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NEW ZEALAND

JUNIOR HIGH SCHOOL MOVEMENT IN THE UNITED STATES OF AMERICA

(REPORT ON) BY MR. F. MILNER, M.A.

Laid on the Table of the House of Representatives by Leave

To the Hon. the Minister of Education, N.Z. Education Department.

SIR,—

Wellington, 16th October, 1921.

I have the honour to submit to you the appended report on the institution of the junior high school in the United States as a distinct and self-sufficient unit in educational organization, in the hope that the experience of American educationalists in this connection may be useful in the proposed readjustment of the intermediate or secondary stage of education in New Zealand.

Although my stay in America was limited to two months, divided equally between Honolulu and California, the great gathering of eminent American specialists at the Pan-Pacific Conference afforded me almost unique facilities for gleanings authoritative information of the functioning of the new institution in various parts of America. Moreover, throughout my month's stay in California my itinerary was carefully mapped out by prominent educationalists, and under their personal guidance I was enabled to fill in the time most profitably, and to obtain first-hand inspection of representative junior high schools in various centres. I feel confident that I could not have approached the practical study of this significant educational departure under happier auspices, and I desire to record my deep sense of gratitude to the many distinguished university professors, city superintendents, assistant superintendents, and principals of schools who so courteously facilitated my inquiries by welcoming me to their respective institutions and by freely placing at my disposal a wealth of valuable information. I have been deeply impressed with their hospitality, their fraternal spirit, and their desire to place their own experience freely at our disposal. I desire to mention especially Dr. David Starr Jordan, Ph.D. (Chancellor of Leland Stanford University); Dr. Frank F. Bunker, Ph.D. (formerly Assistant Superintendent, Seattle Public Schools; Assistant Superintendent, Los Angeles Public Schools; Superintendent, Berkeley Public Schools; representative of the Federal Bureau of Education at the Pan-Pacific Educational Conference; the founder of the first junior high school in America, and a recognized authority on the subject); Dr. Frederick Burk, Ph.D. (President, State Teachers' College, San Francisco), who personally accompanied me in my inspection of Oakland and Berkeley schools; and Dr. Ernest C. Moore, Ph.D. (Director of the Southern Branch, Californian University), under whose guidance I inspected the Los Angeles schools.

Following is a list of the schools which I inspected:—

The Horace Mann Intermediate School at San Francisco (1,015 pupils, 32 teachers). The Prescott Junior High School at Oakland (1,500 pupils, comprising a joint elementary and junior high school). The Lockwood Junior High School at Oakland. The Garfield Junior High School at Oakland. The Edison Junior High School at Berkeley. The Burbank Junior High School at Berkeley. The Garfield Junior High School at Berkeley. The Francis Willard Junior High School at Berkeley. The Central Intermediate School at Los Angeles (1,000 pupils). The Boyle Heights Intermediate School at Los Angeles (1,440 pupils, 55 teachers). The Thirtieth Saint Junior High School at Los Angeles (900 pupils, 45 teachers). The Virgil Intermediate High School at Los Angeles (1,120 pupils, 42 teachers).

I was also privileged to inspect a number of other educational institutions not directly concerned with this particular province, but of outstanding note in the United States, viz.: University of California (both branches, at Berkeley and Los Angeles, comprising fully 10,000 students); the Leland Stanford University, with a campus of 9,000 acres, and a range of magnificent buildings representing a total outlay of over thirty million dollars; the Los Angeles Polytechnic High School (2,600 students); the Oakland Technical High School, with 2,300 students, and costing three-quarters of a million dollars; and the Los Angeles High School (3,000 pupils and 116 teachers), with an absolutely superb equipment, justifying fully its claim to be one of the greatest secondary institutions in America.

