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bearing in education, have been slow to materialize, overshadowed as they have been in our time by the hue and cry of huge endeavor. Discrepancies in methods, consequent upon an over-emphasis of what constitutes the popular conception of physical training, as contrasted with the legitimate aspects of the work, are also responsible in no small measure for the hesitancy of even some of our most innovating educators in turning the tide of their solicitudes in the direction of this fundamentally important work.

The general conception of an educational rationale has always been more or less tinged with the utilitarian hues of our material progress. The ideal of a product, mentally and physically superior in every respect, is with difficulty construed in terms of its proximate equivalent. The interpretation of the phrase, “physical, mental, and moral education,” has been singularly one-sided. Broadly construed, physical training always has had a rather general significance. Specifically construed, it has not yet been satisfactorily or fully adjudged in its initial import as signifying a department of education, although its bearing upon education has been demonstrated beyond cavil and doubt.

There is as yet, it is true, no royal way to perfection. The inquiries bestowed upon the intellectual pursuits have not been focused in a like manner upon the purely physical. The sheer endless sources of profitable inquiry concerning the human organism and its adaptability, as affecting the superior qualities of conduct and habit, have remained more or less obscure, and, it may be said, despite our progress in the related sciences, that the present-day student is not enlightened with respect to his organism and its functions in a manner possible with the means and resources at hand. “Were it not for the marvelous self-adjusting and self-regulating power of the human machine,” it has been pertinently said, “we should utterly fail in our faith in progress, as determined by the tardy application of the modern doctrine of the human body.”

The very gradual elimination of confusion existing between truth and probability, however, has lent tone to the general
endeavor. Not "what is," but "what should be," is the stimulating motive of the exponent of progress.

Physical training, as an agent in our modern development, has steadily advanced through the demands for its better organization. This advance has not been in every way satisfactory, nor in concord with the purposes of education, whenever it resulted in a régime designated merely hygienic or recreative. It has been satisfactory whenever it reflected the needs of the individual, physical nature in nerve-stimulating and regulating work, "garbed in youthful pleasure and merriment," based upon pedagogical principles, and governed by the laws of mind and body.

Some of the methods nurtured in the schools owe their origin to conditions quite different from those prevailing in them, and are at variance with the avowed purposes of education. But, between the tenets of an ever-ready reasoning and the unsolved problems of the positive people, they serve their purposes in lieu of something better to displace them.

The probing of methods under the prevailing conditions is as futile as the inoperative demand in some of our school systems that the regular teacher shall adapt himself to this branch of work.

The solution of the problem of what shall be subservient to the most profitable results in physical training or education is a matter that must appeal to the professional schools, warranted by virtue of their determining influences in organizing well-equipped departments of physical training for the better guidance of the prospective teacher, in order that his interest in the physical welfare of his charges may become enabled to reinforce the superior mental equipment demanded in our time in all lines of pursuit.

It is gratifying, indeed, that the synthesis of opinion of a steadily growing coterie of critical educationists at present is gravitating toward the conviction that the most fruitful interpretation of the nature, scope, and spirit of this very interesting subject rests with its organization as a department of pedagogical discipline. A desire is being urged for an evaluation of the
correlated factors constituting the various aims advanced for physical training that shall conduce to a more pronounced general and rational progress. The enhancement of the work is demanded to the end that it be made more real and vital, rather than appear as an artificial makeshift—as content. As a legitimate agent in actual life it should find its enhancement in most subjects taught in the school curriculum, and notably in the biological sciences. Preferences for the quasi-approved procedures, whether hygienic, developmental, recreative, or remedial, are kept in abeyance pending this somewhat conservative stand.

Experiment and inquiry have proved much to augur this promising distinction. The growing conception of the value of pedagogy and personal skill, as applied to the intellectual unity presented in the child's body, for instance, must ultimately determine the course of true physical training, and obviate the vexatious uncertainties due to a lack of coherent procedure. The superficial notion of utilizing gymnastic instruction as a perfunctory means of recreation, and as an incidental expedient for remedial purposes, to the exclusion of its larger function in the curriculum, is rightfully viewed as somewhat narrow by all who have thought seriously of the matter.

Not only the steadily growing significance of physical training in our elementary schools, but the phenomenal interest in athletics in our secondary schools as well, confront the authorities, who must determine the policy of the schools with reference to the order of their importance, with an interesting situation.

Whatever the background of the underlying charm, the actuating motive, or the intelligence directing the respective activities involved in systematic physical culture and the qualities cultivated, the most salutary effects of this large, interesting subject can accrue only through a definite and comprehensive scheme, embodying all the factors determinative in the work—adaptation of physical culture to the youth of all ages. To become effective, such a scheme must find the teacher of the future indorsed for the views he holds with reference to it. This demand, already emphasized in many normal schools, will in
time insure a policy more in harmony with our interests than is the present athletic spirit.

