

The Journal of Educational Sociology

A Magazine of Theory and Practice

HEALTH EDUCATION

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The JOURNAL of EDUCATIONAL SOCIOLOGY

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EDITORIAL

Perhaps no topic has involved more discussion than that of health and health education in the past decade. The interest in health has two underlying bases; namely, the development of scientific knowledge on the one hand and the growing complexity of life which requires new adjustments in order to meet the health needs of the individual and the community on the other hand.

We are in the midst of a strange situation in which there has been marked progress in the development of community health, in the reduction of mortality, and in extending the average length of life and yet the individual has never solved less successfully the problem of living than in the complex civilization of the present. The average length of life has been extended twenty-five years in the past three quarters of a century and yet there has been a decline in the actual length of life—one year or more in the same period. The reason for this strange situation is the effective accomplishment of communities in the control of morbidity which arises from communicable diseases and factors which the community itself could control. We have at present reached the peak of accomplishment in those communities where an adequate community health program has been put into operation. This does not mean that we have solved the problem of community health.

The wide difference in the nature and amount of mortality in the various sanitary districts in New York indicates much to be accomplished in community control of disease. However, we cannot hope for marked progress in the further development of community living. The problem now is one of dealing with individual health. This is primarily the task of education. Fortunately, communities have become quite sensitive to the need of dealing with education as a problem of the individual. But, there is still evidence of an inadequate program. The fact that schools in such cities as New York, Chicago, and Philadelphia outline a program of health instruction applicable to the whole city, not taking into account the diversity of the sections of the city, indicates the weakness of our plans of instruction.

The hope of this issue of the JOURNAL is to present some material that will help in the direction of solving this difficult and immediately pressing task of the health education of the individual.

THE RELATION OF PHYSICAL AND MENTAL HEALTH

IAGO GALDSTON

Here is a thesis to delight the varied host of metaphysicians! For ever since man first realized that there was both soul and body, matter and spirit, *mens* and *corpus*, the relationship of the two and the effects of the one upon the other have provoked him to endless speculation and to no little research.

A review of the history of this thesis would lead us back to the earliest days of human civilization, to an age long before the fertile banks of the Nile were first settled by the builders of the pyramids, to countless centuries before Thales propounded his cosmic philosophy.

Throughout the centuries man has wrestled with the problem of the relation of the mental to the physical. Religious, philosophical, sociologic, and educational schools of thought have sponsored a wide variety of proffered solutions. Between them there have arisen violent and even bloody controversies. The increasing body of science has led to the refinement of the larger thesis and to its segmentation into numerous special considerations, but it remains to this day as provoking a theme as it ever was.

No previous age, however, has been as well equipped in knowledge as is our own, and in consequence no "seekers after wisdom" have been as fortunately armed as are our contemporaries. The pursuit of our thesis needs no longer rest on the fine exercise of pure dialectics. The growth of the sciences of neuro-anatomy, of general and neural physiology, of clinical and organic pathology, of psychiatry, as well as the phenomenal achievements of experimental psychology, have made available to the student of today a body of knowledge which must lift the plane of discussion above that of casuistry. We have before us the protocols

of numerous studies. We must base our consideration and can found our conclusions upon these.

Mens sana in corpore sano is the Latin paraphrase of a conviction deeply rooted in Greek thought. Time and experience have not controverted its essential truth. But certain of the loose deductions drawn therefrom, perhaps in accordance with the rules of syllogistic thinking but certainly in opposition to science, have been shown to be worthless.

The fault has largely been in the lack of definiteness in the meaning of health, particularly of mental health. Is the high-grade ament, or moron, healthy? Constitutionally, many among them would pass muster. The functions of their organic systems, those, for example, of respiration, circulation, digestion, etc., come up to normal. Cerebrally, however, they are constitutionally defective, and yet they may be making full use of their limited endowment. Are such high-grade aments well or sick? Could one hope to improve their intellectual status by improving their physical health?

Evidently, health must be understood to mean optimal function within the limits of organic endowment. Otherwise confusion results.

The present consideration is largely confined to those of sound organic constitution, including the nervous system. Neither the idiot, imbecile, moron, nor feebleminded, nor yet the demented, is included. The consideration of the relation of physical and mental health is here made with the so-called organically normal person as the subject of our study. Our concern is with their functional interplay.

The effects of toxic substances upon the functions of the nervous system, including the higher centers, have been too patent to escape the notice of even the earliest physicians. Hippocrates, the father of medicine, recognized and described mental disorders such as delirium, delusions, depression, and anxiety and attributed them immediately to the conditions of the brain and ultimately to substances or con-

ditions which caused the brain to be too hot or too cold, too moist or too dry. He noticed, too, the mental aberrations incidental to high fevers.

The observations of Hippocrates have since been much elaborated and amplified and we are today cognizant of a vast variety of drugs, poisons, and disease toxins that can cause nervous and mental disorders.

Less patent have been the effects upon the nervous system of chronic infections and of the so-called focal infections. In recent years, much study has been devoted to this subject, and perhaps the foremost exponent of the far-reaching effects of diseases elsewhere in the body upon the functions of the nervous system is Dr. Henry A. Cotton of Princeton University.¹ His immensely interesting volume *The Defective, Delinquent, and Insane* is devoted to an exposition of the effects of focal infections upon the nervous system. His basic idea is stated as follows:

It should be said that the primary lesion which determines the abnormal mental state is most frequently not to be found in the brain itself. The brain cells are constantly influenced by abnormal conditions in other parts of the body through the circulation. Anatomical lesions of other organs of the body are known to change the metabolism contaminating the blood with abnormal products, which in turn disturb the chemical exchanges and nutrition of the cells of the brain. Thus frequently there is direct action on the cerebral elements by the morbid agents carried through the circulation. The result may be coarse and extensive lesions such as result from a large hemorrhage, or fine, diffuse, and frequently invisible lesions. Either one of these may be the result of the action of various toxins.

Dr. Cotton's viewpoint is to an appreciable degree in agreement with the findings and opinions of other scientists who have made parallel or related studies. Drs. John William Draper and Redford K. Johnson² studied the relation of enteric disease to personality changes in children and adolescents and made a preliminary report to the effect "We have found that children or adolescents who

¹Henry A. Cotton, *The Defective, Delinquent, and Insane* (Princeton, N. J. Princeton: University Press, 1922), 201 p.

²John William Draper and Redford K. Johnson, "Personality Changes in Children and Adolescents," *American Journal of Surgery*, VII (1929), pp. 568-572.

begin to show abnormal alterations in personality are always physically sick. Occasionally, the removal of obvious focal infections of the throat and nose corrects the difficulty. In the remainder a study of the alimentary canal may furnish enlightening and absorbing data, because of the gastrointestinal symptoms which are frequently present."

Drs. Margaret Cobb Rogers³ and Edward B. Angell⁴ each separately studied the effects of the removal of adenoids and tonsils on general intelligence and arrived at the conclusion that while these surgical procedures do not influence intelligence as measured by the common tests, they do improve performance in school work, etc.

The corroboration of the conviction that organic disease elsewhere in the body may injure the nervous system and adversely affect its functions is widespread. To those mentioned above may be added the diseases of the endocrine system. These, too, are known to exercise a profound influence over the functions of the nervous system.

There are other forms of physical disability which influence mental health in addition to those caused by toxic substances. Poor nutrition, bad personal hygiene, and excessive fatigue though causing no appreciable gross pathology engender poor physical and poor mental health. This phase of the problem has been competently developed by Drs. Max and Grete Seham⁵ in *The Tired Child*.

The effects of manifest disease upon the nervous system are too patent and appealing to require much emphasis. The more subtle effects of malnutrition, poor posture, fatigue, and similar conditions upon mental health are not so readily appreciated. It is, however, this latter group of conditions that is most readily amenable to control and which falls so extensively within the province of the educators.

³Margaret Cobb Rogers, "Adenoids and Diseased Tonsils—Their Effect on General Intelligence," *Archives of Psychology*, VII, 5 (1922).

⁴Edward B. Angell, "Effect of Removal of Adenoids and Tonsils on the Mental Development of the Child," *Archives of Neurology and Psychiatry*, XIII (1925), pp. 388-390.

⁵Max and Grete Seham, *The Tired Child* (Philadelphia: J. B. Lippincott Company, 1926), 342 p.

To appreciate fully the import of the subject we must refer to certain fundamentals. Thus, the nervous system, through which human behavior is mediated, is part of a highly complicated machine, the human body. The nervous system shares in the nature of the machine by being a transformer of energy. Its manifold functions, apart from their significant meaning to the economy of the body, have energy equivalents, indicating the reception and transmission of energy. The neuron does not create nervous energy any more than the muscle cell creates muscle energy. It receives energy in the form of certain chemical substances ultimately derived from food. This energy the neuron transforms, stores, and utilizes in the processes of its function.

Between the ingestion of food and the ultimate arrival at the location of the neuron of the chemical substances which constitute the immediate source of its energy, there take place many intricate physiologic processes. The successful achievement of these physiologic processes requires the integrated actions of all other systems of the body, including excretion.

C. Judson Herrick* in his most illuminating book, *The Thinking Machine*, summarizes these basic ideas under the heading "How the Living Machinery Works" as follows:

All the raw materials for making a living must come from outside of us, for we have never seen a human being or any other living thing make either its own body or any kind of behavior out of nothing. Both the material and the energy are assimilated from outside sources, just as they are when a mechanic builds and operates a steam engine.

The chief sources are, of course, the food eaten and the air breathed. The internal work of the body consists in finding this precious stuff, transporting it to the parts of the body where it is needed, and then working it over so as to supply this need. In a human body this is a manufacturing enterprise of considerable magnitude, far more diversified and complicated than all the activities of the Union Stock Yards of Chicago.

The transport of materials within the body is done mainly by the blood stream, whose chief function is the interchange of

*C. Judson Herrick, *The Thinking Machine* (Chicago: The University of Chicago Press, 1929), 386 p.

commodities of various sorts from one part of the body to another. In addition to this there are lines of transmission of energy, chiefly the nerves, and these are of special interest in this inquiry. These arrangements are in some respects similar to those of a great railway system, whose roadbeds for transportation of passengers and goods are paralleled by lines of electric transmission for the control of the traffic and also for the regulation of the warehouses and factories where the goods are worked up for delivery to the consumer.

But the nerves are not the only transmitters of energy. All protoplasm is irritable; that is, it will release a certain amount of energy when the proper trigger is pulled, or when it is adequately stimulated. This is done by the consumption of some of the living substance, and in most cases it is a process of oxidation comparable with the way the energy of an automobile is derived from the burning of more fuel from the gas tank when the driver "steps on the gas."

We have agreed to understand health as meaning optimal function within the limits of organic endowment. An adequate energy source is vital to optimal function. Any interference in the energy-transforming functions of the body as a whole, e.g., prolonged starvation, or fault in the metabolic process of the body, e.g., diabetes, or more local interference in the blood circulation of the brain as in the case of cerebral arteriosclerosis, must of necessity affect the functions of the nervous system, and hence, too, the mental health of the individual.

