill at the secondary level may be in the change in type of school management from level to level. The change from the security of having the guidance of a single teacher in the elementary school to a more or less impersonal relationship with many teachers in the secondary school and the accompanying more or less compartmentalized learning, together with the physical shift from classroom to classroom, plus many other disturbing factors—all these are too much for the average pupil to undergo without some change in his school achievement.

The physiological factors also must be considered. In a special study made

⁴The section, "Mastery of Communication Skills," was prepared by Lillian A. Lamoreaux, director of curriculum and instruction, Santa Barbara City Schools

in the Santa Barbara City Schools, it was found that most of the girls at the seventh grade and the boys at the ninth or tenth grade levels were in a difficult period of development. On the average, 69 per cent of the seventh grade girls in Santa Barbara either had just entered or were about to enter the period of puberty at the beginning of the year. Consequently, a large number of girls in this grade were passing through a period of emotional stress and strain. Although evidence is not so marked, the school doctor feels that it is probable that boys pass through a similar period of physical and emotional change somewhat later.

Another problem to be faced is: Who in the secondary schools is to be responsible for the maintenance, or further development and refinement, of the skills? Many think the problem belongs to the English or the core teachers; others believe that every teacher should be responsible for teaching the skills necessary in his or her subject.

The truth is that today no integrated learning can take place in water-tight, subject-matter compartments. All teachers should know how to help students gain those reading or expression skills necessary for success in the work in which they are engaged. Reading in each content field demands different reading skills; therefore the science teacher must help the pupil develop a science vocabulary and learn how to do the careful reading necessary. This type of reading is slow and deliberate because each word carries an idea. The science and mathematics student must learn this type of reading, which is quite in contrast to the reading done in literature and in some social studies classes where skimming for ideas is encouraged and where quantities of material are covered.

All teachers need to learn to be teachers of reading in their own subject

fields. In addition, special classes are needed in the junior and senior high school where pupils who are below reading expectancy ($\frac{2MA + CA}{3}$) may be given special, concentrated help on individual needs.

Correct spelling is correct spelling in any class; and standards for good, legible handwriting are the same in any class. These are necessary skills of communication whether for teacher or pupil. One has only to look at the blackboards in most secondary schools to realize that not only is little or nothing being done to maintain these skills but that very poor patterns are being set for pupils. Because classes in penmanship are not available to teachers studying in colleges and schools of education, few teachers today are prepared to demonstrate good handwriting in the classroom.

Before pupils can be taught self-expression, they must be taught straight thinking and must be guided in the effective expression of thought. If the thought is to be expressed orally, then oral vocabulary and voice are fundamental factors; if the expression is to be written, then written vocabulary and handwriting are the important factors. Sentence structure and sequence will largely take care of themselves if thinking is straight and concepts are clear.

If each secondary staff could agree on some standards of achievement for the several communication skills toward which all teachers and pupils could work, learning would be more effective because all classes would have the same standards in mind and work consistently toward them.

Surely all the foregoing is necessary in any class. Teachers tend to become so centered on the subject information that these factors are lost sight of and each opportunity to make the communications skills function in a natural sit-

uation is lost. If each teacher knew how to present these skills in natural, needful situations, it is doubtful whether we should need to place so much stress on high school English, except for providing refinement and enrichment experiences.

Citizenship and Morale. As a result of the war, one part of the education which all should receive, training in citizenship, has become even more complex and difficult than it has been. Moreover, the necessity that the average citizen be interested in and intelligent about problems of citizenship was never so pressing. Morale, dependent as it is on such factors as zeal, hope, confidence, and spirit, is so intimately related to citizenship as to be inseparable from it. Certainly the demand of the times is that the school, in cooperation with other social agencies, bring to bear all its intelligence and effort in cultivating citizenship and morale.