In the interim, owing to the scant ingenuity displayed in a dissemination of knowledge and information, conveying the scope of physical training, the personal element discounts the pedagogical. The athletic interest exceeds the interest for a scheme of educational merit, the discomfiture of occasional criticisms being offset by the verdict that nothing short of these practices in a like manner can conduce to the sturdier and more desirable qualities developed in aspiring youth. The last resource in innumerable schools is had in a recourse to the seasonable indoor and outdoor sports, admittedly the best substitutes for educative physical training. The principles or prerequisites of proficiency, as they affect the body of our school youth, are left to solve themselves. The characteristic alternatives represent the extremes of procedure on the one hand, and stimulation to supreme effort on the other—the distinction claimed for purely corrective work.

What is the function of organized gymnastics in the school? The function of gymnastics in the schools is to further the attainment of the ideal of education. This ideal may be variously expressed in a robust manhood of superior mental and physical quality and fiber, representing the qualities fundamental to an ideal citizenship; or, it may concern itself with the remoter concept of an exalted nationality, when it engenders a deep-rooted and fervent patriotism—a sentiment always to be transformed into a determining principle. With such an ideal as a motive, gymnastics represents more than a mere diversion—it attains a newer significance and becomes an art. “Living, acting, conceiving” form the triple chord within the child of every man, though the sound of this chord, now of that, and then again of two together, may preponderate.”

The gymnasium, as a school of self-realization, represents a social institution, where the “pleasure of being strong lies in the fact that others around us are strong; thereby furnishing us with companionship and healthy competition, the fuel of life.” Under this conception “health becomes incidental, and not the deliberate object of exercise.” The ever-increasing body of scientific knowl-
edge concerning the formative and developmental shapes of early life determines the means to be employed in its preservation.

Means, purposive in a hygienic sense alone, cannot be conducive to that interest in activity which represents the source of all volition, nor do they beget an atmosphere of cheerfulness. Gymnastics proper, on the other hand, which deal with ever new and interesting movement-concepts that train, not only in careful observation and estimation of distances and objects, and in the exercise of comparative judgment, and to reason in countless ways, and to appreciation of symmetry and form-beauty, but also to reason for the great perspective, the remote and final outcome, and to avoid the dangers of unprofitable deviations—such gymnastics must represent the school that would bring into play all the faculties.

The gymnasium should represent the very essence of community life. Through its work, help, play, and companionship, it influences and strengthens character toward the larger opportunities of life. It is a place where the growing boy’s heart is thrilled with the power of right and robust resolution; where he is constantly brought into new relations; where encouragement bears fruit quickest and becomes most lasting; where reproof touches to the quick; where the varied phases of life-activity preclude all dry mastery; where power is developed to think and reflect, to execute and originate, not through direction alone, but also through exercise; “where order and propriety go hand in hand; where wilfulness is restrained, energy stored, and skill developed.” So regarded, the gymnasium represents a correlation of factors emphasizing to the fullest all conduct.

Can the aspects of this training become realized in a scheme of school gymnastics? Thought and action be so adjusted, and motive so instilled, as to enhance interest in physical education?

Can there be any question as to who should assume responsibility in the espousal of this tremendous factor in our school life?
FORMS OF INDUSTRIAL EDUCATION BEST ADAPTED TO CITY CHILDREN

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The traditional subjects of the school curriculum aim to train the child through exercises the perception basis of which is either visual or auditory, or both. The child’s seeing and hearing alone condition all his learning within the scope of the time-honored subjects. But manual training aims at the development of the individual through the introduction of experiences based on other sense-perceptions than those of sight and hearing. Touch and muscular resistance are called into play because they furnish, independently and in conjunction with the other sense-avenues, experiences which react in the development of nervous centers and forces otherwise left practically impotent so far as the training of the schools is concerned. In deciding what forms of manual training are especially valuable for the child of any determined environment, certain governing principles must be kept clearly in mind.

1. This training must develop capacity which is a new, additional; positive contribution to the child’s unconscious endeavor at self-realization, and the school’s conscious endeavor to transform his possibilities into powers.

2. This training should furnish him experience which enlarges his capacity to adapt himself more easily and efficiently to his life-work and environment when school days are finished. He should begin to learn as a boy things he must do as a man.

3. This training should not neglect to furnish him some experiences lying entirely outside the field of his prospective life-activity, and especially some of that class of experiences which will enable him to understand and sympathize with the endeavor and aim of large groups of his fellow-men whose surroundings

1 Address before the Department of Superintendence of the National Educational Association, Louisville, Ky., March 1, 1906.
and occupations are decidedly unlike his own. He should begin to get the view-point as a boy of a position he will not occupy as a man, but which will be occupied by thousands of his fellow-men with whom the good of the commonwealth and the nation demands that he shall have intelligent sympathy.

4. This training is the resultant of exercises in which the pupil is making high endeavors at self-expression. He is writing himself into the drawing or the model he constructs. His ideals of strength, utility, beauty, and honesty are modeled in the clay, cut and carved in the wood, bent and forged in the iron, braided and woven into the raffia and reeds which he manipulates.

With these principles in mind, and a recognition of the fact that the immediate direction of the manual-training work of the great majority of city children must be in the hands of the regular grade teacher, we may proceed to make some specific answers to the question: What forms of industrial training are best suited to the child of any determined environment?

Obedience to the first and fourth of these principles will eliminate some of the common forms of manual training frequently used as pedagogical soothing syrup, under the name of "busy work," in many primary schools. It will do away with much of the work on hard and fast models in which the pupil has little or no choice or initiative, and which admit of only a comparatively low order of self-expression.