The following report should therefore not be depreciated as a presumptuous finding based on a hasty and superficial tour in a limited area. It is the outcome of repeated discussions on the subject with American experts of acknowledged eminence, with superintendents responsible for the introduction of the system, and with many principals actually engaged in working out its ideals. Moreover, under their direction I have had access to a mass of valuable publications and data on the work of the junior high school, and must acknowledge my special indebtedness to the following works: "Schools of To-morrow" (Dr. John Dewey); "Reorganization of the Public-school System" (Dr. F. F. Bunker); "The Junior High School" (Koos); "The Junior High School" (Briggs); "The Junior High School" (Bennett): which collectively constitute the most authoritative body of expert American opinion on this special province.

HISTORY OF THE JUNIOR HIGH SCHOOL MOVEMENT.

For a considerable time past there has been in evidence in American educational circles a progressive movement towards a reorganization of the public-school system. For the last two decades dissatisfaction has been expressed by experts with the arbitrary division of the primary and secondary stages, and generally with the articulation of the tripartite system. Evidence has been rapidly accumulating of the failure of these artificial divisions to correspond with marked stages in the physical and mental development of the pupil.

In 1888 President Eliot, an educational leader of acknowledged eminence, pointed out the need for condensation of programmes and for an enrichment of content and economization of time. In 1892 the Committee of Ten reported that the chief secondary-school subjects should be commenced two years earlier. Prior to this the Committee on College Entrance Requirements set up by the National Educational Association had reported in 1899 that Grades 7 and 8 should henceforth be incorporated in the high-school course. President Butler, of Columbia University, in his 1898 address, also strongly endorsed the proposed innovation, and declared that six years was fully adequate for proper elementary education. Hence a large body of expert opinion rapidly developed on the internal economy of the secondary-school system and on its relation to the vital needs of life.

Investigation in comparative education showed that practically all the leading nations had either fully adopted the proposed reform or had partially experimented with it. Germany, Great Britain, France, and Japan had all reduced the period of elementary education. In England the experience of the Leeds and Birmingham schools especially showed good results from the earlier start with secondary-school subjects. In 1911 the American Department of Secondary Education issued a valuable report summarizing the best recent thought on the subject. Meantime, at Berkeley (California), in December, 1909, the Board of Education authorized Dr. Bunker, Superintendent of Schools, to reorganize intermediate education on the 6 + 3 + 3 basis. In January, 1910, three pioneer junior high schools were opened, and were followed in August, 1911, by a fourth. As all these schools were included in my inspectorial itinerary, special detailed reports are available if required. Associated with Dr. Bunker in this valuable work of educational reconstruction was Dr. Francis, Superintendent of Schools at Los Angeles, who opened similar schools there in 1910. Both of these noted educationalists owed much to the inspiring guidance of Dr. E. C. Moore, Director of the South Californian State University. Since that date the progress of the reform has been extraordinarily rapid. According to Bennett, well over six hundred have been established, and this number is now nearing one thousand. Notable foundations in this respect are those at Rochester (New York)—especially the Washington Junior High School, Detroit, and Houston. The movement has consequently long since emerged out of the preliminary stages of academic discussion and constructive project, and is now in the stage of adoption and trial. The institution of the junior high school has come to stay, and is generally regarded by American experts as a great piece of constructive educational statesmanship. The institution has now given rise to its own body of expert literature, to special training courses at the universities and normal colleges for its teachers, to a distinct set of specialized text-books, and to interminable papers, addresses, articles, and discussions on its merits and demerits.

MOTIVES PROMPTING THE ESTABLISHMENT OF THE JUNIOR HIGH SCHOOL.

The American high school in its broad democratic conception and organization and in its vital correlation with the needs of life is a distinctly native product. The long-existing dissatisfaction with the conventional relationship between the elementary and secondary stages of education found concrete expression in the establishment of the junior high school as a distinct educational unit scientifically designed to meet commensurately definite physical and psychological needs. The gravamen of the criticism which had concentrated itself upon intermediate education lay in the inordinate mortality of the pupils from the 6th Grade onwards. The figures of Thorndike and Ayres show that for the United States only 79 per cent. of the pupils finish the 7th Grade and only 59 per cent. the 8th Grade. Los Angeles records kept from 1896 to 1911 show that 54 per cent. of high-school entrants dropped out before the end of the first year, and that of those who remained 45 per cent. disappeared before passing the 10th Grade. Ayres and Thorndike agree that about 60 per cent. of elementary-school graduates fail to reach the third year at a high school.