From the above illustrations it should be easy to see the like influences of malnutrition. Enlarged tonsils and adenoids, interfering as they do with respiration, also impede optimal function. Fatigue exercises its effects in devious ways, ultimately rendering inefficient the functioning of the diverse cells and tissues of the body.

These impediments may contribute to the development of behavior difficulties or may dull the total nervous and mental functions of the child. The case histories of thousands of children treated in many behavior clinics throughout the country attest to these facts. Dr. Thom⁷ in the preface to his book, *Everyday Problems of the Everyday Child*, states correctly:

⁷Douglas A. Thom, *Everyday Problems of the Everyday Child* (New York: D. Appleton and Company, 1927), 349 p.

That we have concentrated our attention and efforts upon a better understanding of the mental side of the child's life should not lead to the assumption that we have lost sight, even for the moment, of the vital importance of sound bodily health nor that we have overlooked the relationship between the physical well-being of the child and his conduct. In every case, and under all conditions, the child's physical health should be carefully investigated under medical supervision and every attempt made to correct any defects that are found.

It is necessary, however, to keep in mind that the physical, intellectual and emotional aspects of the child's life never operate independently of one another for a very long period of time. They are mutually dependent upon each other if the child is to operate as a well-regulated whole.

In recent years, due principally to the works of the schools of Freud, Jung, and Adler, the psychogenic factors in abnormal behavior have come so prominently to the fore that the purely physical factors have been largely overshadowed. It is a vain and profitless task to attempt the evaluation of the relative causation values of the psychic and the physical in begetting nervous and mental disorders. They are both potent forces; they usually coexist, and their relative effects differ in each instance. We are, however, prone, because of the tendency of the day, to think first of an inferiority or an Oedipus complex as the cause of a mental or behavior difficulty. The simpler and usually contributing physical difficulty is either overlooked or relegated to a very subordinate place in the diagnosis and treatment. The simple energy factor in all functions of the nervous system is neglected. To use a crude simile, we look for trouble in the ignition system when in reality the gas tank is empty. Sherrington well cautions: "One of the most helpful of the assumptions we can use in dealing with the problems of the nervous system is that which regards the nervous system as more or less a reservoir of energy to be discharged." Janet⁸ attributes a large share of neurotic disorders to insufficient reserves of mental energy. Spearman⁹ bases his very learned and provoking work, *The Abilities of Man*, on the hypothesis that there exists within

⁸Pierre Janet, *Les Medications Psychologiques* (Paris: Alcan, 1919), 360 p.

⁹C. Spearman, *The Abilities of Man* (New York: The Macmillan Company, 1927), 415 p.

the nervous system a definable quality of mental energy designated by him under the mathematical symbol "g."

Proof of the relation and effects of anatomic and physiologic integrity or disease upon mental function is available to an extent which should dispel all questions.

In no part of this consideration has it been maintained that the total potential mental capacity can be increased by the correction of physical disabilities. On the contrary, it has been found that the I. Q. is little if at all influenced by the removal of diseased tonsils, the improvement of nutrition, etc. Performance, function, does improve under medical or surgical treatment but not total potential capacity. The converse is equally true; adverse environmental or physiologic conditions increase the fatigability of the brain but do not decrease its ability.

We have devoted most of our space to the consideration of the effects of physical health upon mental health. The relationship, however, is reversible. The effects of mental states upon body function have been subjected to extensive study. Pavlov, Cannon, Herrick, and a host of other scientists have gathered a vast amount of experimental evidence to show the various effects of mental and emotional states upon physiology. There are numerous clinical conditions, from hysteria masking as any one of scores of physical disabilities to nervous indigestion, which are known to be due to and are treated as of nervous origin. This phase of the relationship of physical and mental health is better understood and better appreciated. Most of the problems arising in this realm come under the care of the physician and are less subject to the influences of the educator.

ACCIDENTS AND SAFETY EDUCATION

EARL E. MUNTZ

No account of urban health could be complete without a consideration of the growing list of disablements and casualties resulting from accidents of various sorts and from occupational diseases. In 1930, accidents took the lives of approximately 99,000 persons in the United States, much the larger proportion occurring in urban communities. The death rate from all accidents decreased from 85.5 per 100,000 population in 1913 to 68.7 in 1921, but since 1921 has shown a fairly steady increase. Motor vehicle accidents account almost entirely for the increase in casualties, other accidents showing a downward tendency in almost every instance as may be seen in the following compilation arranged from the United States Census Bureau data.¹

<i>Year</i>	<i>Incidence of all accidents per 100,000 population</i>	<i>Automobile accidents</i>	<i>Other accidents</i>
1913	85.5	3.9	81.6
1915	76.6	5.9	70.7
1917	88.2	9.0	79.2
1919	72.0	9.4	62.6
1921	68.4	11.4	57.0
1923	75.8	14.7	61.1
1925	78.5	17.1	61.4
1927	78.6	19.6	59.0
1928	79.4	20.8	58.6
1929	80.9	23.3	57.6
1930*	80.4	24.8	55.6

*Estimated.

Accidents cause about 6 per cent of all the deaths occurring in the United States, ranking as the seventh most important cause of death. Among young children, from one to four years of age, accidents are the second most important cause of death, but in the next age groups, from five to nine and from ten to fourteen, accidents assume first

¹Accident Facts, 1930. *Ibid.*, 1931, The National Safety Council, pp. 15-17.

place. In the age group from fifteen to nineteen accidents as a cause of death are exceeded only by tuberculosis which has a death rate some 30 per cent higher. It is, however, encouraging to note that accidents to children are actually declining in recent years, but unfortunately the same period has witnessed an increase in the rate of accidents to adults.

The automobile accounts in large measure for the great increase in fatal and nonfatal accidents during the last fifteen years. In 1928, there were 24,932 deaths in motor vehicle accidents; in 1929, 29,531; while in 1930, the figure had increased to 31,273. Although the accident death rate from this cause has been steadily increasing relative to the population, the rate per 100,000 cars showed a considerable decline from 1924 to 1928. Since the latter date the rate has been rapidly rising. Thus an increase of .08 of 1 per cent in motor vehicles for 1930 as against 1929 was accompanied by an increase of 3.3 per cent in automobile fatalities for the same period.² A complete record of nonfatal automobile accident injuries is not available, but the National Safety Council estimates from such data as is available that there are about 1,000,000 such injuries annually. The National Conference on Street and Highway Safety in 1924 placed the cost of motor vehicle accidents at \$600,000,000, and allowing for a 50 per cent increase in motor vehicle fatalities since that time \$850,000,000 may be taken as a very conservative estimate for 1929. The death rates from automobile accidents in rural districts have shown a more rapid increase during the last twelve years than those in the large cities, and since 1925 the ratio of increase has been less for the larger cities having a population of 100,000 or more than for the smaller cities and for the country at large. This is no doubt a result of more stringent traffic control in the larger urban centers.

The relative importance of the various types of automobile accidents may be seen at a glance from the following

²*New York Herald-Tribune*, August 23, 1931. Quoting report of American Motorists' Association.

table of nonfatal motor vehicle injuries, which, although not complete, may be taken as fairly representative.

NONFATAL MOTOR VEHICLE INJURIES BY AGE OF VICTIM AND TYPE OF ACCIDENT, 1929
(From reports to National Safety Council by certain police departments and motor vehicle bureaus)

<i>Type of Accident</i>	<i>All Ages</i>	<i>0-4</i>	<i>5-14</i>	<i>15-54</i>	<i>55 and over</i>
Motor vehicle with pedestrian.....	102,726	7,441	33,410	47,980	13,895
Motor vehicle with motor vehicle.....	106,350	3,224	8,200	87,577	7,349
Motor vehicle with railroad train.....	1,465	24	161	1,188	92
Motor vehicle with electric car.....	6,073	108	387	5,199	379
Motor vehicle with bicycle.....	4,710	37	2,364	2,212	97
Motor vehicle with horse-drawn vehicle.....	2,117	17	129	1,658	313
Motor vehicle with animal.....	80	0	11	65	4
Motor vehicle with fixed object.....	11,028	174	605	9,607	642
Noncollision operating accident.....	8,743	221	638	7,259	625
Nonoperating accident.....	210	3	11	188	8*
Total.....	243,502	11,249	45,916	162,933	23,404

It is a surprising fact that reported fatal home accidents for the past two years have just about matched the total of industrial fatalities. For the year 1929, the National Safety Council estimates not less than 23,000 home accidents which resulted in death.⁴ The importance of home accidents varies considerably from place to place and at different seasons of the year. Thus in Providence, Rhode Island, home accidents have caused almost one half of all accidental deaths over a considerable period of time, and in Birmingham, Alabama, home accidents accounted for 368 deaths as against 286 from motor vehicle accidents over a six-year period. The greatest frequency of home accidents occurs during the winter months because the exposure is greater—people stay at home more and remain indoors, thus increasing the danger from burns and asphyxiation.

There are four principal types of home accidents—falls; burns, scalds, and explosions; asphyxiation and suffocation; and poisons. Of these, falls account for about 40 per cent of all accidental deaths, and do not show any marked seasonal trend. Next in importance come burns, scalds, and explosions, which show a decided seasonal trend, the greatest frequency being in the cold winter months. More than

*Accident Facts, 1930, The National Safety Council, p. 34.

⁴Subsequent data have caused the National Safety Council to increase the above estimate to about 30,000, which figure has likewise been accepted for 1930, thus representing a slight decline relative to the population for 1930 compared with 1929. *Ibid.*, 1931, p. 47.

25 per cent of all accidental deaths of children under five years of age are caused by burns. Asphyxiation and suffocation rank as the third most important cause of accidental home deaths, also showing a strong seasonal incidence in favor of winter months. Poisons constitute the fourth leading cause of home deaths. Medicines, insecticides, cleaning fluids, and other poisonous materials left within reach of children play a leading rôle in child deaths by poison. About 40 per cent of all deaths by poisoning are of children under 15 years of age. It is estimated that there are about 150 to 200 nonfatal accidents in the home to every fatality. On this basis, home disability accidents probably range from 3,500,000 to 4,000,000 per year.⁵

In the category of public accidents we may include all accidents not resulting from motor vehicle mishaps, industrial occupation, or occurring at home. Approximately 20,000 persons are killed annually in accidents that occur in public places and do not involve a motor vehicle, while injuries number about 2,500,000. The most important types of public accidents are drowning, railroad, and street-car or interurban accidents, which together embrace about 54 per cent of the fatalities in this group. Drownings, as might be expected, show their greatest frequency in the summer. Over one third of the deaths by drowning occurred in the age group from 10 to 24 and 56.3 per cent were of persons under 25 years of age. Firearm accidents also show a preponderance in the early age groups and are most frequent in the winter months. During the last decade fatalities in railroad accidents have ranged between 6,000 and 7,000 annually. Grade-crossing fatalities lead all others, followed by those of trespassers, employees, and passengers. Aviation accidents have naturally shown an increase during the last ten years as a result of the great interest in flying, but the number of miles flown per accident shows a considerable increase.⁶

⁵Accident Facts, 1930, pp. 52-55.