The first responsibility of an American citizen is to assist in the direction of national, state, and local government by casting an intelligent ballot. This he will do only if he is thoroughly and sincerely convinced that it is his duty to vote, if he understands the principles of democratic government and the issues he helps to decide, and if he is convinced that only honest, intelligent, and efficient men are fit to hold public office. That the nation has not produced as many intelligent, conscientious voters as it should have produced is generally recognized. The school must share responsibility for a situation in which voters are too apathetic to go to the polls, mediocre candidates appeal to voters with vaudeville performances and hillbilly songs, and problems vital to the prosecution of the war effort are made the issues of political intrigue.

While the school with its immature students cannot counteract entirely the influence of the radio, the press, the

propaganda of a special interest, or the promises of a political candidate, it should do more than it has done in developing the conviction in young people that it is their sacred duty to exercise intelligently their rights as citizens. Teachers easily can increase their appeals to the interests and emotions of youth; they easily can utilize youth's inherent loyalty and devotion to justice and right. In short, teachers have hardly begun to utilize the opportunities which are theirs to kindle in American youth a spirit of civic righteousness and loyalty to the principles of government which youth are being called on to defend.

Teachers must learn also how to develop attitudes which result in action. Too much citizenship instruction is filled with factual detail which depends on memory; there may be little appeal to reason and none at all to the feelings and emotions. If teachers develop citizens imbued with a sense of duty and obligation, they will lay hold of the interests, feelings, and emotions of youth.

The secondary school should be certain that the time spent on activities designed to produce traits of citizenship really produces such traits. This means a clearer statement than we now have must be made of the principles of democratic government which should be understood and accepted. Student activities and organizations, classroom procedures, and the life of the school generally should be examined to determine their real contributions. Similarly, the real value of units or projects depicting Indian life, the period of American colonial life, or the development of means of transportation should be known and not taken on faith. This does not mean that all such materials should be excluded and those dealing with current issues substituted; it does mean, however, that the actual outcomes should be known rather than hoped for.

In the social studies, it does seem likely, much subject matter of a historical character probably will be replaced with that which is current. Efficient prosecution of the war demands that the social studies assume their share of responsibility for providing instruction on the basic issues in the supply, production, and distribution of numerous commodities—including those needed in the production of arms, ships, airplanes, and munitions—and in feeding, equipping, and transporting armed forces. New social welfare issues and legislation, recent developments in the ranks of capital and labor, and the increased power of the federal government are other examples of problems which must be studied. We must deal with conservation, price control, intelligent buying, and the war on inflation.

Documents of great historical importance have been produced during the past few months, and others certainly will be forthcoming. In them are outlined policies which explain and direct not only present action but also future action. Time must be found to study them, even if some of the cherished, conventional exercises ordinarily taught in social studies and literature classes have to go. Failure to consider important pronouncements issuing from the present conflict will produce individuals without the knowledge they must have to exercise effective citizenship both now and later.

Not only will American youth bear the brunt of the fighting which must be done before an era of peace can be ushered in, but they will exercise a powerful if not a controlling voice in planning the kind of a nation and world which later will come into existence. If the war lasts as long as many now believe it will, pupils of junior high school age will have a part in actual hostilities, and they will have the responsibilities of

adults in the immediate post-war area. How the school can discharge its duty most intelligently is a staggering question. Whatever the influence of non-school educational institutions may be, the school can make more intelligent and more effective efforts to cultivate attitudes of civic righteousness, to teach the meaning of democracy, to show why we are at war, to help young people understand the great documents of state produced during this era, and to study the proposals to form federations of states after the war. It can and must examine the practices it uses in teaching citizenship to insure their effectiveness.

The school can do these things not only for its pupils but for the citizens of its neighborhood; through its community forums and special day and evening classes it may not only set up avenues of training for home defense activities and for semi-skilled or skilled occupations needed in war production, but it may organize discussion groups or classes to acquaint adults with the issues of citizenship. As a matter of fact such programs already are in operation; they should be continued and extended. At the same time members of high school and junior college faculties should be able to assume the community leadership, often theirs for the asking and taking, for which their special training presumably fits them.