This extensive wastage has long occasioned dissatisfaction and criticism, which has now crystallized in definite reconstruction. The motivation of this separate education organization may be grouped under four headings:—

- (1.) Necessity of stopping the early mortality of pupils.
- (2.) Demand for adequate vocational guidance of pupils.
- (3.) Demand for more scientific provision for the distinctive needs of adolescence.
- (4.) Desire to economize school time and make the curriculum bear directly on the practical needs of life.

The consensus of expert opinion ascribes the heavy driftage of pupils not to economic pressure but to deadness of curricular content. Hence this functional reorganization has been scientifically designed in order that the junior-high-school period of education may be correlated as a distinctive unit with a parallel physiological and psychic stage in the pupil's development. The old organization of the school system disregarded the urgent psychical needs of the preadolescent stage, and consequently bred mental apathy, resulting in loss of pupils. The prepubescent period (six years to twelve) is that of childhood, susceptible to drill, formal discipline, and the fixation of habits. This is the period of mechanical training, the age for the teaching of the fundamental processes, the clearly defined period of elementary education.

It is at the termination of this stage that the period of adolescence or youth supervenes. Scientific research has conclusively shown that fundamental differences in physical and mental constitution are observable at the average age of twelve years, the stage at which the pupil enters the 7th Grade in America and Standard V in New Zealand. The 7th Grade rather than the 9th is now recognized as the natural turning-point in the pupil's life. At the opening of the 7th Grade pupils are already showing their dawning tastes and aptitudes. Under the old regime the last two years of elementary education were spent in reviews and amplifications of memorizing work which to the pupil was devoid of purpose and interest, and bred in him mental nausea. The dawn of social consciousness in him brings with it a new host of interests and a new stage of emotional life. The tools of education can be thoroughly acquired by the age of twelve, and then the adolescent period craves a meatier diet, rich in social, civic, and vocational interests. The retention of pupils is absolutely dependent upon the provision of these interests and the educational equipment for development of the pupil's motor activities. The old deadening routine of the 7th and 8th Grades, which was responsible for the elimination of so many pupils, has now disappeared. Practical teachers who have had a life-time experience with pupils of the upper grades have been almost unanimous in approving the change limiting the period of elementary education to the six grades (corresponding to New Zealand Standards I to IV), instituting a junior-high-school or intermediate stage of secondary education for the next three years (Grades 7 to 9), and continuing with a three-years programme (Grades 10 to 12) of higher secondary work in the senior high school before approaching the university.

There is then a distinct point of pedagogic departure at the age of twelve. After this age a continuation of the conventional grade programme breeds mental apathy and inertia. A new phase of intense curiosity ushers in the adolescent period, and here we need a new programme full of educational activities and enriched with vocational interests. The pupil's budding capacities and aptitudes should be tried out over a large range of practical interests, not only for the purpose of holding him at school, but to enable him through self-discovery to ascertain his vocational bent, to locate that sphere of work in which all his energies and interests are willingly enlisted, and so to gain that sense of confidence and of social usefulness which will strengthen his self-respect and react generally on his character.

It is in pursuance of this aim that the junior high school has been established with its own distinctive atmosphere and curriculum. The innovation is a conscious endeavour, now that the pupil has acquired the tools of education in the elementary school, to arouse and foster his special talents and abilities, and to develop such to the fullest possible extent by a vocationalized programme without prejudicing his general educational equipment. Consequently the differentiation of curricula is a vital point. This new educational departure recognizes fully the democratic need of developing in each individual the interests, habits, aptitudes, and powers whereby he will function most usefully in social service and at the same time develop best his own personality.