So far as the life of any particular city or class of cities is distinctive, its conditions must guide us in applying the second and third principles, which chiefly determine the forms proposed for our discussion.

Recognition of the principle that in manual training and industrial education the pupil should be taught to know and do, as a boy, things which he will have to do as a man is now widespread. We have ceased to apologize for any special form of manual training having educational value, because it gives a boy the skill of a craft in which he may later earn his living. We are no longer ashamed to acknowledge that many of our pupils are taught in our schools the very art or arts whose exercise in the business world gives them their support. This con-
clusion is the only justification for the large place that cooking and sewing have long enjoyed in the schools of our most progressive cities. Call it trade-school work, if you will; but remember that all our girls must be trained for the vocation of homemaker, and be skilled either in practicing these two arts or in the direction, supervision, and training of others, in their exercise.

I may probably best indicate by illustration what I deem to be wise operation of the law that the special character of the business life of a city should affect the forms of industrial education in its schools. My own city (Hartford) is known throughout the business world as a banking, insurance, and manufacturing center. We employ thousands of clerks, accountants, copyists, bookkeepers, typists, and stenographers in these offices of our banks, insurance companies, and factories. The factories are devoted largely to the production of high-grade metal manufactures. Our guns and automobiles, our tires and bicycles, our typewriters and automatic machinery go into every quarter of the world where efficiency is prized. In their production we employ thousands of machinists, pattern-makers, draftsmen, smiths, and other high-grade mechanics. The ranks of all these must be annually recruited from the boys trained in our public schools.

We recognize, accordingly, that penmanship has in our schools a place which it is not generally accorded or entitled to in many other cities. We deliberately teach it as an important manual art all through the nine grades of the grammar schools and in the high school as well. Similarly, work in wood and iron is begun as low as the fifth grade of the grammar schools and carried through the high school. Drawing and designing begin in the kindergarten and are available through every year to the end of the high-school course. Typewriting, stenography, and bookkeeping are taught in our high school. Our work in pattern-making, mechanical drawing, and machine-shop practice is more extended than might be justified in a city of different commercial life. Our evening high school has not hesitated to undertake the training in its shops and drafting-rooms of ambitious young men from the factories. Without conscious formulation of the
doctrine that the schools of the community should teach whatever the business of the community demands in a large way, we have accepted it in our practice.

Because of recognition of the principle that every man’s vocation, as well as his location, puts limitations upon his life and thought, we have always deemed it necessary to teach pupils many things in history, literature, and language largely for the purpose of enabling them to understand people far removed from them in time or territory. We know the moral value of the suggestion, “Put yourself in his place;” but we have not fully learned that due appreciation of the dignity of manual labor, and its possible intelligence and self-respect, cannot be gained without doing this in some practical way. No amount of reading and study will do this for most of us as efficiently as a little experience with the life-work of the class we would understand. How else can we account for the general attitude of the public toward manual and industrial education? We hear enough of its virtue, we read enough of the value of its contribution to the efficiency of the social and political life. But so long as only the neglected negro, the abused Indian, and the inmates of our reformatories and penitentiaries are made its chief beneficiaries, how can we avoid the conclusion that it is not truly understood?

Now, no one will deny that it is highly important that the city boy, who as a man is to live in the city, help form public opinion of the city, and express that in his vote, should have a sympathetic interest in the work of the farmer, the horticulturist, and the gardener. The good of the commonwealth demands it. In my own state the gravest hindrance to progress in helpful legislation for both city and country is mutual misunderstanding of the city view-point and the country view-point. We in the city think the shortcoming and the duty of our farmer fellow-citizen are manifest; but it is not our duty to give our children, not only tuition, but also industrial experience that shall make it easier for them to co-operate more intelligently and sympathetically with the great agricultural class?

And not alone in manufacturing states like Connecticut, but indeed throughout the Union, the city children need this opportun-
ity to gain at least an elementary acquaintance with the life-en-deavor of the great farming class. The best place to train our city boys and girls to this open-eyed and open-hearted co-operation with the millions of their farmer fellow-citizens is in the school garden. The school garden as an institution has, of course, large value as a nature-study laboratory. It may also prove a solution of the vexed problem lying between too many hours in school and too many hours on the street. But its chief value lies in the fact that it gives through its experience the moral and intellectual sympathy which I have urged is so needed in the civic and political life.

It may be urged that the garden on any adequate scale is not available in the city. It is not and will not be in the city on the day in which we do not insist on the minimum land interests of children. No man would undertake to rear a score of good Kentucky colts without ample grounds in which they might get their play and their training. To limit these would be to insure failure with the noblest quadruped the world has produced. But dozens of communities are essaying to rear a thousand American boys and train them on a school site but little larger than the building—a school site covered with a brick house, a concrete walk, and the grave of man-making play, above which rises the mournful epitaph, “Keep off the grass.” Have we not reached the time when we know that blooming girls and bouncing boys are worth more than springing grass and budding bush? Whenever and wherever the physical rights of our youth are properly understood by the managers of our schools, we can trust the solution of the land question to the American father whose prayer today is still that of the Grecian hero before the walls of Troy: “May this, my son, be greater than his father.”