Public Safety, IV, 1 (January, 1930), pp. 10-11.

⁶Accident Facts, 1930, pp. 42-51; *Ibid.*, 1931, pp. 39-46.

As generally happens when society first becomes conscious of a serious problem, legislation is resorted to as a cure-all. Such is the case with reference to many of the causes of modern accidents. True enough, legislation is a necessary and a valuable ally in prevention work, but there are serious limitations arising from the fact that we cannot legislate knowledge into the human mind and eliminate ignorance by simple fiat. That must be the work of education in accident prevention, the importance of which we shall note subsequently.

Traffic accidents have long held a prominent place, even in the days of the horse-drawn vehicle. It is, therefore, surprising to note such an important police function as traffic regulation should so recently have been developed in American municipalities. It was not until 1903, when the automobile had become fairly common, that New York City drafted its first police regulations for the control of street traffic, and this was possible only after years of educational campaigning for systematic traffic control. So successful were these early "rules for driving" that they were widely copied with modifications here and there by municipalities all over the United States and in Europe. The modifications, however, soon resulted in a most heterogeneous mass of traffic regulations, peculiarly local in scope and application, and so diverse at times that diametrically opposite traffic regulations existed in neighboring communities. Thus legislation, which aimed largely at the mitigation of traffic accidents, frequently became a causative rather than a preventive factor, for the motorist, accustomed to the regulations of one community, could not help but transgress the law in others, and in so doing frequently became the unwitting cause of serious accidents. As we all know, this bewildering state of affairs with reference to traffic regulations is still common. Fortunately, however, there is a growing tendency in recent years to establish uniform traffic ordinances. This has been occasioned by greater coöperation

between communities, the educational work of various governmental and private agencies in proposing uniform traffic acts, and, finally, by the passage in a number of States of uniform traffic laws, the application of which embraces the entire State.

It would be well at this point to consider certain additional factors necessary for the prevention of motor vehicle accidents. Traffic rules and regulations do not control the conduct of the driver, nor determine his fitness to drive. For that reason it is essential that every qualified driver be licensed by the State. To show his fitness the prospective operator is required to furnish proof of his physical qualifications, his mental capacity, knowledge of the automobile, and to demonstrate his ability to operate it. Many States give the owner of a car, *ipso facto*, the right to operate it, but the growing tendency is to require proof of fitness to drive in every case. Examinations of this sort do not, however, reveal the licensee's character, his tendency towards recklessness, his failing for intoxicants, and disregard for the rights of others. Such predispositions can only be curbed by the State reserving the right—and exercising the right—to revoke permanently or temporarily the licenses of those who demonstrate that they are unsafe drivers. Compulsory periodic inspections of all licensed automobiles offer much in the way of reducing accidents caused by defective brakes, steering apparatus, headlights, and other equipment. It is the consensus of opinion that no licenses should be granted for old cars which no longer can be kept in a mechanically safe condition.⁷ To weed out the reckless and the financially irresponsible driver a movement has been set on foot in many jurisdictions to compel every owner or operator of a motor vehicle to post a bond or carry automobile casualty insurance to assure the public of his financial responsibility. Sometimes such insurance is only required after the motorist has been involved in an accident. Intelligent highway engineering is another

⁷Cf. *Ways and Means to Traffic Safety, Recommendations of the National Conference on Street and Highway Safety, May, 1930.*

important and necessary factor in accident prevention. Similarly, protected railway grade crossings, or better still the elimination of grade crossings, will reduce a large percentage of accidents and fatalities.

Legislation as a means of curbing home accidents offers at best but little promise. The activities of people in their own homes are less controlled than under almost any other circumstances, consequently legal checks will scarcely prove of much value. Nevertheless, there are many laws which indirectly help to reduce home accidents. Such, for instance, are regulations embraced in housing laws, which provide for fire escapes, fireproof construction, safeguarding open stairways, and other hazards particularly common to the tenement house type. Indirectly any legislation prohibiting the ownership or use of firearms affords potential home protection, for it is in the home that accidental shootings are most apt to occur, especially when the weapon falls into the ever curious hands of children. Similarly, the modern trend towards a safe and sane Fourth of July, as exemplified in the increasing number of municipal ordinances prohibiting the sale of fireworks, is bearing fruit in a very considerable reduction of accidents from this cause. From the above examples it is clear that the sphere of legislation is necessarily confined to providing safe conditions, as far as is practicable. Accidental falls, burns, scalds, and other home accidents too numerous to mention cannot be reduced by legislative fiat.

Public accidents, like home accidents, can be controlled by law only to the extent that it is possible to provide safety devices, safety rules, and safe conditions in public places, on street cars, railroad trains, elevators, and the like. Legal restrictions regarding bathing at public beaches, the setting off of safety zones, and the provision of life guards have reduced the number of drownings—but only at public resorts where local ordinances are applicable.

Bearing in mind, then, the inadequacies of law as a means of preventing accidents, let us inquire into the part

which education plays, or may be expected to play, in the near future. The adult population cannot readily be reached by such direct agencies as the public schools. The school child is the involuntary recipient of safety education where it appears as part of the curriculum, but the adult may or may not interest himself in such matters where legal compulsion is lacking. Thus it is necessary that the public interest be aroused in devious ways as to methods of accident prevention. Many examples might be cited. For example, with reference to traffic accidents, numerous communities are finding it profitable to place posters with terse comments, or practical advice, along the highways or city streets. A custom, which has found favor in some communities, is to erect wooden crosses, one for each fatality, at the roadside wherever a fatal accident has occurred, or, in the cities, to mark the spot by painting white crosses on the roadway. It is possible that these mute warnings have more effect on the would-be reckless driver than all other forms of caution. Various public transportation companies have long waged campaigns against careless pedestrians or automobile drivers through the liberal use of posters and signs in their passenger cars, trolleys, and busses. Newspapers and such special agencies as the National Safety Council, the American Motorists' Association, life and casualty insurance companies, through giving much space and attention to safety information and accident prevention in general, must not be overlooked as primary educational agents in this work. In many places, public authorities, such as municipal departments of public welfare, are doing much to spread information relative to the causes and the prevention of accidents of various kinds. The radio and moving pictures are likewise utilized to good advantage. Radio talks as generally presented, however, are apt to prove boresome to the listening public, but short dramatic sketches do hold the attention. Since every accident is a matter of human interest, it would seem that one of the most forceful means of presenting safety education

to the public would be to dramatize accidents of various types over the radio or in the movies.

In many schools formal instruction in safety work and accident prevention is now offered to the pupils. A number of excellent handbooks are available for the use of school children. As might be expected, considerable stress is placed on traffic hazards from the pedestrian's standpoint, thus helping to make the child conscious of the dangers which beset him while on the public highways. A valuable suggestion is to reinforce such instruction with one or two addresses in the school by a member of the local police force selected for his knowledge of traffic conditions and safety measures, and his ability to explain such matters to children. It would seem that the proper time to give such instruction is at the earliest possible age, for the sooner a child is acquainted with traffic hazards, the more effective such instruction will be. General rules and advice about crossing streets, playing in the public highways, "hitching rides," and other dangerous practices can be explained quite easily in an elementary fashion to the child when he first enters school, and can be repeated at frequent intervals. Traffic regulations and safety measures may well be treated in greater detail in the following school years.

Inasmuch as every normal child must be regarded as a potential driver of motor vehicles within a few years after leaving school, it seems reasonable to assert that safety education should not stop with the rights and duties of the pedestrian, but by the seventh or eighth school year the child should be acquainted with the "rules of the road," and the rights, duties, and responsibilities of the automobilist. Without doubt, such preliminary instruction afforded to the future automobile driver would bear fruit in better understanding, a deeper consideration of the rights of others, more caution, and greater care in the handling of motor vehicles by boys and girls when they arrive at the minimum age at which they are permitted to drive a car.

Safety education in the public schools is not, however,

to be confined to traffic hazards alone, but if carefully planned would embrace cautions about the use of matches, the danger of gas leaks, the avoidance of poisonous substances and of firearms, which are occasionally left within reach of children. First-aid instruction is of primary importance, especially for the children in the higher age groups. In this connection, perhaps, it would not be amiss to give demonstrations in the prone system of resuscitation. This could well be done as part of the work in physical education, for the knowledge so acquired would be visual and not merely a matter of memory retention. In technical or vocational schools the elements of industrial safety and accident prevention merit a definite place.

It may be objected here and there that safety education in the public schools is but another of the so-called fads or frills which occasion so much popular antipathy. A moment's reflection, however, is sufficient to convince one that this is not so. Urbanization is increasing at a more rapid pace than ever before. It is an incontrovertible fact that accident hazards in the modern city are mounting with rapid strides, partially as a result of increasing density of population and partially as a result of the mechanization of life and industry. The latter fact holds true for the rural population as well. Safety education, then, must be regarded from the very necessity of the case as an essential of the present-day curriculum. It is intensely practical; it is education in self-maintenance—a product of the exigencies of modern life.

THE PROBLEM OF HEALTH IN TEACHER- TRAINING INSTITUTIONS

GRACE M. KAHRs

The foundation of good health in the teacher must be laid in her own school days. To produce a race of teachers better fortified to endure strain in their work would indeed be a Herculean task; an impossible task if attempted after the profession has once claimed the time and energy and attention of the teacher; but, certainly, a quite feasible task if undertaken during the student days of the training-school girl. If the child is father to the man, so is the student mother to the teacher she is to become.

The teacher-training institutions must accept the task that falls to them, the task of inducing health in the future race of pedagogues.

Certain aspects of the significance of the teacher's position lead to the consideration of a method of approach to the subject. It is well to consider, first, just what is the fundamental function of the teacher. She is not just a person who is to give instruction in the three R's—and sometimes a little besides—she is indeed the person who has a large part to play in making the child what is desired—a complete and well-balanced individual.

Educators today make this the aim of the modern school. They realize that a teacher is a kind of extension of mother and father and that a five-hour-a-day influence has a large part in shaping the future of the child. If he is to be made healthy, his teacher must be able to assist in the task intelligently. And where better can this task be performed? Is not the teacher's opportunity unique? She has the child under her guidance five hours daily for about ten years!

After all, a person may learn to read and write at the age of seventy but no one can grow a new tooth at that age nor build a sound strong body at thirty or forty.

This must be done throughout those precious formative years of childhood, those vital ten years which can never again be repeated—the results of which can never be undone.

Even while she is giving a lesson in history or arithmetic, the teacher will carry an example of health if she is alert, erect, clear skinned, and of good color. Did not the Greeks use statues as ideals of physical perfection? The teacher models must be living models, set up before the children.

It is this aspect of the teacher that is to be considered here, and the matter of the training of teachers in the subject of health, while they are yet students in college, and also the work of those same young women after they have left the normal schools and taken their places in rooms full of impressionable children.