BROAD FEATURES OF ELEMENTARY AND SECONDARY EDUCATION.

By general consent, then, in America the primary or elementary stage of education is determined at the average age of twelve years, for sound physiological, psychical, and sociological reasons. At this age a fundamental difference in characteristics is observable, although the transition to puberty is almost imperceptible in its stages. Stanley Hall's well-known description of the oncoming of pubertal modification as "saltatory" is not now upheld. It is at this age that the machinery of transition to secondary education should be put in operation. At this age comes the natural termination of uniformity of schooling. The pre-pubescent and pubertal changes demand corresponding curricular adaptations, and the pupil should now enter upon a stage of education characterized by a rich differentiation of subject-matter. The dawn of adolescence must be scientifically recognized, both in content of programme and in methods of instruction. The school now makes a scientific cleavage between the receptive period of automatic response and that of the larger motor activities. The secondary course is practically devised for social service and economic efficiency, and is based upon the experience of the civilized world about the school. It is directly adapted to meet the dominant needs and ideals of society which comprise economic, civic, and domestic efficiency. The old academic routine of formal discipline has been definitely jettisoned from the secondary system.

It must not, however, be supposed that materialism is dominant. The high-school curriculum always contains the basal cultural elements, and generally shows an admirable reconciliation of liberal and vocational studies.

The aim of the elementary school is the perfection of the pupil in the fundamentals of education, viz: (1) Reading, writing, spelling, and oral expression; (2) life and health preservation; (3) civic service; (4) accuracy in simple computations; (5) elementary national history; (6) nature-study and general world-survey; (7) elementary home economics (girls) and manual work (boys); (8) provision for leisure hours.

The objectives of American secondary education have been authoritatively defined as follows: (1) Health and life-preservation; (2) worthy home membership; (3) citizenship; (4) vocation; (5) command of the fundamental processes; (6) ethical character; (7) worthy use of leisure.

The secondary or intermediate period is characterized by—(a) A common integrating form of education aiming at social solidarity; (b) satisfaction of the immediate needs of the pupil scientifically diagnosed; (c) exploration of the full field of the pupil's capacities; (d) revelation of possibilities in the major fields of learning; (e) the starting of the pupil on an appropriate career. Although these are the fundamental characteristics, it is recognized that, consistently with the fulfilment of these aims, a school must cater for the needs of its own community, and so must be partially conditioned by the particular requirements of the bulk of its pupils.

American secondary education is no longer in bondage to old academic ideals. The application of the findings of modern experimental psychology has been ruthless in its iconoclasm. The retention of subjects in the curriculum can now be no longer justified by ideas of general transfer and of mental discipline. There is to-day general scientific disbelief in the automatic transmission of power and acquired ability from one educational field to another. So, too, science has exploded the long-treasured belief that persevering work at distasteful or repugnant subjects begets mental and spiritual growth. It is the application of this progressive psychology which accounts in great measure for the so-called radicalism of American secondary education.

As only 10 per cent. of the total primary pupils go on to the secondary stage of education and only 3 per cent. reach the universities, it is now recognized that each stage of education should function for its own distinctive needs irrespective of any pressure from above. Consequently, secondary education is organized with a view to meeting its independent requirements, and is not conditioned by university entrance requirements or by examinational rigidity. The flexibility of the curriculum, with its rich range of electives, is a marked feature. As the bulk of the primary pupils do not pass on to the secondary stage, the elementary programme is organized on the supposition that its pupils discontinue school at its superior limit, and similarly for the secondary programme. The old fetish of subordination of the curriculum to university requirements is absolutely dead. The secondary school functions on an independent basis; and for those who elect to go on to higher education the university system allows full credit for whatever work they have done, and provides full facilities for the intensified pursuit of their elected vocation. The compulsory rigid entrance examination such as is entrenched in New Zealand is a palæontological mental curio in America. A liberalized accrediting system has displaced it.