Again let me illustrate by the example with which I came to be most familiar, and which involved all the type difficulties besetting the development of a city school garden. The Wadsworth Street School—the central school of the system for which I am responsible—is situated in the heart of a thickly populated district of our city. To it eighteen hundred boys and girls went daily. The unoccupied portions of the site were barely ade-
quate to the play purposes of the school. The proper appeal to the school committee in the name of the open-air rights of the children resulted in the purchase of the needed land contiguous to the school site. All was uninclosed, and to the committee it seemed desirable to keep open to the public certain walks through the property by which thousands of citizens daily traveled to and from their homes. The land secured was enough to furnish garden opportunity for from three to four hundred children in one year. It seemed desirable to them to give the garden opportunity to the children of the youngest grades. The first year the gardens were given up exclusively to the children of six kindergartens, under the leadership of an enthusiastic kindergarten supervisor of limitless industry. Nearly all of the kindergartners and the great mass of their children caught the spirit of the work, and the gardens were a great success. The boys and girls of the neighborhood, without any invitation, took on themselves, out of school hours and during vacation, the duty of protecting them from trespassers and marauders. Remember that the whole tract was unfenced, and that from 5 p. m. to 6 a. m. no teacher or school official, not even a janitor, was on the premises. The morals of young and old in the neighborhood were equal to withstanding all, or nearly all, temptation. Remember, too, that there were scores of children living within a few blocks of this garden who were pupils in private schools, and had possibly never attended public schools. Bear in mind, further, that there was no special police protection given to this block more than to any others in the vicinity. When the watermelons approached maturity, and before the frost was on the pumpkins, the watering of some juvenile mouths and the longing for Jack-o’-lanterns became too powerful, and we lost a good portion of these two crops. Otherwise flowers and vegetables were practically unmolested.

The next season four first primary grades were added to the garden squad. Their teachers brought added enthusiasm, energy, and thoughtful consideration to the managing and directing forces. We were fortunate in having in these departments teachers able to take up new problems intelligently, and
ready to follow them up persistently. The gardens were now a pronounced success. The work was practically all done by the children and their teachers. The highly efficient teacher or kindergartner could be picked out as readily in the garden as in the school. We had answered the question: Are the school hours too long for the primary children? Too long always for the wrong kind of work; never too long in the school that has the intelligence to recognize, the courage to stand for, and the freedom to serve the true interests of the growing child.

Other cities of varying industrial life and environment may furnish varying specifications in their answer to the question we have discussed. The principles which we have endeavored to enunciate must, however, be followed by all. The best forms of industrial education for the children of any given city must result in the development of power not adequately developed in the traditional curriculum, must train for industrial efficiency in the city, and must give sympathetic understanding and respect for the life-work of the millions in the country.
WEAKNESSES IN THE TEACHING OF ENGLISH IN
OUR COMMON SCHOOLS

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The phrasing of this subject hints at an actual condition, not
at mere theory; for we are facing a universal complaint, more
serious in nature than any before laid at the door of the common
schools. The colleges, of course, blame the secondary schools;
the secondary schools in turn point to the grades; the grade
teacher, already round-shouldered with the burdens heaped upon
her, points to the home, to the street, or to the playground, and
wearily asks: "How can I overcome in a few short hours the
tremendous momentum toward faulty speech acquired before
pupils reach my hands?"

Widely different sets of causes have co-operated to induce
the prevailing lamentable failure in English instruction which
has recently driven college after college to rule that entrance
examinations shall hereafter be required in the very elements of
English.

These causes of failure are either (1) external to the school
itself, and in nature more or less permanent; or (2) due to
causes within the school system, and not in nature permanent.

The first great cause is external to the schools, and is found
in the heterogeneous character of our swarming emigrant popu-
lation. In public-school buildings Armenian and Russian children
touch elbows with Italians and Bohemians; while Germans,
Scandinavians, and Poles are equally in evidence. This mixed
foreign population forces upon the schools a wholly new problem,
so far as language and literature are concerned, which problem
is, however, scarcely yet recognized. In fact, there is a general
purblind indifference to this most significant feature of the
twentieth-century American schoolroom. However, the teach-
ing of English to foreigners during the first two school years
is a striking feature in New York City's new course of study; and, where New York leads, others will soon follow.

A second primary cause for poor work in English is but partly external to the school system. This is the survival in home and in school of an ancient false tradition as to the culture value of a knowledge of technical grammar. All worthy authorities now agree that grammar the science, while of considerable disciplinary value, yet has little, if any, effect upon speech the art; nevertheless the old tradition dies hard. That it is, however, moribund no one will venture to deny who knows whether the tide of educational opinion has been setting for the past several years. I quote from the annual report of the state inspector of graded schools for Minnesota for the school year ending July, 1901:

Technical grammar is still begun too early in many schools. In fact, the poorer the school, the earlier grammar is taken up. Very poor schools almost invariably put a textbook in grammar into the sixth grade. The worst feature of this sort of teaching is that it makes what might be a very useful and even entertaining study a task which children dislike and misunderstand. The reason that teachers put technical grammar into the sixth grade is generally because they have not the originality to interest a class in intelligent composition or language work.