It is well known, of course, that within recent years phenomenal improvement has been won in the health of babies and younger children. It is easily realized that the health battle was won for the little people only when the parents had been made *conscious* of the royal possibility of glowing health for babies.

But babies grow up, and the health knowledge of their parents peters out. There is little sound knowledge abroad about health after the age of six or eight. The youths in their teens and early twenties just grow.

And at the age of seventeen or eighteen the girls enter normal school to learn to be teachers. In their courses they study their own minds, but many of them have an inadequate knowledge of their own bodies. And they drag along with their studies, handicapped by various physical defects. Now it should be the business of the training school to see that these young teachers are healthy and happy. With the present system it is possible to find frail delicate girls struggling with turbulent classes. There may be a teacher tortured with indigestion and a consequently cranky disposition. She may be an unfortunate

overweight, an offense to the sight of beauty-loving children. She may be an undernourished nervous wreck.

The results? Any school official can supply them. The teacher who is not in good physical condition is a poor disciplinarian. It is a truism to say that a healthy person emanates a glow of force. And conversely, no teacher below par controls children by any means but nagging and threatening processes which torment the nerves of youngsters.

The healthy, calm, well-poised teacher gets order and attention and results without efforts. The sick teacher works in a vicious circle. The disorder annoys her, and her nervous reaction aggravates the state of affairs. It is not pleasant to think of the forty tots compelled to stay for five hours in a closed room listening to the strident tones of a sick, overtired teacher.

If any occupation requires robust health, it is certainly that of teaching, that unique occupation which is a composite of most others. The teacher is closed in, and so requires the mental serenity of the contemplative. She is using her brain without interruption, and so requires the mental alertness of the student. She is guiding a mass of active young people, and so requires the force of the group leader.

Besides demanding of teachers academic subject matter, we ask also for poise, control of emotional problems, that strange power to command a situation. We expect these things in teachers. But when we fail to demand good health, we fail to demand these very qualities that inhere in good health. Most people would agree that crankiness is due far more to some phase of ill health than to anybody's natural disposition. Healthy people are usually cheerful.

What can be done? Discard all teachers that fail to measure up to the ideal of grace and charm pictured? Obviously not.

The normal schools can seize upon their opportunity and

produce teachers so healthy and so health minded that in the future the ailing teacher will no longer be found in our midst.

It is a practical possibility to utilize those significant three years which the girl spends in a teacher-training school and to turn her out a normal woman in good health, *aware* of her own good health, and of its value and necessity.

We want to bring it about that these girls will inevitably become health educators themselves, first by standing out as glowing examples of health and, secondly, as intelligent observers and guides to their pupils in all matters pertaining to health.

It is not enough for teachers to know the laws of hygiene, as they are learned from books and lectures. The teacher must, so to speak, learn health by living it. It is an old principle of psychology that the best way to learn to do a thing is to do it. A boy might read a whole book on how to play baseball, but not learn so much as he would in a half hour of pitching. So, with health. The young woman who *consciously* lives a healthy life is the one who knows health.

The word "consciously" furnishes the key to the problem. The girls must realize that they are becoming healthy (and incidentally, sometimes beautiful) because they are intelligently ridding themselves of defects, and living up to the rules of nutrition, of body function, and correct health habits. They must look upon health as a "way of living," not as an academic subject, a circumscribed matter of knowledge in a single period of a school day.

This question of the mental attitude of the teacher is the most important of all. If she has no enthusiastic conviction of the desirability of radiant health, her own manner of living will quickly indicate the fact. For instance, consider the girl who insists on dieting when she is underweight. An undernourished teacher has no pep. She must be taught to see the need of a reasonable amount of *avoirdupois* to supply the physical demands of her job.

Once the teacher has attained to this intelligent comprehension of her own physical self, it is natural for her to carry over that knowledge minute by minute to her class.

The teacher who is calm and self-controlled, because she is healthy and knows it, will easily notice the abnormal nervousness of some pupils and will have knowledge of the proper sources of assistance to which she may turn.

If, besides, she has a lively interest in such things as the signs of communicable diseases and their control, she will be the means of heading off many an epidemic of colds, measles, and such.

Her opportunity to institute a desirable program of daily activities for health and growth is a God-sent one, provided she understands what constitutes a healthful environment for a growing child.

To bring about this state of rosy health-mindedness in teachers should be the aim of the health work in normal schools. The need for such an aim is indicated by the story of a college woman, a woman whose point of view is a kind of composite, as she is a college graduate, the mother of four children, aged now ten to seventeen, the oldest in college, and she is a teacher in a public high school, and engages in various outside undertakings. Her contact with high-school girls and boys is very large and very close, and, in an unofficial way, she is like a mother to hundreds. "Do you know," she remarked recently, "that all the health knowledge I possess has come to me slowly through the years, in haphazard fashion?" She says that it has taken her twenty years of piecing together bits of information gleaned from various doctors to give her a comprehension of the needs of children. After college she taught for two years—biology as it happened. She said, "At twenty I was teaching biology (which included hygiene) when I endured frantic headaches every week or so myself." Then she married, sublimely ignorant of health education. Operations, babies, sicknesses, and a gradual knowledge, as kind doctors taught her everything from how to care

for scarlet fever to such things as throat swabbing and corrective exercises for poor postures, have, as she says, given her a random health education.

Today she knows enough. But had she, as a college girl, consciously learned healthful living herself, and the rudiments of the healthy life for children, all her burdens those twenty years would have been reduced enormously. Certainly, things have improved in recent years, but girls have still much to learn! And they are learning.

In a normal school, it is possible to bring it about that when a girl becomes a teacher, she assumes her task unhandicapped by any health condition of her own, and is equipped with a definite working knowledge of how to help in the health education of children. No one of these girls need acquire health experience in the haphazard fashion of the teacher-mother-patient.

On the contrary, we are aiming to build up an intensive health program. This program is based primarily upon careful individual health examinations; examinations which are not in any sense perfunctory. Adequate time must be allowed for a complete analysis of each student and her health problems.

The findings gleaned from the examinations of the incoming freshmen are so varied and so detailed, that they furnish adequate material for a course in health education and for an indefinite amount of follow-up work during the three years to come.

The fact that the examination is given in the first weeks of the freshman's college life, when she is most open to impression, gives first-rate opportunity to make every girl at once health conscious.

Only seven of a class of one hundred fifty-eight were found free from demonstrable defects. These defects cover wide range, but, for instance, to mention those roots of so much evil, the teeth. Of the one hundred fifty-eight, forty-three were greatly in need of prophylaxis, forty-two had caries of a marked degree, and sixty-two had many

missing teeth, with no notion at all of the necessity for prompt replacement.

This markedly poor dental condition is the more surprising when we recall the careful and painstaking dental programs in force in many public-school systems.

Procrastination we know causes much serious illness, because people *will* postpone that visit to the doctor, and we can only conclude that mother allows daughter to put off the visit to the dentist, week after week.

And consider such a matter as nutrition. We found by count that sixty-eight of these girls were decidedly below par, and seventeen were distinctly obese. For instance, one girl's condition called for approximately an additional twenty-five or thirty pounds, while another gave evidence of being actually more than one hundred pounds in excess of what she should weigh.

It is not easy to persuade "slim" girls that it is desirable for them to be moderately overweight up to the age of thirty. But we find that they heed our warnings against the "no breakfast" habit quite satisfactorily. They begin to understand that a well-nourished person has greater resistance to disease and especially to frequent colds—this country's most prevalent affliction—that a few needed pounds means better tone to the system and therefore higher resistance.

Victory in this matter is important also, from the psychological point of view, because it shows that the students are becoming health conscious. That is the state of mind so valuable in a teacher. Health as a constructive force in life is the desideratum; we want to lead the students to appreciate and to live the healthful life.

There are difficulties, of course, in the home environment which make almost insurmountable obstacles to health for these college girls. Some can be overcome, others cannot. Long-distance travel under trying conditions. For instance, one girl spends four hours a day in buses. She has no time for exercise and insufficient time for sleep.

Some girls are wage earners. One worked in a chain store after school, having long hours and in very trying conditions. In that case, fortunately, it was possible to get her a position in the school library, where she was able to make her needed amount of money in shorter time.

Teachers, friends, and physicians could all lead a helping hand in such cases to aid the girl to help herself to health.

In short, we endeavor to make our health service a vital course in conscious healthful living.

Upon her arrival in normal school, the future teacher will be at once induced to look upon health and the habit of sane healthful living as an essential part of the equipment she is to acquire for her profession. She will rank health as prerequisite to academic achievement.

HONESTY TRENDS IN CHILDREN

HAROLD SAXE TUTTLE

Two problems face the student of character education: First, are there normal trends in character? Is social heredity effective enough to produce reasonable unity among growing children? How greatly do children conform to their social environment? How early does conformity begin in a degree which may be called moral? If there is a high conformity at any stage does it tend to increase or decrease as time passes? In other words, to what degree does social adjustment occur among normal children in a typical environment without any special effort at character training?

Any study of the effect of specific methods which look towards the education of character in any way needs to be checked against a large section of the group represented. Small control groups lack reliability because so many different selective elements are likely to be operative in any particular control group. In a study of some specific methods there is a large degree of probability that a half-dozen effective influences will be at work. Some of these influences may be responsible for the greatest differences which occur in the character growth of children. In dealing with a single control group there is no means of knowing whether the group is representative or highly selective.

The second problem relates to the technique of discovering conditioning factors. Can social agencies which modify conduct be measured without isolating each one under controlled conditions? In a normal environment in which many social forces are operating can those which are most influential in changing conduct be detected? Is it possible to devise techniques analogous to those in quali-

tative analysis in chemistry, by means of which the element sought can be measured within the compound?

This question is of critical importance in the future development of social research. There is a high probability—certainly there is an unquestioned possibility—that the isolation of social forces from a normal complex environment may altogether change their effect upon the subjects studied. The analogy of chemistry is again germane. Oxygen and carbon may be mixed at one temperature with only imperceptible chemical combination. Identically the same elements may combine with explosive force when the temperature is changed. On this point, indeed, it is not necessary to rely upon analogies; illustrations are abundant. A boy has misbehaved in a schoolroom; the teacher calls him to the desk; with stern face and voice she reprimands him. What will be the effect? It all depends upon whether the incident occurred in the presence of the class or in their absence. It is not possible to determine the influence of social forces, when isolated from other social forces, which are present in a normal situation. The accepted scientific procedure in the physical sciences is to isolate each element under investigation. So long as this technique is considered necessary in the social field we shall be measuring, so to speak, the chemical properties of carbon and oxygen at seventy degrees centigrade and, assuming that we have a unit description of the relation of these elements, missing entirely the difference in their behavior at four hundred degrees centigrade. If, however, it is possible to measure different forces in their normal complex operation there is high promise that social science may rapidly be able to develop effective techniques of social control.

With a view to securing data which will tend to provide the answers to these two questions the author has recently carried on a study of honesty trends among pupils of grades four to seven, in thirteen different schools. There were 2,037 cases tested. Of these, 1,320 cases were followed

through a two-year period. The major feature of the study was a performance test in changing answers in a well-motivated school contest. A carbon device completely concealed from the subjects was utilized. This test was given at the opening of school, at the close of the first school year, and at the close of the second. Distinctly different forms were used in order that previous contests might be suggested as little as possible.