SPECIAL PROVINCE OF THE JUNIOR HIGH SCHOOL.—ITS ORGANIZATION, EQUIPMENT, AND AIMS.

Though the institution of the junior high school has by no means reached finality, it has yet assumed a fairly definite organization and system of equipment. It is recognized that it must cater for the physical, vocational, social, civic, and the avocational aims. Its special functions are—(1) Retention of pupils by adapting curriculum to meet their specific needs and interests; (2) recognition of individual differences; (3) exploration of vocational openings for guidance; (4) economy of time; (5) vocational education; (6) better teaching conditions; (7) socializing opportunities.

The rich range of curricular activities provided in this institution is bound to retain pupils. Time is economized by eliminating the dead review work of the two upper elementary grades. Then, again, the retarded pupil finds intellectual stimulation in the junior high school, and at last gains confidence in his ability to do something. The junior high school is organized to recognize the multiplicity of individual differences. It provides full facilities for a thorough "try-out" of the pupil's capacities. By means of "short unit courses," each of which generally lasts for nine weeks, he samples a large range of vocational activities so as to make a considered choice of a life occupation. A most generous provision of variables is practicable in this course.

The organization of this institution indicates clearly that America looks to its schools to give that information by which a livelihood can be gained, so that the pupils may avoid blind-alley and misfit occupations, and so that they may find congenial places in society. First in the junior high school comes a survey of the field of trades and occupations, given both by short unit courses of practical work in the various school-shops, and also by the "life-career" vocational course; and after this comes intensive work, which steadily concentrates upon the elected speciality.

Some of the advantages of the change may be classified as follows: (1) Its functions for real life and not for bookish artificiality; (2) it enables the provision of a full range of school-shops for manual arts; (3) it makes the fullest provision for varying aptitudes; (4) it facilitates departmental teaching, and the consequent contact of the pupil with several expert teachers; (5) it facilitates an earlier start with modern languages.

The obviation of haphazard choice of a vocation is a primary objective of the school. As to this point there are two views: (1) The pupil should learn his vocation in the world and supplement this by theoretical training in the school. Schools cannot afford the expense of fitting out shops,

nor can they reproduce the complexity of actual trade conditions. (2.) The school can and ought to give an orderly concise presentation of actual life conditions over a range of trades, and at the same time give cultural education in English, English literature, and social studies, &c.

Koos classifies the forms of organization as primarily two:—

(1.) The "multiple-curriculum type," which consists in the provision of two or more curricula (viz., academic, commercial, agricultural, industrial, domestic science) with certain constants (viz., English, social studies, science, physical training). About 25 per cent. of the junior high schools are organized on these lines. The objection to this form is their assumption that the pupil has found his vocation. There should be full preliminary exploration.

(2.) The "constants-with-variables type," which is the generally adopted form. It makes for greater curricular flexibility. There is here real exploration for guidance. A cultural basis of English, social studies, and physical education is insisted upon. The socially integrating potency of social science is never forgotten in the American school. There is in the United States a steady increase in the popularity of the vocational curricula. The short "try-out" courses in magnificently equipped school-shops supplemented by "life-career" theoretical courses and by periodical visits to city shops and factories gives proper perspective for a choice of life-work, and also endow a pupil with broad social sympathies. In school-shops I was repeatedly given evidence of the redemption of the retarded—the translation of the incipient Bolshevnik into the usefully employed citizen who has found himself.

Consequently the fixation of specialized courses in commerce, agriculture, professional life, or industrial life at the 7th Grade is generally regarded as a mistake. At that age a pupil is led aside by novelty or influenced by social prestige. He needs a preliminary survey of a broad range of subjects in the junior high school, and is then allowed to take intensified work in his selected province. This scheme functions directly for a more contented and more efficient democracy. It directly antagonizes the educational charlatanism of the transfer of specialized abilities, and it meets at this preadolescent and early adolescent stage the dawning of self-consciousness, when new aspirations stir the pupil's being, and when he needs something more than facts.