Very significant is the fact that several normal schools have recently adopted a new course of study deferring all technical grammar until the eighth grade. In this common-sense procedure these schools are only a little behind several Minnesota graded schools, which are courageous pioneers in the cause of better teaching of English. Assuredly the time is near at hand when reputable schools will no longer teach "baby grammar" in grades below the eighth.

The third primary cause for the general weakness in English work results directly from the second just stated. It is strictly an internal cause which may be remedied, and is this: Grade teachers, almost without exception, have not themselves been prepared to teach language as art. Looking at the study of English as science, they have constantly smothered in their pupils germs of linguistic and literary power. Blue-glass grammatical
spectacles have colored their entire horizon, and, teaching indigo grammar for the sake of indigo grammar, they have not been able to perceive the rose-colored skies over literary fields.

Let us face these causes singly, and consider where lies the responsibility for present conditions, and where the remedy which public, college, and press are all vehemently demanding.

Primarily, without doubt, the chief blame must be laid at the doors of our normal schools. As a prominent normal-school president truly remarks: "The difficulty here, and I presume in many schools, is the fact that our grammar teachers are wedded to the old technical system, and it is hard to make a change." As soon as our normal schools send out teachers prepared to give intelligent training in living English, just so soon will the general linguistic consciousness be quickened.

Obviously, we cannot hope that the foreign element in our schools will soon be less. On the contrary, it may be even greater in proportion than it is at present. For the increasing number of excellent private schools proves that the American parent who can afford it will quite probably place his children where they can have the benefit of personal supervision in small classes, in which their progress is not inevitably slowed down to that of the weakest feet. Whether or not private schools shall continue to increase will depend somewhat, no doubt, upon the efficiency of the public schools in giving elementary English training.

These two last-named causes of weakness in English teaching are interdependent and can hardly be separated. Reduced to their lowest terms, they may be formulated simply thus: ineffective methods, accepted for use because of tradition, or because laid down in textbooks and courses of study by supposed authorities.

Before considering the inadequacy of present popular language "methods," as means to the general end of education, let us inquire: Precisely what are the specific ends in view in so-called "language" teaching? But let us first of all steer clear of that common error which fails to distinguish between all-important final ends and the prerequisite means to those ends. We shall then admit at once that spelling, penmanship, and even
reading itself, are not absolutely essential elements in a good command of language. For the great epics lived by word of mouth for centuries; the man born without arms may become a linguist skilled in a score of tongues; and hence the tedious writing and rewriting of what a child already knows is not only non-essential to his linguistic proficiency, but also, indeed, a serious handicap in the effort to gain this.

Can we not agree upon the following outline?

Results sought in modern "language work" 

Direct
{(1) Command of language in oral speech
{(2) Command of language in written speech

Indirect
{(3) Literary appreciation
{(4) Character-growth through absorption of ideals

Doubtless not all teachers would admit that the last two aims are indirect. For example, Mr. Percival Chubb, of New York City, principal of the high-school department of the Ethical Culture Schools, which were founded by Dr. Felix Adler, would magnify these as most important of all, and I heartily indorse his position; but as a concession to the extremest utilitarian standpoint we may grant that command of oral and command of written speech are the sole direct aims of the language teacher. This granted, what elements shall we call absolutely essential as prerequisites to the obtaining full command over one's mother-tongue? I conceive them to be these:

(1) a wide vocabulary, so well possessed as to be promptly available; that is, a supply of words for the sake of expression, because words are the sole tools of thought
(2) an idiomatic and easy sentence-habit

The prerequisites to command of language are

in oral speech
{(1) and (2) as above plus (3) the mechanics of reading, spelling, and penmanship

in written speech

If it be granted that a command of oral English speech is the single, most important, educational desideratum to English-speaking individuals, the question at once arises: How can this be most swiftly and thoroughly acquired? Common-sense as well as authority answers: By emphasizing oral language work, and by remembering that spelling and penmanship pertain solely to the less important division of linguistic attainment. Oddly enough, the fact seems to be constantly for-
gotten that *composition* belongs to oral language quite as much as to written. Mr. Chubb holds negatively that *neglect of ear-training* in oral work is one potent cause of poor results. He says truly: "It is the ear, and not the script or print, that is the first, as it is the final, arbiter and nurse of all lovely speech and song."\(^1\)

He lists the following also as causes of the prevailing unsatisfactory results in English: (1) Too much written work is asked for; (2) this is too labored, as we press for an excellence in form not to be expected from the young; (3) the compositions are too long; (4) wrong topics are chosen, depriving the work of reality and interest to the child.\(^2\)

I am glad to quote Mr. Chubb because his general treatment of this subject is so rational and satisfactory, especially as a provision for American-born children from homes of culture who are destined to enter the high school.

It can hardly be denied (1) that many teachers have expected the language period to atone for all defects in the work of the three periods given respectively to reading, to writing, and to spelling; (2) that much of the time given ostensibly to "language" is in fact either "busy" work—which very name is a pedagogical contradiction—or else belongs in some other period; (3) that the language lesson often becomes a catch-basin for the unfit and the impractical. Here in wildest disorder may be found an unorganized mass made up from disconnected bits of geography, physical geography, zoology, physiology, botany, astronomy, Greek, Roman, German, or Norse myths, biography, drawing, art-history, bird-study, ethics, spelling, diacritics, kindergarten platitudes, and grammatical science.