The tests thus given provided two distinct means of indicating tendencies. In each of the tests a comparison of the school grades served to indicate general grade tendencies towards deceit at that time. With three such cross sections it was possible to corroborate one conclusion by means of the other two. In addition to these cross sections the case histories of nearly seventy per cent of the cases through the two-year period made it possible to determine whether individuals showed the same tendencies towards deceit over a period of time as the cross sections of the grades indicated.

In addition to the general trends, data were gathered as to intelligence quotients, ethical judgments, attendance at religious classes, and biblical knowledge. The conclusions to be drawn from such a study have bearing upon many other problems besides those just suggested. In so far as the data here gathered are concerned three different tendencies began to be evident.

1. In the first place, intelligence correlates highly with honesty tendencies. Intelligence quotients were secured for 1,055 cases. For one comparison the cases were divided into three groups: those below an I. Q. of 90, those between 90 and 110, and those above 110. Of the superior group only 11 per cent were consistently deceitful, while 50 per cent were consistently honest. Of the subnormal group 22 per cent were consistently deceitful; 33 per cent consistently honest. It is significant that the percentage of the consistently deceitful cases below an I. Q. of 90 is

twice as great as that above 110. The contrast of percentages of the consistently honest is equally striking.

All cases for whom I. Q.'s were secured were classified into four groups: group A, representing the cases who resorted to deceit at both the beginning and the end of the two-year period; group B, consisting of those who deceived in the final test though not in the first; group C, those who did not deceive in the final test but had done so in the first; group D, those who did not deceive in any test.

Of the 148 cases in group A, 52 had I. Q.'s below 90; 20 above 110. Reduced to percentages the former group represented 35 per cent of the total, and the latter group 13 per cent. In other words, of the consistently deceitful cases more than one third were below the 90 I. Q. limit, while scarcely one third of that proportion were above the 110 division. Of the 58 cases that developed deceit after the first test, 19 or 33 per cent fell below the 90 I. Q. limit, while only 8 or 14 per cent were above the 110 mark. The similarity of the two groups is apparent and striking. However, in group C, of the 346 cases indicating reform, 92 or 26 per cent of the total had I. Q.'s below 90, and 61, representing 18 per cent, above 110. Of the 337 in group D, the consistently honest, 71, or 21 per cent, were below 90, while 89, 26 per cent, were above 110.

Table I following indicates more graphically the relation between the intelligence quotient and tendencies towards deceit. The percentage columns show constant and marked decrease from group A to D in percentages below a 90 I. Q., and a constant and significant increase above 110.

Total cases	Group	Cases below 90 I. Q.	Cases between 90 and 110	Cases above 110	Per cent below 90	Per cent above 110
148	A	52	76	20	35	13
58	B	19	30	8	33	14
346	C	92	193	61	26	18
337	D	71	177	89	21	26
		234		178		

2. Tendencies from grade to grade were not so significant, although on the whole increased grade showed im-

provement in honesty. The case histories were somewhat more consistent than the cross sections and are probably more dependable indications of typical trends. Of the 793 who resorted to deceit in the first test 625 did not do so in the final test. On the basis of 1,383 cases for whom complete data were secured at the beginning this represents 45 per cent. Only 168 cases consistently resorted to deceit, which represents 12 per cent of the total. Of the 590 cases who did not deceive in the first test only 63, or less than 5 per cent of the total, did so in the final test. The tendencies towards reform clearly outnumber the tendency to become more deceitful. Allowing for a considerable number of cases of suspicion regarding the purpose of the tests, of which no evidence seems available, it is difficult to account for evidences of ten times as large a per cent of reform as of retrogression without some basis of fact.

3. Any study which seeks to discover conditions has just as great significance in the negative results secured as in the positive. Failure to find correlation between any given social factor and tendencies towards deceit may be of as great or even greater significance than the discovery of correlations. It is therefore important to report the relation between geographical areas and honesty tendencies.

The following table (Table II) will give a graphic picture of the findings in this regard. The thirteen schools are listed without identification. The total number in each school concerning whom data were gathered is indicated in column 2. This number served as the basis upon which to compute percentages in all cases. The four classes of cases already described are indicated in the table in reverse order. The consistently honest corresponds to group D. It will be noted from the table that there is very little correlation between rankings of the four classes—indeed there is no high correlation between any two.

Two conclusions are evident so far as the data are concerned. Tendencies towards improvement in each higher grade over the previous grade are not uniform in all schools,

although the dominant tendencies are in that direction. Wide ranges of differences, however, occur when comparing the two extreme schools. Clearly, any study of methods intended to modify conduct should take into consideration geographical areas before measurements are begun. So far as social types in different geographical areas are concerned it will be painful to some to know that the so-called better classes of society do not show any consistent advantage. Control groups in future studies should particularly take into account the question of social environment, carefully avoiding a mixture of groups from different environments.

The second conclusion from the data presented is that the forces tending to produce honesty are very strong outside the school. School D ranked highest in per cent of cases of consistent honesty but ranked tenth in improvement, while at the same time it showed little tendency towards increased deceitfulness. Were the tendencies to be found chiefly within the school itself the correlations should be much higher. School A ranked twelfth in consistent honesty, ranked next to the top in improvement, but ranked low in deceitfulness on both counts.

TABLE II

School	Total in school taking tests	Consistently honest			Improved			More deceitful			Consistently deceitful*		
		No.	% of total	Rank	No.	% of total	Rank	No.	% of total	Rank	No.	% of total	Rank
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
A	91	20	21	XII	50	54	II	6	7—	VIII	15	16	X
B	131	37	28	XI	58	44	VI	9	7	IX	27	21	XI
C	91	33	36	VII	46	51	IV	4	6	VII	8	9	II
D	97	46	48	I	40	41	X	2	2	I	9	9	III
E	180	71	39+	V	76	42	IX	4	2	III	29	16	IX
F	68	23	33	IX	30	44	VII	7	10	XI	8	12	V
G	137	54	39	VI	55	40	XI	12	9	X	16	12	IV
H	92	42	45+	II	39	42	VIII	2	2	II	11	12	VI
I	169	70	41	IV	87	51	III	4	3	IV	8	5	I
J	63	22	34	VIII	29	46	V	3	5	V	9	14	VIII
K	65	21	32	X	44	68	I	3	5	V	9	14	VIII
L	197	88	45—	III	71	36	XII	10	5+	VI	28	14	VII

*Rank I in columns 11 and 14 means "best" record, *i.e.*, lowest degree of deceit. This corresponds to the first and second sets of ranks, which represent degrees of honesty. The four columns are thus positively comparable.

On the whole, it may be said that question two appears

to be answered in the affirmative to a sufficient degree to justify further extensive studies in this direction. Question one seems to be answered positively with reference to I. Q.'s, and slightly with reference to increased age. Little evidence was found to indicate other constant trends which might be considered dependable as a basis for corroborating future control groups.

HEALTH AND SAFETY PROJECT

NELLIE NASH MCNEILL

My plan at the opening of school was to make health and safety an objective in my school work; but how much I could accomplish with first-grade children was another problem.

Our Board of Education employs a physician, a dentist, and a staff of nurses. When school opened in September, the children were examined for physical defects, weighed, and measured. Notices were then sent to parents whose children needed medical attention. About eight of my class of thirty-six were found to be more than five pounds underweight.

Opening exercises for several weeks consisted of talks on food, sleep, exercise, and cleanliness. This put the children in the proper frame of mind to start scoring a few points which we wanted to work on particularly. We decided on three items for our score cards; going to bed early, eating hot cereal each morning, and keeping hands and nails clean. I made individual score cards, and each child pasted a picture of a bowl of hot cereal or a healthy child on his card. The cards were hung on a large bulletin board and were checked each morning for "early to bed" and "hot cereal breakfast." If a child had checks for the week on both items, a gold star was given both on the individual score and the group score.

The clean-hand chart was kept for each row of children. Each child made a copy of his own hand, and the best one in each row was mounted on black paper and numbered. These were also tacked on the bulletin board. If the morning inspector found all the hands and nails clean, the white hand was exposed that day; but if any hands were dirty, the black side of the card was turned out. The children made an effort to keep the white hand out, as a gold star was placed on a finger if the clean hand was out all week.

It was decided that we could have more perfect scores if the mothers knew of our project, so each child wrote a letter to his mother asking her to help with their health club. Many mothers answered the letters and their co-operation was an incentive to the children.

Our reading table was another great help. Books on health and safety were provided, which the children read during spare time and which I also read to them.

They made "safety lessons" booklets from material obtained from the National Safety Council. They discussed the dangers that were illustrated, colored the pictures, and made booklets of the ten illustrations. The pages were numbered with numbers cut from calendars, and the words "safety lessons" mounted on the covers. These were used on the reading table also, and are still doing service for my new class.

The children were encouraged to relate their experiences and to tell things they had done to make their homes safe, such as picking up toys, watching younger children, and sanding slippery sidewalks.

Such keen interest was shown by the class that improvement was evident, so when they were weighed at the close of the semester I was very much pleased with the results. Gains ranged from one to six pounds over a period of three months.

The parents, too, seemed pleased with the good that was being done. Some taught their children how to tell time so that they would know when it was eight-thirty, their bedtime. They told me the children would not stay up five minutes overtime. One mother told me that she had tried for some time to get her children to eat hot cereal, but with no success, and that she could never thank me enough for getting her child to eat it every day. She not only ate it herself, but she induced the older children to eat it.

As the semester was nearing the close, we discussed what we could do about continuing the health club, and we

finally decided to write a letter to the second-grade teacher, asking her to continue the club.

I feel that these children have gained materially by the health work we did and I hope that they will continue to hold the attitude which they have formed. I have never seen keener interest displayed, and I could see the improvement it made both physically and mentally. The children were wide-awake, happy, and healthy, and were eager to do all the work given them.

SOME OF THE HIGH LIGHTS OF HEALTH
EDUCATION IN THE PUBLIC SCHOOLS
OF SYRACUSE, N. Y.

IVA PASCO BENNETT

The principal and school nurse of Montgomery school were much concerned at the amount of candy which was being consumed daily by the pupils. Their attention was called to this fact more forcefully because of the many and constant complaints of headache, stomach ache, and many colds. They investigated the matter a bit and found that the children were buying a very inferior grade and the cheapest kinds of candy. The population (415) of this school is about fifty per cent foreign and the rest are mostly poor whites. Many of these children are very poorly nourished.

Finally it was decided to try selling apples at school. A bushel was purchased at first. The apples were sold for one or two cents depending upon the size. These were gone almost immediately. Then the order was enlarged to a barrel. It became "the style to eat apples" and these disappeared very quickly. More and more apples were bought and nearly forty bushels were consumed in about four months.

On some days a bushel a day was sold. The remarkable result of this experiment is that now there is almost never a complaint of a headache or stomachache; the percentage of colds has greatly diminished, and the cheap candy fad is nearly abolished in that district.