New Units and Courses of Study. As shown in the early chapters of this monograph, new courses, particularly those to give preliminary training for the armed forces, are being set up. Time is short. This means that the selection and organization of content and the development of teaching methods must be accomplished quickly. As might be expected, some of the syllabi and books have been poor in quality.

For new science and mathematics courses, individuals or small groups

have utilized the experience of schools developed under military or civilian auspices. In so far as time will permit, the techniques developed during recent years should be employed in developing new courses. Certainly the individual or the group responsible for a new line of training should know what it is that the military forces really need. Throughout the process, however, it will be well to remember that the opinions of men in positions of authority, even though they be army or navy officials, are not infallible and that a scientific approach will yield more than will the dependence on mere experience.

In addition to special courses, it has been shown that the schools are called on to assist in "air conditioning" America, to bear a major part of the task of training intelligent consumers of goods, to assume responsibility for an extensive model airplane project, to develop units of instruction on Latin-American culture, and to reorganize physical education. Students sell war stamps, collect rubber, act as airplane spotters, collect books, participate in U. S. O. activities, and work in the harvests or on fire crews. Teachers must manage and direct these activities; they are responsible for new courses and for new units to be added to existing courses to further projects like "air conditioning" and consumer education. As a rule, there is insufficient time for them to do their best work or even good work. It is to be expected that a national emergency must be met, if not by emergency measures, by quick action. Projects will be originated suddenly and must be prosecuted vigorously and promptly.

New Issues in Guidance. Whether contained in the basic or core program or administered in some other way, guidance is an integral part of the educational process. To date, guidance in California high schools has been concerned with the orientation of the pupil

to his new school environment, with personality adjustments, with difficulties standing in the way of school progress, with plans for the individual's entire educational program including college entrance, vocational decision, and training, and placement. Courses entitled "senior problems" also have contained a strong guidance bias.

While these issues and problems remain, new issues and problems suddenly have thrust themselves on the schools. Boys looking ahead to service in the armed forces have some opportunities for deciding and entering on various branches of service, and girls and boys have unparalleled opportunities for employment. Stimuli toward unsocial behavior are, at least in some quarters, much stronger than formerly. The tendency to leave school is stronger. The guidance system thus is called on to acquaint itself with many new issues, and it cannot avoid giving advice and even direction to its charges.

The war situation is emphasizing the need of professional training, especially in engineering and medicine. There is, on the one hand, great need for more engineers, doctors, and nurses; and at the same time there is tremendous pressure to train additional personnel in the shortest possible time. This has caused critical examinations of existing training courses with consequent elimination of nonessentials and improvement in teaching techniques. Only that is retained which contributes directly to the goal. On the other hand, students well fitted by intelligence and disposition to study medicine or engineering have made the strongest appeal to recruiting and procurement officers in the air corps, the army, and especially the navy.

In industrial arts and trade and industrial training, comparable developments have occurred. Boys with only average skill and ability, or with what was not long ago regarded as incomplete

training, are wanted badly in the war industries.

War production has resulted in an extraordinary number of short-unit vocational courses designed to teach a specific skill. While operated to a large degree on the special day and evening class basis, these courses in reality are a part of the secondary school program. Such courses have produced a method of training men for industry in a short period and have demonstrated a means of overcoming what was known a few years ago as technological unemployment. There can be little doubt that the total result will be far-reaching in character. It can be expected that short, intensive vocational courses are here to stay; it is generally anticipated that they will be extensively used when war industries taper off and men turn to industries designed to promote the pursuits of peace.

Guidance facilities thus are confronted with problems which, while not entirely new, certainly contain elements totally lacking a short time ago. In the first place, the numerous services for which young people are insistently sought must be very definitely known. Many of these are new. They include not only the major divisions of military service, and the many specialized areas within those fields, but also the varied forms of employment open to young people. Next, the specific abilities needed for effective service in specific areas must be understood; and means must be found for ascertaining whether an individual boy or girl possesses desirable qualities of personality, ability, or training. Only then can intelligent guidance be given.