I assert with all the positivism at my command that the following prevalent methods have no place whatever in a rational scheme of language lessons:

1. Desecration of literature through so-called "reproduction."
2. Unpedagogical puzzle-and-guess work under the form of "blank filling."

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3. The learning of diacritics which indorses single dictionaries; because this never yet taught, nor ever will teach, English pronunciation.

4. Composition for the sake of practice in spelling and penmanship.

5. Dictation lessons which are planned neither as knowledge tests nor to train the eye in observation—these being the legitimate aims of the dictation as method, and, hence, adapting it chiefly to the spelling and writing periods.

6. Information lessons about birds, pictures, artists, astronomy, history, geography, natural products, manufactured objects—or anything else under the sun, save only language for the sake of language and literature for the sake of literature.

7. Any method, and every method, which fails to utilize that most powerful possible element in all educational gains, the child’s own ambition and desire to excel.

I am glad to note that Mr. Chubb has condemned at length that least excusable of all bad methods called “the reproduction,” and that he declares strongly against the evils of basing written work upon the literature which is being studied. This vicious popular method becomes wholly absurd when one realizes that the best (that is, the most literal) reproduction is the worst (because the least original) language exercise. For the verbal parroting of fine phrases shows neither originality nor power of thought; and under this monstrous method pupils of genuine literary ability quite often make the poorest showing, because lacking the spur of original and spontaneous interest.

That many children excel in writing “reproductions” we all know. That this implies a certain sort of skill no one will deny. But it is the same sort of skill which in other fields of meretricious endeavor wastes endless hours in fashioning paper flowers and wax fruits, “so true to life that you can hardly tell they are not real.” Here lies the test of all art: it must be creative, not imitative. That prince of imitators, Robert Louis Stevenson, by just so much failed to be a genuine artist—so a recent noted critic justly remarks; for he gives us, in fact, not chiefly himself as original genius, but a succession of different writers whose
personality he has successively and successfully copied. Let us away with Mrs. Jarley’s wax works the moment they attempt to deceive the public by claiming to rank as fine art. Let us also away with that reproduction of literature which gives us only the paper flowers and wax fruit of literary art. Can it be that we prefer wax fruit and paper flowers to wild strawberries and nature’s uncultivated meadow flowers? Then so much the worse for us and for the false ideals grown out of our wrong system of training.

No one, of course, will confound written lessons, or knowledge tests, with the well-known method here referred to. Nor does my condemnation include such work as the outlining of plots, the making of written abstracts, the oral and the written summary, all of which may fill a useful place in grammar-grade work. What must be abolished is the fad, so dangerously easy for the teacher, but often entailing cruel nervous strain upon the child, which stupidly and wickedly in the name of “teaching” permits the cheap folly called “reproduction.” I am not sure, indeed, but that a society for prevention of cruelty to human animals might well forbid the excessive amount of writing which this method entails upon pupils in the grades. While written composition should increase in amount gradually from the lower grades to the higher, still at no time should it equal or even approximate in amount the oral work required; and yet under present methods the frequent order, “Reproduce the story,” means usually that oral work is wholly neglected.

Should you inquire how much I include under the term “information lessons,” I reply: All the dilute science of every sort commonly found as padding in the “language” texts of the day. These subjects include among others the following: the sun, the moon, stars, waves, tides, air, clouds, ice, snow, frost (and Jack Frost), hail, fog; coral, coal, the peanut and other nuts, fruits of all sorts, pepper and salt, cotton, sugar, flax, silk, linen, wool, the clock, the mill-wheel, flour, bread, yeast; moths, ants, katydids, grasshoppers, squirrels, earthworms, butterflies, the dog, the horse, the cow, the duck, the hen, sheep, farm life; George Washington, Christopher Columbus, Murillo, Millet, Van
Dyck, and other artists; cheap woodcuts of all sorts; Ceres, Apollo, Mercury, the Wanderings of Ulysses, and myths of all the earth.

These subjects, and others of similar character, have wasted time enough in most American schools to allow the teaching of a foreign language. While their ostensible defense is always the "provision of suitable topics for conversation and for written lessons," in point of fact they neither furnish accurate science nor inspire interest leading to good language work. They are not lessons in language, nor in literature, nor even about language. They are usually mere crumbs from the loaf of natural science, and stale crumbs at that.

As corrective to the poor practices everywhere carried on in the name of language study, I suggest that teachers no longer accept cut and dried lessons and courses of study, but that they challenge their every daily recitation with these questions: (1) Exactly what is this lesson intended to accomplish? (2) Is it adequate to that end? (3) Is it a means to a larger end, or is it an ultimate aim in itself? (4) Will it insure definite language gains, or is it merely an information lesson? (5) Is it articulated with the live flesh and blood of idiomatic English, or is it but the rattling dry bones of a fleshless grammatical skeleton? (6) Precisely what is to be my own method in using it?