English and language work affords excellent opportunity for introducing health. The following is an English composition on "cereals" from a four-two grade:

HEALTH

To be healthy we must eat cereals. There are different kinds of cereals. Some have coats, some are without the coats. If we want to be healthy we must eat cereals with the coats on. The cereals with the coats on are called the whole

cereals. These cereals contain iron and lime which help to build strong teeth and bones.

We must be careful in choosing the right kind of cereals. Some of the whole cereals are puffed wheat, cornmeal, wheateana, shredded wheat, and oatmeal.

An experiment with an eight-one health club was tried in our Lincoln Junior High School last term. A home-economics teacher who had free time was in charge of this club. The children elected their own officers and conducted the club themselves. Topics which they would like to study were discussed and planned for the term.

First they studied the sanitary and safety conditions of the school building and grounds. This included the ventilation system, the cafeteria, the water supply, fire protection, playgrounds, etc. Committees were appointed to inspect and report to the class both the good and the bad points found from their survey. As a result of these investigations, the janitor was asked to increase the water pressure at certain fountains, to use a deodorant in the basement near the toilets, and to repair rollers on some of the window shades.

The cafeteria was taken up as a separate problem, covering several lessons. It was then possible to incorporate food selection and costs, courtesy and deportment at mealtime, and health conditions of the workers as well as the sanitation and arrangement of the equipment. Some most interesting facts were revealed in food selection.

One whole month was devoted to an investigation of the city public-health agencies. Trips were made to the city health department, the free dispensary, and one of the well baby clinics. The whole class was invited to go on these trips, but it was not compulsory. From fifteen to twenty attended nearly every time, about half boys and girls, and the reports given to the club were most gratifying. Much interest and enthusiasm was created throughout the school as a result of these exploits. The club is being continued this term with those same children and a new one is started with the eight-one class. We hope to have many more committees working and do some constructive follow-up work from the surveys made last term.

THE VALUE OF REST AND SLEEP

ETHEL A. GROSSCUP

Good sleep and good nature usually go together.

The folk adage "sleep on it" sprang from the observation of the increased wisdom following a good night's sleep.

In the sleepless we find something lacking—a zest, an enjoyment, the living of life at its highest pitch. There is something forced and uncertain in the mirth of the sleepless, something cranky in their good humor. They take offense at unmeant trifles. They faint with an easy day's effort, and with Shakespeare's Caesar we fain would cry—"Let me have men about me . . . such as sleep o' nights."

Without sleep the unwearying heart would never have the partial rest that each night slows its beat by 8 strokes a minute. This is the only near rest—without this the blood pressure, heightened by our modern rush, would never fall, since the relaxation of the walls of the blood vessels would not take place.

But sad to relate, not only do we adults rob ourselves of sleep but we steal it from children. For the sake of popularity and applause mothers are apt to exploit the health of their children. They like to see them star at evening entertainments, in solo dances, and recitals.

We all like to see parents interested and proud of the accomplishments of their children, but not to the point of risking their good health so that the parents may reap the glory and praise of having clever offsprings.

Sometimes, associations organized specifically for the welfare of children are grave offenders. I have often given talks on child health to such organizations at evening meetings, where many in the audience were children who should have been in bed.

Insufficient sleep depletes the reserve energy of the child and undermines his efficiency just as it does in adults.

Sleep is the resting time of the brain. The brain cannot be active all the time any more than any other organ. When it is at rest, the result is unconsciousness. Eight hours of dreamless sleep should ensure sufficient mental and physical rest to the average person. In so far as the sleep is disturbed the mind is not absolutely at rest.

Fatigue is the chief condition tending to bring on sleep. The most commonly accepted theory of fatigue is that it is the condition which results when through continuous activity the waste products accumulate in the blood stream more rapidly than they can be disposed of. There is the type of fatigue that is capable of doing permanent injury. It is the type which accumulates over days or weeks during which the rest at night is not sufficient to bring complete recovery from the fatigue of the day. A more common example of this type of fatigue is seen in the high-strung, overexcitable girl of today, who wakes herself up with an alarm clock every morning after dancing most of the night and never gets quite enough rest to start the day feeling entirely fit. She does not always look "stunted and emaciated," but she usually looks old before her time.

Even though some eminent and highly intellectual men have been able to go through life with very little sleep, it is no precedent for the general run of people.

An interesting experiment was performed on animals showing the effect of lack of sleep. They were deprived of sleep by means of a revolving cage, and at the end of four or five days they died, although they could have lived without food for twenty days. From this experiment, it has been estimated that if man were totally deprived of sleep for a period of ten days he would die, although he might live without food as long as six weeks.

The mystery and witchery of sleep have been sources of speculation and wonder to humanity through the ages. The recuperative functions of sleep, the means by which

the mental and bodily wear and tear of each day's acts are repaired, has an important bearing on health.

We used to think that the healthy sleeper "slept like a log," but we have found the contrary to be true. Recently, a report was made on experiments and studies of posture during sleep conducted by several University of Pittsburgh professors. Nightly observations of sleepers were made over a two-year period with the help of the movie camera. The Pittsburgh investigators proved that the most restful night's sleep is characterized by the use of a considerable variety of bodily positions, all of which are contorted. There are sometimes as many as from 20 to 45 shifts of position during 8 hours of sleep.

Hence we see how essential to restful sleep it is that we sleep alone. Otherwise, these natural shiftings of position may annoy the other person and disturb his sleep. The bed should be comfortable and sufficiently wide to permit freedom of movement.

Be sure that the covers are adjusted to the season, and remember that sleep can be banished by too few clothes as well as too many. In cold weather be sure there is no cold air coming from beneath. This may be checked by putting newspapers or a blanket between the springs and the mattress.

The right of all adults to 8 hours of tranquil repose in full unconsciousness every night should be held as inalienable as their right to exist. Sleep is not the privilege of the few; it is a physiological necessity for all. It is not a luxury, but an imperative function. It is as necessary as breathing, eating, drinking, or excreting.

At present we sleep where we can, usually in the midst of a pandemonium caused by every kind of noise.

With children—noise, excitement, irritating music, strenuous play before retiring are, perhaps, amongst the most important common causes of disturbed sleep. Often a state of emotional fatigue is produced which interferes with falling asleep and may cause fear and night terrors.

Some people accustomed to noises at night fail to sleep

in quiet surroundings. City people sometimes have this experience upon going to the country where the nights seem strangely quiet by contrast. This calls to mind the ancient ditty:

An old lady who lived by the shore
At length got so used to the roar
That she never could sleep
Unless some one would keep
Apounding away at the door.

Sleep is measured by its depth as well as by its duration. It is difficult to determine the quantity and proper degree of depth of sleep needed for the average human being.

I have said that the average adult needs not less than 8 hours sleep each night. With children this varies according to age. A healthy infant sleeps from 20 to 22 hours out of the 24 during the first weeks of its life; at 6 months, from 16 to 18 hours is the usual sleeping time. All children between the ages of 2 and 4 should have a daily nap or rest of 1 to 2 hours. Between the ages of 4 and 6 they should have a daily nap or rest of at least 1 hour.

In the schedule of sleep for children given us by authorities, the rising hour at all ages is put at 7 a. m. Beginning with 4 years, the necessary amount of sleep according to age runs as follows:

AGES	BEDTIME	HOURS SLEEP
4 to 6	6.00 p. m.	13
6 to 8	7.00 p. m.	12
8 to 10	7.30 p. m.	11½
10 to 12	8.00 p. m.	11
12 to 14	8.30 p. m.	10½
14 to 16	9.00 p. m.	10
16 to 18	10.00 p. m.	9

The child's retiring time should never vary. No light should burn in the room during sleeping hours, and the air should be cool and moving with no direct draft.

Undue excitement or hard study right up to the time of going to bed is apt to postpone sleep. The child should go to bed happy and contented.

Let us be particularly careful that the boy and girl of high-school age get their proper amount of sleep. The period of adolescence, of neither being children nor adults, is taxing. Then, too, the body with too little rest and sleep is more susceptible to disease.

Once more must we caution parents that the tuberculosis death rate is still high among boys and girls of high-school age. For the 15 to 19 age group, the tuberculosis death rate for girls is nearly twice that of boys.

We must do all we can to build up strength and energy in young children in order to give them the maximum physical vigor to carry them safely through the period of adolescence to sturdy manhood and womanhood.

May I give a few suggestions to my readers who find it difficult to drop to sleep easily. First—a light lunch, say crackers and warm milk, but this should not be bulky enough to distend the diaphragm upward. A lukewarm bath (water 92 or 95 degrees) is still better. Second—avoid excessive fatigue. If you have overexcited your brain, it may help to take a brisk walk in the fresh air just before retiring. This is especially good, since exercise takes the blood into the skin and muscles and therefore away from the brain. This will be helpful if one has to sleep in the same room in which he has been working during the day. Third—turn off your emotion motors. Break orderly associations by indulging in “word salads” of insane nonsense even if you have to resort to repeating poetry, one word to every breath.

And last but not least remember that the most wide-awake and active people in the daytime are usually the best sleepers.

RESEARCH PROJECTS AND METHODS IN EDUCATIONAL SOCIOLOGY

In order that this section of the JOURNAL may be of the greatest possible service, its readers are urged to send at once to the editor of this department titles—and where possible descriptions—of current research projects now in process in educational sociology and also those projects in kindred fields of interest to educational sociology. Correspondence upon proposed projects and methods will be welcomed.

TIMELINESS AND COSTLINESS OF RESEARCH

The experience of the Research Bureau of the Welfare Council of New York City regarding timeliness of studies has been enlightening.¹ There seems to be a great deal of belief in magic still extant, for it is not unusual, upon an announcement that a study is to be made, for us immediately to receive from various parts of the country requests for copies of the report. When people are told that few studies can be made in less than a year's time and that some projects require as much as three or five years, they question whether research is the medicine they need. And we share their doubts. We have come to test the seriousness of the intentions of groups by their willingness to wait and by the sustained interest which they display while a study is in progress. On the other hand, materials develop timeliness and usefulness most unexpectedly. All of the social indexes, all the material on social-work finance, and many of our other endeavors came into their own last winter. The research staff is, of course, as anxious as any other group to issue material, especially that relating to rapidly changing conditions, as promptly as possible, but they are not magicians. Our hope lies in the belief that on the foundations which we have tried to lay, it will become increasingly easy to mobilize significant materials rapidly and accurately.

¹This statement on the timeliness and costliness of research arising out of the experience of the Research Bureau of the New York Welfare Council is contributed by Neva R. Deardorff, director of the Research Bureau. The original article by Dr. Deardorff, of which this statement was a part, appeared in the May (1931) special number of the *Journal* on research. At the suggestion of the author, the statement was omitted at that time on account of a shortage of space.