Should a boy with mathematical and scientific ability enter the air corps on graduation from high school, should he go to college to study engineering or medicine, should he try a deferred enlistment plan, or should he go about his

own business until such time as he may be inducted into military service? Should a girl prepare for nursing, should she prepare for clerical work, or should she secure employment in a war industry? In light of the dire need of labor, is it patriotic to plan a career that will demand years of training? How can guidance be of assistance to hordes of youth who will, it is hoped, be temporarily engaged in war industry or in military service? These are a few of the questions confronting those charged with guidance responsibilities.

The attempts of the various branches of the military service to attract recruits, their disposition to get the men they need regardless of needs elsewhere, the pressure young men feel to enlist, and their desire to select the arm of the service they will enter—all these add to the problems of the counselor. And these problems are not lessened by an employment situation which enables those not headed for military service to go to work at wages that are little short of fabulous when compared with pay received a few years ago or with wages now received for farm work.

PROBLEMS TO BE OVERCOME

THE adjustments which the high school must make to comply with war demands may be called, without exaggeration, enormous; yet they must be made in spite of problems which in themselves would be regarded as of first magnitude under ordinary conditions.

Shortages of Teachers. The 1942 teacher placement season had not advanced far when it became evident there would be too few teachers in science and mathematics, agriculture, business education, boys' physical education, industrial and vocational arts, and home-making. In practically all of these areas, it will be noticed, teachers have been called on for special services.

Agriculture teachers are depended on for extra effort in the food-for-victory program; science and mathematics teachers are asked to develop courses in pre-aeronautics and navigation; industrial arts teachers are wanted to train workers in the defense industries; and so on. At a time when tasks are proposed demanding high professional knowledge and skill, shortages of teachers occur in the very areas where teachers are most needed.

Surpluses of teachers are found in English, social studies, and foreign language. More persons, especially women, train for teaching in these fields than the demand calls for, and decreased enrollments in junior college and high school enrollments have occurred. The military forces have been anxious to secure persons with technical training, but apparently they have not found many teachers of English, social studies, or foreign language with equipment of value. A similar situation exists in industry.

There can be little doubt that the schools will suffer from inability to secure teachers with certain types of training. At present the remedy, and it will not be wholly effective, seems to be to retrain teachers in such a way as to enable them to render service in areas where service is needed. Some teachers of English, for example, can be found who through completing special courses in mathematics could handle high school algebra or geometry satisfactorily; or perhaps a few teachers of social studies thus could take over some of the science teaching. Unsatisfactory as this plan may seem, it offers more possibilities than one which depends on colleges and universities to produce more teachers for areas in which shortages have appeared. The training period is long, college enrollments will be depleted, and industry and the military forces will secure the specially trained persons.

Decreased Enrollments. Not counting Japanese evacuees, Grades 9 through 12 in California schools lost 11,539 units of average daily attendance in regular day classes in 1941-42 over the preceding year, or 3.6 per cent. Junior colleges lost 6,276 units from their regular day classes, or 18.2 per cent. In California this means eventual decreases in state funds apportioned for the support of these schools. In any school, decreased enrollment means internal adjustments not easy to make—adjustments such as reduction of the teaching staff and the discontinuation of certain classes.

There seems little doubt that lower age for compulsory military service will be set at 18; there seems little doubt, also, that the necessity of finding workers to man the war industries will take from the high schools large numbers of boys and girls 16 to 18 years of age. Consequently, as the war proceeds the high schools may expect to lose larger percentages of their students. As already stated, this may mean drastic adjustments within the high schools.