To be sure, information is not necessarily excluded from legitimate literary language material, but early lessons looking toward language as art may well deal largely with linguistic subjects, especially with words, their meaning, and their right use. Hence, special instruction in English, looking toward vocabulary gains, must become a marked feature in primary grades. This is absolutely indispensable where there is a foreign population, and its omission is as extravagant financially as sinful morally. How to give such training is not a difficult question when the need is once recognized: (1) Reading, both oral and silent, must increase in amount; (2) attention to concrete objects and their names must have definite place; (3) the reading and telling of stories by teachers to pupils must be considered as necessary as the children's own reading—this last because we now
recognize that the child who is read aloud to at home receives an ear-training in English which is even more imperatively needed by the foreign child; (4) oral story-telling by pupils must become a strong and prominent feature.

Obviously, the primary teacher will need time for all this, and to that end we shall gladly excuse her from much of the work now required at her hands, asking only that the linguistic sense of her pupils shall be quickened. In particular, she shall be excused from most of those senseless memory tests which, under the name of "examinations," are supposed to inspire her to "keep up," but which tend instead to drag her down mentally, morally, and physically.

For the grade teacher of today is a typical jack-of-all-trades. She is expected to be a specialist in reading, penmanship, arithmetic, geography, history, basketry, rug-weaving, drawing, water-color work, clay-modeling, music, physical culture, psychology, and in some states agriculture. On top of all this we are now demanding that she be literary. But human flesh and blood cannot much longer endure so tremendous a burden, and the strongest back will break under the last straw. Moreover, folly such as this cannot continue in an age of progress whose keynote is specialization. In the better day near at hand grade teachers will have one, two, or at most three subjects to teach, and they will do their work with the enthusiasm of the specialist, not with the dragging weariness of the general drudge. No longer exhausted and hopeless, they shall at last do "all with the joy of the worker" whose individuality is respected, whose power of initiative shall have scope, whose originality is recognized and rewarded, and whose labor is ranked as a worthy product of art.
THE EXAMINATION OF THE EYES OF SCHOOL CHILDREN

JOHN C. EBERHARDT
Optometrist, Dayton, O.

The development of the mental faculties depends largely, if not entirely, upon the functions of perception, and these should therefore receive critical attention during childhood. Professor Tait, of the University of Edinburgh, Scotland, in his treatise on *Light*, says: "All our other senses together, except under very special conditions, do not give us one tithe of the information obtained at a single glance, and sight is also that one of our senses which we are able most effectively and extensively to assist by proper apparatus."

The phonograph, reproducing the falsely pitched voice and nerve-racking discords of a distempered piano, graphically demonstrates the undulatory theory of sound; nor can we criticize the faithful reproduction of these sound photographs.

Sight is purely a mental phenomenon, for the image of external objects reflected upon the inner wall of the eye is transmitted over the million nerve-fibers composing this wall to the innermost recesses of the brain, where consciousness of vision is born, and where also, phonograph-like, mental impressions are recorded, which, even after the lapse of years, will enable the mind's eye to pass in review that which caused them.

In the phonographs we know the accuracy of construction and delicacy of adjustment essential to its satisfactory operation. We should certainly be equally critical in dealing with that choicest of possessions—the eye.

Environment largely influences the mind for good or evil. The deformed eye, therefore, which constantly transmits to the brain distorted images must undoubtedly have a demoralizing influence upon the mentality. That this is true is evidenced by the statistics of our reformatories, homes for the feeble-minded,
inebriate retreats, and insane asylums, showing, as they invariably do, large percentages of visual defects in the inmates.

Allen Greenwood, M.D., in an address before the Boston Medical Society, recently urged that municipalities take up the investigation of the eyes of school children, emphasizing the fact that alarmingly large percentages of backward and feeble-minded children examined had been found to be afflicted with deformities of the eyes, impairing vision, all of whom evidenced marked improvement, mentally and physically, when defects of sight had been corrected.

The Medical Review of Reviews quotes the results of investigations conducted by Dr. Theodore Gelpe of Vienna, in which he states that 72 per cent. of feeble-minded children examined had been found possessed of extremely defective eyes, largely of a congenital character, capable of marked improvement by properly adapted glasses.

Dr. John J. Cronin, chief of division of school inspectors of New York City, reports that, out of 7,166 pupils examined, 33 per cent. were found to have defective sight; whereas in Philadelphia the health board recently recommended that the authorities provide funds for supplying suitable examinations and glasses to the large numbers of poor school children in need of them.

One of the frequently encountered defects is a marked deformity or subdevelopment of one eye, which, owing to the resultant low vision, and consequent non-use, leads either to its total loss, a condition of cross-eye, or the various phases of nerve-suffering and mental degeneration referred to.

During childhood, when development is as yet incomplete, nature sends to each function blood and nerve supply, not only for the purpose of enabling it to perform its work, but also to contribute to its growth. If, therefore, owing to a deformity or faulty development, an excessive activity is involved, a correspondingly excessive expenditure of nutrition and energy will result, depleting the part and interfering with its development.

The question presenting itself is, therefore: Can an effective and feasible means be provided by which these cases can be dis-
covered? It has been found impracticable to accomplish this by means of specialists, as the task, owing to the large numbers involved, is a difficult, if not an impossible, one. Several years ago the speaker suggested a plan which, if carried into effect, would result in the discovery of at least many such afflicted pupils.