Stimulating as is the alliance between a growing, dynamic affair such as the Welfare Council's planning bodies and the research organization, it is true that the time pressure put upon the Bureau by the very circumstances of the case does not make for those conditions of mature and leisurely study and thought, usually deemed essential to the flowering of the finest forms of scientific imagination and to the execution of exquisitely finished work. Against the great need of the clientele of the Research Bureau for the issuance of materials almost the instant that they have been formulated stands the conviction of the research wing of the organization that there should be opportunity for ideas to be "aged in the wood." There has been a great deal of patient compromise on both sides so that, while this is regarded as a real problem, it is not acute.

No one who has become familiar with social research can but be impressed with its costliness. The Research Bureau now has 47 persons on its payroll, and at the moment is spending at the rate of \$12,000 a month. This includes not only the payroll but all charges such as rent, telephone, office supplies, postage, printing, mimeographing, and mechanical tabulating. Some years ago, Professor Harold J. Laski, writing in *Harpers Magazine*, commented on the high cost of social studies in the United States and indicated that if these had been done by academic institutions this cost could have been greatly reduced. It seemed to us that this was a specious argument and somewhat unbecoming a social scientist. It is true that research can seem to be done inexpensively if the cost-accounting system charges a large part of the time consumed by those who are carrying it on to something else, that is, to teaching or administrative work. But that does not establish that it has cost society any less to get the job done. Most of the studies worth doing at all require the expenditure of some one's time and energy in the responsible discharge of a duty publicly assumed or assigned, and no one has yet found a way to suspend the living costs of those who are doing it. Whether their

maintenance comes via a post in a teaching institution, a fellowship or scholarship, a salary from a research organization, or from their own private resources, the bill is being paid for, and human resources are being consumed. It would seem to be important for the community to understand what the cost of research is, whoever pays the bill. This can be known only if all research projects are budgeted and accounted for completely, including all the overhead charges required. In the Welfare Council's research program this principle has been followed and a rigid accounting made in terms of every project upon which the Bureau ever has worked. Unfortunately, there is little or no comparative data from other organizations. Possibly, some time a few research organizations may privately compare notes, look the facts in the face, and work up collective courage to tell the public just what it costs to carry on even a small social inquiry.

Whether the fact finding and studies of the Welfare Council ever contribute anything to social science or the discovery of truth, only time will tell. Meanwhile, it pursues its quest for information immediately useful to those responsible for the direction of New York City's social and health work.

RESEARCH ON REGIONALISM

Research into regionalism, that is, urban areas representing communities of greater extent than the single town or city, has acquired increased significance in recent years. This is due largely to the problems of social organization arising as a result of the linking together of towns and cities by mutual facilities for interaction into metropolitan areas and regions. Educational problems have arisen as a result of an exchange of educational services, both formal and informal, in these areas. Problems of centralization and distribution of these services have arisen as well as those of modifying educational programs to meet the needs of changing constituencies.

A variety of interesting studies of regional problems of

an educational institution of the nonformal type are being carried on by members of the national organization of the Young Women's Christian Association.

The tenth annual institute of the Society for Social Research of the University of Chicago (August 28 to 30, 1931), a brief report of which was presented in the September issue of the *JOURNAL*, dealt with various aspects of research into regionalism especially in the Middle West.¹ The program was devoted to current applications and developments of the concepts of regionalism, metropolitan area, and metropolitan region in social research and social statistics.

The general topic of the afternoon meeting of August 28 was: "The Metropolitan Area as a Population Unit." Professor R. D. McKenzie of the University of Michigan outlined the processes of population segregation and decentralization within the metropolitan area. Mr. C. E. Batschelet, geographer, the Bureau of the Census, described the way in which the metropolitan area is defined as a unit for the collection and tabulation of census statistics, and presented some interesting facts concerning the shifting distribution of population revealed by the last census. In the evening meeting that day, the discussions were concerned with "The Metropolitan Area as an Economic Unit."

The first address in the morning session of August 29, under the general heading "Communication and the Metropolitan Area," was by Professor R. E. Park of the University of Chicago. He showed the graphically presentable geographic distribution of the circulation of metropolitan newspapers to be a valuable index of the extension of the attitudes and mobility characteristic of the metropolitan area. C. H. Sundberg, official of "The One-Hundred Thousand Group of American Cities," followed with an informing presentation of the activities of this organization and the problems revealed by the information so collected concerning cities of this class.

¹The following statement was furnished through the courtesy of H. P. Hayea, secretary.

The afternoon meeting, on "Organization of Life in the Metropolitan Area," opened with Howard W. Green, of the Cleveland Health Council, describing the geographic distribution of cultural, nationality, and economic-level groups in Cleveland, and raising the question of the factors affecting these distributions. Professor E. W. Burgess, of the University of Chicago, then presented some of the findings and conceptualizations of such distributions in Chicago, as elaborated by the department of sociology at that university. Mr. Earl Johnson described some of the present results of his current study of the changing pattern on the Loop district. Mr. W. L. P. Ireland discussed his current research on the changing distribution of certain types of residences in Chicago.

In the evening, a dinner was held, after which there was an informal discussion of the general topic, "Social Research in Regionalism." The attendance averaged about fifty for each meeting. A spot map of the residences of the persons attending would be bounded by a rectangle extending from Seattle to London to Alabama to Texas, and would show a considerable scattering converging to Chicago.

BOOK REVIEWS

Problems in Public School Administration, by OSCAR F. WEBER. New York: The Century Company, 1930, 726 pages.

The author of this discriminating text has produced a practical book that will be of real value to school administrators and to students who look forward to becoming public-school executives.

The choice of problems shows a thorough familiarity with the many issues that confront the present-day school superintendent. The treatment is vigorous, clear, and thoroughly human. Moreover, for the student taking a general course in administration, there is presented in the twenty-seven chapters of this dynamic book an overview of a field of professional endeavor which may later be cultivated through specialized courses in the administration of particular phases and aspects of education.

According to the plan suggested by the author the student is required to analyze each problem for himself, and after relating his analysis to the informational material of the text, to consult significant literature, and finally to evaluate his findings in the light of his particular task. This he does without the hazards of an actual decision, to be followed by executive action. Such a plan has not led to any suggestion of artificiality or finality in the treatment of situations. It has rather emphasized the fact that every attempt at a solution of a problem raises other and further inquiries. Furthermore, it does not appear to the reviewer that such a method of study would tend to weaken the executive when the time came in actual experience for him to act and to accept responsibility for his decision. His action would not be an emotional one.

The business aspects of the superintendent's work have been given the major emphasis since, excluding the largest school systems, this aspect of a superintendent's task is pressing. The school budget is shown to be an essential in good management, and that it does not exist as a prop to an accounting procedure.

This book is a welcome contribution to a rapidly developing literature in school administration.

A. B. MEREDITH

Background of International Relations, by CHARLES HODGES. New York: John Wiley and Sons, 1931, 743 pages.

The reviewer is constrained, at the outset, to admit that he has not read *in toto* the seven hundred and forty-three pages of this remark-

able book. The sampling process in which he has indulged does convince him, however, that he would greatly profit by so doing. *Background of International Relations* sounds technical. It sounds as dry as "statistics." One familiar with Professor Hodges's excellent charts and maps of world affairs, which have been appearing in the press for a half a dozen years, might be justified in expecting a continuation of that sort of thing. The book, however, is a complete surprise. It is the lucid, intriguing story of the "backgrounds of human relations" in a broad social sense, as seen by a political scientist. Yet it is not political science. It is social science. Politics, economics, sociology, and even history are brought together to round out the picture. Whatever the representatives of any of the above fields may think of the book, it is a definite contribution in a much needed direction; that of the coördination and unification of the social sciences.

CLARENCE G. DITTMER

Safety Education, by IDABELLE STEVENSON. New York: A. S. Barnes Company, 1931, 148 pages.

The problems of accident prevention and health education have loomed large in the discussions of educators in recent years. The growing menace of accidents in the United States, and especially accidents in the home and upon the streets, have aroused the interest of educators and much has been written about safety education since the presentation of the original, comprehensive plan following the experimental program in the St. Louis schools and the presentation of the first handbook for teachers in 1919 on education in accident prevention.¹

The most recent of these publications coming to my attention is the one under review. This book is designed as a handbook for teachers and includes ten chapters in which are presented the conventional topics relating to safety in the schools.

Unfortunately the book is an inadequate summary of what has been extensively presented in other publications and, moreover, it has defects which would produce harm if its recommendations were followed too literally. These defects appear most marked in the chapter dealing with student safety organization and in the chapter dealing with safety patrols. In the chapter on organization the author outlines a stereotyped form of organization, even presenting a constitution including requirements for members' insignia and the like. This certainly leaves nothing to the imagination or the initiative of the progressive teacher who undoubtedly knows more about such matters than the writer.

The leaders of twentieth-century education have sought to avoid just such formality and little progress is likely to be made by an attempt to revive nineteenth-century procedure.

E. GEORGE PAYNE

¹*Education in Accident Prevention*, by E. GEORGE PAYNE (New York: Lyons and Carnahan, 1929), 176 pages.

Personality in Its Teens, by W. RYLAND BOORMAN. New York: The Macmillan Company, 1931, xv+268 pages.

This practical book on boyology was written by a man who has had considerable intimate contact with boys of the teen age. It represents the fruit of an investigation into the psychology and sociology of the high-school boy. Letters were written to one thousand boys. These boys were asked to write letters dealing with some of their personal experiences. For a period of two years a correspondence was kept up between Mr. Boorman and about one hundred of these boys. The boys were urged to deal with their intimate and personal affairs in a frank and natural manner. Twenty complete series of letters written by twenty of these boys formed the basis of this study. The data secured were subjected to analysis and discussed in this volume.

The author answers such questions as: How does the boy feel about his home and his family? How does he react to his teachers? What are his ambitions and ideals? What kind of companions does he have? How does he choose his friends? What is his attitude towards girls? What part do athletics play in his life? How does he respond to religion? What is his moral code? How is he influenced in choosing a vocation?

This book will be of considerable practical value, both to other students in this field and particularly to parents and laymen who come into contact with boys.

CHARLES E. SKINNER

Your Son and Mine, by JOHN T. MCGOVERN. New York: Frederick A. Stokes Company, 1931, xxi+185 pages.

Your Son and Mine is a practical discussion of a variety of college-student problems from the standpoint of the layman. Many of the topics have been discussed in faculty meetings and various educational gatherings of college and university teachers and administrators. Actual or possible situations are discussed and principles developed from such discussions.

Howard J. Savage says this thesis is probably "that some boys, perhaps fewer boys, will benefit from college, and some will not, from demand upon the capacities, inclinations, and strength of purpose of the individual boy; then, to the wise parent, all that really matters is that the youngster shall have the chance to work out his own destiny, by means of college or not, in helpfulness and human usefulness, and that, contrary to the general superstition, the best rewards of life are not reserved exclusively for the bachelor of arts."

This book could be read, not without profit, by both college executives and parents of high-school and college students.

CHARLES E. SKINNER

The Changing Educational World 1905-1930. Papers read on the occasion of the 25th Anniversary of the College of Education of the University of Minnesota, edited by ALVIN C. EURICH. Minneapolis: University of Minnesota Press, 1931.