The average junior high school is fully equipped with a range of school-shops for courses in woodwork, sheet metal, printing, electrical engineering, automobile work, mechanical engineering, &c. The commercial side has special rooms for stenography and typewriting, and for book-keeping with proper appliances. For instance, thirty pupils will each be provided with the standard Remington or Underwood typewriter, and the touch method of instruction and phonographic dictation are adopted. The latitude given to vocational aims imposes a severe tax on programme-manipulation, but the administrative labour thereby entailed is fully rewarded by the provision of a full range of educational, vocational, social, and recreational interests.

To do anything like justice to the organization and equipment of the American junior high school would necessitate the compilation of a volume. In this condensed survey it is only possible to emphasize the main points.

Although the mechanical arts are so generously provided for in these schools, New Zealand secondary schools make much more satisfactory provision for practical experimental science. The laboratory provision in these Californian schools was disappointingly meagre, and the teaching was practically all demonstration work with apparently limited appliances. Although the demonstration method makes for speed, it must surely be supplemented with individual work to ensure scientific thoroughness.

As regards specific subjects, arithmetic is much more severely practical than with us, and deals with banking methods, investments, mortgages, building and loan societies, taxes, and public finance, and life insurance as its main province. There seems to be a growing depreciation of the educational value of foreign languages for the average pupil. Social studies comprise a very satisfactory range of history (national and European), civics, elementary economics (comprising fundamental conceptions of wealth, poverty, capital, labour, &c.), and human and social geography. Very great importance is attached to oral work in the vernacular. Indeed, throughout the American educational system facility in oral English is very highly valued. Spelling is no longer the conventional bugbear. Ayers' statistics show that the average 6th Grade pupil can spell 92 per cent. of the 975 words which the average adult uses in writing. Therefore many teachers ascertain the eighty-five words which each individual pupil spells wrongly and bring him up to standard. This will give some idea of the practical character of many schoolrooms. All "frills" and traditional truckling to prescriptive custom are cut out. But there is no attempt to discard or even to depreciate the spiritual elements. The efflorescence of education finds its due place. The curriculum fully recognizes the highest cultural influence of music, literature, and graphic art. Practically every school has its orchestra and band, and music and art are an integral part of every curriculum. The correlation of drawing with shop-work is always insisted upon. In mathematics a great deal of traditional algebra, geometry, and trigonometry is discarded, and the work is made as concrete and practical as possible.

The extra-curricular activities of the school are recognized as an agency of broad humanizing value and their socializing opportunities are fully exploited. I consider that the students' self-governing scheme which I investigated at Los Angeles schools is superior altogether to the British prefectorial or monitorial organization. The American schools in question discipline themselves from within. The magisterial authority practically confines itself to class-room operations. The general meetings, the social functions, the out-of-school discipline is mainly in the hands of the students' representatives' executive, elected after due hustings propaganda by democratic ballot vote. New Zealand schools may be superior in the more thorough organization of military training and in the more general participation in out-of-school games, but they have not evolved a system of internal discipline compared to what I witnessed in operation at certain Los Angeles institutions. As a practical training for democratic citizenship it appeared to me an admirable feature.

As to methods of instruction, the examinational method of valuation is generally depreciated. In the best schools the undue lecturing propensities of teachers are severely limited to a maximum of one-half of each period, the balance being for supervised study and for thus showing to pupils individually the technique of study for each subject. The "project and problem method" of work is highly recommended as infusing vital interest. The old passive memorization method is severely discounted.

The following statistics were compiled by Briggs from his examination of 255 junior high schools: 84 per cent. were equipped with libraries, 85 per cent. with assembly-halls, 51 per cent. with gymnasiums, and 79 per cent. with laboratories. Very few of the schools have more than one science laboratory.

The home-science course is generally provided with excellent equipment, and includes cooking, sewing, dressmaking and pattern-devising, care of children, service of meals, hygiene, domestic commissariat and purchases, house-management, &c. A model cottage is generally provided for this course. The girl students also actively participate in the work of the school cafeteria and in providing and serving teachers' meals. The whole of the work is conceived and executed on practical business lines.