For this purpose the regular wall test-chart is used. As many pupils as possible are seated in two rows facing the wall, and about twenty feet away. The rest of the pupils leave the room. Each of these pupils is provided with a sheet of paper on which to write his name.

The pupils are now required to cover one eye with a handkerchief (or strips of muslin can be used), the teacher displays the test-chart on the wall, and the pupils are instructed to copy the test-letters thereon, holding up their hands when completed. Some will accomplish this task quickly, while others will hesitate and after considerable effort abandon the attempt. (The teacher can here obtain considerable information of their acuteness of vision.) When sufficient time has been allowed, the chart is removed, and the pupils are required to cover the other eye, when the reverse side of the chart, containing other letters, is displayed and copied in a similar manner. These papers will at once indicate the acuteness and accuracy of vision of each eye, those showing unsatisfactory results being later again submitted to the test.

Where one or the other eye is very deficient, the result will at once indicate it, and parents may be notified. The principal should always have this chart at hand for the purpose of investigating the eyes of the dull, non-studious, unruly, or truant scholar, which may frequently furnish evidence of inestimable value.

Experience has demonstrated that marked deformities of the eye are usually due to malformations of the skull, which the analytical observer readily learns to recognize; whereas those pupils having deeply wrinkled foreheads, or those complaining of periodical headaches, should always be suspected as being possessed of eye-defects, and be subjected to examination.

The following cases are typical and demonstrate possibilities. Two years ago a boy, thirteen years of age, was brought to me. His vision was stated to be satisfactory, but nerve disturbances,
which had evidenced themselves since the first school year, had gradually become more marked, until they had developed into a well-defined condition of epilepsy, the boy having had several attacks of falling fits monthly. He had been under treatment for four years, without relief, whereas recently attacks had become more severe, and frequent. Examination revealed an extreme distortion of the left eyeball, with the vision in this eye very imperfect and accomplished at the cost of great strain, leading to acute headaches, if the eyes were used for any length of time. The correction of the defect by the requisite glass, and the enforced activity of the defective eye, gradually, not only brought vision in this eye up to the normal, but also contributed to such an extent to improved physical conditions that for the past eighteen months he has attended school regularly, which he had not been able to do for several years prior to this time, and the nerve disturbances have entirely disappeared, the boy not having had an attack in over a year, and his school percentage showing a marked advance.

The second case was that of a boy of twelve brought to me by one of our principals. He was the son of extremely poor parents, who ridiculed the idea of glasses. He was given to truancy, was difficult to control, was non-studious, and apparently was mentally deficient. The correction of an extreme anatomical deformity of both eyeballs by suitable glasses not only developed vision where he had been to all intents blind, so far as objects beyond ten feet were concerned, but also thwarted vicious tendencies, and he became fond of his studies, as was evidenced by the marked change in his percentages. He is now working after school hours, and his employers commend him and are interested in him, and I am firmly convinced that the boy's future has been largely influenced for good.

The third case was that of a young girl, aged sixteen, who, since her eighth year had suffered from periodical attacks of headache, which in recent years had been accompanied by digestive disturbances, evidencing themselves by acute nausea, which had defied medical treatment. An examination revealed the fact that, while the left eye was normal, the right was so defective in
formation that well-defined vision was an impossibility. Upon being questioned, she insisted that her vision was perfect, since she was able to see test-letters both on the wall-chart and at reading distance. Upon being requested to hold her hand over her left eye, she for the first time realized that she had no vision in the right beyond the ability to perceive light. With the proper glass before this eye, she could with difficulty vaguely discern letters one-half inch in size, when brought to within six inches of the eye, and these for only a minute, when they became blurred and then faded away. Why? Because, owing to the existing deformity, and consequent non-use, the visual functions in this eye had not developed. Spectacles containing an opaque glass before the normal eye, and the corrective lens before the deformed eye, were prescribed for exercise use. By this means the dormant eye was forced into activity for short periods at first, as exhaustion speedily evidenced itself. After the first week improvement was marked, and the eye could now read headlines in the paper for ten minutes. At the end of the second month the eye was able to read regular newspaper print for half an hour. At this time clear glass was placed before the good eye, and glasses have since been worn constantly. Recent examinations reveal the vision to be normal in the deformed eye through the corrective lens; but, what is most significant, headaches, nerve and stomach disturbances have disappeared, and the general health is vastly improved.

This case would have been discovered instantly by the test suggested, because the girl could not see even the largest letters on the test-chart with the defective eye, whereas a study of facial proportions at once revealed a marked distortion of the right side of the face, due to a cranial deformity.

Can we contemplate these possibilities unmoved? How many children may be struggling on under your very eyes, condemned to live within a circumscribed mental as well as visual horizon, to whom science might give invaluable service, were it but appealed to?

Cultivate the ability to read aright the hieroglyphics graven by suffering upon the faces of the young. Note the faulty position assumed by some students, the extreme tilting to one side
of the head, a disposition to squint until the eye is scarcely visi-
ble. Add to this the simple visual test suggested, and you will
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