Professor Monroe tells us that the first professorship for college instruction in professional education was projected at New York University ninety-nine years ago, and the first "school of pedagogy" on a professional plane established there in 1890. Brown University instituted such instruction about 1853; then Antioch a few years later; and in 1873 the University of Iowa; with the University of Michigan following in 1879.

This collection of papers comprises a symposium upon the achievements of this new type of professional school over a period of a quarter of a century. The scope of the papers extends, however, beyond the confines of merely professional problems affecting schools of education. Stuart Chase deals with "Men and Machines"; President Lindley with the "Revival of Personality"; Dr. Paul Dengler of Vienna with "Forces Behind Education in Europe," and Dr. Albert B. Meredith with "Vocational Education in an Industrial State." William John Cooper, United States Commissioner of Education, in a discussion of "New Problems in Education" presents some very challenging problems for educators to solve. Fletcher Harper Swift of the University of California arouses one's interest in a discussion of "The Increasing Professionalization of Educational Workers." And so the volume goes—a series of papers, few of which are dull and most of which are well worth reading not only by educational folk but by the general reader who, these days, seems to like to read and talk about education. The editor, Dr. Eurich, presents at the end of the volume a record of the research in education accomplished by faculty members and graduate students at the University of Minnesota in recent years. Those skeptical about the value of research in education might well scan these titles and perchance take a random sampling for personal perusal. It is significant that the University has been able to secure the coöperation of so large a percentage of its arts faculty in research upon educational problems.

J. O. CREAGER

Survey of College Entrance Credits and College Courses in Music. New York: National Bureau for the Advancement of Music, 1930, vi+209 pages.

There has been a lack of dissemination of accurate information on subjects accepted by the various colleges and universities for admission. Parents, teachers, and principals of schools—all who advise young folks preparing for college—have needed such information. Colleges

are so numerous, so alike in their general procedure, and yet different in certain details, that it is often a paramount issue as to whether John or Mary goes to College Tweedledee or College Tweedledum. If the credits a student has to offer do not exactly fit the requirements of Tweedledee, they may work in Tweedledum and a most unsentimental yet happy solution follows.

It is therefore a valuable as well as a consoling piece of research which undertakes to answer this often momentous question for the whole American domain for a single subject such as music. This recent survey of 594 institutions was made under the auspices of the research council of the music supervisors national conference and was made possible by an appropriation from the Carnegie Corporation. The leading conclusions are: that an increasingly liberal attitude towards music, as a branch of study worthy of university credit, is found; 76 of the institutions accept music for entrance, while more than three quarters offer musical instruction; for every college which does not grant credit in music there is an institution of equal standing which does; nine out of ten colleges allow the student to do some work in music towards his degree; the colleges of the Middle West and Far West exhibit a more progressive attitude towards music than do those of the East and South; of 50 land-grant colleges, all but six accept entrance credit for music as contrasted with sixteen of the private institutions.

As pointed out by Peter W. Dykema, professor of music education at Teachers College, Columbia University, this new attitude of the colleges will tend to stimulate the study of music in the secondary schools.

The volume is so edited that parents and principals may easily ascertain what any given institution will do concerning credit for music, either for entrance or after entrance, towards a degree. Here truly hath research robbed the serpent of his sting.

J. O. CREAGER

NEWS FROM THE FIELD

Tentative Program for the February Meeting of the Educational Sociology Section with the National Association of College Teachers of Education at the Time of the Annual Session of the Department of Superintendence at Washington, February, 1932.

The Tuesday Morning Meeting

1. "The Status and Scope of Educational Sociology in Teachers Colleges, Normal Schools, and College and University Departments of Education."

Professor Gray Truitt, Adelphi College.

2. "The Subject Matter of the Basic Course in Educational Sociology."

Professor Wray H. Congdon, University of Michigan.

Professor Charles L. Anspach, Michigan State Normal College.

3. Discussion.

The Luncheon Meeting

"Education for the Control of Narcotics."

Dr. E. George Payne, New York University.

Discussion led by Mr. Julian L. Archer, State Teachers College, Macomb, Illinois.

A New College in 1932

Teachers College, Columbia University, announces a plan for a new type of teacher-training institution to open September, 1932. It will operate as an undergraduate unit at the college level.

This new college, to be under the direction of Dr. Thomas Alexander, professor of education, Teachers College, will attempt to demonstrate radically different methods in the selection and training of young men and women who are to become teachers in nursery, elementary, and secondary schools. While preparing these young people for teaching positions the new unit, which will grant the bachelor of science and the master's degrees, will operate also as a demonstration college in which graduate students in Teachers College may observe improved methods in teacher training.

The World Federation of Education Associations Met at Denver in July¹

They were a zealous, a devout group, the four thousand men and women who came out of many lands to attend this educational conclave. There was a wonderful spirit manifest in every phase of the meeting. It was a spiritual spirit; it combined the human values taught by all the great teachers—Buddha, Confucius, Mohammed, Zoroaster, and Christ. They came that they might find a way to bring about a better understanding among the nations. They knew

¹The following statement was furnished by A. O. Thomas, president.

that complete appreciation of nations and races must come through the training of the unprejudiced young and that it is a case of coöperation or calamity. They believe that education is the instrument which will dethrone the cruel god Mars and enthrone the Prince of Peace in the hearts of men.

The conference was characterized by five main features:

1. By a great program. Both the sections and the general meetings were well planned and elicited fine attention. The program contained subjects of human values to give richness to the practical and technical themes engaging the attention of the divisions. Such themes as (1) international understanding through service, (2) interpretation of national life as a means to understanding, (3) methods peculiarly adapted to the promotion of mutual appreciation among nations, (4) national life and the new world order, (5) the relation of labor, education, trade and commerce, diplomacy to international good will were intelligently and forcibly presented.

2. Great speakers were on the platform. Messages were presented by leading educators from all parts of the civilized world. The presidents of most of the great national educational bodies were heard. The list included such masters of education as Miss Florence M. Hale, the brilliant and popular president of the National Education Association; the matchless Willis A. Sutton, whose leadership during the last year was like a benediction to the profession; Mr. Angus Roberts, the dynamic personality who presides over the National Union of Teachers of England and Wales; Dr. P. Seshadri of the country-wide organization of India, with the culture of thousands of years depicted in voice and manner; Count Hayashi, cultured, kindly intellectual, of the Japanese Imperial Education Association; Robert Neilly of the Irish Teachers Organization; R. B. Miller of the Educational Institute of Scotland. All brought the message of progress and understanding from the four quarters of the earth. Besides these were such outstanding personalities as Loftus H. Reed representing the Board of Education of Toronto, Canada, Georges Milsom of Paris, Senora Inez Fabrego de Prieto of Panama Normal School, Gabino Palma of the University of Mexico, Deputy Bess Goodycoontz of the Federal Office of Education, Victor Olander, secretary of the Illinois Federation of Labor, Rufus von Kleinsmid, president of the University of Southern California, Paul Monroe, director of the International Institute of Education, and Dr. E. A. Ross, noted sociologist. There were many others who lent color, interest, and charm to the various programs. Nowhere else could be found so many illustrious sons and daughters of the teaching world, and few programs have ever been assembled of such importance.

3. A spirit of earnestness. It was a purpose meeting and such gatherings always know where they are going. It was not an aimless talkfest. The whole of the scheme clustered about the theme of "world citizenship." It was not a few strands of disconnected conferences but a chain, each department forming a link with the whole chain attached to the anchor of faith in a higher civilization which will teach

the peoples of the world science of understanding and the art of living together.

4. The resolutions constitute a program. In the delegate assembly were brought together in summation the maturities of the several committees and divisions. The Herman-Jordan committees matured their programs and put them in shape for editing and printing as a contribution to international understanding and good will. Time will not permit a complete summary of these resolutions. Only a few can be mentioned. First, as vitally important, the teacher-training division recommends the careful training of teachers for the new international point of view, the study of comparative education not only in normal schools and colleges but in summer schools for teachers. Second, the federation recommends that governments make provision for the freer exchange of teachers and pupils, that correspondence and publications between schools be extended, that adequate time be given to the study of modern languages in order to facilitate intercommunication and understanding. Third, that a program of universal education be undertaken as a stabilizing force and that illiteracy be wiped out among the nations as rapidly as it can be done, that the radio be speeded up as a means of quickening adult education. Fourth, parent education and the promotion of the work of school health be encouraged.

5. Local hospitality. Nothing could have been finer than the courtesies of the Denver people. The visitors were made to feel at home in a friendly city that knows how to entertain the stranger within its gate.

CONTRIBUTORS' PAGE

Mrs. Iva Pasco Bennett is a native of New York State. She is a graduate of Geneseo State Normal School, Geneseo, New York, and received her Sc.B. degree from the New York State College of Home Economics at Cornell University in 1926. Since that time she has been assistant supervisor of health education in the public schools of Syracuse, New York.

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Miss Ethel A. Grosscup since the first of January this year has been adviser in field service for the Child Health Education Service of the National Tuberculosis Association. Previous to her joining the National staff she was for two years adviser of child-health instruction for the New York State Committee on Tuberculosis and Public Health. She is a graduate of Goucher College and of the New Haven Normal School of Gymnastics. She has done graduate work in health education at Columbia University and New York University and has received her master's degree from the latter institution. In 1924-1928 she was assistant State director of physical training and hygiene in the State Department of Public Instruction in New Jersey.

Dr. Grace M. Kahrs is now medical director of the New Jersey State Normal School at Jersey City. She received her M.D. from New York Medical College and Hospital for Women, and has done graduate study at Harvard University School of Medicine and at the School of Education, New York University. Dr. Kahrs is associated with the Health Education Department of the New York City Department of Health and lectures on health education and hygiene at numerous educational institutions. She is a member of the American Medical Association, New York State and County Medical Societies, New Jersey State Medical Society, and American Public Health Association.

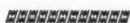
Mrs. Nellie N. McNeill is a native Missourian. She has been a primary teacher in the St. Joseph Public Schools for several years and is at present first-grade teacher in the Humbolt Platoon School in St. Joseph. Mrs. McNeill is working for a degree in the School of Education, New York University.

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Harold S. Tuttle, associate professor of education at the University of Oregon, is a native of Minnesota. His undergraduate work was done at the College of the Pacific, his graduate work at the University of California. Besides teaching in the field of education he has taken an active part in the movement for vocation and weekday religious education, and for character education in the public schools. Recent articles in educational journals have stressed the need of greater emphasis on personality culture in the public schools. The Abingdon Press has just published his monograph entitled *Character Education by Church and State*.

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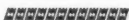
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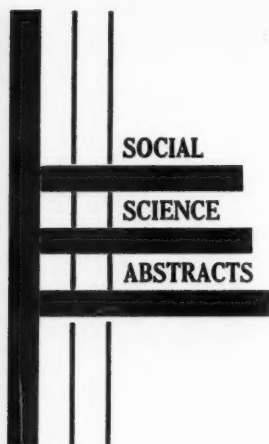


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