As regards the teaching staff of the junior high school, I was assured in practically all quarters that the elementary-school teachers have proved to be the most suitable. The majority are recruited from this source, the balance being from the upper secondary school. Special classes and lectures have been organized at normal colleges and universities for the purpose of giving specialized training to elementary-school teachers qualifying for the junior-high-school teaching certificate. As in the elementary schools, women teachers have almost displaced men, except in the school-shops department, where the whole of the instruction in manual arts is in the hands of male experts. Special precautions ensure that no untrained teacher shall operate in any of these schools.

SOME GENERAL OBSERVATIONS ON AMERICAN SECONDARY EDUCATION.

Educational innovations adopted and translated into successful practice by a nation of over one hundred millions, constituting the leading democracy of the world to-day, are certainly entitled to dispassionate if not sympathetic consideration on the part of our people. In no other country of the world is a higher valuation placed upon education than in the United States of America, and when the coming sanity of the nations reduces or removes the present frightful incubus of naval and military armaments we are bound to witness educational provision and experimentation there on a scale which will enlist the admiration of a sceptical world. Although the direct application of educational machinery for social and economic efficiency is hotly denounced by the experts of older and more conservative countries as a perversion of its true spiritual aims, this unjustifiable criticism will not turn aside Americans from their educational goal. Academic critics may continue to heap ridicule upon the Gary system as an iconoclastic fraud and a revolutionary concession to a sordid age of materialistic interpretation; they may continue to declaim against the modern school as a betrayal of moral and spiritual values, and as motivated by baneful commercial obsessions; but this storm of vituperative protest from intellectuals and from petrified vested scholastic interests leaves progressive American thought untouched. Their education is definitely divorced from old aristocratic and feudalistic notions. The passive acquisition of knowledge by receptive memorizing has long been relegated to the limbo of educational rejects. Education is being steadily reorganized to develop all late talents and aptitudes for social service so as to endow pupils with proper judgment in vocational choice, and at the same time to engender social sympathy for the other lines in life. The peculiar emphasis attached to manual arts is of course conditioned by the dominant industrialism of the States. In New Zealand our educational system should function commensurately in the interests of our primary industries. A far more generous provision is required for agricultural education.

But it must be again emphasized that the wholesale vocationalization of American secondary education has not displaced cultural education. The practical and the spiritual have joined hands in a harmonious organic system. The full content of English literature, social studies, music, and graphic art, which subjects in the hands of adequate teachers hold a rich potentiality of humanizing and spiritualizing value, fully redeems the national programme from mere utilitarianism. In the whole of the schools I visited I found great importance attached to music, singing, and drawing, and generally very satisfactory provision made for their study. When a pupil has no executive faculty in music he is trained in the best schools, by means of the victrola and the school orchestra, to appreciation of good music. I listened to school orchestras of a personnel of seventy trained members under the baton of an expert musician. The conjoined orchestras of the Berkeley junior high schools put on an annual musical festival of high merit at the famous open-air Greek theatre of the California University. It is recognized that the education of public taste in music is the necessary foundation and the inspiration of higher achievement in that art. I found in these schools evidence of a keen desire to cultivate the æsthetic appreciation of the pupils. At different institutions when I spoke by request—notably at the Californian Southern University and at the Los Angeles Polytechnic, when I addressed audiences of three thousand and two thousand respectively, I was specially asked to deal with the spiritual and idealistic content of English literature. At the Honolulu Conference, too, I was impressed by the importance attached to the spiritual function of literature.