Part-Time Employment. Throughout the harvest season, insistent calls for labor have been issued. While it may be that adult labor would, if it could be secured, be sufficient to harvest the crops, it seems unlikely that the response will be sufficient to the need; therefore, those interested in supplying labor for the harvests have turned to the schools. Some high schools will postpone dates of opening so that boys and girls may work in the fields and vineyards; others will permit pupils to be absent; and still others will operate on a minimum-school-day basis. In 1943 the situation will be more critical, and increased demands for student labor in the harvests may be anticipated.

In the cities the great need for labor of all kinds may result in much part-time work. Students will wish to secure

high school diplomas; they will exert pressure to be allowed to attend school for perhaps four hours per day and to work an equal amount of time. Employers will reinforce student requests. School officials thus will have a strong stimulus to develop extensive programs of coöperative, part-time work, with school credit for work experience.

Transportation. A large number of California's high schools serve union districts, transporting pupils to and from their homes by bus. As busses get out of repair and tires become worn, a critical transportation problem may develop. It may not be possible to replace worn parts; and although school boards have priorities on tires for school buses, no one can say with certainty what the situation will be a few months hence. Complicating this situation is the direction from federal authorities that an inventory be made of the State's school busses so that they may be pressed into service to transport industrial workers. Along with this request comes another that pupils be allowed to report to school at different times so that greater uses may be made of school busses.

Many union high schools transport their pupils great distances, and it is easy to see the disruptive effect on organization that a bus shortage would entail. Already interscholastic athletic schedules have been modified or canceled because busses may not be used to transport athletes. The contradictory nature of a request to stagger opening school hours to permit greater uses of busses and the suggestion that pupils be placed on a short day so they may work part time is evident.

Shortage of Equipment. Originally called the defense program, the training of men for the war industries had hardly begun before it became exceedingly difficult to secure equipment for the shops. Of late there have been too few typewriters; and other office ma-

chinery has not been plentiful. It can be expected that other types of school supplies, particularly those needed in the laboratories, soon will become hard to get. Books are still to be had, although prices show a tendency to rise and paper and binding materials have been threatened by priorities. The schools may anticipate the time when school supplies will be secured with great difficulty or not at all.

Crowded Schools in Defense Centers. Rural areas have lost their young men to the military forces and to the war industries and many of their adult workers to the cities where higher pay can be secured. On the one hand, these movements have created labor shortages on the farms, and they have taxed housing facilities, including schools, in metropolitan areas in which war industries are located. Increased federal funds have been provided to establish training courses for farm occupations, and a vigorous program of this nature will go forward during the ensuing year.

Protecting Childhood. Over a period of years, safeguards have been thrown around children in the form of protective legislation. Reference is made particularly to the compulsory school attendance laws and to legislation concerning conditions under which minors may work.

Fear is expressed by social welfare groups that these standards may be broken down under the impact of war conditions. Already there are indications that legislation will be sponsored to reduce the 170-day school year; already there are assertions that permits to work are not carefully issued, that children are working longer hours than they should, that many 16 or 17 years of age are not attending continuation schools, and that pressure is being placed on children to work in the harvests when adult groups are not fully utilized.

EDUCATIONAL AUTHORITIES MUST MANAGE THE SCHOOLS

THOSE charged with the responsibility of managing the schools should feel highly gratified at the prominent part the program of education has assumed in the war effort. Civic groups continue to advance ideas which they believe should be incorporated into the program; the army, navy, and air corps bring both suggestions and pressure for preparatory types of training. Numerous federal agencies originate projects which they ask the schools to carry out. State and local defense councils turn to the schools to disseminate information and to give special training. In addition to being a part of these activities, the schools have organized and operated successfully the most extensive program of vocational training in the nation's history.

Even though gratified at the confidence placed in the schools, teachers and administrators know that the school cannot meet all the demands placed on it. These calls for service are too numerous and too diverse in character. After all, high schools operate on the average of six hours per day and five days per week for nine months per year. When new courses or units of instruction are introduced, something has to go out, for there is and there has been no unapportioned time. There would be, as a matter of fact, insufficient time to accede to all the wishes of the agencies proposing projects, courses, or programs, if nothing else were attempted.