Co-education.—Co-education of the sexes in secondary education is a striking feature to a visitor from New Zealand, where we have almost complete segregation. The Americans as a whole endorse their system as the natural method in a training for life where the sexes are continuously associated and where reciprocal understanding and respect are essential. The American realizes more than we do that sex inequality is purely physical, not mental. From the financial point of view co-education constitutes a great source of economy in school buildings, grounds, and equipment. The American girl is infinitely more self-reliant and unconventional than her British sister, and this independence

and self-determination are features of her school life. Over 90 per cent. of the girls take the domestic-science or home-making course, and a considerable percentage have concurrent preparation for commercial life by qualifying in typewriting, shorthand, book-keeping, and business method. In commerce, stenography is completely in their hands.

Self-revelation.—The outstanding characteristic of the secondary-school period is the organization of the high school for the purpose of discovering a pupil's bent or vocational capacity for life. This, as I have emphasized above, is secured by the "try-out" courses of the junior high school, and by the intensified training on vocational lines provided in the senior high school. Pupils are made to feel that school is a part of the real life of the workaday world. Bookish artificiality is at a minimum.

Social Solidarity.—The full range of practical testing in occupational openings provided in the junior high school breeds social sympathies and makes for the integration of society. The aim of the whole system is social solidarity. The Americans have long been nauseated by the social stratification and caste prejudices of the Old World, and have framed their free system of education on the broadest democratic principles.

Free Education.—The educational open highway to the university is far broader than ours, and effectually obviates the reproduction in the States of mediæval and feudal notions of society. The Americans have never believed in social predestination. Consequently it has been an easy thing for them to brush aside the domination of Old World academic theories and to substitute daylight business functioning for cloistral seclusion.

It need hardly be emphasized that American education is absolutely free, from kindergarten to university, and includes the provision of free text-books and appliances. Vocational counsellors specialize in guiding pupils to the courses and vocations for which nature has framed them. Co-ordinators link up the theoretical work of the school with its practical counterpart in outside life. Educational liaison officers integrate the various educational stages by seeing that all pupils graduating from the institution below are thoroughly familiarized with the educational advantages offered by the next stage. This effectually ensures retention of pupils and continuity of work. Graduation is conditional purely on satisfactory completion of certain specified units of work in each high-school stage, and this is the only prerequisite for university admission.

Feminization.—The feminization of the teaching staffs is not to New Zealand ideas a commendable feature. At the secondary-school stage the boys at any rate need the tonic effect and reactive power of experienced male teachers. This applies to class-room work as well as to field sports. The following are the figures :—

	Men.	Women.
	Per Cent.	Per Cent.
Kindergarten	0	100
Elementary	10	90
Junior high school	30	70
Senior high school	70	30
University	90	10

RECOMMENDATIONS.

My brief practical experience of American education has confirmed me in my educational radicalism. I beg to submit respectfully a few recommendations :—

- (1.) That a higher valuation be placed upon oral English, and that a pass in English be conditional upon oral facility in the correct use of the vernacular.
- (2.) That Latin be further depreciated in the curriculum, and that every effort be made to eliminate the same from the Medical Preliminary.
- (3.) That the Council of Education, the Secondary Schools Conference, and the New Zealand Institute be asked to report upon the applicability of intelligence tests (especially the Terman tests) to New Zealand educational conditions.
- (4.) That the Secondary Schools Conference be asked to report upon the advisability of testing the Californian system of self-government in our schools.
- (5.) That the provinces of mathematics be carefully scrutinized with a view to eliminating immaterial portions.
- (6.) That the province of history be still further enlarged to include some background of world history—with special application to Pacific peoples.
- (7.) That the province of civics include elementary economics, community civics, and current international problems, with special reference to questions affecting the Pacific—*e.g.*, Anglo-American relations, Japanese expansion, &c.
- (8.) That junior high schools (if not already authorized) be promptly established in the four chief centres, equipped for the prosecution of the following courses : (a) Professional ; (b) commercial ; (c) agricultural ; (d) industrial or mechanical ; (e) domestic science.
- (9.) That the Education Department give sympathetic reception to the resolutions of the recent Pan-Pacific Educational Conference (already submitted to the Department) with a view to assisting the realization of the same in our educational system, in the interests of international co-operation and peace.

I have, &c.,
F. MILNER.

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