School Authorities to Judge Values of New Enterprises. The task would be made easier if there were coordination among the agencies making proposals to the schools, but there is very little coordination. Even among federal agencies the procedure has been for each group to reach a decision about what should be done and to appoint agents to explain to school people what is wanted.

To date there has been very little material of any sort, outside that related to pre-aeronautics, developed to assist teachers in planning for the work they are asked to do. It often happens that two or more groups representing federal or state agencies promote the same idea in competition with each other, or in ignorance of activities that already have been set on foot. Except in occasional instances no central channel, such as the federal Office of Education or a state department of education, has been used to reach the schools. There are no indications that the general situation will change.

Under such circumstances school officials must, if programs retain a semblance of order, exercise judgment about what is to be taught, what is to be emphasized, and what cannot be taught. To adopt any other policy would mean either hopeless confusion or a surrender would be calamity.

Flexibility in Organization Demonstrated. The chief guide lines for the organization of educational activities have been the development of the individual and the promotion of the general welfare. These now must give way to the purpose of winning the war. While it may seem, at first glance, that the general educational purposes of the past have nothing in common with the nation's all-consuming, present goal, such is not the case. It has been pointed out already that war demands have served to emphasize objectives long sought by the schools and to stimulate renewed effort in achieving them. The school should be sufficiently flexible to make adaptations which the war situation demands.

Large schools can organize special courses in mathematics or science to give preparatory training to future members of the air corps; units in consumer education can be developed in the social studies and science; and model

airplanes can be made in the shops. Applications of principles in mathematics or science can be made to navigation, and in literature pupils can be asked to read some of the great documents which are a product of the era. Small schools, if unable to organize special courses, can make adaptations and modifications of existing courses. If and when the time comes that the special courses and modified units of instruction are not longer needed, they may be discontinued. This is essentially the line of action which has been taken in the past, although adjustments have been made more slowly than the present situation will permit.

Flexibility in organizing the school calendar and the school day also will be demanded. It has been shown already that high school pupils will be needed to help plant and harvest crops, to man the firefighting crews, and to work at jobs formerly held by adults. For some students there will be a minimum school day of four hours, and for others an arrangement which permits reporting to scheduled classes rather than for the full school day. For both groups credit towards graduation for supervised work experience will be considered.

Protecting the Energies of Teachers. Little knowledge of school operation is needed to comprehend the enormous demands which the war program of the schools will make on the energies of teachers. Administrators should take such steps as may be feasible to protect teachers from time- and energy-consuming conferences with persons desirous of using the schools and from unnecessary community demands. An organization should be set up to decide the merits of different proposals and to route them to the proper places. During the process, decisions may be reached with respect to which proposals should be referred to community agencies and which should be retained by the

school. It will be of enormous help also if suggestions on procedure and materials of instruction can be placed in the hands of teachers. Without a plan for receiving and routing the demands now being made upon the schools, lack of efficiency and an undue amount of energy will be expended by teachers.

THE OPPORTUNITY OF THE SECONDARY SCHOOLS

ALTHOUGH beset by problems which at times may seem extremely difficult, the secondary schools have never faced greater opportunities. They have the confidence of the general public and of the groups and the organizations directing the war effort. The numerous calls on them for this and that type of training or service are expressions of confidence. While the response the schools already have made is more than noteworthy, they have only begun to gauge their activities to the war effort. To this they must lend their intelligence and energy, standing ready to undertake new tasks, to overcome problems arising from teacher shortage, to organize new courses and modify others, and to adjust programs and schedules.

The experience will result in benefit to the schools both at the present and in the future. Teachers will assume new responsibilities, conventional practices which obstruct progress will be broken, courses of study and other school activities will be more closely identified with community affairs, and the school will increase in importance as a community institution. It is to be hoped that teachers, supervisors, and administrators possess the resourcefulness, intelligence, and courage now demanded by the war situation and which will be demanded at the close of the war.

